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Executive Summary

This research project developed a standard methodology and guidelines for performing a Quantitative Risk Assessment (QRA) for Liquefied Natural Gas (LNG) facilities, with the objective to support the US Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) if it considers permitting risk-based approaches and regulations for evaluating potential impacts to life and property. In comparison, PHMSA's current requirements contained in 49 CFR Part 193 for ensuring safety associated with LNG facilities are primarily prescriptive in nature.

This project addressed growing interest in risk-based approaches for evaluating potential impacts to life and property, since QRAs can define the probability of success, identify high risk areas for action, and mitigate identified risks. For example, National Fire Protection Association (NFPA) 59A *Standard for the Production, Storage, and Handling of Liquefied Natural Gas* is incorporated by reference in 49 CFR 193. While §193.2013 currently references the 2001 edition (and 2006 edition for §193.2101(b) and §193.2321(b)), more recent editions of NFPA 59A have increased content related to QRAs in Annex E of the 2009 edition, Chapter 15 of the 2013 and 2016 editions, and Chapter 19 of the 2019 edition.

The guidelines are intended to help PHMSA establish consistency with respect to the level of rigor of the approaches selected to estimate different components to perform QRAs of LNG facilities, such as frequency, consequences and risk. The guidelines address both new designs and existing facilities, and account for different levels of availability of facility details depending on the design and operational phase. They address data and model requirements, uncertainty modeling, and make recommendations on the minimum requirements for each step of the analysis, for three levels of QRA detail. The levels of detail are defined and illustrated by three application scenarios representing preliminary-design, detailed-design and operational phases of an LNG facility.

By including operational facilities as well as proposed facilities, the guidelines support PHMSA's potential consideration of QRAs as a means to more quantitatively measure an operator's ongoing improvements to risk management though metrics, and to improve confidence about an operator's ability to manage risk. In addition, the guidelines can support the continued refinement of the QRA-related content in future editions of NFPA 59A, since for example §19.2.4 of NFPA 59A (2019) requires that a QRA be reassessed every five years or as required by the Authority Having Jurisdiction, but provides little detail. PHMSA is a member of the Technical Committee on Liquefied Natural Gas for NFPA 59A at the agency level and can provide input to help shape future editions of NFPA 59A.

QRAs using the guidelines were performed for a hypothetical LNG peak shaving facility in the Northeastern US and for a hypothetical LNG export terminal in the US Gulf Coast, to demonstrate the methodology and as benchmarking efforts. Given the nature of the facility designs and the limitations of the project budget, the QRAs were limited to the preliminary-design basis. Documentation for each step was provided as examples of QRA methodology execution illustrated for a preliminary-design analyses, including for example weather condition frequency analysis.

A sensitivity analyses was performed on the QRAs for the two hypothetical benchmark facilities. It included 17 sensitivity cases to illustrate the effect of input approximations and modeling assumptions on the estimated individual and societal risk. Results of the sensitivity analyses showed that the estimated risk can be sensitive to a few parameters such as hazard thresholds and population density surrounding the facilities. Compared to these factors, assumptions corresponding to equipment failure rates and exclusion of minor instrumentation failures had little effect on the risk metrics. However, these results are specific to the benchmark facilities analyzed and are a result of the specific assumptions made about the facility design and location. These results cannot be generalized without additional detailed QRA studies.

The proposed guidelines were compared to the QRA approach contained in NFPA 59A (2019) to identify the differences, if any, between the two approaches. The proposed guidelines are largely consistent with NFPA 59A (2019) for all risk analysis steps but offer more flexibility in part by establishing preliminary-design, detailed-design and operational classifications, as well as detailed application guidance depending on the QRA classification.

A literature review and analysis of international standards for QRA of LNG facilities was performed, and comparisons of the proposed guidelines to the requirements from non-US regulators UK Health and Safety Executive (HSE), the Dutch National Institute of Public Health and the Environment (RIVM), and Singapore's National Environment Agency (NEA) were provided. In general, good agreement was identified in terms of overall methodology, failure modes, failure rates, location-specific individual risk (LSIR) criteria for fatality, and other factors. Specific differences in hazard thresholds for fatality (e.g., overpressure consequence endpoints) and risk tolerability for societal risk (SR) were noted, although implied public safety must be considered as a combination of hazard intensity thresholds and the associated risk tolerability criteria. Most regulations include a requirement for modeling cascading failures (or domino effect) but lack detail on the release event scenarios and casual factors that result in cascading failures.

The project team identified less than 20 QRAs for LNG facilities in the public domain, but summarized key references to enhance the understanding of all stakeholders. All QRAs identified were for preliminary-design QRAs for LNG terminals. No detailed-design or operational QRAs for LNG peak shaving or terminals were found in the public domain (presumably to protect critical energy infrastructure information), which unfortunately creates a knowledge gap and lack of public consensus on detailed requirements for QRAs. The LNG facility QRAs reviewed also showed a large degree of consistency in the application of QRA methodology, although that finding was limited to the preliminary-design QRAs for LNG export facilities identified in the public domain.

In summary the proposed guidelines provide stakeholders a means to understand and consistently apply the QRA process (including for operational facilities), understand the significance of results, and interpret and apply results. Alignment of the guidelines with NFPA 59A (2019) and with QRA methodologies used by regulators in the Netherlands, UK and Singapore was assessed, with differences noted to aid the understanding of stakeholders.

Recommendations for future research efforts include: performing a comparative benchmark study of the preliminary-design QRA to an detailed-design facility and to an operational facility; expanded consideration of hazard mitigation options for detailed-design or operational-facility QRAs; development of more accurate modeling approaches for overload and triggering events such as blast and impact loads, as well as more sophisticated probabilistic models for equipment failure frequencies, to enable more practical and accurate modeling of potential cascading events; and further consideration of potential combined risks due to infrastructure surrounding the LNG facility.

The project team was guided by a knowledgeable and supportive Technical Advisory Panel (TAP), which included PHMSA and representatives from the American Gas Association (AGA), Chart Industries, ExxonMobil, the Federal Energy Regulatory Commission (FERC), National Grid, and Shell International Exploration & Production. The TAP was highly engaged, met approximately every quarter, and provided valuable input, feedback and direction.

The project team consisted of Gas Technology Institute ("GTI"), Blue Engineering and Consulting ("BLUE"), C-FER Technologies (1999) Inc. ("C-FER"), and Idaho National Laboratory ("INL"), with GTI as prime contractor. C-FER and BLUE performed a large part of the project work, including content in and the coordinated preparation with INL and GTI of this Final Report as summarized on the "Lead Author Responsibility and Credit by Report Section" page of this report.

1 Introduction

1.1 Overview

The project team of Gas Technology Institute ("GTI"), Blue Engineering and Consulting ("BLUE"), C-FER Technologies (1999) Inc. ("C-FER") and Idaho National Laboratory ("INL") performed the research project entitled "Consistency Review of Methodologies for Quantitative Risk Assessments for LNG Facilities". The project was funded by the US Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) under PHMSA Award Number 693JK31810006 to GTI. The project team coordinated the preparation of this Final Report as summarized on the "Responsibility and Credit by Report Section" page of this report.

1.2 Background

PHMSA is authorized to regulate the transportation and storage of liquefied natural gas (LNG) in the continental U.S., although on-shore and near-shore LNG import or export facilities are regulated by the Federal Energy Regulatory Commission ("FERC"). While PHMSA's current regulations and requirements in 49 CFR Part 193 for the siting of LNG facilities are based on prescriptive models to limit off-site risks, developments in the LNG industry by the private sector and regulatory bodies indicate a desire to consider a risk-based approach for evaluation of LNG facilities. More recently, the latest publication of NFPA 59A *Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG)* in 2019 has included an expanded chapter on the "Performance-based LNG Plant Siting using Quantitative Risk Analysis (QRA)".

While quantitative risk assessment (QRA) approaches for industrial and chemical facilities have been established in some standards and by regulatory bodies (e.g. US Nuclear Regulatory Commission, TNO, API 581, the governments of the UK and Singapore, the Netherlands regulatory agency RIVM), impediments to the consistent implementation of QRAs for US LNG facilities still exist, such as:

- There is limited public information regarding the application of QRAs to US LNG facilities.
- Available QRA models for LNG facilities vary in the degree of sophistication and data requirements, and the equipment failure rate sources used by different models use different source data. Therefore, the selection of QRA model components, such as equipment failure rates, and consequence models can significantly influence the QRA outcome.
- The definition of failure (e.g. definition of the release magnitude, release hole size) and the data sources used, which can significantly influence the estimated equipment failure rates, are not standardized.

The objective of this project was to develop a standardized, consistent, and detailed methodology for performing QRAs for LNG facilities in the US, and to demonstrate the methodology by applying it to representative benchmark LNG facilities.

1.3 Scope

The scope of this project consisted of:

- Developing QRA guidelines that describe a consistent methodology and highlight key areas where the proposed methodology differs from NFPA 59A (2019); and
- Demonstrating application of the methodology to two benchmark facilities representing export and peak shaver facilities. The facility design information used in the demonstration was limited to the design of process flow diagrams (PFDs).

The QRA guidelines are intended to address both new designs and facilities in operation, and to support the application of a risk-based approach to siting and operating safe LNG facilities. The scope of the guidelines includes:

- Best practices for data gathering, data processing, model selection, model validation and interpretation of results;
- Minimum QRA requirements, such as the minimum list of critical release events to be considered, and minimum required outputs of consequence models;
- Approaches to account for the risk reductions achieved by the installation of active or passive mitigations;
- Factors to include in considering the domino effect, which is defined as the triggering of a secondary release event as a consequence of the initial release event;
- Standard risk measures to be produced by QRA (e.g. individual risk and societal risk);
- Summary of appropriate risk acceptance criteria; and
- Different levels of analysis detail that are appropriate for QRAs carried out at the siting/design phase and the operational phase.

Definitions and acronyms pertaining to QRA in this study are provided in Appendix A.

1.4 Report Structure

The document is organized into the following sections:

- **Section 2: Literature Review**: Describes the critical review conducted to identify the best QRA practices globally and consists of a summary of the QRA methodologies in the public domain for LNG facilities.
- **Section 3: QRA Guidelines**: Includes the guidelines document that was developed to describe the critical QRA steps and define the minimum requirements for each step. The guidelines provide general guidance for conducting a QRA aligned with recognized approaches described in various international and US standards and guidelines.
- **Section 4: QRA for Benchmark Facilities**: Documents the benchmark QRA studies carried out for an export facility and a peak shaver facility. The documentation describes each step of the proposed QRA methodology as described in the guidelines section.
- **Section 5: Summary and Recommendations**: Summarizes the project findings and lists recommendations for future work required to address identified gaps. This section also presents recommendations to enhance the value of the guidelines developed as part of the project.

2 Literature Review of QRA Methodologies

2.1 Introduction

The purpose of the literature review was to identify the best QRA practices globally and to understand the QRA approaches adopted by a wide variety of QRA service providers. Specifically, the objective was to identify key elements of QRA methodology, compare the assumptions and models used in the public domain literature, and utilize the review outcomes to address the key deliverables of the project scope. A literature search was conducted to collect public reports and global standards relevant to LNG plant QRA. Potential sources were identified using public databases, search engines for engineering databases, regulatory and government websites, formal search requests made to public libraries and information services, contact with the project's technical advisory panel (TAP) which was comprised of knowledgeable government and industry representatives, and past experience of the project team.

The search resulted in the QRA reports and standards listed in the bibliography in Appendix B.1. Twenty public domain reports were identified, and all were for the siting of large-scale LNG export and import terminals. Public domain QRA reports for small- or mid-scale facilities, peak shaver plants, and LNG fuel production plants were not found. Public QRA reports for LNG bunkering facilities were not reviewed in detail due to differences in the scale of LNG operations and associated risk levels. Seven QRA reports from Australia, North America, Europe and Asia, and those that focus on LNG export terminals were selected for a more thorough review. A review summary for each report is included in Appendix B.2. During the review, differences between the key elements in global QRAs and the NFPA 59A (2019) approach were identified and discussed.

2.2 Summary of Key Elements

The QRA approaches in the reviewed documents consisted of the following common elements:

- System description,
- Hazard identification,
- Frequency and consequence estimation,
- Risk estimation,
- Risk evaluation,
- Risk mitigation.

These common elements are summarized in the following sections.

2.2.1 System Description

System description addressed the LNG plant location, boundaries, and installations in the LNG plant, (such as storage vessels, transfer areas, piping, processing units, on-site occupied buildings, safety systems and utility systems). Land usage and population density in the vicinity of the plant are also included in the documentation. QRA submission guidelines by the Major Hazard Department of Singapore (National Environment Agency 2016b) and in the Reference Manual Bevi Risk Assessments (RIVM 2009) provide detailed guidance on the documentation to be included as a part of the system description.

2.2.2 Hazard Identification

Hazard identification (HAZID) is generally performed qualitatively by subject matter experts using checklists (Lee 2014, Halford and Finnigan 2009, BAPE 2007, ERM 2006). Lack of detailed designs during the preliminary-design stage has led to the use of worst-case release scenarios in such instances. Although standards, such as NFPA 59A (2019) and RIVM (2009), provide a list of release scenarios to be considered, consensus on the definition of hole sizes, flow rates, and hazard events appears to be lacking

(BAPE 2007). RIVM (2011) noted that differences in the hazard identification step are the most significant source of inconsistency between different QRA approaches.

2.2.3 Frequency Assessment

Frequency assessment consisted of the estimation of equipment failure rates that result in product releases, and the estimation of the probability of ignition.

Product release frequencies are estimated based on historical failure rates in most QRA approaches. Frequently recommended sources for the historical failure rates are: TNO 'Purple book' (HSA 2010, ERM 2006, Aneziris et al. 2014, RIVM 2011), HSE FRED database (National Environment Agency 2016a), OREDA data (Aneziris et al. 2014), NFPA failure rates (Lee 2014) and other proprietary data.

Preliminary-design QRAs for siting approvals used a PFD to estimate the release frequencies (Aneziris et al. 2014, ERM 2006, RIVM 2011). Detailed-design QRA approaches evaluated the total release frequencies based on part counts within each section of the process flow isolated by shut-down valves as described in a piping and instrumentation diagram (P&ID) (Lee 2014).

Event trees that utilize the probability of immediate and delayed ignition are standardized in RIVM (2009) to ensure consistency in the frequency estimation for jet fires, pool fires, flash fires, dispersion and explosion. Frequency modifiers to account for plant-specific aspects, such as external triggering events (e.g. earthquakes and other natural hazards) (ERM 2006), human performance (Aneziris et al. 2014) and performance of safety systems (RIVM 2011) are available in a limited number of cases (RIVM 2009). Guidance on data and factors to be included in developing such frequency modifiers is limited (National Environment Agency 2016a).

2.2.4 Consequence Assessment

Most QRA approaches reviewed utilized the Phast and SAFETI software tools to model thermal radiation, dispersion and overpressure due to explosion. Weather data (i.e. ambient temperature, humidity, solar radiation) to be used as inputs to consequence models were only explicitly specified in regulations for specific geographical areas, such as Singapore (National Environment Agency 2016a) and the Netherlands (RIVM 2009).

In RIVM (2009), weather conditions are characterized by a combination of Pasquill stability class and wind speed, and the hazard zone areas need to be evaluated, at a minimum, for two sets of weather conditions: D5 (Stability D, wind speed 5m/s) representing average conditions, and F1.5 (Stability F, wind speed 1.5m/s) representing unfavorable conditions. In the Singapore regulations, weather categories to be considered (F1, B2, C3) and the proportion of consequences from each category in each wind direction are explicitly defined based on data from the Singapore Meteorological Office (Section 6.2.2, National Environment Agency 2016a). In the absence of explicit values, hourly measurements of weather data from the nearest weather station are used to derive weather parameters (NFPA 2019, Lee 2014).

While domino effects and cascading effects are noted as areas of concern (NFPA 2019, RIVM 2009, HSA 2010), these are not quantified in any of the QRA reports reviewed. Hazard footprints are estimated based on specified heat flux from fires, concentration of dispersed gases and vapor after the release, and overpressure from explosions.

2.2.5 Risk Estimation

Risk estimation consists of calculating location-specific individual risk (LSIR) and societal risk (SR). Location-specific individual risk (LSIR) is defined as the annual chance of fatality or irreversible harm to a hypothetical individual present at a fixed location 100% of time. LSIR can be represented by equal risk (or iso-risk) contours around the source (e.g. each LNG storage vessel or an entire LNG terminal). Thresholds for fatality of irreversible harm from exposure to heat flux, toxic product concentration, and/or overpressure are defined and used in either probit relationships (HSA 2010, RIVM 2009, National Environment Agency 2016a, RIVM 2011) or fixed exposure dose thresholds (Lee 2014, BAPE 2007,

NFPA 2019, National Environment Agency 2016a) to define locations where individuals are affected by the hazard.

Heat flux thresholds for injury, fatality and structural damage are consistent among the QRA approaches reviewed. For example, the heat flux resulting in 100% probability of fatality (irrespective of the exposure time) for outdoor exposure is 35 kW/m^2 in the Netherlands regulations (RIVM 2009) and 37.5 kW/m^2 in other QRA approaches (Lee 2014, National Environment Agency 2016a). Where probit relationships are available, the probability of fatality varies as a function of thermal radiation and exposure time and the probit relationship defined in CPR 16E (Committee for the Prevention of Disasters caused by Dangerous Substances 1992) was most frequently adopted by other regulations.

SR is expressed as a Frequency-Number (F-N) curve, where F is the frequency of incidents causing N or more fatalities. It is estimated based on both the population density and the likelihood of exposure to a hazardous event. Estimation of SR is required only in a limited number of QRA approaches (NFPA 2019, RIVM 2009, ERM 2006).

2.2.6 Risk Evaluation

LSIR and SR are compared to risk acceptance criteria to evaluate if the risk is tolerable or if additional risk reduction measures are required. Risk criteria are divided into three zones: tolerable without restrictions, tolerable with restrictions (also considered as risk that is tolerable if demonstrated to be 'as low as reasonably practicable' – ALARP), and not tolerable under any conditions (i.e., minimum intolerable risk). LSIR for fatality is typically considered tolerable without restrictions if less than 1×10^{-6} per year (BAPE 2007, Lee 2014, RIVM 2005) or 1×10^{-7} per year (NFPA 2019, HSA 2010), and the thresholds for LSIR increase for the next two zones. Tolerable SR is specified as a linear relationship between F-N on a log-log scale, and minimum intolerable risk criteria are shown in Figure 1 for NFPA 59A (2019), Hong Kong regulations (ERM 2006), and the Netherlands (RIVM 2011). The slope of the F-N relationship shows the degree of risk averseness implied in the criterion to the number of fatalities. For example, the Netherlands criterion is more risk averse than the NFPA 59A criterion, and the Hong Kong regulations indicate any amount of risk is intolerable if the number of fatalities exceed 1000. A more detailed discussion on the comparison of risk evaluation criteria is presented in Section 3.

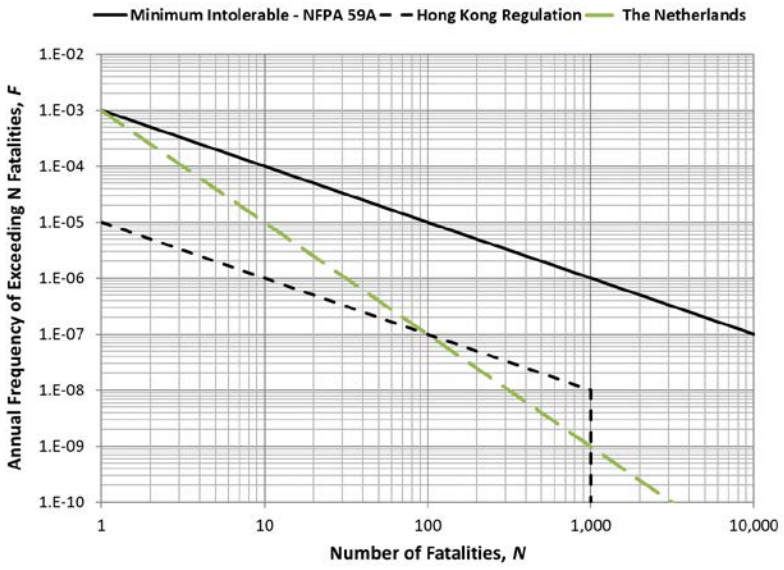

Figure 1 Comparison of Minimum Intolerable Risk Criteria for Societal Risk

2.2.7 Risk Mitigation

Risk mitigation is often addressed through design changes, safety management system refinements, and restriction of exposure to hazardous conditions through exclusion zones (Halford and Finnigan 2009, Lee 2014). Guidance for identification and prioritization of risk reduction, and demonstration of risk reduction to ALARP is available in international guidelines (National Environment Agency 2016a, RIVM 2011).

2.3 Summary

Key elements to consider for QRA of LNG facilities were summarized based on the literature review of the international and US standards, as well as QRA reports in the public domain. This review indicates that the overall QRA framework for LNG facilities is well-established but that the different implementations of the framework vary with respect to the level of detail. NFPA 59A (2019) provides detailed specifications for annual frequencies of different types of failures, consequence end points (i.e., quantified thresholds leading to hazard) corresponding to vapor dispersion, radiant heat flux and overpressure, and criteria for risk tolerability, both for individual and societal risk. For the areas of the QRA approach where NFPA 59A (2019) offers only general guidance, additional sources of credible detailed guidance were identified through this literature review and these are incorporated in the development of the QRA guidelines and are used in demonstrating application of the approach to benchmark facilities.

3 QRA Guidelines

3.1 Background

This section provides guidelines for performing QRAs for LNG facilities. The purpose of the guidelines is to develop a common reference on LNG QRA for facility operators and regulators, and to enable regulators, such as the PHMSA, to develop criteria to identify acceptable QRA submissions for LNG facilities . Where feasible, these guidelines highlight areas of consistency with the QRA methodology used for natural gas and hazardous liquid pipelines in order to enable PHMSA to adopt a consistent approach to the evaluation of QRA submission for LNG facilities and natural gas pipelines. The intended audience is assumed to be familiar with the concepts of the risk assessment process and its application within the LNG industry.

3.2 Document Scope

A fully quantitative risk management process consists of risk estimation, risk evaluation (i.e. comparison of estimated risk to tolerable risk criteria) and risk mitigation. In these guidelines, the primary focus is on risk estimation (which is a combination of the frequency of occurrence of hazardous events and their associated consequences), with a brief discussion on available evaluation criteria. Other components of the risk management process, such as risk acceptance criteria and risk mitigation methods, are not addressed in this document.

The guidelines outline each step in the risk estimation process and address the minimum requirements for each step. They provide general guidance for conducting QRA based on well-recognized approaches described in the international and US standards and guidelines. Although most commonly used models for frequency and consequence estimation are referenced, these guidelines are not intended to recommend or endorse particular models. The primary focus of the guidelines is to ensure consistency in the level of detail used in estimating frequency, consequence and risk, as well as consistency between this level of detail and the purpose of the QRA.

The guidelines address QRA for both new designs and existing facilities. They are intended to be supplementary to the guidance available in current US standards, such as NFPA 59A (2019). Definitions and acronyms pertaining to QRA are provided in Appendix A.

3.3 QRA Process Framework

The QRA framework for LNG facilities consists of three components: preparation, execution, and completion (see Figure 2). The preparation step involves defining the purpose, specifying the data and model requirements, selecting the QRA methodology, and defining the approach for uncertainty modeling. Addressing these key components explicitly during the preparation stage expedites QRA execution, ensures transparency and enhances the utility of the results.

The execution approach is defined by the QRA methodology selected during preparation. The completion step includes documenting the risk results and defining ways to use them to support decision-making.

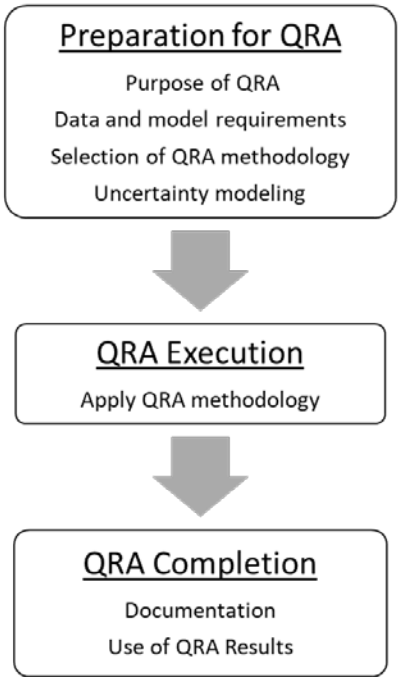

Figure 2 QRA Process Framework

3.4 Preparation

3.4.1 Purpose of the QRA

In practical applications, the purpose of the QRA depends on the functional stage of a facility. For example, for newly proposed facilities, the purpose can be to obtain siting approvals; for existing facilities, the purpose can be to demonstrate the impact of upgrades to facility design or operation, or the impact of re-zoning the surrounding land, or for emergency response planning. In all cases, the primary purpose of the QRA is to support making decisions that limit risk. This can be achieved through comparison of the estimated risk to a tolerable risk criterion. Risk criteria can be defined based on established standards or based on the quantified risk of a benchmark facility. The level of detail of the QRA is informed by the purpose of the assessment and the decision-making approach used.

3.4.2 Data and Model Requirements

Data collection and model selection are informed by the level of detail required to achieve the purpose of the QRA. Determining the appropriate data and modeling approach can be an iterative process as the level of effort required for data collection and modeling is also determined by the intended use of the results. In some cases, simplified models and approximations to modeling inputs may be justified. For example, if facility risk is conservatively estimated using simplified models or data assumptions, and yet it is shown to be below a tolerable risk threshold, the simplified models and data assumptions can be considered adequate and there is no incentive to further refine the models or data. In contrast, facility-specific data collection and detailed numerical modeling may be required in cases where the effect of hazard mitigation activities on the risk needs to be quantified.

3.4.3 Selection of QRA Methodology

The following are the key elements of QRA methodology as commonly described in the literature:

- System description
- Hazard identification

- Frequency and consequence estimation
- Risk estimation
- Risk evaluation
- Risk mitigation options

While these elements are well-established as the main QRA components for LNG facilities, there is no consensus on the implementation details for each element. Using these elements and leveraging the experience gained from conducting sample QRAs for benchmark LNG facilities, a framework is recommended, as shown in Figure 3.

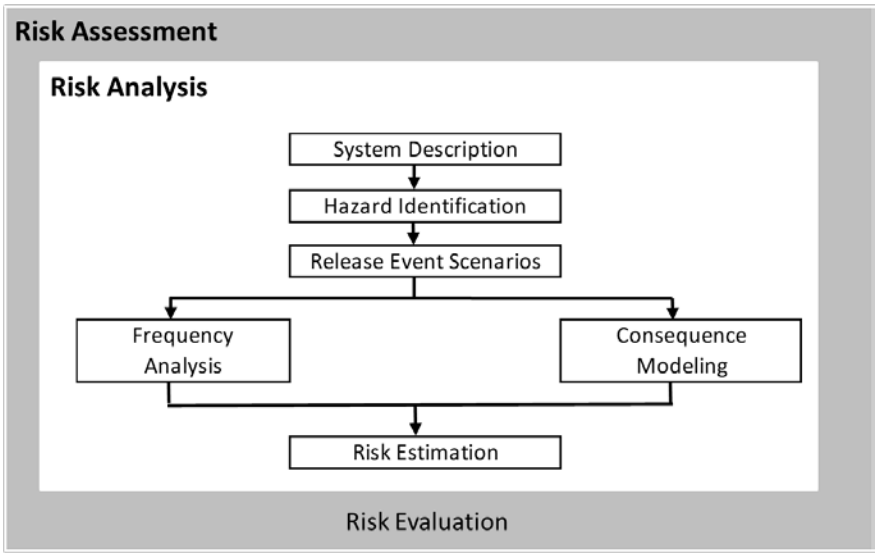

Figure 3 QRA Methodology

In this methodology, selection of release event scenarios is shown as a distinct step separate from hazard identification. Hazard identification is limited to identifying the acute safety hazards due to release events from the facility and categorizing the facility equipment failures that are likely to lead to safety hazards. Release event scenarios are intended to define the possible failure modes of the equipment containing hazardous substances and to quantify the conditions that influence the magnitude of consequences.[1] In recognition of the fact that selected release event scenarios have a significant impact on the estimated risk and form a critical step in conducting QRA for LNG facilities, this is identified as a distinct step separate from hazard identification.[2] An outline of the methodology used to perform risk estimation of benchmark LNG facilities is provided in Appendix C.1.

3.4.4 Uncertainty Modeling

Uncertainties are broadly classified as those arising from lack of knowledge (called 'epistemic' uncertainties) and those arising from inherent randomness (called 'aleatory' uncertainties). Uncertainties due to lack of knowledge can be further classified as those due to lack of data and those due to an incomplete system description. The appropriate methods to address uncertainty are informed by the purpose and the level of detail of the QRA. General guidelines to consider in modeling uncertainty are:

[1] For example, the hole sizes, internal pressure, and duration of release.
[2] This is different from pipelines where release event scenarios are combined with threat identification in the hazard identification step.

- *Incomplete system description*: The unknowns in the data and model inputs can be approximated based on domain expertise or design standards. This is typically the case for new facility designs where the details are unavailable and the system description is incomplete.
- *Lack of data*: Data uncertainties can be addressed by using ranges of possible values informed by expert opinion or available data from comparable conditions. Using the range of values for unknown inputs provides bounds of the estimated risk as influenced by the ranges of possible values of uncertain input parameters.
- *Inherent randomness*: Inherent randomness can be formally addressed through probabilistic representation of uncertain parameters as random variables.

The effects of these types of uncertainty on the estimated risk are different. The influence of approximations made due to incomplete system description cannot be quantified and requires a revision of the QRA as additional details become available. The influence of lack of data can be estimated using risk bounds, and uncertainty due to inherent randomness is accounted for in the calculations and reflected in the estimated risk.

3.5 QRA Execution

3.5.1 System Description

As discussed earlier, the level of detail of the QRA is informed by the purpose of the assessment and the nature of decisions to be made. To illustrate this point, the stages at which the QRA is performed are broadly classified as 'preliminary-design', 'detailed-design' or 'operational-facility'. This classification is intended to illustrate the typical examples of how QRA is carried out for different levels of facility-specific details.

Preliminary-design QRA: This is the initial stage of new design where facility design information may be limited to PFDs. The primary purpose of the QRA is to support site selection[3] and the QRA is expected to be revised at later stages of the design process.

Detailed-design QRA: This is the design stage where front-end engineering design is complete for a new facility. The primary purpose of the QRA is to obtain regulatory approvals to proceed with facility construction.

Operational-facility QRA: This is the stage where the facility is operational and where information related to standard operational procedures is available. The primary purpose of the QRA can be to obtain regulatory approvals for facility modifications, to plan emergency response, or to estimate changes in risk due to changes to the existing facility or the infrastructure in its vicinity (e.g. land use for high density construction, high-pressure transmission pipelines).

The system description must contain a description of the facility, site location and surrounding area to a level of detail that is sufficient to identify the representative statistical data and define the model inputs for the next steps. Where facility-specific details are unavailable, unknown attributes can be assumed or approximated using data from comparable facilities. Nonetheless, minimum system description requirements based on the above-mentioned classification are:

- Preliminary-design QRA:
  - Design-basis documents
  - PFDs

[3] Current PHMSA regulations require design completion at P&ID-level for siting approvals, so the preliminary-design QRA level is not expected to be adequate for PHMSA's regulatory siting approvals.

- Heat and material balances (HMBs)
- Site layout
- Site location
- Surrounding land usage

- Detailed-design QRA:
  - Documents required for preliminary-design QRA
  - Detailed design drawings
  - Isometric design drawings
  - P&IDs
  - Facility operational states
  - Process safety plans
  - Inspection and maintenance plans
  - Emergency response plans
  - Topographic maps for the area around the facility
- Operational-facility QRA:
  - Documents required for detailed-design QRA
  - As-built construction drawings
  - Facility incident data[4]
  - Equipment maintenance status
  - Process safety records and near-miss events
  - Records of facility modifications
  - Population data and land usage changes since construction for the area around the facility

3.5.2 Hazard Identification

The key hazards for LNG facilities include:

- Ignition of flammable gas, vapors or liquids, which can result in jet fires, flash fires or pool fires;
- Toxic or asphyxiating vapor clouds due to unignited dispersion; and
- Overpressure due to vapor cloud explosions, pressure vessel bursts and boiling liquid expanding vapor explosion (BLEVE) (NFPA 2019, RIVM 2009, National Environment Agency 2016a).

Hazard identification for a specific LNG facility is typically performed based on:

- *Preliminary-design QRA*: Facility design basis documents to inform the definition of the possible releases and the associated hazards.

[4] Industry-wide incident data reflects the standard practices in equipment operation and maintenance, but it does not account for any facility-specific improvements in operational or maintenance procedures implemented by a facility operator. Therefore, consideration of facility-specific incident data is suggested.

- *Detailed-design QRA*: Process hazard analysis (PHA)[5] to identify all possible releases and associated hazards and the possible locations of release due to failures of specific equipment.
- *Operational-facility QRA*: PHA to identify all possible releases from specific equipment, their possible locations and directions and the associated hazards. PHA may also consider process safety records, the hazard registry maintained at the facility, and the competency of personnel of the facility to include human factors that can contribute to release events and cascading events (also termed 'domino effects').

3.5.3 Release Event Scenarios

Identifying and quantifying release event scenarios is recognized as a critical step in conducting QRA (NFPA 2019, RIVM 2009, National Environment Agency 2016a). As the total estimated risk is the sum of the risks associated with all release events, any release events or scenarios that are not included could result in underestimating the risk.

Although several standards and guidelines recommend considering a comprehensive set of release event scenarios, there is no consensus on the definition of all possible release events (BAPE 2007). For example, international standards are inconsistent with respect to identifying the relevant failure modes for full-containment LNG storage tanks, with some recommending consideration of only a catastrophic failure of the tank (NFPA 2019, RIVM 2009), and others recommending consideration of failures with varying magnitudes as determined by the hole size (HSE 2017). A minimum set of conditions to consider in defining release event scenarios includes:

- Release from each piece of equipment that forms part of the isolatable inventory in the facility, and the modes of failure of each piece of equipment that has a possibility of releasing a hazardous substance. The failure modes are defined based on the hole size and, as noted earlier, standards disagree on the hole sizes to be considered. Table 1 shows the failure modes suggested in the US LNG design standard NFPA 59A (2019), the Netherlands' guidelines for risk assessment RIVM (2009)[6], and the UK regulation HSE (2017) for selected equipment types.
    - A minimum of two representative failure modes are recommended: one to account for a catastrophic release or full-bore rupture, and a second to account for leaks that may remain undetected for a period of time before activating automated emergency shut-down devices. Additional failure modes should be considered depending on the equipment type. The release scenarios may include a combination of the scenarios suggested in multiple standards; however, they must be consistent with at least one referenced standard with respect to the minimum number of release scenarios selected across all equipment types.

Table 1 Summary of Failure Modes in the International and US Standards and Guidelines

Equipment Type	Failure Modes		
	NFPA 59A (2019)	RIVM (2009)	HSE (2017)
Process and storage vessels	Catastrophic failure	Catastrophic failure ('instantaneous release')	Catastrophic failure

[5] Process hazard analysis is typically a qualitative evaluation of all possible causes that can lead to hazardous events. It is generally conducted as a part of process safety management.

[6] RIVM suggests consideration of release event scenarios that have failure frequencies greater than 1×10^{-9}. However, estimation of frequencies without due consideration to all possible events leading to a release is difficult, particularly for cascading events.

Equipment Type	Failure Modes		
	NFPA 59A (2019)	RIVM (2009)	HSE (2017)
	Hole with 0.4 inch (10 mm) diameter	Release of all contents in 10 min. Failure mode indirectly related to vessel volume and flow rate.	Major release (hole size based on vessel volume)
		Hole with effective diameter of 10 mm	Minor release (hole size based on vessel volume)
Pressurized storage vessels	Catastrophic failure	Catastrophic failure ('instantaneous release')	Catastrophic failure
	Hole with 0.4 inch (10 mm) diameter	Release of all contents in 10 min. Failure mode indirectly related to vessel volume and flow rate.	Hole sizes of 6 mm, 13 mm, 25 mm, and 50 mm based on the vessel type
		Hole with effective diameter of 10 mm	
LNG storage tanks with containment	Catastrophic failure	Catastrophic failure ('instantaneous release')	Catastrophic failure
		Release of all contents in 10 min. Failure mode indirectly related to vessel volume and flow rate. (Not considered for full-containment or membrane tanks.)	Major release (hole size based on tank volume)
		Hole with effective diameter of 10 mm (only for single-containment tanks)	Minor release (hole size based on tank volume)
Piping	Catastrophic rupture	Catastrophic rupture	Catastrophic rupture
	Hole sizes vary from 1 inch (25 mm), 10% of pipe diameter up to 2 inches (50 mm), and 1/3 of pipe diameter	Hole size of 10% of pipe diameter up to 50 mm	Hole sizes vary from 3 mm, 4 mm, 25 mm, and 1/3 of pipe diameter
LNG transfer hose or arm	Rupture	Rupture	Rupture
	Hole size of 10% of pipe diameter up to 2 inches (50 mm)	Hole size of 10% of pipe diameter up to 50 mm	Hole size of 10% of pipe diameter
			Simultaneous failures of multiple arms

- Facility and equipment operational status at the time of failure as it influences the pressure, temperature and physical state of the release stream. The operational status may include normal operational conditions (including seasonal variations), maintenance conditions or emergency operations.
- Functional status of emergency shut-down systems as it influences the duration, and consequently, volume of release. At a minimum, scenarios with fully functional and non-functional emergency shut-off devices must be considered. It is recommended that at least one scenario have a release duration of 10 minutes or longer as the release scenarios for equipment failure modes suggested by international standards (RIVM 2009, National Environment Agency 2016a, BAPE 2007; also see Table 1) typically include a 10-minute release scenario.
- External conditions at the time of release, such as

- Weather conditions that influence the extent of vapor dispersion. A minimum of two sets of weather conditions are recommended in some international standards and regulations (RIVM 2009, HSE 2007), define on the basis of Pasquill stability class and wind speeds. It is recommended that a minimum of two stability classes (Class D and Class F) and two wind speeds be considered, which is consistent with the guidance in the US (EPA 2009).[7] Additional weather conditions should be considered based on the variability of site-specific weather conditions and the sensitivity of the consequences to the weather conditions.
- Extreme events that can cause simultaneous failures of multiple equipment and mitigation systems. Extreme events may include natural conditions, such as earthquakes, tsunamis, flooding, hurricanes, forest fires, and lightning strikes, or human-made conditions, such as rupture of pipelines outside the facility, sabotage, security threats[8] and catastrophic failures of surrounding structures that may damage the facility structures or critical equipment. These extreme events should be considered on a location- and case-specific basis. Detailed guidance on this aspect is beyond the scope of the current study.

The information available to define a minimum set of release event scenarios varies based on the classification of QRA as follows:

- *Preliminary-design QRA*: A full listing of facility equipment may not be available at initial design and, therefore, preliminary-design QRAs may include only the major equipment identified in PFDs. To cope with this limitation, only credible worst-case release scenarios are often selected from the literature (BAPE 2007, Lee 2014) and all other releases are ignored. A minimum set of failure modes for all major equipment in PFDs can be defined based on international and US standards, which can then be used to define a minimum set of release event scenarios as presented above.
- *Detailed-design QRA*: In addition to defining the initial release with the minimum set of release event scenarios based on P&IDs, secondary releases that are triggered by the initial release (called 'cascading events') may also be included. A cascading event can be identified based on the following information:
  - A detailed isometric design of the facility indicating the physical location of the equipment and hazard mitigation barriers (e.g. insulation, isolation, heat dissipation); and
  - Failure modes and possibility of loss of structural integrity or functionality of facility equipment, piping or storage tanks due to thermal loads following a fire event or impact loads due to overpressure events.
- *Operational-facility QRA*: In addition to the initial release events, and cascading events noted for detailed-design QRA, release due to human factors, and different operational states (e.g. normal operations including seasonal variations, emergency conditions, maintenance and down-time conditions) should be considered for a comprehensive assessment. In the case of an existing facility, additional considerations include:
  - External triggering events that may lead to release events within the facility; and

[7] In RIVM (2009), the stability classes are noted as D5 (Class D with wind speed of 5 m/s) and F1.5 (Class F with wind speed 1.5 m/s), while in the guidelines from Singapore (National Environment Agency 2016a), the suggested conditions are F1, B2 and C3. No specific guidance is available in the NFPA 59A (2019) regarding the combination of weather conditions for QRA other than the consideration of weather data for wind speed, direction, temperature and humidity from a representative site. Guidance under siting indicates consideration of F2 for estimating the maximum hazard distance.

[8] Specific consideration of security threats may include consideration of number of entry points to the facility, security of fencing, and vulnerability to unauthorized entry through multiple means.

- Simultaneous failures of multiple interdependent systems (e.g. electrical system failure combined with failure of backup power systems).

3.5.4 Frequency Analysis

3.5.4.1 General

The purpose of frequency analysis is to estimate the rate of occurrence of the hazards identified in Section 3.5.2. The analysis can be divided into three parts:

- Frequency analysis of release event scenarios
- Probability of the weather conditions coincident with each release event scenario
- Probability of ignition

Data collection and modeling approaches that are widely used to perform frequency analyses for each part are discussed separately in the next sections. The frequency of occurrence of a hazard is a product of the frequency of occurrence of the release event scenario, probability of coincident weather conditions and the probability of ignition (or non-ignition). The detailed approach used to combine the frequencies estimated from each part into frequency estimates of different hazard scenarios is described in detail in Appendix C.1.

Release Event Frequency

3.5.4.2.1 General

The frequency of a release event scenario is a product of the following:

- Failure frequency (also termed ‘failure rate’) of the facility equipment in the defined failure mode;
- Probability of the operational status of the facility, which can be estimated from the planned time proportions for each operational status;
- Probability of the location of failure within the equipment. Examples include the location of a full-bore rupture or leak in piping, and the height of release from a storage tank;
- Probability of the release direction. For example, a leak in a process vessel may occur in any direction in a horizontal plane or alternatively, the release direction may be constrained due to physical position of the equipment (e.g. release changes direction due to surrounding structures);
- Probability of failure of emergency shut-down systems, as they influence the duration of release; and
- Probability of an external triggering event.

Approaches used to estimate release event frequency are categorized into three levels depending on the degree to which they make use of objective data and engineering models. The levels of analysis, in order of increasing objectivity are:

- Level 1: Subject Matter Expert (SME) Opinion
- Level 2: Historical Data
- Level 3: Probabilistic Models

Different levels of analysis may be employed to address different release events (e.g. detailed probabilistic models for a release resulting from the cascading events triggered by a pressure vessel blast and historical incident data for a release from a pressure vessel) or different components of a single release event (e.g. SME opinion for the likelihood of seasonal operational states of the facility and historical incident data for equipment failure rates). The following sections describe different frequency analysis approaches and outline strategies to increase confidence in the results obtained from each level of analysis and ensure that comparing or combining their results leads to reasonable outcomes.

3.5.4.2.2 Analysis Levels

3.5.4.2.2.1 Level 1 – SME Opinion

Elicitation of SME opinion is the only viable option when sufficient historical data is unavailable to estimate the required frequencies and probabilistic modeling of the failure process is not feasible. The advantages of this approach are (as adapted from Koduru, Adianto, and Skow (2016)):

- Requires limited resources as additional effort for probabilistic or engineering modeling is not required; and
- Compensates for the lack of historical data by leveraging the facility-specific information available from SMEs at existing facilities.

While all approaches involve a certain level of subjectivity, frequencies derived from SME opinion are more subjective than those derived using other data-based approaches. The limitations of this approach are (as adapted from Koduru, Adianto, and Skow (2016)):

- Comparison with other risk results is difficult as the level of conservatism in the frequency estimates is difficult to quantify;
- Influence of different sources of uncertainty on the estimated frequencies cannot be quantified and, hence, it is difficult to reduce the uncertainty in subsequent QRA iterations; and
- Influence of different mitigation measures is difficult to estimate.

Quantifying failure frequencies based on SME opinion should be considered as a last resort when other approaches are impractical. When SME opinion is employed, a structured approach to eliciting SME opinion should be considered (Koduru, Adianto, and Skow 2016, Ayyub 2014, Boring et al. 2005, Colson and Cooke 2018) to reduce bias from any single source and produce results that are representative of the general consensus among experts in the field of study.

3.5.4.2.2.2 Level 2 – Historical Data

Facility equipment failure frequency estimates derived from historical incident data are available from international and US standards (NFPA 2019, RIVM 2009, HSE 2017). These frequency estimates are representative of generic facilities as aggregated data from industry-wide sources is used. The benefits of this approach are:

- Ability to perform QRA with reduced subjectivity when compared to SME opinion;
- Reduced data requirements as the facility-specific information is not required when the failure rates of generic equipment categories are used;
- Standardization of the frequency estimates for different equipment types enables comparison of risk for different facilities; and
- Repeatability of the process permits third-party verification and validation.

Given these benefits, international and US standards have used historical incident data as a basis for failure frequencies (more commonly called ‘failure rates’) of different equipment types in different failure modes. When historical failure rates from the standards are used, an understanding of the underlying data sets and their interpretation is required. Table 2 shows examples of the failure rates for selected equipment types from the US LNG design standard NFPA 59A (2019), the Netherlands guidelines for risk assessment RIVM (2009) and the UK regulation HSE (2017).[9]

[9] Not all piping categories shown.

Table 2 Summary of Equipment Failure Rates in the US and International Standards and Guidelines

Equipment Type	Failure Mode (NFPA 59A 2019)	Failure Rates		
		NFPA 59A (2019)	RIVM[a] (2009)	HSE (2017)
Process and storage vessels (per vessel year)	Catastrophic failure	5×10^{-6}	5×10^{-6}	5×10^{-6}
	Hole with 0.4 inch (10 mm) diameter	1×10^{-4}	1×10^{-4}	2.5×10^{-3} (minor release)
Pressurized storage vessels (per vessel year)	Catastrophic failure	5×10^{-7}	5×10^{-7}	4×10^{-6} (median)
	Hole with 0.4 inch (10 mm) diameter	1×10^{-5}	1×10^{-5}	1×10^{-5} (nearest hole size)
LNG storage tanks with single containment (per tank system year)	Catastrophic failure	1×10^{-6}	1×10^{-6}	5×10^{-5}
LNG storage tanks with containment (other than single containment) (per tank system year)	Catastrophic failure	1×10^{-8} to 1.25×10^{-8}	1×10^{-8} to 1.25×10^{-8}	5×10^{-8}
Piping < 2 inch diameter (per meter-year)	Catastrophic rupture	1×10^{-6}	1×10^{-6}	1×10^{-6}
	Smallest hole size (25 mm)	5×10^{-6}	5×10^{-6}	5×10^{-6}
Piping – 2 to 6 inch diameter (per meter-year)	Catastrophic rupture	5×10^{-7}	3×10^{-7}	5×10^{-7}
	Smallest hole size (25 mm)	2×10^{-6}	2×10^{-6}	2×10^{-6}
Piping – 20 to 40 inch diameter (per meter-year)	Catastrophic rupture	2×10^{-8}	1×10^{-7}	4×10^{-8}
	Smallest hole size (25 mm)	4×10^{-7}	5×10^{-7}	4×10^{-7}
Truck transfer arm (per arm per year)	Rupture	3×10^{-4}	3×10^{-8} *b*	2×10^{-7} *c*
	Hole	3×10^{-3}	3×10^{-7} *b*	4×10^{-7} *c*
Truck transfer hose (per hose per year)	Rupture	4×10^{-2}	4×10^{-6} *b*	4×10^{-6} *d*
	Hole	4×10^{-1}	4×10^{-5} *b*	4×10^{-7} *d*
Ship transfer arm (per arm per year)	Rupture	2×10^{-5}	1×10^{-7}	7×10^{-6} *e*
	Hole	2×10^{-4}	5×10^{-7}	8×10^{-6} *e*

a:piping mapped to nearest-diameter above-ground pipelines; *b*: per transfer arm per hour; *c*: per transfer arm per transfer; *d*: per transfer of average facilities; *e*: per operation

The failure rates provided by different standards for most of the equipment failure modes do not differ significantly, which indicates a consistency in the use of available historical incident data considering the

level of uncertainty in the underlying data.[10] For a truck transfer arm and hose, and a ship transfer arm, the suggested values are not directly comparable due to their characterization based on the usage rate of these equipment. To compare the rupture failure rates of a truck transfer arm and hose in NFPA 59A (2019) with RIVM (2009), an assumption of the hours of their usage is needed. The failure rates are comparable only if the assumption is that usage is for 10,000 hours, which is equivalent to continuous use over the entire year (8760 hours). This implies that NFPA 59A (2019) failure rates for a truck transfer arm and hose, and ship transfer arm are higher than other international standards for comparable usage rates. Similarly, the failure rates between RIVM (2009) and HSE (2017) are comparable only with the assumption of approximately 10 hours of usage per transfer.

The failure rates provided in NFPA 59A (2019) do not address all equipment types. As noted in the statistical review and gap analysis of LNG failure rates (GTI 2017), there are gaps in the historical incident databases for equipment specific to LNG facilities. These gaps can be filled with failure rates for similar equipment available in international publications, such as HSE (2017) and the Oil and Gas Producers (OGP) risk assessment data directory (IOGP 2010), although such equipment may not be in LNG service.

Quantifying failure frequencies using historical data is most commonly used where the facility details are unavailable for more detailed modeling. The limitations of the historical failure data approach are:

- It does not consider facility-specific parameters in the estimated failure frequencies;
- It reflects past equipment characteristics and operational environment, and may not be representative of future conditions or operational factors;
- It cannot be used for rare failure modes;
- It cannot be used for new equipment categories that are not historically present in the failure incident databases;
- It cannot model initiating events, external factors, and interdependencies that resulted in the equipment failures; and
- It does not identify locations of high failure probabilities. For example, the piping failure rate is uniform for the entire length, even though some threats (such as corrosion, cracks, and external object impact for above-ground piping) are concentrated at critical locations.

3.5.4.2.2.3 Level 3 – Probabilistic Models

Probabilistic models use engineering principles and formal probabilistic logic to estimate the required failure frequencies. These are categorized as graphical logical models, such as fault-tree models and Bayesian networks, and structural reliability methods (e.g. Monte Carlo simulation). The benefits of using these approaches are:

- Ability to model release events that reflect facility-specific conditions;
- Ability to include engineering models and facility-specific data for frequency estimation;
- Ability to consider specific mitigation systems and estimate their impact on failure frequencies;
- Ability to model rare failure modes or what-if scenarios that are not represented in the historical failure incidents;

[10] The confidence in the estimated probabilities (and equivalent failure rates) from statistical sampling depends on the sample size used for data analysis. For example, a sample size of approximately 100,000 independent samples is required for estimating a failure rate of 1×10^{-4} that has less than 10% variance in the estimated value. At even lower failure rates, a greater number of independent samples are required for a greater confidence in the estimated value.

- Ability to identify critical systems and parameters that influence the failure frequencies;
- Ability to estimate low frequency events with greater reliability; and
- Ability to identify areas of improvement for failure frequency reduction and equipment-specific data collection.

Fault-tree models are the most widely used probabilistic approach for modeling event frequencies for industrial facilities, and, therefore, probabilistic modeling framework using this approach is discussed in a greater detail. In particular, nuclear facilities have a well-developed framework to evaluate the failure event frequencies, called the probabilistic risk assessment (PRA) approach (NRC 2016, NRC and Electric Power Research Institute 2011, Swain and Guttman 1983). As PRA provides the most comprehensive approach for frequency estimation, it is recommended that it be adapted for existing LNG facilities. The key steps applicable for LNG facilities are:

1. Identification of the initiating event, either internal or external to the facility, and estimation of its failure frequency.
2. Development of an event-tree to model release events, taking into account mitigation systems, which may include both human factors, and hardware / engineering systems.
3. Development of system-specific fault-tree models to estimate the probability of failure of hardware and mitigation systems. Basic event probabilities required for fault-tree models may be estimated using standard structural reliability methods, such as Monte Carlo simulation or Latin Hypercube sampling, or historical data from either historical incident databases or facility-specific data.
4. Use of human reliability analysis (HRA) approaches to estimate the probability of human errors that can lead to the release event. Guidelines for application of this approach in the petroleum industry are available from the Institute for Energy Technology (IFE 2017).

To demonstrate the applicability of the PRA approach to LNG facilities in a greater detail, an illustrative example is presented. Figure 4 shows a conceptual illustration of the PRA approach applied to an example release event scenario in an LNG facility as presented by Aneziris et al. (2014). The top part of the figure shows an event-tree consisting of:

- An initiating event (such as an earthquake; event “A”) that can trigger malfunctioning of boil-off gas removal during LNG loading (event “B”).
- If the malfunction does occur, then a backup system (event “C”) may trigger a secondary shut-down system (event “E”) and, if the shutdown is successful, there is no release (event sequence 1.A – no release). If the secondary shut-down system fails, then there is a release (event sequence 2.AE – release).
- If the backup system fails but the secondary system is engaged manually (event “D”), and the secondary shut-down system is successful, then there is no release (event sequence 3.AC – no release). If the secondary shut-down system fails, then there is a release (event sequence 4.ACE – release).
- If the manual engagement of the secondary system also fails, then there is a release (event sequence 5.ACD – release)
- If the boil-off gas removal malfunction does not occur, then there will be no release event (event sequence 6.AB).

The bottom figure shows a fault-tree model to calculate the probability of event “B”. Similar fault trees can be used to calculate the probabilities of other events in the event tree.

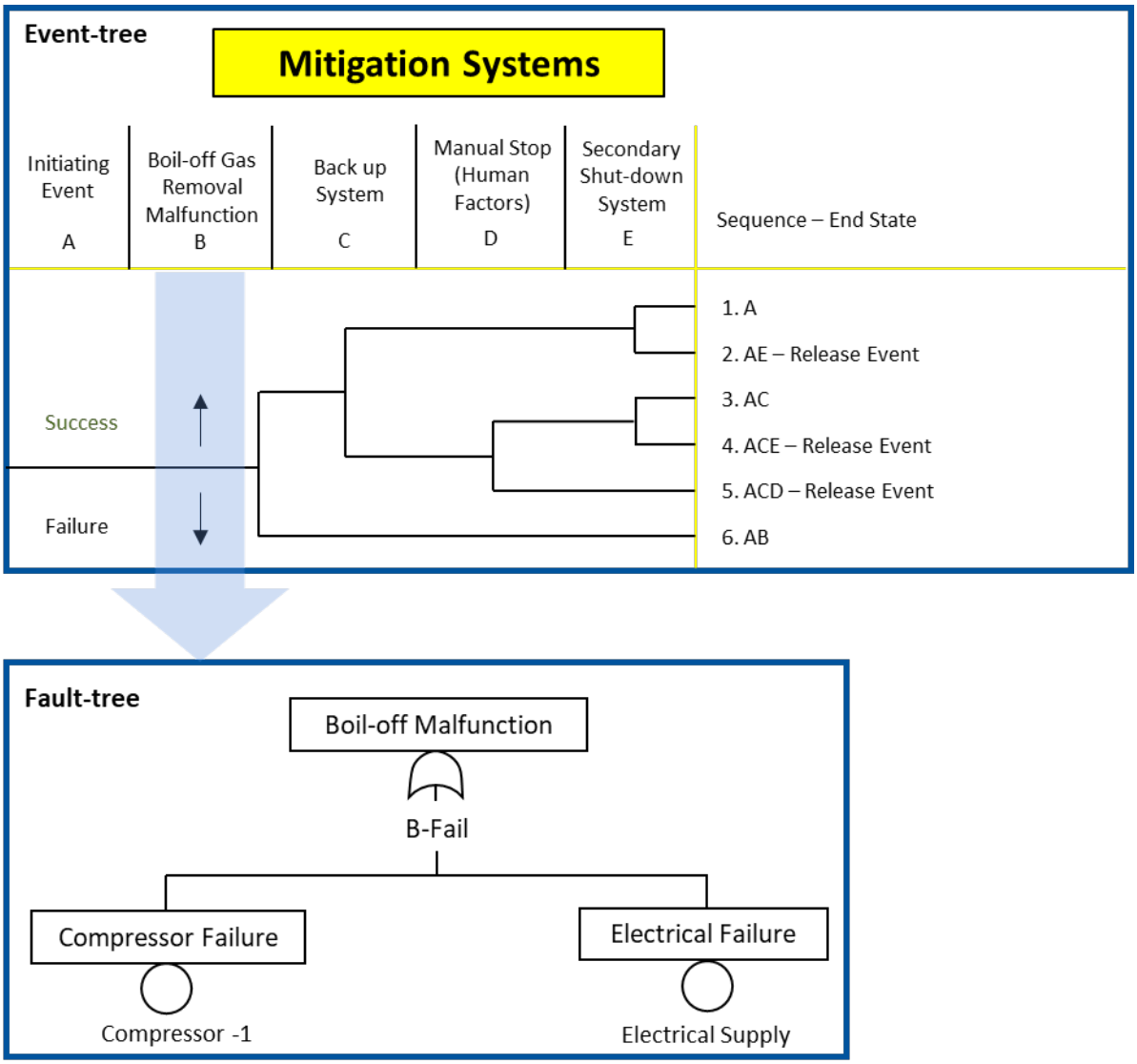

Figure 4 PRA Approach for Probabilistic Modeling

In addition to modeling the failure of isolated failure events, fault-tree models may also be developed to model cascading events where the consequences of an initiating event may trigger a secondary release event. Figure 5 shows a conceptual fault-tree to estimate the frequency of a secondary release event, as adapted from the framework in Khan and Abbasi (1998).

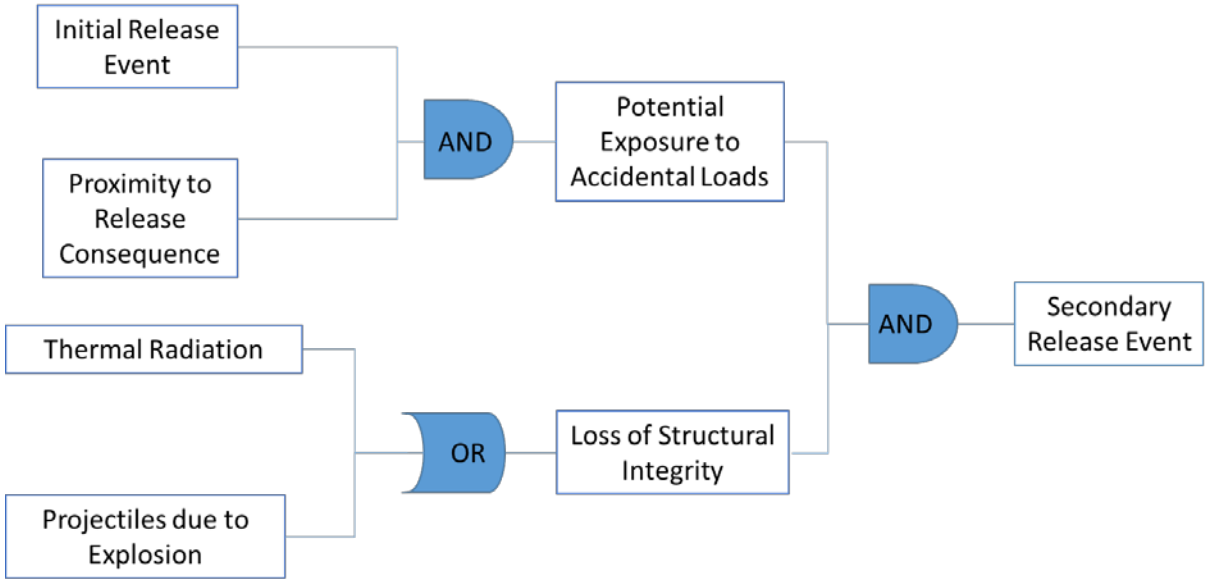

Figure 5 Conceptual Fault-tree Model for a Cascading Event

The probabilistic modeling approach requires detailed knowledge of the facility, as well as an ability to develop appropriate models to describe its behavior. As is the case with all modeling approaches that require high-level expertise, the limitations of this approach are (adapted from Koduru, Adianto, and Skow (2016)):

- Significant effort and expertise are required to develop and implement the models;
- Substantial effort is required to characterize modeling inputs;
- Considerable computational resources may be required;
- Difficulties in quantifying modeling errors (in fault-trees or event-trees) that may influence the estimated frequencies; and
- Model complexity may invite skepticism by unfamiliar users as it seen as a 'black box' approach.

3.5.4.2.3 Event Frequency Estimation

Table 3 shows the recommended frequency estimation approaches for the three different classifications of QRA. Commentary on the recommended approaches is provided following the table.

Table 3 Recommended Release Event Frequency Estimation Approaches

Release Event Frequency Component	Recommended Estimation Approach		
	Preliminary-design	Detailed-design	Operational-facility
Facility equipment failure frequency ('failure rate')	Historical failure rates	Historical failure rates, and probabilistic modeling	Facility-specific data, historical failure rates, and probabilistic modeling
Probability* of the operational status of the facility	Probability not considered	Historical data and SME opinion	Facility-specific data and SME opinion

Release Event Frequency Component	Recommended Estimation Approach		
	Preliminary-design	Detailed-design	Operational-facility
Probability* of the location of failure within the equipment	Probabilistic modeling with simplified assumptions	Probabilistic modeling based on design documents	Probabilistic modeling and facility-specific data
Probability* of the release direction	Probabilistic modeling with simplified assumptions	Probabilistic modeling based on design documents	Probabilistic modeling and facility-specific data
Probability* of failure of emergency shut-down (ESD) systems	Historical data	Historical data	Probabilistic modeling, historical data, and facility-specific data
Probability of an external triggering event	Probability not considered	Historical data	Historical data and probabilistic modeling

*estimated probabilities are conditional probabilities and, therefore, the probabilities for all options for a component must add up to 100%. (e.g. probability of failed ESD + probability of functional ESD = 100%)

Appropriate frequency analysis approaches for each QRA classification are as follows:

- *Preliminary-design QRA*: The failure frequencies for equipment failures should be taken from NFPA 59A (2019), as they apply specifically to LNG facilities, and can be supplemented by failure frequencies from HSE (2017) and the OGP risk assessment data directory (IOGP 2010) for equipment types or failure modes that are not given in NFPA 59A (2019). For the rest of the probabilities (other than equipment failure rates), simplifying assumptions and the basis for probabilistic modeling are as follows:
    - The facility can be assumed to be operational at design conditions. This is based on the assumption that the release pressures and storage volumes could be lower during facility downtime for maintenance, and the assumption that active mitigation systems might be in use under emergency conditions. In both cases, it is difficult to estimate the release conditions (i.e. pressure, temperature, and release-stream condition) during the release and risk may not be sensitive to these release conditions due to other approximations.
    - The location of failure can be modeled as equally likely along the length or height of the equipment, and probabilities can be assigned based on the discretization of the equipment dimension. For example, the probability distribution of the leak location along the height of an LNG storage tank can be assumed to uniform, and the probability of a leak in the upper and lower halves of the tank can be assigned values of 50% each if no other information is available. If the number of attachments, instrumentation and their locations are known, then the probability of leak is appropriately distributed along the height the storage tank (i.e. higher probability at locations of denser attachments or instrumentation).
    - The probability of release direction can be modeled based on the equipment type, location, and its likely orientation. If the equipment location and orientation are unknown, it is reasonable to assume that the release is equally likely in any direction in a horizontal plane[11]. The number of

[11] Hazard zones estimated under the assumption of horizontal release are considered as the most conservative estimates for thermal radiation and vapor dispersion.

discretized directions for equally likely releases in a horizontal plane are typically equal to the number of cardinal directions to be consistent with the weather data for wind directions.

- The probability of the failure of the emergency shut-down systems should be estimated using failure rates provided in HSE (2017) for various emergency shut-down valves (ESDVs).
- The databases and standards used to estimate failure rates of facility equipment do not identify the failure triggering events. It is possible that the failure rates derived from historical data include failure incidents that are triggered by external events. Given the aggregated nature of historical incident data, explicit modeling of external events and associated equipment failures is not necessary at this level as it would likely result in an overestimation of the failure frequency triggered by external events. Furthermore, if equipment failure rates due to specific external events are to be estimated, the preliminary-design details are insufficient to produce a reliable failure rate estimate. To avoid uncertainty being introduced due to unreliable estimates of failure rates, explicit modeling of external events is not recommended at this level.

- *Detailed-design QRA*: As shown in Table 3, the estimation of release event frequencies may include a combination of SME opinion, historical data, and probabilistic modeling. If historical failure rates are used, the failure frequencies are primarily influenced by the equipment counts and, therefore, detailed accounting for all pieces of equipment should be considered. Detailed probabilistic modeling is recommended for the frequency estimation of the following release event scenarios:
  - Rupture frequencies of large diameter piping and of facility piping at critical locations. Examples of critical locations include pipe joints that transition from below-ground piping to above-ground piping, circumferential welds close to pipe bends, and above-ground piping in proximity to motorized vehicles.
  - The time-dependent nature of failures, such as pipeline failure frequencies due to corrosion growth or fatigue growth of axial cracks under internal pressure cycling, and other such degradation mechanisms.
  - Frequency of the cascading events triggered either by internal or external events. Discussion of possible trigger events that result in release event scenarios is presented in Section 3.5.3. Critical natural hazards to consider at a given location are typically available as a part of applicable building codes and should be modeled as external triggering events. Credible triggering events due to natural hazards may be assessed based on standards such as NFPA 59A (2019).
- *Operational-facility QRA*: A probabilistic modeling approach is recommended for QRAs of existing facilities, as the facility-specific information required to support this approach is available. Facility-specific information may include:
  - Inspection records that may indicate an increased probability of failure at particular locations, such as piping corrosion (including internal and external corrosion under insulation) and dents, isolated locations of steep thermal gradient (including cold spots and thermal expansion), and connections of the instrumentation and piping to pressure and storage vessels;
  - Manufacturer warranties and specifications of the equipment and instrumentation that may indicate equipment failure frequency as a function of duration of operation; and
  - Maintenance records of the equipment and instrumentation, including frequency of maintenance and testing, that may indicate likely probability of failure of mitigation systems during a release event.

As noted earlier, probabilistic modeling approaches offer a flexible framework to leverage all the available information, including SME opinion, historical data and engineering models. Examples of detailed probabilistic modeling approaches are available in the literature (Aneziris et al. 2014).

3.5.4.3 Weather Conditions

As a minimum, the parameters required to characterize weather conditions include wind speed and direction, ambient temperature and relative humidity (NFPA 2019). These requirements apply for all classifications of QRA. Hourly data pertaining to wind speed and direction, ambient temperature and humidity should be obtained from a representative site.[12] As these conditions are inherently random, they should be modeled as continuous random variables from which the probabilities for representative weather conditions can be calculated.

Depending on the geographic location, weather conditions may be cyclic and may display strong seasonal variations. Therefore, the probability distributions of temperature, humidity, solar radiation, and other meteorological conditions may display bi-modal or multi-modal shapes. In such cases, separate distributions for different seasons or calendar months may be used. If this approach is used, the weather parameter values chosen for consequence modeling from the distributions may correspond to the distribution mean, median or certain percentile values for adequate representation of the variability. The probabilities obtained for the chosen weather parameter values are conditional probabilities corresponding to specific seasons or months. If weather parameters are modelled separately for different seasons, it will be necessary to combine them as a weighted sum, where the weighting factors represent the relative lengths of the different seasons.

3.5.4.4 Probability of Ignition

A literature review of ignition probabilities yielded multiple approaches and varying recommended values for immediate- and delayed-ignition probabilities. The CCPS guidelines (2014) on probability of ignition (POI) provide a comprehensive summary of 34 sources of POI modeling approaches. Key factors for ignition (CCPS 2014) are:

- *Fuel properties*: flammability limits, flash point or fire point, vapor pressure, autoignition temperature (AIT), minimum ignition energy (MIE), and release phase
- *Release source*: release rate, release pressure, release temperature, event duration, static discharge at release point, and restrictions at release point
- *External environment*: external sources of ignition, such as existing flames, burning particles and sparks, electrical equipment, hot surfaces, open versus closed space, and electrostatic sources

As the type of hazard is dependent on the time of ignition (for example, immediate ignition of gas or vapor releases leads to a jet fire, while delayed ignition leads to a flash fire or vapor cloud explosion), separate values of POI for immediate and delayed ignitions are necessary. While POI for immediate ignition is dependent on the fuel properties and release sources, delayed ignition is also affected by the density of the external sources of ignition. Multiple international standards are available for guidance on the selection of appropriate POI values for gas and liquid releases (RIVM 2009, Flemish Government 2009). These approaches are suitable for estimating POI for both preliminary- and detailed-design QRAs. Identification of the facility-specific active-ignition sources is recommended for operational-facility QRAs.

Most simplified POI models for immediate ignition consider only release rate ranges. The suggested immediate-ignition probabilities in RIVM (2009) for low, medium and large methane releases are 2%, 4% and 9%, respectively, and 6.5% for all LNG releases. More detailed models provide mathematical relationships between the release rates and the immediate-ignition probability, and these probabilities vary between 0.5% and 80% (Acton and Baldwin 2008). Although more detailed models provide greater granularity, it is noted that the estimated risk is significantly influenced by the estimated release event

[12] Selection of a representative site is not only defined by the proximity to the location of interest, but also by the representativeness of the topographic and meteorological conditions at the site.

frequencies and is less sensitive to the immediate-ignition probability. Therefore, selection of the RIVM (2009) approach noted here, or a more detailed approach from the recommended CCPS guidelines (2014) would be sufficient for all classifications of QRA.

In contrast to the immediate-ignition probabilities, delayed-ignition probabilities may vary significantly based on the density and type of ignition sources. For a conservative risk estimate, RIVM (2009) suggests assuming that delayed ignition occurs in all instances where immediate ignition does not occur. This may be an appropriate assumption for preliminary-design QRA if estimation of the density of ignition sources is difficult. A more realistic approach is to consider the probability of the presence of ignition sources and their effectiveness in igniting the vapor cloud within a minute of exposure. Using this approach, RIVM (2009) suggests the delayed-ignition probabilities cover a range from 1% for household sources (e.g. oven) to 100% for a flare. This approach to delayed-ignition probability estimation is recommended for detailed-design and operational-facility QRA.

3.5.5 Consequence Modeling

3.5.5.1 General

Consequence modeling is required to quantify the potential safety hazards for the following scenarios:

- Thermal radiation due to jet fires and pool fires;
- Flammable, toxic or asphyxiating concentrations of vapor due to vapor cloud dispersion; and
- Overpressure due to explosions or rapid combustion of confined flammable vapors.

Primary releases from LNG facilities are natural gas and LNG; other non-LNG flammable or toxic gas, vapor or liquid releases depend on specific designs, and their release volumes are generally small compared to LNG releases. Modeling of non-LNG releases is a topic of ongoing research (BLUE and GTI 2018) and is not explicitly addressed here.

Due to the complexity of the consequence modeling process, a wide range of modeling software packages (both open-source and commercial) have been developed and the approaches to evaluate the required modeling inputs are available in the literature (see Ivings et al. (2016a), Webber et al. (2010), CCPS (1999) and Mannan (2012) for a summary). In an attempt to standardize the consequence modeling process, international regulators, such as RIVM, have prescribed the use of specific software packages, e.g. SAFETI-NL (RIVM 2009) for use specifically in the Netherlands. To allow for more flexibility, other regulators (e.g. HSE, PHMSA) have provided the option to select from a list of approved software packages[13], or to demonstrate the application of a validated approach through approved model evaluation protocols (MEP) for specific hazards. Development of approaches for model validation is in itself an evolving area of research (Coldrick 2017). The following sections provide a brief summary of the modeling approaches for various hazards.

3.5.5.2 Thermal Radiation

Determination of radiant heat flux due to jet fires and pool fires is required to quantify the safety impact on people and the extent of damage to buildings. Commonly available models for quantifying radiant heat flux can be categorized as:

- Point-source models;

[13] The models that PHMSA has currently approved for calculating thermal radiation and vapor dispersion exclusion zones are LNG Fire3, Phast, FLACS, and DEGADIS.

- Solid flame models; and
- Computational fluid dynamics (CFD) models.

Point-source models are the simplest models available and have been used to estimate far-field heat flux due to jet fires or pool fires (Woodward and Pitblado 2010). For jet fires due to natural gas releases, the hazard distances predicted from calibrated point-source jet fire models have been shown to be consistent with results obtained from large-scale experiments and hazard zone boundaries for historical incidents (Rothwell and Stephens 2006, Pettit, Ramsden, and Shakleton 2014). For near-field estimation of radiant heat flux, solid flame models are generally considered to be more accurate and are, therefore, more commonly used. Similarly, for pool fires due to LNG releases, which are not well-represented by point-source modeling, solid flame models are preferred for the estimation of the hazard footprint. Therefore, most commercially available software packages employ solid flame models for jet fires and pool fires. These models are recommended for all classifications of QRA.

CFD modeling is recommended for estimating the thermal loads on structures within an LNG facility that are engulfed by the fires. This approach is recommended for modeling of cascading event scenarios in operational-facility QRA. As is the case with all advanced engineering models, it is not feasible to develop generalized recommendations for the specific CFD modeling details and inputs.

Software packages approved by international standards (e.g. RIVM (2009)), and US regulators (e.g. FERC, PHMSA) may contain a combination of sub-models based on phenomenological, empirical and numerical models.

3.5.5.3 Vapor Dispersion

Vapor dispersion models are an important component of a robust QRA execution process because multiple hazards, such as flash fires, vapor cloud explosions (VCEs), toxic vapor concentrations, and asphyxiation hazards are quantified, at least in part, through modeling of the dispersion of a vapor cloud that develops after a release. Vapor dispersion models are classified by Ivings et al. (2016b) as:

- Correlational models;
- Integral models;
- Shallow layer models; and
- CFD models.

Ivings et al. (2016b) note that, due to the simplistic nature of correlational models that depend on empirical relationships between model parameters, they are not suitable to assess the vapor dispersion resulting from LNG releases. Therefore, these models are not discussed further in this document. It is noted that these models may still be used as sub-models in some software packages. Similarly, shallow layer models are identified as being under development and are not yet widely available (Ivings et al. 2016b). These models are also not discussed further.

The most widely used dispersion models for LNG facility siting are integral models. These models are based on approximations of the overall properties of the fluid flow. These are also referred to as ‘box’ models as the gas cloud is often modeled as a rectangular or cylindrical box, the volume and width or radius of which changes with time as it moves down wind (Ivings et al. 2016b). These models offer a suitable trade-off between accuracy and ease of use. Several open-source and commercial software packages have been developed using this modeling approach; examples include ALOHA, SLAB, Phast, CANARY, and DEGADIS.

CFD models offer the most detailed modeling approach for gas dispersion. These models numerically solve the three-dimensional time-dependent fluid-flow equations. Due to the three-dimensional nature of the model, they have the flexibility to address the complex geometry of the real-world terrain in the modeling. However, as is the case with most detailed numerical modeling approaches, the typical

disadvantages are 1) the specialized expertise required for appropriate modeling, meshing, and time-step selection; 2) the intensive computational resources required; and 3) the high sensitivity of the results to model input selection.[14] CFD modeling software, such as FLACS, CFX, and FLUENT, can be used for such modeling.

As noted in Section 3.5.5.1, development and validation of vapor dispersion models is an active area of research (Coldrick 2017, Ivings et al. 2016b). Nonetheless, available information shows that regulator-approved integral models can be considered adequate for preliminary-design QRAs where idealizations of the terrain and other modeling simplifications are consistent with the purpose of the assessment. It is also feasible to appropriately modify these models for detailed-design QRAs. More detailed modeling approaches may be required for an operational-facility QRA, which may use a combination of integral and CFD models, depending on the release event scenarios considered.

3.5.5.4 Overpressure Events

VCEs that occur due to delayed ignition of the flammable concentrations of vapor in a congested area result in overpressure events.[15] The main approaches that can be used to estimate the consequences of overpressure due to VCEs are summarized by Woodward and Pitblado (2010) as:

- Baker-Strehlow-Tang (BST) model;
- TNO multi-energy model; and
- CFD models.

Both BST and TNO models estimate overpressure as a function of the combustion energy of the portion of the vapor cloud that is confined and ignore the energy due to flash fire in the unconfined regions. Congestion volume, and the flammable cloud mass within the congestion volume (both of which are critical model inputs), significantly influence the predicted overpressure distances. These models are suitable for overpressure estimation for all QRA classifications, except for cascading events or domino effects.

For cascading effects, the impulse energy of the VCE event, the possibility of projectiles and the impact of the projectiles on other facility structures are important considerations in quantifying the probability of triggering a secondary release event. For these scenarios, detailed numerical modeling is suggested, which may use simpler models as sub-models to address impulse energy. The challenges associated with the detailed modeling approach are noted earlier in Section 3.5.5.3 for vapor dispersion models.

3.5.6 Risk Estimation

Risk estimation consists of calculating LSIR and SR. LSIR is defined as the annual chance of fatality for a hypothetical individual present at a fixed location 100% of the time. LSIR due to all hazard scenarios is represented by equal probability of fatality (or iso-risk) contours around the source of risk (e.g. each LNG storage vessel, entire LNG facility). SR can be expressed as either a Frequency-Number (F-N) curve, where F is the cumulative frequency for the occurrence of N or more fatalities, or an expected number of fatalities.

Estimation of the risk of fatality at a given location requires estimates of the hazard intensity (e.g. radiant heat flux, product concentration or overpressure) and the probability of fatality associated with a given hazard intensity. This is applicable for all QRA classifications. For fire hazards, the severity of the injury (up to fatal injury or fatality) sustained by any individual depends on exposure to heat intensity and the duration of exposure. Probit functions define the relationship between the heat intensity and exposure

[14] Model input estimation may require additional meteorological modeling to estimate wind speed profiles and atmospheric stability. Model uncertainties inherent to such models need additional consideration.
[15] Vapor cloud explosions are not considered a hazard for unconfined vapor clouds.

time with the probit values, and these probit values are correlated with probability of injury or fatality. While an accurate estimate of the probability of injury or fatality due to thermal radiation requires complex calculations with probit functions, the process is commonly simplified by specifying a few heat intensity thresholds with certain probabilities of causing certain types of injury.

For example, a heat intensity threshold corresponding to 1% probability of fatal injury (i.e. fatality) can be used to define a zone outside which all those present are assumed to be safe. Similarly, a heat intensity threshold corresponding to 99% probability of fatal injury can be used to define a zone inside which all those present are assumed to sustain fatal injury (i.e. fatality). Individuals in-between these two zones can be assumed to have a specified probability (e.g. 50%) of sustaining a fatal injury. Similar combinations of intensity thresholds and probability of non-fatal injury may be developed for different types of injuries (e.g., blistering, degree of burns).

Table 4 shows a comparison of the radiant heat flux resulting in a fatality for a person outdoors[16] without personal protective equipment (PPE) given in the NFPA 59A (2019), RIVM (2009) and Singapore (National Environment Agency 2016a) guidelines. The radiant heat flux of 35 kW/m^2 corresponds to 100% probability of fatality in RIVM (RIVM 2009, Committee for the Prevention of Disasters 1992), and the values 15.3 kW/m^2, and 21.6 kW/m^2, shown for the Singapore guidelines (National Environment Agency 2016a) in Table 4, correspond to 10% and 50% probability of fatality, respectively. The Singapore guidelines (National Environment Agency 2016a) also provide probit relationships for other combinations of radiation thresholds and exposure times. NFPA 59A (2019) does not state the probability of fatality associated with the provided heat radiation threshold.

For comparison, the potential impact radius (PIR in 49 CFR 192.903) corresponding to 1% probability of fatality due to natural gas pipeline failures is estimated at a heat flux of 15.8 kW/m^2 and an exposure time of 30 s (Stephens, Leewis, and Moore 2002). It is noted, however, that the selection of an intensity threshold and the associated probabilities must be considered in relationship to the selected risk criteria, as the impact on public safety is a combination of the estimated risk and its tolerability. Therefore, it is appropriate to select the intensity thresholds recommended by NFPA 59A (2019) if the estimated risk is evaluated against the risk criteria in the same standard. A comparison between NFPA 59A (2019) and the recommendations in these guidelines is provided in Appendix C.2.

Hazard thresholds for the extent of flash fire due to ignition of vapor clouds and for overpressure events are also compared in Table 4. The values of these thresholds are similar in all the standards reviewed irrespective of the associated probability of fatality.

Table 4 Comparison of Hazard Thresholds for Fatality

Hazard Type	NFPA 59A (2019)	RIVM (2009)	Singapore Guidelines (National Environment Agency 2016a)
Radiant heat flux	9 kW/m^2 (30 s exposure)*	35 kW/m^2 (20 s exposure)	15.3 kW/m^2 21.6 kW/m^2 (30 s exposure)
Flash fire extent	LFL**	LFL – 20 s exposure	LFL
Overpressure	3 psi	4.35 psi (0.3 bar)	5, 7, 10 psi***

*as implied in 19.8.4.2.2 of NFPA 59A (2019); **Lower Flammability Limit; ***implied 3%, 10% and 50% fatality

In addition to the fatality thresholds, NFPA 59A (2019) and the Singapore guidelines (National Environment Agency 2016a) provide hazard thresholds for 'irreversible harm' and 'injury', respectively. In the Singapore guidelines (National Environment Agency 2016a), the radiant heat flux for injury is

[16] Indoor thresholds generally depend on the type of building, and whether exterior is combustible or non-combustible.

given as equal to 3% probability of fatality. In RIVM (2009), 'lethal injury' is implied to be the same as 1% probability of fatality. Although fatality and irreversible harm are treated as distinct risks in NFPA 59A (2019), this is generally not the case in other standards and guidelines. Similar to the selection of thresholds for fatality, it is appropriate to select the thresholds for irreversible harm if the associated risk criteria are used, as given in NFPA 59A (2019). However, if NFPA 59A (2019) risk criteria is not selected, then it is recommended that irreversible harm or significant injury not be considered as distinct from the fatality due to the lack of consistency in the definition of irreversible harm, and the lack of established criteria which has implications in the treatment of risk tolerability (see discussion in Section 3.5.7).

For SR estimation, fatalities associated with indoor exposure and outdoor exposure are estimated separately and the total number of fatalities is estimated as a weighted sum of indoor and outdoor numbers of fatalities. Therefore, in addition to the hazard threshold, the estimation of SR requires both the population density and likelihood of population exposure to a hazard. Since the hazard thresholds are different for indoor and outdoor exposure, this requires consideration of the probability that a person will be present in that hazard zone at the time of the event and the percentages of time spent in each zone. Indoor and outdoor presence is influenced by the time of release either day or night. For example, if the facility is in a commercial area, the population density during the day will be higher than during the night. Furthermore, the proportion of population outdoors is higher during the day than at night.

For preliminary-design QRAs, population density may be obtained from the land use and census data surrounding the proposed facility. A simplifying assumption that can be used for preliminary-design QRA is to estimate the average population density of the surrounding area (ignoring the seasonal and daily variations) and conservatively assume outdoor exposure during the hazardous event. An optional refinement is to estimate the proportion of outdoor and indoor presence based on the land use.

For detailed-design and operational-facility QRAs, detailed maps of land usage, along with footprints of the built-up areas, and aerial maps of houses and other facilities, can be used to estimate the population density and their likelihood of being present at the location of interest during day or night and either indoors or outdoors. Detailed approaches for the estimation of SR are available in the international standards (HSE 2009).

3.5.7 Risk Evaluation

LSIR and SR can be compared against the risk criteria to evaluate if the risk is tolerable or if additional risk reduction measures are required. Risk criteria are generally divided into three categories, tolerable, tolerable if as low as reasonably practicable (ALARP), and intolerable.

Instead of providing tolerable limits, in NFPA 59A (2019), risk criteria for LSIR are divided into three zones based on the land usage restrictions. These are denoted Zone 1, where the land is under the control of the facility operator; Zone 2, which is accessible to the general public except for sensitive establishments, which are defined as institutional facilities that are difficult to evacuate quickly (e.g. schools, hospitals); and Zone 3, where there are no restrictions on land use. Table 5 shows a comparison of the LSIR criteria from NFPA 59A (2019), the Dutch RIVM (from Flamberg et al. (2016)), and the Singapore guidelines (National Environment Agency 2016a).

Table 5 Comparison of LSIR Criteria for Fatality (Fatalities/Year)

Zone	NFPA 59A (2019)	RIVM*	Singapore Guidelines (National Environment Agency 2016a)
1 – Minimum Intolerable	5×10^{-5}	1×10^{-5}	5×10^{-5}
2 – Some restrictions	5×10^{-5} to 3×10^{-7}	-	5×10^{-6}
3 – Maximum tolerable	3×10^{-7}	1×10^{-6}	1×10^{-6}

*The Dutch criteria has only intolerable and tolerable risks for existing and new facilities.

SR criteria are a relationship between the expected number of fatalities (N) and the acceptable frequency of exceedance of N (F). In NFPA 59A (2019), the SR criteria is specified as 'tolerable risk', 'ALARP region' and 'intolerable risk' as shown in Figure 6. Both LSIR and SR criteria are provided for fatality and irreversible harm in NFPA 59A (2019).

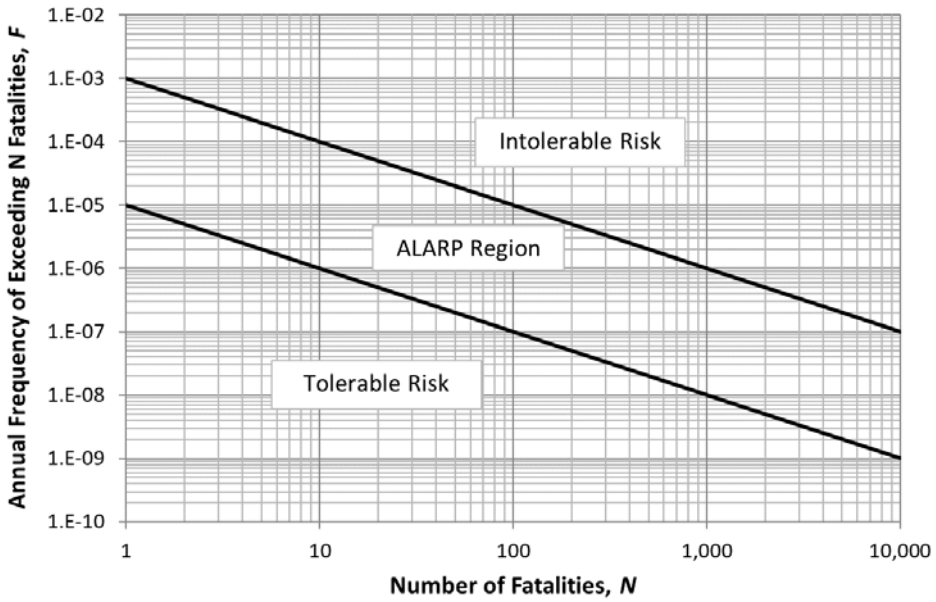

Figure 6 Risk Tolerability for Societal Risk from NFPA 59A (2019)

A PHMSA-sponsored white paper study by Flamberg et al. (2016) has summarized the available risk criteria adopted by different countries and by multiple US government agencies. This study concluded that there is general consistency between different existing individual risk (IR) tolerance criteria. SR criteria were found to vary significantly in different jurisdictions. Commentary provided in NFPA 59A (2019) compares the NFPA SR criteria to those given in other international standards and shows that it is within the range defined by other available SR criteria.

As noted in Section 3.5.6, the risk criteria need to be consistent with the underlying hazard intensity thresholds to achieve the implied level of public safety. Therefore, NFPA 59A (2019) SR criteria are compared against the available criteria from the same standards for which the hazard intensity thresholds were compared (see Table 4). Figure 7 shows a comparison of the NFPA 59A (2019) SR criteria to the criteria from the Netherlands. The Dutch standards refer to risk criteria only for intolerable and tolerable if ALARP (Flamberg et al. 2016, Nessim and Kariyawasam 2020) and do not have a maximum tolerable threshold for SR. Singapore guidelines (National Environment Agency 2016a) do not have explicit SR criteria and specific harm footprints are to be provided to the regulator. An example scenario noted in Singapore guidelines (National Environment Agency 2016a) is shown in Figure 7. It is noted here that while hazard intensity thresholds for heat flux in RIVM (2009) and Singapore guidelines (National

Environment Agency 2016a) were greater than those in NFPA 59A (2019) (see Table 4), the risk criteria for the Netherlands, and the implied risk tolerability in the Singapore guidelines are more conservative than that of NFPA 59A. Therefore, the implied public safety must be considered as combination of the hazard intensity thresholds and the associated risk criteria. This further implies that the risk model cannot be compared in isolation without considering the purpose of the QRA and the risk tolerability criteria.

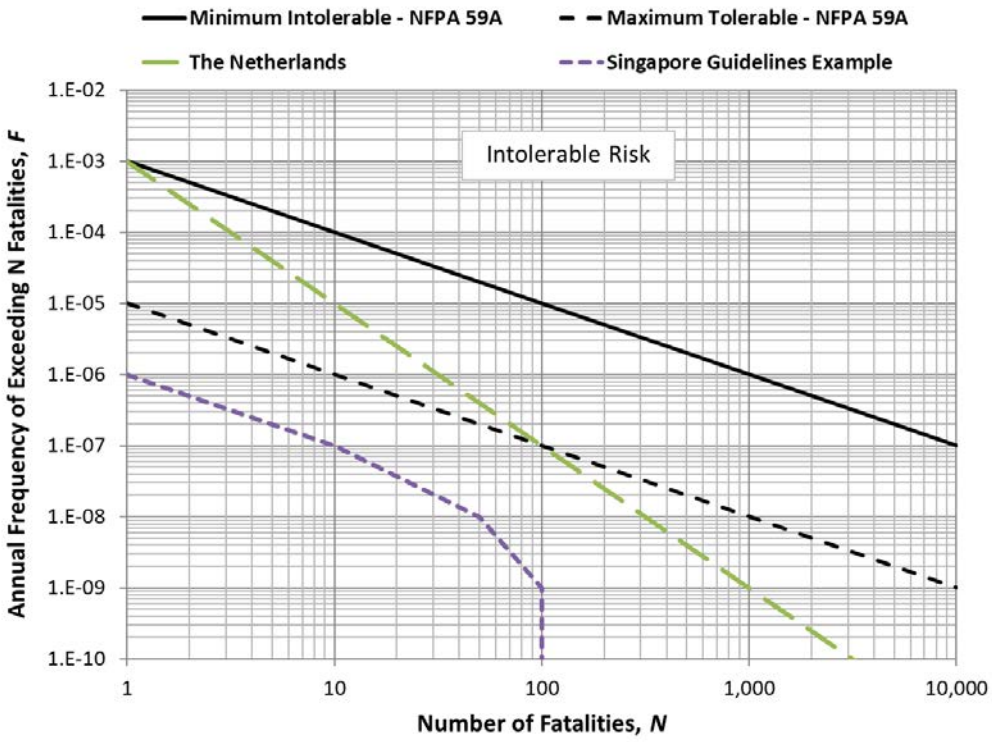

Figure 7 Comparison of Risk Tolerability for Societal Risk

Given the available range of LSIR and SR criteria in the literature (Flamberg et al. 2016), PHMSA has options to select different criteria for fixed facilities, such as LNG facilities, and for linear infrastructure, such as pipelines. It is noted that available risk criteria for the fixed facilities and for pipelines were developed independent of each other (Nessim and Kariyawasam 2020). As mentioned earlier (see Section 3.5.6), the implied level of public safety is a combination of the estimated risk and its tolerability. Due to the differences in the hazard intensity thresholds that are commonly used for pipelines and LNG facilities, the implied public safety associated with different risk criteria needs further research for appropriate comparison. Furthermore, as the hazard areas for the LNG facilities and transmission pipelines may overlap and pose a heightened combined risk to public safety, further research is recommended to understand the implications of combined risk due to pipelines and LNG facilities and to select a risk estimation approach and criteria that is consistent for both pipelines and LNG facilities. It is noted that recommendation of specific risk criteria is beyond the scope of these guidelines.

The ALARP principle is an acknowledgement of the fact it may not be practical to reduce risks to a tolerable level without a grossly disproportionate effort in risk reduction activities. It means that all feasible risk reductions must be performed unless it is demonstrated that these activities have grossly disproportionate costs compared to the benefits achieved. Therefore, demonstration of ALARP requires a quantification of the safety benefit for comparison against the costs of the risk reduction activities, which implies quantification of the monetary equivalents of preventing fatalities or irreversible harm. While monetization of fatalities in terms of the value of a statistical life has been addressed in the literature (HSE 2018), guidance for monetization of irreversible harm is lacking as it is difficult to define what

qualifies as irreversible harm. In addition, the demonstration of ALARP requires a definition of 'gross disproportion', which is reflected in the analysis by factoring of the monetary equivalent of the safety benefits by a value greater than 1.0, before comparison to the costs of the risk reduction. Guidance on the application of ALARP is available from international standards and guidelines (National Environment Agency 2016a, HSE 2018).

In recognition of the challenges associated with defining the monetary equivalents of safety benefit and gross disproportion factors, certain standards have left the ALARP considerations to the discretion of regulatory authorities (NFPA 2019). This is an area requiring further research to identify the challenges in the application of ALARP to LNG facilities in the US.

3.6 QRA Completion

3.6.1 Documentation

Appropriate documentation of the QRA process facilitates a meaningful review of the outcomes of the QRA and the use of the results for decision-making. Documentation should contain sufficient detail to enable an informed third-party to verify the process, data, and outcomes. Elements that should be included in the documentation are listed as follows:

- Purpose of the QRA and intended use of the results;
- Data sources used, including the generic public domain data and facility-specific data. This should include a description of:
  - the process for inferring model inputs from various data sources; and
  - comments on data quality from each source;
- Modeling approach used for addressing uncertainties and data gaps, and the associated assumptions and limitations;
- System description;
- Process of hazard identification;
- Explicit listing of release event scenarios and the approach used to address cascading events;
- Modeling approach for frequency analysis, and the associated assumptions and limitations;
- Modeling approach for consequence estimation, hazard thresholds used, assumptions and limitations of the modeling approach;
- Risk measures used, modeling approach for estimation of the probability of fatality or irreversible harm, and assumptions and limitations of the approach taken; and
- Results of sensitivity analyses, if performed, and the important parameters identified.

3.6.2 Use of QRA Results

The QRA process has two possible outcomes: the risk is tolerable and no further assessment is required to facilitate decision-making; or the risk is intolerable. Intolerable risk may warrant a refinement of the QRA either for the reduction of conservatism in the estimated risk or to demonstrate ALARP.

Although there are no requirements in available standards to conduct a sensitivity analysis of QRA results (NFPA 2019), it is well-known that there are uncertainties in QRA. While some of these uncertainties are explicitly acknowledged in the modeling (see Section 4.4), others may stem from the uncertainties in the models—both in consequence modeling and hazard intensity thresholds for risk modeling—used for risk estimation. A more detailed treatment of uncertainties in QRA is addressed in the CPR 18E 'Purple Book' (RIVM 2005).

Given this context, it is recommended that sensitivity analyses of the estimated risk to the key uncertain assumptions be carried out and presented. Such sensitivity analyses provide the range of possible QRA outcomes that reflect the range of possible results due to approximations used in the QRA process. Sensitivity analysis is recommended for detailed-design and operational-facility QRAs as the increasing level of detail would introduce additional uncertainties but it is optional for the preliminary-design QRAs, which are expected to be revised at later stages of design. More formal methods for the treatment of uncertainty in the estimated risk are available from NRC publications (Drouin et al. 2009).

4 QRAs of Benchmark LNG Facilities

4.1 Purpose of QRA

This section describes the benchmark QRA studies performed in this project. As the purpose of this study is to demonstrate the application of the QRA methodology, the demonstration is limited to the preliminary design of hypothetical facilities selected to illustrate the methodology. Development of front-end engineering design details and P&IDs for hypothetical facilities without reference sites was beyond the scope of the study.

As the scope of the study included export and peak shaver facilities, preliminary designs with PFDs were developed, and a risk analysis was conducted, separately for each facility.

4.2 Uncertainty Modeling

4.2.1 Uncertain Parameters

Input parameters for release events, frequency analysis, and consequence analysis are potential sources of uncertainty in a QRA analysis. The relevant parameters that are uncertain either due to the selected level of detail in the facility design or due to the inherent randomness are as follows:

- Release event parameters:
  - *Release elevation, direction, and duration.* In the event of failure of a piece of equipment, the precise location of the failure (i.e. elevation and direction) will be dependent on the geometry of the component. As the isometric design is not available at the preliminary design stage, these parameters are uncertain. The outflow duration will depend on the performance of the ESDV. As the equipment models and locations of ESDVs are unknown during preliminary design, these are treated as uncertain.
  - *Parts count, isolatable inventory volumes, locations, piping lengths.* The availability of these details is limited as the scope of design is limited to PFDs.
  - *Failure mode.* Releases are classified as ruptures or as leaks of various sizes (e.g. small or large). The true equipment and piping failure modes are unknown at the preliminary design stage as the equipment orientation, connections and performance state are unknown.
  - *Release stream pressure and temperatures.* These parameters are unknown at the preliminary design stage as they depend on the equipment operational status.
- Frequency parameters:
  - *Release event frequencies*. Estimation of release event frequencies requires consideration of failure modes (i.e. leaks or ruptures) and appropriate historical incident data corresponding the equipment type and operational conditions.
  - *Weather conditions.* Parameters include wind speed, direction, temperatures, and stability class, and require location-specific weather data to represent the randomness.
  - *Ignition probabilities*. Ignition can be either immediate, delayed, or may not occur and estimation of the probability requires the information regarding the release rates and density of the ignition sources.
- Consequence parameters:
  - *Release conditions*. Stream properties such as pressure and temperature during the release and weather parameters
  - *Terrain conditions.* Terrain surrounding the facility to model the pool fires and vapor dispersion

4.2.2 Uncertainty Representation

4.2.2.1 Incomplete System Description

Uncertainties due to an incomplete system description, where information is unavailable due to the preliminary nature of the design, were treated by assuming typical or characteristic values. For the benchmark study, the following inputs were assumed:

- *Equipment type.* Part counts were based on PFDs and were assumed to be representative of all components in the facility. Equipment type categories include piping, valves, flanges and gaskets, process vessels (e.g. filters, absorbers, knockout drums), compressors, heat exchangers, instrumentation (e.g. controllers, indicators, flow meters), valves, storage tanks, and loading arms or hoses for ships or trucks.
- *Isolatable inventory volumes.* Each facility consists of sections of isolatable inventories, meaning that, in the event of a failure, the section is assumed to be isolated from other areas of the facility. These volumes were assumed based on the size of a typical LNG storage tank.
- *Equipment location.* The design information included in the PFDs does not specify exact locations of each component; therefore, the locations of pipe and equipment within the facility site boundary were assumed based on a typical LNG facility layout.
- *Possible range of release elevations and directions.* Release directions were assumed to be in the horizontal plane. The elevations and release directions for a specific piece of equipment were addressed in the definition of the release event scenarios (see Section 4.5).
- *Possible range of release durations.* The range of values was based on the ESDV performance state (see Table 6).

4.2.2.2 Lack of Data

Inputs arising from lack of data (i.e. where additional data would provide better model input estimates) were addressed using sensitivity analyses. By assigning a range of possible values to these parameters, the results are expected to bound the actual level of risk. The assigned range was informed by SME opinion or available data from comparable conditions. The initial analysis included a “baseline” case representing the most likely value of the parameter, as well as sensitivity cases representing the lower and upper bounds (see Section 4.9). Key parameters selected for sensitivity cases are equipment failure rates, probability of ignition, release conditions, and hazard intensity thresholds.

4.2.2.3 Inherent Randomness

Inputs with values that cannot be known due to their inherently random nature were treated using discrete probability values and include the following:

- *Direction of release from a piece of equipment*. Equipment releases can occur in any direction in the horizontal plane[17]. The release direction was modeled as equally likely in any direction (as shown in Figure 8).
- *Elevation of release location for a piece of equipment.* For all equipment other than storage tanks, the release elevation was modeled at 1 m from the ground. For storage tanks, release height was modeled as being equally likely at 1 m or at two-thirds of the tank height.

[17] As the isometric design of equipment and layout is unavailable at the preliminary design stage, all releases are assumed to be in a horizontal plane irrespective of the true orientation of the equipment in the final design

- *Release duration*. Release duration is dictated by detection and the ESDV performance. To model these uncertainties, a discrete distribution comprising both successful and unsuccessful ESDV operation was used. (see Table 6).
- *Wind speed, wind direction, atmospheric stability class, ambient temperature and humidity*. Random variability in weather conditions is modeled as a discrete parameter representing combinations of specified values rather than as a vector of continuous random variables. Multiple representative combinations of temperature, humidity, wind speed, and irradiance were defined and a discrete probability value was assigned to each combination (see Section 4.6.3 for further discussion).

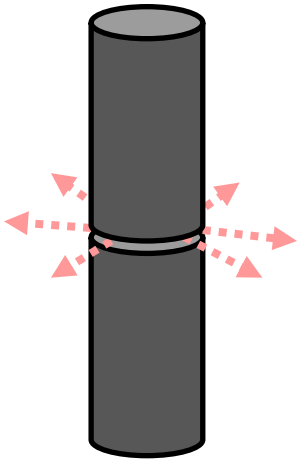

Figure 8 Release Direction in the Horizontal Plane

Table 6 Estimated Time to Isolation Based on ESDV Performance and ESDV Performance Probabilities

Outcome of ESDV Response to Failure Event	Failure Event Description	Estimated Time to Isolation (min)	ESDV Performance Probability
Successful Operation	Rupture of any component	2	90%
	Leak* in process vessel	5	
	Leak* in piping	10	
Valve Failure	Any failure	60	10%

*Leak denotes failures up to 50 mm in effective hole diameter.

4.3 Facilities and Systems Descriptions

Facility design and system description for the two benchmark facilities (export and peak shaver) was performed by BLUE and is included in Appendix D.1.

4.4 Hazard Identification

Hazard identification for the two benchmark facilities was performed by BLUE and is included in Appendix D.2. The hazards identified were jet fires, flash fires, and toxic vapor dispersion. Pool fires were not considered as the facility terrain and path of liquid LNG release was unknown, and vapor cloud explosion was not considered for the initial QRA (termed “baseline” case) but it was included as a part of the sensitivity analysis.

4.5 Release Event Scenarios

As the benchmark study is limited to preliminary-design QRA, the release event scenarios correspond to the equipment identified in PFDs. As recommended in the QRA guidelines (Section 3.5.3) failure modes of equipment were defined using the approach described in NFPA 59A (2019). For equipment types that are not specified in NFPA 59A (2019), the documents used as a basis for defining failure modes of equipment were as follows:

- Compressors and Expanders: HSE (2017)
- Instrumentation and Flow meters: IOGP (2010)

Table 7 shows a summary of the modelling approaches used for the main parameters used to define the release event scenarios. The values used in the risk analysis are provided in detail in Appendix D.3.

Table 7 Modeling of Release Event Parameters

Parameter	Modeling Approach
Failure mode	Frequency of leaks, ruptures and catastrophic failures obtained from NFPA 59A (2019)
Release elevation for LNG storage tank	Equally likely release at 1 m, and two-thirds of tank height for LNG storage tank
Release direction within a piece of equipment	Equally likely in all directions in the horizontal plane
Release duration as affected by release detection	Failure frequency of ESDVs is assumed to be 10% (see Table 6); release duration is 60 min if ESDV fails to perform as intended.
Wind speed and direction	Three representative wind speeds, with the probability of a given wind speed in a given direction evaluated from weather data
Temperature	Two representative temperatures, with probabilities evaluated from weather data
Stability class	Three representative stability classes for day and night time, with probabilities evaluated from weather data
Ignition	Immediate and delayed ignition probabilities estimated from literature

4.6 Frequency Analysis

4.6.1 Overview

As noted in the QRA guidelines, frequency analysis involves probability estimation of three components: failure event, weather conditions, and probability of ignition. The approach used to combine these frequencies to calculate the probability of each event release scenario is described in Appendix C.1. The following sections describe the approach used in the current benchmark study for the probability estimation of each component.

4.6.2 Failure Event Frequencies

NFPA 59A (2019) was selected as the primary source of equipment failure frequencies. Values from the HSE FRED database (HSE 2017) and OGP 434 (IOGP 2010) were used where equipment failure frequencies in NFPA 59A (2019) were unavailable, as shown Table 8. As noted in the QRA guidelines, external triggering events are not explicitly modeled in the preliminary-design QRA.

Table 8 Summary of Sources for Equipment Failure Rates

Category not in NFPA 59A (2019)	Assumptions for Failure Frequencies
Pipes larger than 1000 mm diameter	Any piping with a diameter larger than 1000 mm are treated the same as 500 to 1000 mm piping in NFPA 59A (A conservative assumption as the larger pipes more likely to have lower failure frequencies)
Compressors and expanders	Values from HSE FRED for compressors (reciprocating or centrifugal) were used
Instruments and flow meters	Values from OGP 434 for instrument connection failures were used

4.6.3 Weather Parameters

Weather information was obtained from the National Oceanic and Atmospheric Administration (NOAA) Local Climatological Data. Probability values for the representative wind speeds, temperatures and stability classes were based on the assumption that the export facility is located near the Gulf Coast, and the peak shaver facility is located in the north-eastern United States. The selected data sources were Lake Charles Regional Airport, LA, for the export facility and Boston, MA, for the peak shaver facility. The number of representative temperatures, wind speeds, and stability classes were selected to include extreme values of the distribution, while keeping the total number of combinations to a reasonable value. The selected relative humidity is the median of the distribution of daily values for 2009 to 2019. The representative temperatures are the median values from two separate distributions of hourly temperatures one for winter months (October to March) and the other for summer months (April to September).

Hourly wind speed data was collected from each location, and used to calculate the probability distribution of wind speeds for each combination of representative temperature and stability class (i.e. four wind speed distributions for a combination of summer and winter temperatures, and the selected stability classes). Three representative wind speed values corresponding to 5th, 50th, and 85th percentile values of the distribution were selected (shown in Table 9)[18], which results in twelve discrete weather combinations for which probabilities are defined (as shown in Table 10 and Table 11 for export and peak shaver facilities, respectively). The probability of occurrence of each wind speed in eight directions was also estimated for both facilities. Figure 9 and Figure 10 show the wind rose charts for the export and peak shaver facilities, respectively.

Table 9 Summary of Parameters Used for Weather Combinations

Facility	Relative Humidity	Temperature (°C)	Wind Speed (kmph)	Stability Class
Export	0.79	14.5, 26.0	4.0, 12.1, 21.6	B, D, F
Peak Shaver	0.70	3.0, 19.5	8.0, 15.0, 26.6	B, D, F

[18] The percentile values selected are for illustrative purposes in the benchmark study. A wider range of percentiles, e.g. 1st percentile and 99th percentile, can be selected if the wind speed probability distribution has a low variance, or if the consequence estimation exhibits greater sensitivity to the wind speed variation in the upper and lower tails of the probability distribution.

Table 10 Export Facility Weather Combination Cases and Probabilities

Case	Wind Speed (kmph)	Stability Class	Temperature (°C)	Estimated Probability
1	4.0	F	14.5	14.4%
2	12.1	D- Day	26.0	13.1%
3	21.6	D- Day	26.0	12.5%
4	4.0	F	26.0	11.7%
5	21.6	D- Day	14.5	10.9%
6	12.1	D- Day	14.5	8.8%
7	12.1	D- Night	14.5	7.2%
8	4.0	B	26.0	6.6%
9	12.1	D- Night	26.0	5.1%
10	4.0	B	14.5	5.0%
11	21.6	D- Night	14.5	3.2%
12	21.6	D- Night	26.0	1.4%

Table 11 Peak Shaver Facility Weather Combination Cases and Probabilities

Case	Wind Speed (kmph)	Stability Class	Temperature (°C)	Estimated Probability
1	26.6	D- Day	3.0	13.6%
2	26.6	D- Day	19.5	11.9%
3	15.0	D- Day	19.5	11.4%
4	15.0	D- Day	3.0	8.8%
5	8.0	B	19.5	8.6%
6	15.0	D- Night	3.0	7.7%
7	26.6	D- Night	3.0	7.7%
8	8.0	B	3.0	7.6%
9	15.0	D- Night	19.5	6.6%
10	8.0	F	19.5	6.5%
11	8.0	F	3.0	5.9%
12	26.6	D- Night	19.5	3.5%

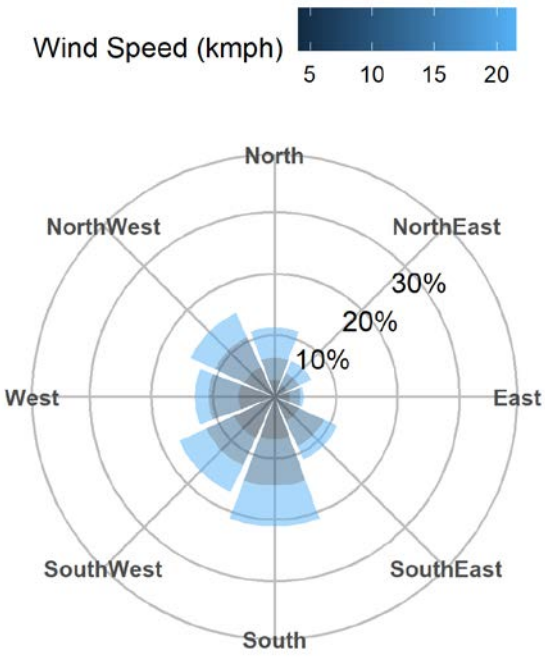

Figure 9 Wind Rose for Export Facility

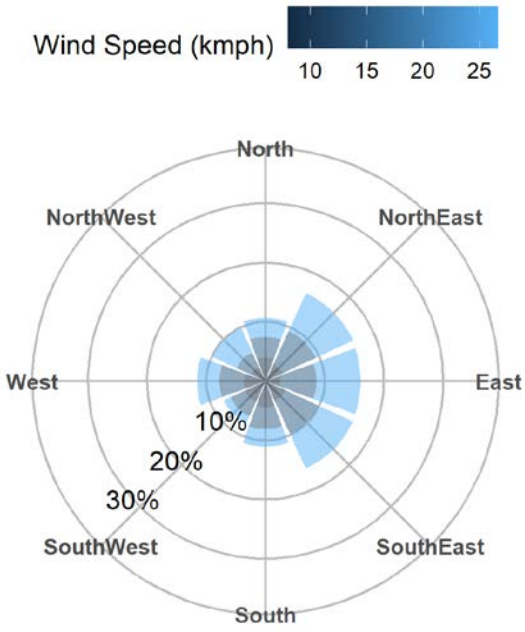

Figure 10 Wind Rose for Peak Shaver Facility

4.6.4 Probability of Ignition

Given the limited level of facility design detail that is available for the benchmark LNG facilities at the preliminary-design stage, POI estimation was simplified by considering two cases: 1) gas releases including natural gas and mixed refrigerant, and 2) liquid releases including LNG and natural gas liquids.

For gas releases, mixed refrigerant was assumed to have the same ignition probability as natural gas. Delayed ignition for natural gas was neglected based on the assumption that a natural gas cloud does not pose a threat at ground level because it is more buoyant than air (IGEM 2013, BSI n.d.).[19] For immediate ignition, the Acton and Baldwin (2008) model, which allows for calculation of ignition probabilities as a function of line diameter and pressure, was utilized (see Table 12). This model was selected as it considers the effect of initial release rate—which is primarily a function of line diameter and pressure—at a more granular level on the estimated probability of immediate ignition when compared to other models available in the literature, which provide a single probability of immediate ignition for a range of release rates.

Table 12 Probability of Ignition Values and Models Selected for Gas Releases

Ignition Type	Probability of Ignition	Modeling Method
Immediate Ignition	$POI = \begin{cases} 0.0555 + 0.0137pd^2 & if\ 0 < pd^2 < 57 \\ 0.81 & if\ pd^2 > 57 \end{cases}$	Acton and Baldwin, (2008)
Delayed Ignition	$POI = 0$	Assumed negligible

For a liquid release, immediate ignition probabilities were taken from RIVM (2009), which defines the POI as a function of flow rate, fluid category and reactivity, and release type (instantaneous or continuous). For delayed ignition, probabilities from the Flemish Government's Handbook Failure Frequencies (2009) were used (see Table 13).

Table 13 Probability of Ignition Values and Models Selected for Liquid Releases

Release Rate (continuous) kg/s	Release Rate (instantaneous) kg/s	POI Immediate (RIVM 2009)	POI Delayed (Flemish Government 2009)
< 10	< 1000	0.02	0.02
10 to 100	1000 to 10,000	0.04	0.04
> 100	> 10,000	0.09	0.1

The probability of occurrence of a jet fire event is conditioned on the occurrence of immediate ignition; the probability of occurrence of a flash fire event is conditioned on the combined probability of the non-occurrence of the immediate ignition and occurrence of delayed ignition; the probability for a toxic vapor dispersion event is conditioned on the probability of non-occurrence of both immediate and delayed ignition. A full list of failure frequencies associated with the release event, weather conditions, and ignition are provided in Appendix D.3 for each facility.

4.7 Consequence Analysis

Consequence analysis was performed by BLUE using the Phast software and a summary of the modeling, analysis, assumptions and results is presented in Appendix D.4. A summary of the consequence analysis

[19] As up to 80% of the composition of mixed refrigerant has lighter than air components, the probability of delayed ignition of mixed refrigerant is assumed to be similar to natural gas.

results that correspond to hazard intensity thresholds that were used for the risk analysis are presented in Appendix D.5.

4.8 Risk Estimation

4.8.1 Location-specific Individual Risk

LSIR contours were determined using individual risk values estimated at specific grid locations in the hazard zones. As noted in the QRA guidelines, estimation of the risk of fatality at a given location requires the hazard intensity (e.g. radiant heat flux, product concentration or overpressure) and the probability of fatality associated with a given hazard intensity. Instead of a complex probit analysis to determine the relationship between the probability of fatality and hazard intensity, hazard intensity thresholds were used to represent 100% probability of fatality, as implied in NFPA 59A (2019). The selected hazard thresholds are shown in Table 14. The detailed calculation approach, along with sample risk calculations, are provided in Appendix D.6.

Table 14 Fatality Thresholds for Each Identified Hazard

Hazard	Hazard Threshold	Comments	Source
Jet Fire	9 kW/m^2	Outdoor without PPE	NFPA 59A (2019)
Flash Fire	LFL	Lower flammability limit	NFPA 59A (2019)
Toxicity	AEGL-3	--	NFPA 59A (2019)

Figure 11 and Figure 12 show the LSIR for export and peak shaver facilities, respectively. The color scale on the contours shows the variation in LSIR around the facilities. Contours corresponding to the risk tolerance criteria for fatality in NFPA 59A (2019) are also shown with the thresholds at 5×10^{-5} and 3×10^{-7}. As the risk threshold for 3×10^{-7} in the export facility extends to 1500 m from the facility boundary, this LSIR contour is not shown in Figure 11. Implications of these results are discussed in Section 4.2.

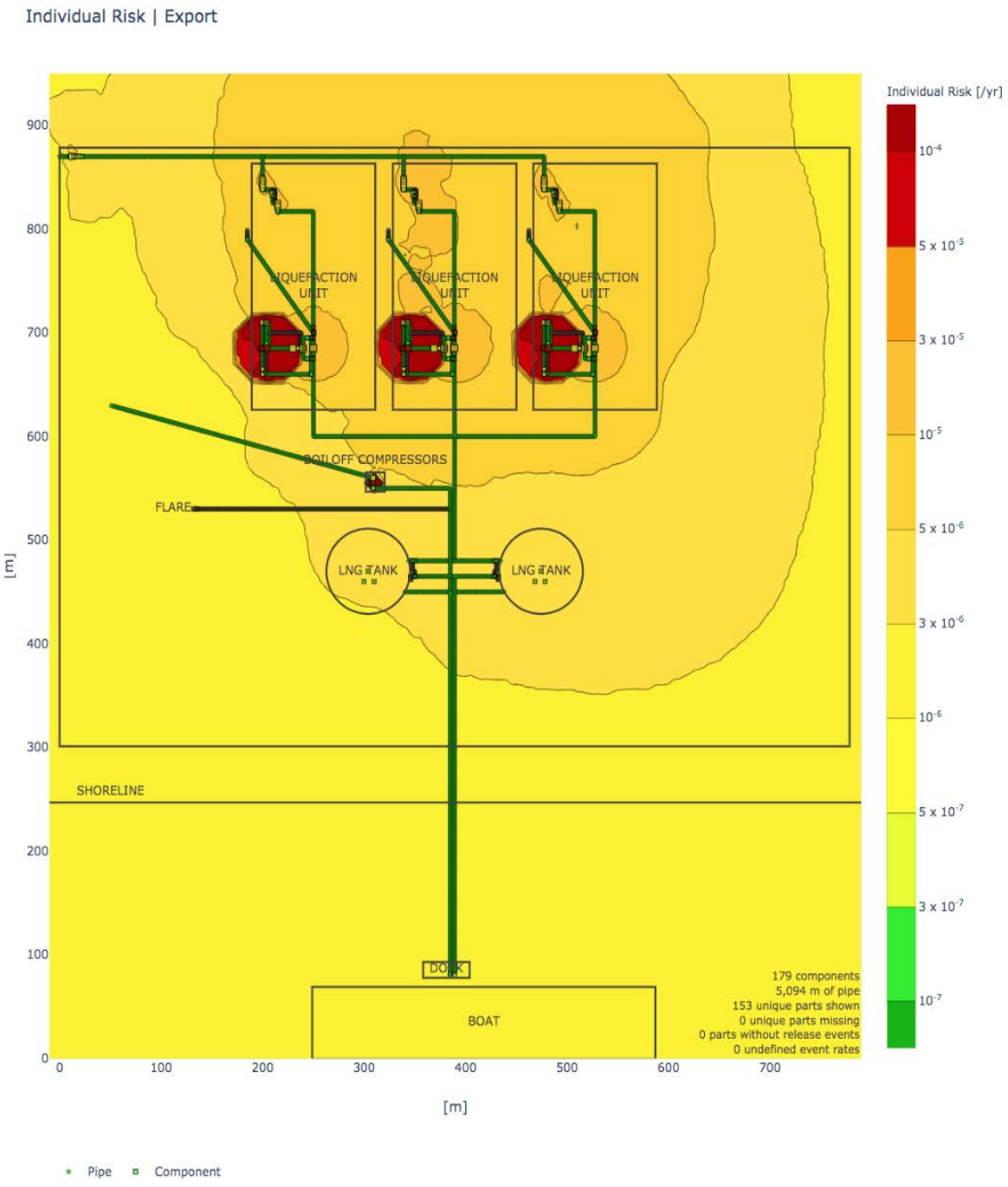

Figure 11 LSIR Contours for Benchmark Export Facility

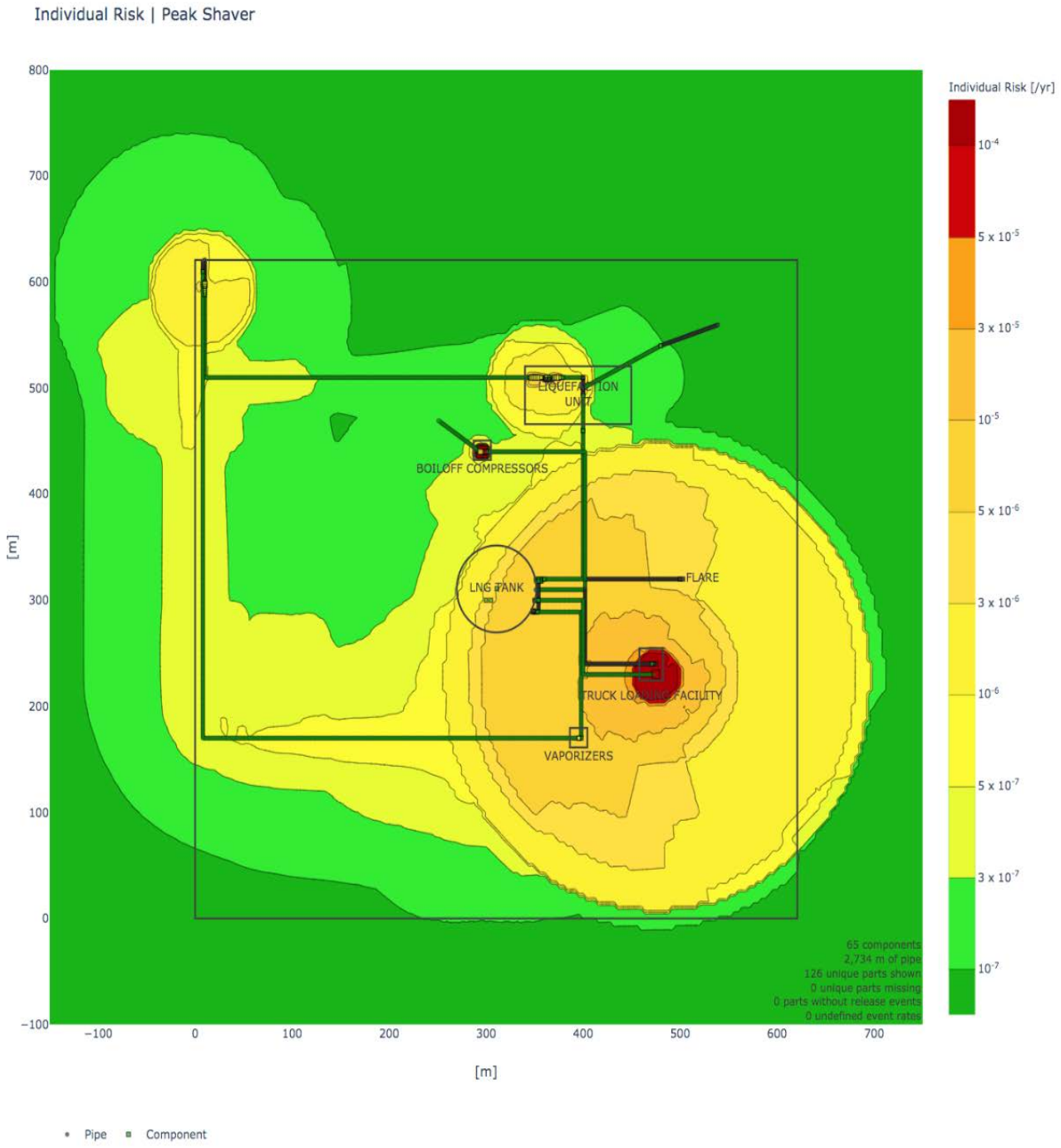

Figure 12 LSIR Contours for Benchmark Peak Shaver Facility

4.8.2 Societal Risk

To estimate SR, average population densities of 25 and 3000 individuals per square kilometer were estimated for the export and peak shaver facilities, respectively, based on county-wide census data near the existing LNG facilities located near the Gulf Coast, and in the north-eastern United States. The average population density around the export facility is representative of commercial and industrial land use, while the density around the peak shaver facility is representative of residential land use. The average population density was assumed to apply everywhere, except within the facility boundary, and on any water bodies within the hazard zone. Within the facility boundary and open water, the population density

was set to zero. These assumed population densities can be considered as a representative population after accounting for receptor presence (i.e. spatial density based on the presence of permanent structures and land usage) and their likelihood of exposure to hazards (i.e. temporal aspect based on the receptor presence indoors or outdoors at the time of the release event). SR results are summarized in Figure 13, which shows that the SR for both facilities is within the tolerable if ALARP zone. Further risk reduction can be addressed through a detailed-design QRA and explicit consideration of the risk mitigation options, both of which are outside the scope of current study.

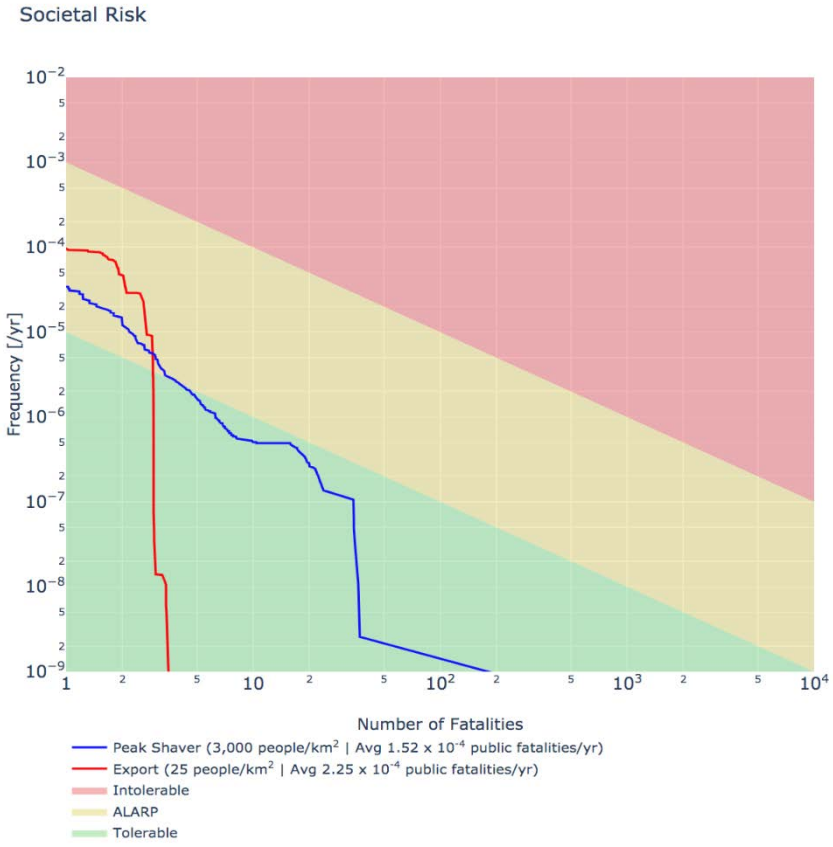

Figure 13 Estimated Societal Risk for Export and Peak Shaver Facilities

4.9 Sensitivity Analysis

4.9.1 General

Sensitivity analyses were conducted to quantify the effects of the uncertain representation used in the QRA for benchmark facilities. As discussed in Section 4.2.2, sensitivity of the risk results was estimated with respect to the following variations:

- *Frequency estimation*. Release event scenarios, equipment failure rates, and probability of ignition
- *Consequence estimation.* Release stream definition, and inclusion of VCE hazards
- *Risk estimation.* Hazard thresholds and population density

A total of 17 sensitivity cases were chosen (eight to represent variation in inputs for frequency analysis, four to represent variation in inputs for consequence modeling, and five for risk estimation) and the results for each case were then compared against the "baseline" case to determine the effect of the change. These cases are listed in Table 15 and are explained in detail in the following sections.

Table 15 Summary of Sensitivity Cases

Estimation Type	Category	Sensitivity Cases	
Frequency Analysis	Release event scenarios	1	Releases due to instrumentation failures are not considered
		2	Release event scenario due to catastrophic LNG storage tank failure is replaced with release through 1 m diameter hole from LNG storage tank
	Equipment failure rates	3	Equipment failure rates used from RIVM (2009)
		4	Equipment failure rates used from HSE (2017)
	Probability of ignition	5	Occurrence of jet fire after flash fire
		6	Delayed gas ignition (residential)
		7	Delayed gas ignition (industrial)
		8	Delayed gas ignition (residential) and occurrence of jet fire after flash fire
Consequence Analysis	Consequence inputs	9	10% increase in pressure of release stream
		10	VCE included with 5% volume of area of congestion
		11	VCE included with 10% volume of the area of congestion
		12	Single value considered for ambient temperature, reducing the total number of weather combinations to six
Risk Estimation	Hazard thresholds	13	Heat flux threshold increased to 15.8 kW/m^2
		14	Heat flux threshold increased to 25.0 kW/m^2
		15	Include asphyxiation hazard
	Societal Risk	16	Population density around peak shaver facility corresponding to industrial land use as 3.0 people per hectare
		17	Population density around peak shaver facility corresponding to industrial and commercial land use as 5.0 people per hectare

4.9.2 Variation of Frequency Analysis Inputs

Three categories of sensitivity analysis were performed for frequency estimation parameters:

- Release event scenarios:
    1. Instrumentation and attachments, such as flowmeters or indicator equipment, were removed from the release event scenarios and only major equipment failures were included.
    2. Catastrophic failure of LNG storage tank was assigned a failure rate of 1×10^{-8} in NFPA 59A (2019). In consideration of the fact that instantaneous release of the entire LNG storage tank content may not be feasible, an alternative scenario assuming release from a 1 m diameter hole from the LNG storage tank with the failure rate of 1×10^{-6} was included (HSE 2017).
- Equipment failure rates:
    3. Equipment failure rates from RIVM (2009) were used instead of the failure rates suggested in NFPA 59A (2019) to compare the effects of failure rate variations on the estimated risk.

4. Equipment failure rates from HSE (2017) were used instead of the failure rates suggested in NFPA 59A (2019) to compare the effects of failure rate differences on the estimated risk.

- Probability of Ignition:

5. In the baseline analysis, jet fires and flash fires are assumed to be mutually exclusive events (i.e., either a jet fire or a flash fire may occur but not both). The effect of this assumption is evaluated by considering a scenario in which a flash fire reduces to a jet fire after the ignition of a dispersed vapor cloud. In this case, the occurrence probability of the jet fire is a combined probability of immediate or delayed ignition.
6. In the baseline analysis, the delayed ignition of gas releases was not considered due to the buoyancy of natural gas compared to air and the assumption that the gas cloud does not remain at ground level. In the sensitivity analysis, the gas cloud is assumed to remain at ground level and the delayed ignition is modeled based on the density of ignition sources outside the facility boundary. The probability of delayed ignition was estimated as 0.25% and 30% for the export and peak shaver facilities, respectively (CCPS 2014). For the estimation of the ignition source density surrounding the peak shaver facility, residential land use was considered.
7. The probability of delayed ignition was estimated to be 15% and 25% for the export and peak shaver facilities, respectively (CCPS 2014), assuming that the density of ignition sources was representative of industrial land use.
8. In this case, the delayed ignition of gas releases was included in the estimated occurrence probability of jet fires.

4.9.3 Variation of Consequence Analysis Inputs

The sensitivity of the risk to the following consequence model inputs was analyzed:

9. Hypothetical increase in release stream pressure by 10% to quantify the effect of release event parameters on the consequences and risk.
10. Modeling of vapor cloud explosion event with the assumption that the flammable concentration of vapor in a congested area is 5% of the volume of the liquefaction train. All releases that result in a release volume of 5% of a liquefaction train were considered, and a VCE is modeled to have50% probability of occurrence if delayed ignition occurs (i.e. if delayed ignition occurs, 50% probability of vapor release being in a congested area to result in a VCE and 50% probability to result in a flash fire).
11. Modeling of vapor cloud explosion event with the assumption that the flammable concentrations of vapor in a congested area is 10% of the volume of the liquefaction train. All releases that result in a release volume of 10% of a liquefaction train were considered, and a VCE is modeled to have 50% probability of occurrence if delayed ignition occurs.
12. Weather combinations considered in the consequence modeling were reduced to six by using a single representative ambient temperature instead of the two temperature values considered in the baseline case. The probabilities of the different weather combinations were updated such that each combination of wind speed and stability class has an occurrence probability equal to the sum of the corresponding occurrence probabilities at the two representative temperatures.

4.9.4 Variation of Risk Estimation Inputs

The sensitivity of the risk to the following risk estimation inputs was analyzed:

13. Hazard threshold for thermal radiation due to jet fires was increased to 15.8 kW/m^2, which is equivalent to the threshold used for the development of the potential impact radius (PIR in 49 CFR 192.903) due to pipeline failures (see Section 3.5.6).
14. Hazard threshold for thermal radiation due to jet fires was increased to 25 kW/m^2 which is equivalent to the threshold used for the fatality of persons inside a building with a combustible exterior (NFPA 2019).
15. Fatality due to asphyxiation was included and the hazard threshold of 40% of the concentration of the release material in the air is used to estimate the fatality (NFPA 2019).
16. Population density surrounding the peak shaver facility was reduced from 30 people per hectare to 3.0 people per hectare to reflect industrial land use surrounding the facility.
17. Population density surrounding the peak shaver facility was reduced to 5.0 people per hectare to reflect industrial and commercial land use surrounding the facility.

4.9.5 Sensitivity Analysis Results

4.9.5.1 Export Facility

Results of the sensitivity analyses are available in Appendix D.7. A summary of the comparison made between the baseline case and each of the sensitivity cases is presented in Table 16, where the LSIR of the baseline case and the sensitivity cases is compared using the "hazard footprint distance". The hazard footprint distance is the maximum distance from the facility boundary to the IR contour of 3×10^{-7}. This is the minimum threshold for tolerable risk provided in NFPA 59A (2019). Figure 14 shows the variation of the hazard footprint distance for each sensitivity case compared to the baseline value. SR is compared based on the annual expected number of fatalities.

Table 16 Sensitivity Analysis Results Comparison for Export Facility

Case	Sensitivity Scenario	Hazard Footprint Distance (m)	Expected Number of Public Fatalities (per year)
0	Baseline	1500	2.24×10^{-4}
1	Releases due instrumentation failures are not considered	1500	9.69×10^{-5}
2	Release event scenario due to catastrophic LNG storage tank failure is replaced with release through 1m diameter hole from LNG storage tank	1500	2.24×10^{-4}
3	Equipment failure rates used from RIVM (2009)	1600	7.55×10^{-4}
4	Equipment failure rates used from HSE (2017)	1500	2.32×10^{-4}
5	Occurrence of jet fire after flash fire	1500	2.24×10^{-4}
6	Delayed gas ignition (residential)	1500	2.24×10^{-4}
7	Delayed gas ignition (industrial)	1500	2.29×10^{-4}
8	Delayed gas ignition (residential) and occurrence of jet fire after flash fire	1500	2.25×10^{-4}
9	10% increase in pressure of release stream	1600	2.33×10^{-4}
10	VCE included with 5% volume of congested area	1500	2.24×10^{-4}

11	VCE included with 10% volume of congested area	1500	2.24×10^{-4}
12	Single value considered for ambient temperature, reducing the total number of weather combinations to six	1500	2.50×10^{-4}
13	Heat flux threshold increased to 15.8 kW/m^2	1400	1.76×10^{-4}
14	Heat flux threshold increased to 25.0 kW/m^2	1200	1.44×10^{-4}
15	Includes asphyxiation hazard	1500	2.24×10^{-4}

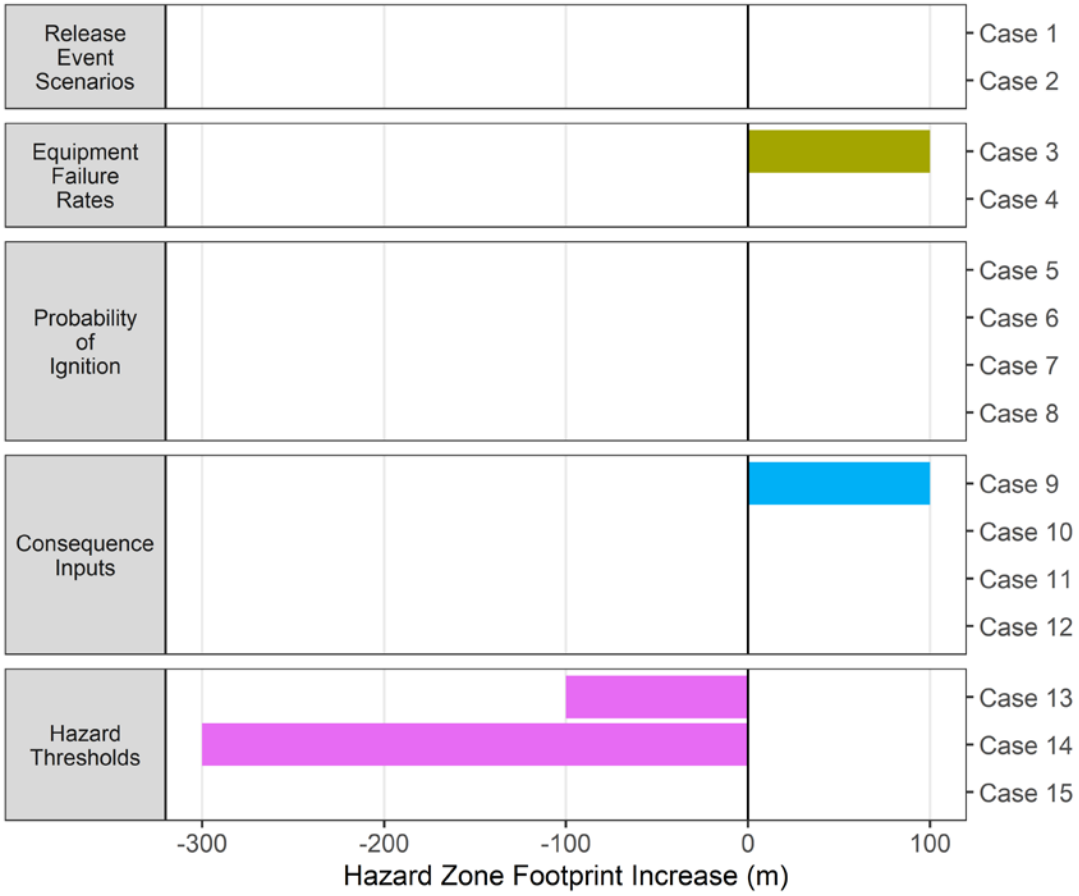

Figure 14 Export Facility - Hazard Footprint Distance Comparison

4.9.5.2 Peak Shaver Facility

Results of the sensitivity analyses are available in Appendix D.7. A summary of the comparison made between the baseline case and each of the sensitivity cases is presented in Table 17, where the LSIR of the baseline case and the sensitivity cases is compared using the hazard footprint distance, similar to the export facility. Figure 15 shows the variation of the hazard footprint distance for each sensitivity case compared to the baseline value (except for Cases 16 and 17, which do not affect the hazard footprint distance). SR is compared based on the annual expected number of fatalities.

Table 17 Sensitivity Analysis Results Comparison for Peak Shaver Facility

Case	Sensitivity Scenario	Hazard Footprint Distance (m)	Expected Number of Public Fatalities (per year)
0	Baseline	100	1.51×10^{-4}
1	Releases due instrumentation failures not considered	75	1.28×10^{-4}
2	Release event scenario due to catastrophic LNG storage tank failure is replaced with release through 1m diameter hole from LNG storage tank	100	1.49×10^{-4}
3	Equipment failure rates used from RIVM (2009)	100	1.27×10^{-4}
4	Equipment failure rates used from HSE (2017)	100	1.70×10^{-4}
5	Occurrence of jet fire after flash fire	100	1.51×10^{-4}
6	Delayed gas ignition (residential)	124	2.13×10^{-4}
7	Delayed gas ignition (industrial)	120	2.03×10^{-4}
8	Delayed gas ignition (residential) and occurrence of jet fire after flash fire	140	3.15×10^{-4}
9	10% increase in pressure of release stream	104	1.66×10^{-4}
10	VCE included with 5% volume of congested area	100	1.49×10^{-4}
11	VCE included with 10% volume of congested area	100	1.49×10^{-4}
12	Single value considered for ambient temperature, reducing the total number of weather combinations to six	60	1.48×10^{-4}
13	Heat flux threshold increased to 15.8 kW/m^2	75	1.26×10^{-4}
14	Heat flux threshold increased to 25.0 kW/m^2	75	1.11×10^{-4}
15	Includes asphyxiation hazard	100	1.53×10^{-4}
16	Population density around peak shaver facility corresponding to industrial land use	100	1.26×10^{-5}
17	Population density around peak shaver facility corresponding to industrial and commercial land use	100	2.52×10^{-5}

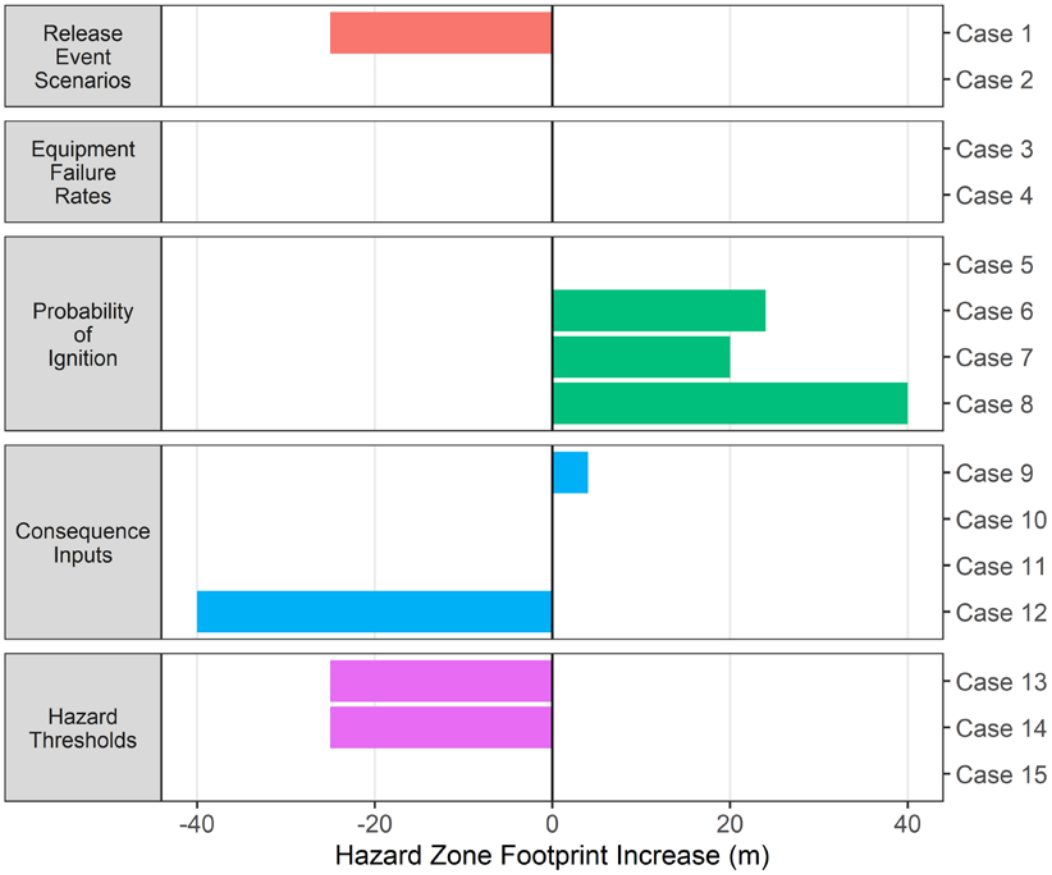

Figure 15 Peak Shaver Facility - Hazard Footprint Distance Comparison

4.10 QRA Outcomes and Decision-Making Implications

4.10.1 Export Facility

The baseline risk results show that LSIR contours corresponding to Zone 1 categorization of NFPA 59A (2019) are within the facility boundary. The maximum extent of Zone 2, where the development of sensitive establishments is restricted, is up to 1500 m from the facility boundary. A release from an LNG storage tank is the primary contributor to the risk at this distance. Sensitivity analyses show that risk contours vary by less than 10% of the hazard footprint distance for all the cases considered, except when the hazard threshold for heat flux is taken as 25 kW/m^2. Considering a higher heat flux threshold reduces the hazard footprint distance by 20%.

The SR for the baseline case indicates that the F-N curve for the export facility is below the minimum intolerable risk threshold, but above the maximum tolerable risk threshold according to NFPA 59A (2019) (refer to Figure 6 and Figure 13). Therefore, risk is tolerable if ALARP, and consideration of risk mitigation activities is required. Sensitivity analysis results show that the F-N curve is insensitive to the risk input parameter variations considered. The total risk is driven primarily by the LNG storage tank releases and, as long as a substantial release volume is considered either with an instantaneous release scenario or a release scenario with large diameter hole, the other factors influencing the risk had minimal effect. The release scenarios specified in the standards for LNG storage tanks were conservatively assumed and are not based on the physical modeling of the failure modes of LNG storage tanks. Therefore, detailed modeling of the failure modes and subsequent release scenarios is required for releases from the LNG storage tank for an improved understanding of this risk.

4.10.2 Peak Shaver Facility

The baseline risk results show that the LSIR contours corresponding to Zone 1 categorization of NFPA 59A (2019) are within the facility boundary. The maximum extent of Zone 2, where the development of sensitive establishments is restricted, is up to 100 m from the facility boundary, and primarily driven by the location of the pipeline and instrumentation in the proximity of the facility boundary. Sensitivity analyses show that risk contours vary less than 25% of the hazard footprint distance for all the cases considered, except when the temperature variability is not considered. Due to the assumed location of the peak shaver facility and the greater range of possible temperatures in the region, ignoring variation in ambient temperature has resulted in a localized underestimation of IR that was used to calculate the hazard footprint (see Figure 52 for reference). However, most of the IR in this case can be mitigated by locating the facility equipment at least 100 m away from the facility boundary. This implies that IR is sensitive to the location of facility equipment within the facility boundary for peak shaver facilities and equipment layout needs careful consideration during the detailed-design phase for compact LNG sites.

The SR for the baseline case indicates that the F-N curve for the peak shaver facility is below the minimum intolerable risk threshold, but above the maximum tolerable risk threshold according to NFPA 59A (2019) (refer to Figure 6 and Figure 13). Therefore, risk is tolerable if ALARP, and consideration of risk mitigation activities is required. Sensitivity analysis results show that the F-N curve is insensitive to the risk input parameter variations considered, except for the heat flux threshold and population density. For a heat flux threshold of 25 kW/m^2, the F-N curve is almost entirely in the tolerable risk region. At lower population densities (3.0 people per hectare and 5.0 people per hectare), the F-N curve shows substantially lower risk than the maximum tolerable risk threshold. This implies that changes to land use and consequent population density changes surrounding a peak shaver facility could have significant impact on the SR. Therefore, a facility with tolerable risk during the preliminary-design and detailed-design stages for siting approval need to consider future land use and expected population density in the sensitivity analysis of QRA.

5 Summary and Recommendations

5.1 Summary of Project Outcomes

The outcomes and conclusions from the project activities are as follows:

- A literature search for public domain reports of the QRA for LNG facilities has shown that the available reports are limited to export facilities and consist of preliminary-design QRAs for siting approvals. As public release of QRA documentation for detailed-design or operational facilities is expected to pose a security threat, these reports are not often in public domain. This creates a knowledge gap and lack of public consensus on detailed requirements for QRA.
- A literature review of the public domain reports, and review of international and US standards for QRA of LNG facilities has shown that the application of QRA methodology has a large degree of consistency. However, this finding is limited to preliminary-design QRAs for export facilities. Most regulations include a requirement for modeling cascading failures (or domino effect) but lack the details on the release event scenarios and casual factors that result in cascading failures.
- Guidelines to perform quantitative risk analysis of LNG facilities were developed to ensure consistency with respect to the level of rigor of the approaches selected to estimate different components of QRA, such as frequency, consequences and risk. The guidelines address both new designs and existing facilities and account for different levels of availability of facility details depending on the design and operational phase. They address data and model requirements, uncertainty modeling, and make recommendations on the minimum requirements for each step of the analysis, for three levels of QRA detail. The levels of detail are defined and illustrated by three application scenarios representing preliminary-design, detailed-design and operational phases of an LNG facility.
- The QRA approach in NFPA 59A (2019) was compared to the guidelines developed in this study to identify the differences between the two approaches. The proposed guidelines are largely consistent with NFPA 59A (2019) for all risk analysis steps but offer more flexibility and detailed guidance on application depending on the QRA classification. A comparison of the overall QRA approaches used in international standards and regulations from the UK, the Netherlands, and Singapore with NFPA 59A (2019) has shown these methodologies to be generally consistent. In particular, hazard types, equipment failure modes and rates, risk measures, and risk quantification criteria are similar in all the documents reviewed (see Section 3 for details). Key areas of difference included the definition of the thermal radiation hazard thresholds, the implied probability of fatality associated with the hazard thresholds, and the risk acceptance criteria.
- As a benchmarking exercise, preliminary-design QRAs were conducted for two generic LNG facilities representing an export and a peak shaver facility. Given the hypothetical nature of the facility designs and lack of site-specific information, the QRA methodology was limited to the preliminary-design phase. Documentation for each step of the analysis was provided as an example of QRA execution. The results of the QRAs for the two selected facility types show that safety risk does not reach intolerable levels for either facility when designed according to the existing standards.
- A set of sensitivity analyses were performed to illustrate the effect of input approximations and modeling assumptions on the estimated individual and societal risk. Sensitivity analyses for the benchmark facilities have shown that the estimated risk can be sensitive to a few parameters such as hazard thresholds and population density surrounding the facilities. Compared to these factors, assumptions corresponding to equipment failure rates and exclusion of minor instrumentation failures had little effect on the risk metrics. However, these results are specific to the benchmark facilities analyzed and are a result of the specific assumptions made about the facility design and location. These results cannot be generalized without additional detailed QRA studies.

5.2 Recommendations for Future Work

Based on the literature review, guideline development and execution of benchmark study, it is recommended that future work should focus on the following topics:

- Three QRA classifications were proposed in the guidelines related to the availability of the level of detail regarding an LNG facility. As the benchmark study was limited to the preliminary-design phase, the variance in the estimated risk due to lack of additional details and simplifying assumptions is unknown. Although sensitivity analyses for the benchmark QRAs have shown limited variation, it is unclear if a detailed-design QRA of the same facility would yield increased or reduced risk estimates. Therefore, a benchmark study conducting all three levels of QRA to an existing operational facility is recommended. Since confidentiality and security considerations of existing facilities may prevent participation (even anonymously) in such a study, it is suggested that facilities scheduled for decommissioning or facilities at international locations (with comparable design standards as the US) can be considered. An alternative approach is to invest in the required effort in developing a detailed design (P&IDs) of a hypothetical facility specifically for the purpose of the comparative study. Such studies will enable identification of the influence of additional facility details on risk results. This supports the development of a decision-making framework based on QRA.
- The sensitivity analyses in the benchmark study varied one parameter at a time and did not consider the combined effect of varying multiple parameters simultaneously. For example, conducting QRA according to an international standard such as RIVM would require changes to failure rates, hazard intensity thresholds, probability of fatality and tolerance criteria simultaneously. A future study to compare the differences of the QRA results conducted according to available international and the US standards is recommended. Furthermore, considering different consequence estimation models in the sensitivity analyses enables quantification of the risk sensitivity to the consequence modelling approach. The comparison of the societal risk curves estimated with multiple standards and consequence modelling approaches for the same facility provides insight into the influence of failure rates and consequence models on the estimated risk.
- The current benchmark study, which was based on a preliminary-design of LNG facilities, included limited consideration of risk mitigation options based on changing the input assumptions related to ESDVs. Explicit consideration of mitigation options is feasible for detailed-design or operational-facility QRAs, and this is recommended as an area of future study.
- Modeling of cascading events, and the associated risk requires two components: 1) quantification of the initial failure consequences in order to define the resulting overload and triggering events, and 2) probabilistic modeling methods that estimate the probability of occurrence of the domino effect from the results of detailed numerical modeling. Current research has focused on quantification of the consequences in terms of thermal loads and vapor dispersion but there is limited focus on the development of accurate modeling approaches for blast and impact loads. Improvement of these models will increase confidence in the modeling of triggering events for a cascading failure. Similarly, current frequency analysis methods for QRA of LNG facilities are heavily dependent on historical data analysis and lack sophisticated probabilistic modeling to leverage engineering models. Development of such models for LNG facility applications would enable practical and accurate modeling of cascading events.
- In the benchmark study, the region of restricted land use surrounding an export facility extended to a significant distance outside the facility boundary according to the NFPA 59A (2019) risk tolerance criteria. Given that natural gas is generally delivered to the LNG facilities through high pressure transmission pipelines, a substantial area surrounding an export facility may be exposed to combined risks from the pipelines and the LNG facility. Although, simultaneous failure of more than one infrastructure asset is an extremely rare event, the exposure to combined risk can nevertheless not be ignored. Furthermore, as the risk tolerability criteria for different assets were developed to be

consistent specific considerations of hazard intensity thresholds, and other risk modeling options, a consistent approach for risk modeling is required to estimate the combined risk, and consideration of risk tolerability criteria must consider additional risks due to surrounding infrastructure.

- Limited research is available on the structural integrity of LNG storage tanks subjected to unexpected and accidental loads due to natural hazards and external security threats. Although the design criteria for LNG storage tanks imply a certain level of resistance to failures caused by extreme events (e.g. seismic, hurricanes), the associated level of safety with respect to different possible failure modes (e.g. buckling, unzippering, collapse) is unknown. Quantifying this level of safety requires the quantification of the varying levels of conservatism associated with different models used in designing for such events (e.g. intensity of ground shaking, soil-structure interaction, and dynamic structural response due to sloshing of liquid contents). Development of a modeling approach to identify the failure modes of LNG storage tanks and to quantify the likelihood of LNG releases from each failure mode due to such loading scenarios is recommended for future study. As a catastrophic release from an LNG storage tank is an extremely rare event (recommended failure rate of 1×10^{-8} in NFPA 59A (2019)), this modeling approach has the ability to estimate event probabilities with a greater confidence than the historical incident data approach (see further discussion in Section 3.5.4).
- Although comparing QRA methodologies in NFPA 59A (2019) and other international standards and regulations shows considerable consistency, it is recommended that PHMSA develop further clarifications for the content in NFPA 59A (2019) on the following aspects:
    - Failure rates for truck transfer hoses and arms, and ship transfer arms are given as annual failure rates irrespective of the frequency of usage. The implied usage rate derived by comparison to the failure rates in other standards and regulations (HSE FRED, RIVM) is highly conservative. Clarification of the assumed usage rate of transfer hoses and arms would provide necessary context for the failure rate recommended in NFPA 59A (2019).
    - Although general requirements for weather modeling are extensive, the number of stability classes and the percentile values for wind speed, temperature, and relative humidity are not specified. As the weather parameters are typically continuously variable, the number of discrete combinations required to represent the full variability in the weather conditions needs to be specified.
    - The probability of fatality associated with the consequence thresholds given is not specified and the guidance provided on the probit functions used in specifying the consequence thresholds is unclear. A conservative assumption of 100% probability of fatality associated used with the consequence thresholds provided, introduces significant conservatism compared to similar international standards and regulations (particularly for thermal radiation).

6 Impact from the Research Results

The results of this research are expected to:

- support public input as well as consensus discussions by the NFPA 59A Technical Committee and others regarding the potential refinement and strengthening of the QRA-related content in future editions of primary industry standard NFPA 59A (e.g. revisions to content in Chapter 19 of the current 2019 edition), which could potentially be incorporated by reference into 49 CFR Part 193
- provide information to PHMSA and FERC regarding any specific requirements they may want to institute if they choose to permit a QRA-based application for LNG facility siting approvals in the future, as an alternate to the current prescriptive requirements in 49 CFR Part 193 and the 2001 edition of NFPA 59A
- be a platform for growth for PHMSA - - to initially support potential applications related to LNG facility siting approvals, but also provide an opportunity to advance the application of QRAs to operational facilities for continuous improvement and risk reduction
- enhance alignment of QRA methodologies applied to U.S. LNG facilities with the QRA methodologies used by regulators in other leading countries globally, which can increase public understanding of the consistency of QRA approaches to identify and manage risks and ensure public safety
- increase understanding of QRAs for operators of existing LNG facilities, in order to consider how an operational-facility QRA might help them identify and mitigate risks, or assist in decision-making regarding potential modifications, specific continued operations, or other aspects of facility operation
- identify recommendations for needed research work, such as identified in Section 5.2.

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Appendix A: Acronyms and Definitions

A.1 Acronyms

Acronym	Description
AHJ	Authority Having Jurisdiction
AIChE	American Institute of Chemical Engineers
AIT	Auto Ignition Temperature
ALARP	As Low as Reasonably Practical
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
AIT	Autoignition Temperature
BAPE	Bureau d'audiences publiques sur l'environnement
BCF	Billion Cubic Feet
BEVI	Dutch External Safety Decree for Establishments
BLEVE	Boiling Liquid Expanding Vapor Explosion
BLUE	Blue Engineering and Consulting Company
BOG	Boil-Off Gas
BSI	British Standards Institute
BST	Baker-Strehlow-Tang
C-FER	C-FER Technologies (1999) Inc.
CCPS	AIChE Center for Chemical Process Safety
CFD	Computational Fluid Dynamics
CFR	U.S. Code of Federal Regulation
CGA	Compressed Gas Association
CPI	Chemical Process Industry
CSA	CSA Group (formerly Canadian Standards Association)
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
ERP	Emergency Response Plan
ERS	Emergency Release System
ESD	Emergency Shut-off Device or Emergency Shutdown Device
ESDV	Emergency Shutdown Valve
FERC	U.S. Federal Energy Regulatory Commission
F-N	Frequency-Number of Fatalities
FRED	Failure Rate and Event Data
FTA	Fault Tree Analysis
GPM	Gallons per Minute
GTI	Gas Technology Institute
HAZID	Hazard Identification analysis
HAZOP	Hazard and Operability analysis
HCRD	UK Hydrocarbon Releases Database System
HMB	Heat and Material Balance
HRA	Human Reliability Analysis
HSA	UK Health and Safety Authority
HSE	UK Health and Safety Executive
IFE	Institute for Energy Technology
INL	Idaho National Laboratory
IOGP	International Association of Oil & Gas Producers (alternate acronym: OGP)

IR	Individual Risk
ISO	International Organization for Standardization
L	Liquid
LCD	Local Climatological Data
LFL	Lower Flammability Limit
LNE	Flemish Environment, Nature and Energy Department
LNG	Liquefied Natural Gas
LSIR	Location-Specific Individual Risk
MEP	Model Evaluation Protocol
MIACC	Major Industrial Accidents Council of Canada
MIE	Minimum Ignition Energy
MMSCFD	Million Standard Cubic Feet per Day
MR	Mixed Refrigerant
MTPA	Million Tonnes per Annum
NEA	Singapore National Environmental Agency
NFPA	National Fire Protection Association
NG	Natural Gas
NGL	Natural Gas Liquids
NOAA	U.S. National Oceanic and Atmospheric Administration
NRC	U.S. Nuclear Regulatory Commission
OGP	International Association of Oil & Gas Producers (alternate acronym: IOGP)
P&ID	Piping and Instrumentation Diagram
PFD	Process Flow Diagram
PHA	Process Hazard Analysis
PHMSA	U.S. DOT Pipeline and Hazardous Materials Safety Administration
PIR	Potential Impact Radius
POI	Probability of Ignition
PPE	Personal Protective Equipment
PRA	Probabilistic Risk Assessment
PSIG	Pounds per Square Inch Gauge
QRA	Quantitative Risk Assessment
RIVM	Dutch National Institute of Public Health and the Environment
SME	Subject Matter Expert
SR	Societal Risk
TNO	Dutch Organization for Applied Scientific Research
UFL	Upper Flammability Limit
V	Vapor
VCE	Vapor Cloud Explosion

A.2 Definitions

Cascading events: secondary release events that occur due to failure of facility components; triggered by the consequence of a primary release event. (see Domino Effects).

Consequence: the effect of a release event on individuals or populations, property, or the environment

Domino Effects: secondary release events that occur due to failure of facility components; triggered by the consequence of a primary release event. (see Cascading Events).

Event-tree Models an approach to characterize all possible outcomes arising from an undesirable event; represents all possible consequences of a failure event

Failure: a condition in which an equipment or pipeline in the facility results in loss of containment of a hazardous substance(s)

Failure Mode: the way in which a component fails

Failure Rate: Ratio of the number of failures of an equipment or pipeline in the facility to the number of equipment and years of use, which is typically estimated from the historical failure incidents of similar types of equipment; considered as equivalent to the probability of failure of equipment at low values

Fault-tree Models: a logical and diagrammatic approach to define the combinations of basic events that cause an event of interest (the "top event")

Hazard: a condition or event that might cause a failure, incident or any other condition that has the potential to cause harm to people, property, or the environment

Hazard Identification: the recognition that a hazard exists and the definition of its characteristics

Hazard Footprint Distance: maximum distance from the facility boundary to the individual risk contour corresponding to the maximum tolerable risk

Individual Risk: the annual probability of fatality due to a hazardous release for an individual situated at a particular location

Location-specific Individual Risk: the annual probability of fatality due to a hazardous release for an individual situated at a particular location, ignoring the probability of presence of the individual at the location

Probability of Failure: the probability that a component or system will fail during a specified time interval (usually taken as one year)

Quantitative Risk Analysis: an approach that quantifies risk using probabilities to quantify the likelihood of occurrence of hazardous events and the measurable parameters to quantify the consequences

Receptor: individual who has potential for exposure to hazardous releases that may result in their fatality or harm

Release Event: an event that results in loss of containment of a hazardous substance

Release Event Scenario: quantitative definition of physical conditions at the time of a release event that influence the magnitude of the consequences

Risk: a compound measure of the frequency and severity of an adverse event; typically expressed as a product of the failure frequency of the event and its consequences

Risk Analysis: the use of available information to identify hazards and estimate the associated risk

Risk Assessment: the process of performing risk analysis and risk evaluation

Risk Contour: the lines of equal probability of fatality due to estimated individual risk that surround a source of a hazardous release

Risk Estimation: the process of combining probability and consequence analysis to produce a measure for risk

Risk Evaluation: the process of evaluating if the estimated risk meets specified risk criteria or targets

Societal Risk: a measure of the risk to society, which is expressed as the frequency of the number of casualties (F-N curves) or the expected number of fatalities occurring due to a hazardous event

Appendix B: Bibliography and Select Reference Summaries

B.1 Bibliography

Bibliographic citations are organized in the two categories below to aid the reader's understanding.

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B.2 Summary Reviews of Select References

Summary reviews are provided below of some notable references selected from the above list. The selected references are noted in bold font above. A summary review of related standards and guidelines from non-U.S. governmental agencies are combined below in one category by that name.

Integrated Risk Assessment for LNG Terminals (Aneziris et al. 2014)

This paper describes the quantitative risk assessment (QRA) of onshore and offshore liquefied natural gas (LNG) terminals. The QRA process consists of identifying the hazard, quantifying the frequency of occurrence and associated consequences of all plant damage states, and integrating the risk. Hazard identification was performed by dividing the facility into sub-components and identifying the release sources, plant operating states, and initiating events. Initiating events were selected based on their release categories. Only those events that can result in significant releases were considered in the event frequency estimation.

The process of assessing event frequencies starts with developing accident scenarios for each initiating event. All possible sequences of events after an initiating failure event are identified through event-trees. The end events of the event-trees are classified according to plant damage states, such as tank rupture and pipe break. For each event in the accident sequence, system fault-trees are developed to estimate the associated occurrence frequency. System fault-trees consider not only equipment and machine failure modes, but also human performance. The frequency of occurrence for each event within the fault-tree is estimated using component failure databases (OREDA 1992, OREDA 1997, CPR 18E purple book), historical data specific to the facility, and engineering judgement in the absence of such data. System fault-trees provide the occurrence frequency of events and help identify the sequence of events leading to each event. An event-tree is used to estimate the occurrence frequency of possible plant damage states through Boolean logic. This approach to the estimation of plant damage states and their occurrence frequencies is similar to the probabilistic risk assessment approach of the US Nuclear Regulatory Commission.

Based on the plant damage states, the types and magnitudes of release events were defined. Event-trees were developed for each release event to identify the physical mechanisms that lead to fatalities or injuries. The SOCRATES software was used to model the physical mechanisms that determine the consequences of pool fires, jet fires, flash fires and explosions. The dose of thermal radiation or overpressure, intensity of heat flux, duration of exposure, and the associated probability of fatalities were based on the well-established guidelines of the CPR 16E Green Book (RIVM 1992). The SOCRATES software was also used to integrate risk to develop individual risk contours around the facilities.

Rabaska LNG Terminal (BAPE 2007)

A summary of a QRA of LNG terminal land facilities and LNG tankers was presented as a part of the Inquiry and Public Hearing Report for the Rabaska Project, which was proposed along the south shore of St. Lawrence River to the northeast of Levis, Quebec, Canada (BAPE 2007). The report notes that the consequence scenarios were determined using a deterministic approach, and that the scenarios identified

were used to establish the exclusion zones around the land facilities and terminal. Probabilistic QRA was conducted in compliance with BS EN 1473:2007 only for those scenarios that were deemed to be high risk. Consequence modeling was performed using DNV's Phast software. Individual risk and societal risk were computed using SAFETI software. The estimated risks were compared against the individual risk criteria set by the Major Industrial Accidents Council of Canada (MIACC 1995). For societal risk, the project was noted to follow risk categories similar to those set by the Health and Safety Executive (HSE) of the United Kingdom (HSE 2001).

Ichthys Gas Field LNG Terminal (Halford and Finnigan 2009)

This report provides a summary of a preliminary QRA conducted for a proposed LNG plant at Blaydin Point in Darwin Harbour, Australia. The risk assessment methodology consisted of scenario identification, frequency and consequence estimation, risk assessment, comparison to risk criteria, and risk reduction. The hazard scenario definition was based on a detailed hazard assessment of each area of the LNG plant and export pipeline, which included an inlet for natural gas, process, storage, export and utilities. The processing facilities considered in the base case QRA are gas export pipeline reception facilities, gas treatment, gas liquefaction, production of LNG and liquefied petroleum gas (LPG) and condensate, storage and loading, and utility and support systems. Pool fires, jet fires, flash fires and explosions were considered. Individual risk contours around the land facilities and terminal were computed and compared against Australian standards, the 'Victorian interim off-site individual risk criteria' of 1×10^{-5} per year, as advised by the Northern Territory WorkSafe Division of Australia.

Woodfibre LNG Plant (Lee 2014)

This report is a summary of a preliminary QRA conducted for a proposed LNG plant at Woodfibre Howe Sound, British Columbia, Canada. The preliminary assessment focused on the worst-case scenarios and identified scenario groups related to flammable releases from the process plant and the storage and offloading facilities. The QRA process consisted of system definition, hazard identification, frequency and consequence estimation, risk analysis, risk evaluation and risk reduction. The hazard identification utilized a qualitative process based on expert opinion. Event-trees were then developed for each scenario and frequency analyses were performed for loss of containment, immediate ignition, delayed ignition, and explosion.

The loss of containment frequencies were estimated for large leaks (with a hole size greater than 100 mm) or full bore ruptures. These were estimated by identifying the segments that can be isolated with emergency shut-off valves, and part counts in each isolated segment based on piping and instrumentation diagrams (P& IDs). The leak frequencies for each segment were based on historical failure rates (NFPA 59A, Scandpower's proprietary data dossier). The probability of immediate ignition was based on the release rate assumed for large leaks, and the probability of delayed ignition was estimated based on the International Association of Oil and Gas Producers (IOGP) Data Directory. The probability of explosion given delayed ignition was assumed to be 20%. Based on these event-trees, the frequencies for jet fires, pool fires, flash fires, and explosion were estimated.

Consequence assessment was performed with the Phast software using the leak size and release rate for each scenario. Weather conditions were obtained from the nearest weather station. Other assumptions associated with the consequence assessment included plant process conditions, duration for emergency shut-down system to be activated, and the presence of a fire and gas detection system. Based on these inputs, thermal radiation due to jet fires, pool fires and flash fires, as well as overpressure due to vapor cloud explosion (VCE) and boiling liquid expanding vapor explosion (BLEVE), were assessed.

Location-specific individual risk contours were calculated using the overpressure thresholds from NFPA 59A, dispersion zone from BC Oil & Gas Commission (BC OGC), and heat radiation levels from the American Petroleum Institute (API) and Guidelines for Chemical Process Quantitative Risk Analysis by

Center for Chemical Process Safety. These were compared against the BC OGC risk acceptance criteria for tolerable and intolerable risks.

South Soko and Black Point LNG Plants (ERM 2006)

This report summarizes a preliminary QRA conducted for a proposed LNG terminal and associated facilities at South Soko and Black Point, Hong Kong. The QRA process consisted of system definition, hazard identification, frequency and consequence assessment, risk summation and assessment. Initiating event frequencies were estimated based on historical failure rates from public domain literature (e.g. CPR 18E Purple Book), and fault-tree analysis. Event-tree analyses were performed for each initiating event to assess the frequencies of different consequence scenarios. The analysis scope included leak and rupture events in different LNG plant sections, including the jetty area, transfer piping, storage, plant process area and send-out piping.

Consequence assessment consisted of source term modeling (e.g., hole size for leaks), physical effects modeling and estimation of hazard zone area. Consequences were quantified only for those events with outcome frequencies greater than 1×10^{-9} per year. Jet fires, pool fires, flash fires, fire balls, and VCEs were modeled for gas and liquid releases. Individual risk contours were developed for thermal radiation and overpressure. Societal risks were estimated for the land and marine populations in year 2011 and 2021, accounting for possible development around the area. F-N curves were estimated for each scenario and compared to the Hong Kong societal risk criteria.

Benchmark Study (RIVM 2011)

This report contains a benchmark study conducted by the National Institute for Public Health and the Environment (the Netherlands) to compare four international QRA approaches. The study compared the results of QRAs from the United Kingdom by HSE, France by INERIS, the Walloon region of Belgium by FPM, and the Netherlands by RIVM for a hypothetical LPG plant with two cylindrical propane storage vessels in mounds, one spherical butane storage vessel, unloading stations from rail tank cars, and loading stations to road trucks. While this benchmark study refers to an LPG plant, it was included in the review as the QRA methodologies used are relevant for LNG plants too.

Critical scenarios and associated safety hazards, individual risk and societal risk from all four approaches were compared. The INERIS approach was a bow-tie-based semi-quantitative approach that considered jet fires and flash fires due to rupture at loading and unloading stations, and pipelines connecting storage to shipment. Event frequencies were based on a semi-quantitative probability categorization using expert judgement, and consequences were assessed using multiple models from TNO and INERIS. The probabilities and consequences were used to estimate risk of significant lethality (equivalent to 5% probability of fatality), lethality (equivalent to 1% probability of fatality), and irreversible harm. Risk results were presented (as a risk matrix), as well as ‘Alea’ contours used in land use planning in France that were considered as comparable to individual risk contours.

The HSE approach is a consequence-based approach with the most critical hazard scenario resulting in a BLEVE event from storage vessels and tankers. Consequences were estimated using the FLAMECALC6 model with assumed flow rates and durations for the BLEVE event, flash fire due to instantaneous and continuous releases from butane vessel, jet fires and flash fires due to piping and coupling failures. Societal risk results were presented as F-N curves, and the exclusion zone distances around the LNG plant were provided.

The critical scenarios identified by the FPM approach are catastrophic ruptures of the unloading arm, pumps, and storage vessels. Consequences were quantified using the Phast software. Failure frequencies were initially estimated using generic failure rates from the Flemish QRA handbook, and then modified based on the presence and performance of safety systems. Hazard event frequencies were estimated both for expected performance of safety systems and for failed safety systems. Risk results were presented as iso-risk contours of individual risk associated with irreversible injury.

The RIVM approach estimated individual and societal risks due to jet fires, flash fires, BLEVE, and explosion using the SAFETI-NL software, and it was found that instantaneous and continuous releases from the propane and butane storage vessels are the most critical scenarios. Estimates of event frequencies and flow durations were based on the assumption that safety measures specified in the Dutch Guidelines are present. Risk results were presented as iso-risk contours of the individual fatality risk and F-N curves showing societal risk.

The study found differences between the four approaches in terms of the critical scenarios considered, the models employed for consequence estimation, the definition of risk as fatality or irreversible injury, and the associated lethality thresholds. However, all approaches provided similar values for the exclusion zone distances. Generic QRA approaches were found to be restrictive in terms of considering plant-specific risk reduction measures. However, generic QRA approaches by regulatory authorities were recommended in the report to obtain transparent and consistent QRA results between multiple analyses.

Standards and Guidelines

The QRA approach in Chapter 19 of NFPA 59A (2019) was compared to the QRA methodology in international standards and guidelines. The standards selected for this review were:

- 'QRA Technical Guidance' of Singapore (National Environmental Agency 2016),
- 'Policy & Approach of the Health & Safety Authority to COMAH Risk-based Land-use Planning' of Ireland (HSA 2010),
- 'Guidelines for quantitative risk assessment: Purple book' (RIVM 2005), and
- 'Reference Manual Bevi Risk Assessments' (RIVM 2009) of the Netherlands.

All these standards have broadly similar approaches to QRA, with varying levels of detail in specifying the input parameters, release scenarios, weather data, risk measurements and risk acceptance criteria. Areas that differ from the NFPA approach (2019) are summarized below.

Ireland's guidelines (HSA 2010) provide the most basic framework for conducting QRA. In recognition of the complexity of hazard identification, release scenario selection, event frequency assessments, and consequence quantification, these guidelines have specified conservative consequence events to be considered based on the installation (e.g. BLEVE, VCE), estimation of their frequency, simplified consequence models, probit relationships to assess probability of fatality, and approach to compute individual and societal risks. The guidelines note that the specified models are conservative due to their simplicity, and provide the option to refine all components of the QRA with sufficient justification.

Singapore's guidelines (National Environmental Agency 2016) provide the most detailed guidance for identifying release scenarios and assessing outcome frequencies. Parameters needed for detailed consequence modeling, such as weather conditions and release durations, are specified in greater detail. In addition, the steps required to compute the hazard footprints for fatality, injury, cumulative escalation, and fatality in on-site occupied buildings are specified. Cumulative escalation risk is defined as the individual risk equivalent for structures, and is used to represent damage to structures instead of human safety. These guidelines provide risk acceptance criteria for individual risk of fatality and injury, cumulative escalation risk, and fatality in occupied buildings.

QRA guidelines and models from the Netherlands have been adapted world-wide for all types of hazardous facilities. The CPR 18E Purple Book (RIVM 2005) provides the most detailed methodology for QRAs and selection of installations to define the scope of QRAs. However, the benchmark study conducted to compare QRA approaches (RIVM 2011) has revealed the possible interpretations for release scenarios and their effect on the estimated individual and societal risks may vary among different analysts. Therefore, Reference Manual Bevi Risk Asessments (RIVM 2009) provides an updated approach for selection of installations to define the scope of QRAs and a more standardized approach for QRAs through the consequence modeling software SAFETI-NL. As most of the model parameters are

standardized, such as selection of weather data and release event scenarios, this approach provides less flexibility to account for other site-specific factors.

Appendix C: QRA Methodology Details and Comparison to NFPA 59A (2019)

C.1 Example Outline of QRA Methodology and Calculation Approach

C.1.1 Introduction

A concept of the quantitative risk assessment (QRA) methodology applied to benchmark liquefied natural gas (LNG) facilities is shown in Figure 16 . The purpose of this document is to provide additional details for each step of the QRA for risk estimation.

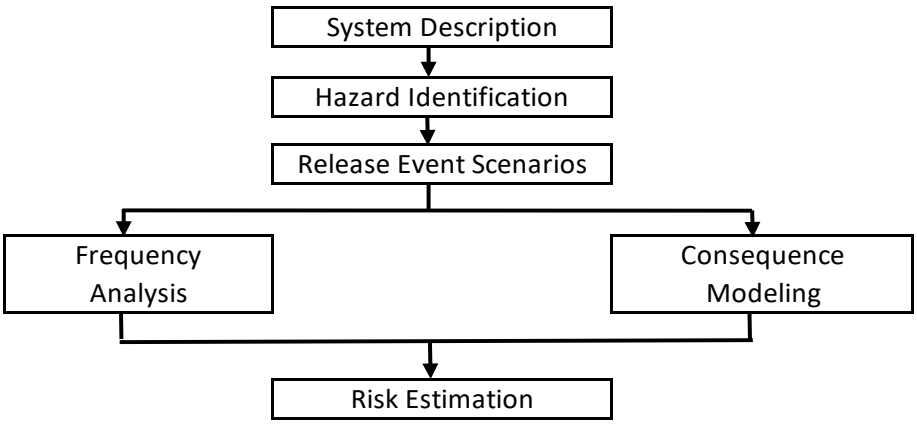


Figure 16 QRA Methodology

C.1.2 Approach

C.1.2.1 System Description

Design descriptions were developed for two benchmark LNG facilities, namely an export facility and a peak shaver facility. Design basis documents for these facilities and design details, such as process flow diagrams (PFDs), plot plans, and heat and material balances (HMBs), were developed as a part of the task.

C.1.2.2 Hazard Identification

Hazards associated with equipment failures in each benchmark facility were identified as jet fires, flash fires, and toxic vapor dispersion.

C.1.2.3 Release Event Scenarios

Release event scenarios were developed for both benchmark facilities based on the benchmark facility designs. A comprehensive list of release event scenarios were provided as a part of the benchmark study.

C.1.2.4 Frequency Analysis

Frequency of equipment failure corresponding to each release event scenario (E_i) were estimated using NFPA 59A (2019) and other public domain equipment failure databases. To account for the possible dependence of the release event scenario on factors specific to the plant design, probability of a release event scenario was estimated as

$$P[E_i] = P[E_i|\boldsymbol{C_i}] \cdot P[\boldsymbol{C_i}] \quad [1]$$

where

$P[E_i]$ = probability of occurrence of the release event scenario, E_i (out of a total n scenarios, e.g. rupture of LNG storage tank, leak in facility piping);

$P[E_i|\boldsymbol{C}_i]$ = probability of occurrence of E_i, conditioned on the occurrence of $\boldsymbol{C}_i$; and

$\boldsymbol{C}_i$ = vector representing all conditions that can lead to the release event scenario, both internal or external to the facility (e.g. human factors, operational conditions, seismic events).

The conditional probability $P[E_i|\boldsymbol{C}_i]$ was estimated using fault-tree models, where required.

At a specific location, if the hazard intensities due to the occurrence of event E_i are denoted by a vector of intensities, H, then the probability of each hazard intensity due to a release event scenario is modeled as

$$P[H_j|E_i] = \sum_{l=1}^{L}\sum_{k=1}^{K} P\left[H_j\middle|HE_k, W_l, E_i\right] \cdot P[\,HE_k|W_l, E_i] \cdot P[W_l] \quad [2]$$

where

$P[H_j|E_i]$ = the probability of hazard intensity, H_j (out of a total J hazard intensities, such as maximum threshold of heat flux leading to fatality, or threshold value of overpressure), conditioned on the occurrence of E_i;

$P[H_j|HE_k\, W_l E_i]$ = the probability of H_j, conditioned on the hazard event, HE_k, weather conditions, W_l , and the occurrence of E_i;

$P[HE_k|W_l E_i]$ = the probability of the hazard event, HE_k (out of a total K relevant hazard events, such as jet fire, flash fire and explosion), conditioned on weather conditions, W_l, and the occurrence of E_i; and

$P[W_l]$ = the probability of the combination of weather conditions, W_l (e.g. wind speed, wind direction, ambient temperature and relative humidity), out of a total of L possible combinations.

As denoted in Equation [2], the probability of each hazard intensity at a specific location due to each release event scenario is the summation of that hazard intensity due to all possible hazard events under all possible weather conditions. The conditional probability $P[HE_k|W_l E_i]$ was estimated using event-tree models (see conceptual model shown in Figure C.2), and the probability $P[W_l]$ was determined based on the weather data from representative meteorological stations for both benchmark facilities.

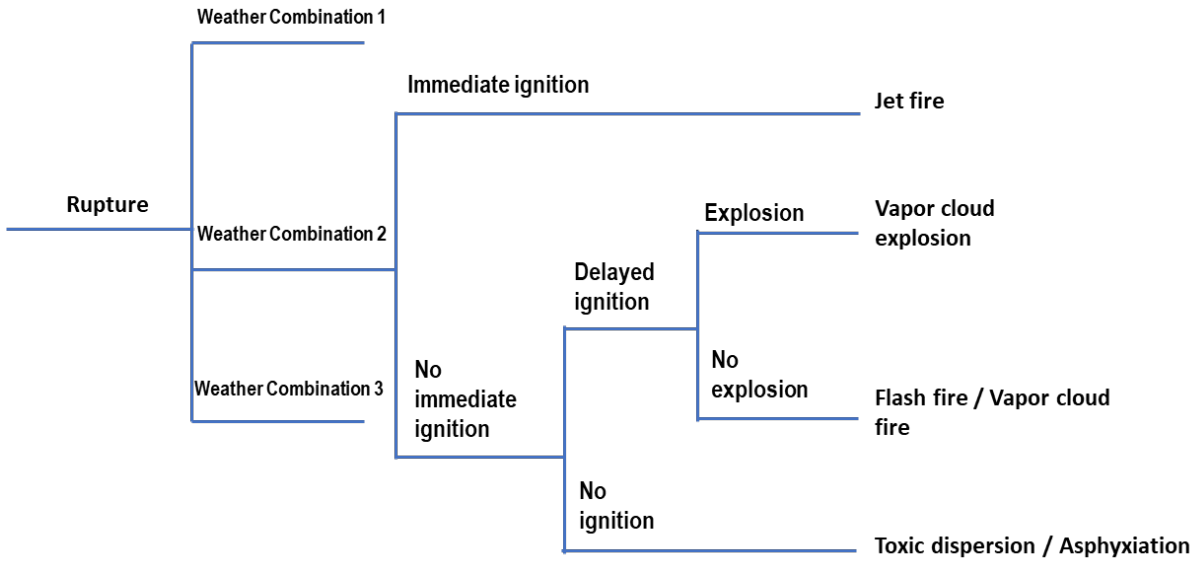


Figure 17 Conceptual Event-tree Model

C.1.2.5 Consequence Assessment

Consequences due to flash fires from the ignition of dispersed flammable vapor clouds; thermal radiation due to jet fires, pool fires, and fire balls; and overpressure due to vapor cloud explosion were quantified using industry-standard modeling tools. This assessment quantified all the hazard intensities at a specific location due to all release event scenarios.

C.1.2.6 Risk Estimation

Individual risk (IR) contours were generated using the individual risk values estimated at specific grid point locations on the plot plan of benchmark facilities, as shown in the conceptual plot in Figure 18 .

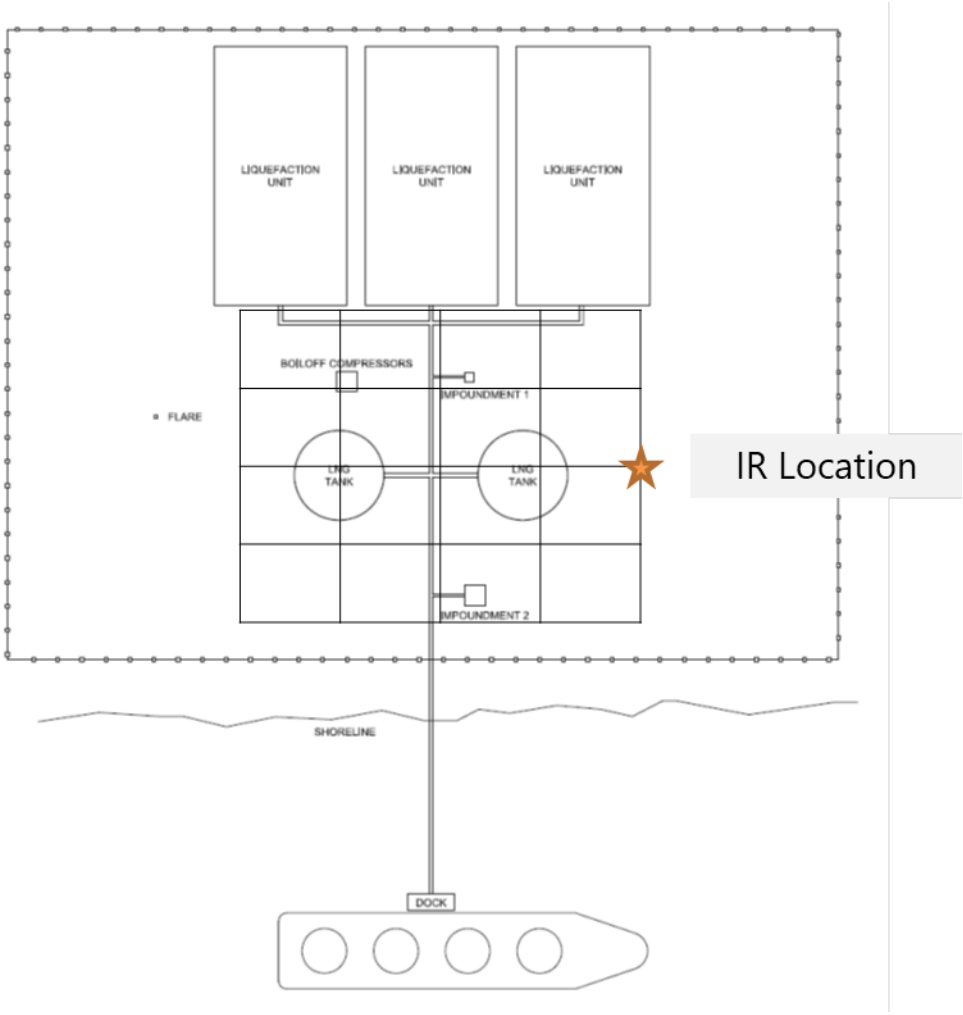


Figure 18 Example Grid Layout for Estimation of IR Contours

At any location denoted by an (x, y) coordinate on the grid, individual risk was estimated using

$$IR_{(x,y)} = \sum_{i=1}^{n} IR_i \quad [3]$$

where $IR_{(x,y)}$ is the individual risk at a location denoted by an (x, y) coordinate in the plot plan; and IR_i is the individual risk due to E_i at a specific location. Individual risk due to a release event scenario at a specific location was modeled as

$$IR_i = \sum_{j=1}^{J} P[I_i|H_j] \cdot P[H_j|E_i] \cdot P[E_i] \quad [4]$$

where $P[I_i|H_j]$ is the probability of fatal event I_i (with discrete outcomes; yes or no) due to hazard intensity H_j, which was evaluated using the hazard intensities that were available as consequence end points (e.g. NFPA 59A (2019), RIVM (2009)), and the rest of the parameters are estimated as shown in Equations [1] and [2].

Societal risk (SR) was represented by an F-N curve (a conceptual plot shown in Figure 19) where the expected number of fatalities (N) was estimated by considering the density of receptors and their likely presence within a hazard zone of each release event scenario, and the cumulative frequency of occurrence (F) of the number of fatalities was calculated by adding the occurrence rate of all release event scenarios that result in the fatalities greater than or equal to N.

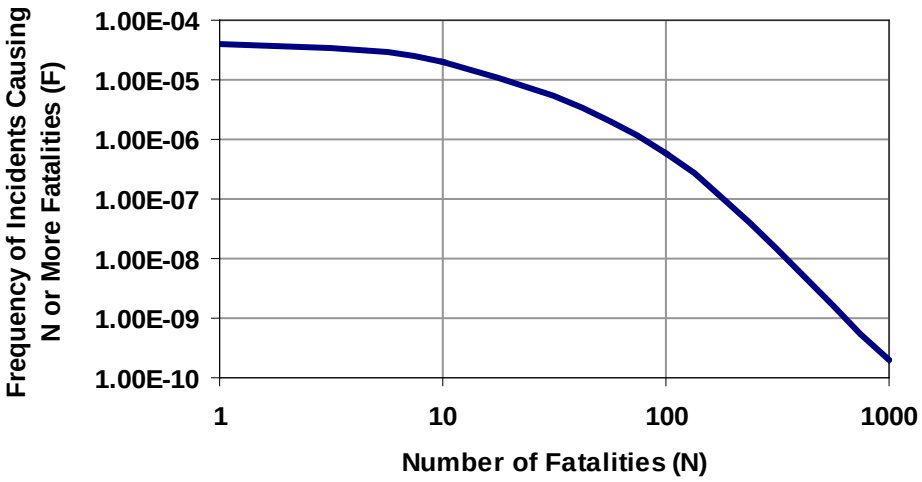


Figure 19 Conceptual F-N Curve Denoting Societal Risk

C.1.3 Outcome

The outline of the QRA methodology described in this document was used to perform QRA for benchmark LNG facilities. The models required for frequency analysis, consequence assessment and risk estimation were selected based on the detailed designs of the benchmark facilities and the appropriateness of a model for the intended objective of the QRA.

C.2 Comparison of Proposed QRA Methodology vs. NFPA 59A (2019) Methodology

C.2.1 Introduction

Chapter 19 of NFPA 59A (2019), *Performance-Based Plant Siting Using Quantitative Risk Analysis*, is the primary focus of the comparison with the guidelines developed in this study. Table 18 below maps the proposed QRA components to relevant clauses.

Table 18 Map of Proposed QRA Guidelines Components to NFPA 59A (2019)

Proposed QRA Guidelines Component	NFPA 59A Clause(s)
System Description	19.5 LNG and other hazardous materials release scenarios
Hazard Identification	19.5 LNG and other hazardous materials release scenarios

Release Event Scenarios	19.5 LNG and other hazardous materials release scenarios
Frequency Analysis	19.6 Release probabilities and conditional probabilities 19.7 Environmental modeling conditions and occurrence probabilities
Consequence Modeling	19.8 Hazard and consequence assessment
Risk Estimation	19.4 Risk calculation and basis of assessment 19.8 Hazard and consequence assessment 19.9 Risk results presentation
Risk Evaluation	19.10 Risk tolerability criteria 19.11 Risk mitigation approaches

C.2.2 Comparison of Approaches

C.2.2.1 System Description

Clauses 19.5.1 and 19.5.2 specify the requirements for each release scenario, including the stream state, sectionable inventory, and release location and duration. There is no specific requirement for the system description; though, a QRA conducted in compliance with Clause 19.5 would need to adequately define the system to provide the required information. The proposed QRA guidelines explicitly address the system description and specify different levels of analysis detail, with examples for documents that can be used to meet the system description requirement. The proposed guidelines and the relevant sections of NFPA 59A (2019) are consistent, with the proposed guidelines providing more detail with respect to the levels of detail for system description.

C.2.2.2 Hazard Identification

Clause 19.5.1.2 requires a process hazard analysis (PHA) to inform a list of hazard scenarios. The proposed QRA guidelines recommend use of a PHA to determine hazards for detailed-design and operational QRAs. For preliminary-design QRAs, the guidelines allow for hazard identification based on the design basis documents due to the lower level of detail available.

Clause 19.5.2.3 provides a list of potential hazardous behaviors of released fluid and stipulates that the full spectrum of hazardous behaviors be considered. The proposed QRA guidelines are consistent with this approach and include these behaviors as hazards to be considered.

C.2.2.3 Release Event Scenarios

Clauses 19.5.1.1 and 19.5.2 require that a comprehensive release scenario list be developed and provide a minimum set of requirements for release scenario specification; however, there is no explicit guidance on defining what constitutes a comprehensive list. The proposed QRA guidelines provides a minimum set of requirements that are consistent with the list in Clause 19.5.2.1 and includes consideration for external conditions, such as weather and extreme events.

In the proposed guidelines, it is noted that failure modes recommended for consideration are not consistent across international standards. At a minimum, two representative failure modes are recommended: one to account for a catastrophic release or full-bore rupture, and a second for leaks that

may remain undetected for a period of time before activating automated emergency shut-down devices. Additional failure modes based on the equipment type should be considered.

The proposed QRA guidelines also outline release event requirements according to the levels of detail, noting that preliminary-design QRAs may not have full equipment lists to define release events and can be done at the PFD level instead.

C.2.2.4 Frequency Analysis

Clause 19.6.1 specifies Table 19.6.1 as the source for release frequencies. Table 19.6.1 contains historical release event frequencies. Clauses 19.7.1, 19.7.1.1, 19.7.1.2 and 19.7.2 specify the minimum parameters for collection of site-specific weather data, if available, and allow for a set of conservative assumptions if site specific data is not available.

Clauses 19.7.4 and 19.7.5 state that ignition sources around the plant should be documented, and their probabilities of being active during vapor cloud dispersion events should be considered.

The proposed QRA guidelines are not intended to recommend a particular frequency estimation model, but only to ensure consistency in the level of approximation between approaches. The proposed QRA guidelines divide the frequency estimation into three components, frequency of the release event, probability of weather conditions corresponding to the release event, and probability of ignition. In the proposed guidelines, the approach for determining the release event frequency of these three components is further subdivided into 3 levels: 1) subject matter expert opinion, 2) historical data, 3) probabilistic models. The proposed guidelines outline the individual probabilities that make up the release event frequency, taking into account weather conditions, emergency shut-down systems, release direction, release location, and facility operational status.

The proposed guidelines offer more detailed guidance on the specific inputs for frequency estimation; though, they do not prescribe a failure rate source. The proposed guidelines also outline a more detailed approach, including probabilistic modeling to determine release event frequencies and weather condition modeling. The frequency estimation approach in NFPA 59A (2019) can be used according to the proposed QRA guidelines; though, adherence to the proposed guidelines results in more flexibility when determining release event frequencies.

C.2.2.5 Consequence Modeling

The proposed QRA guidelines do not recommend a particular consequence modeling approach, but do outline various options for thermal radiation, vapor dispersion, and overpressure modeling, and note the approved models for consequence modeling by PHMSA. The guidelines also note that advanced modeling methods can be used to quantify the consequences of cascading events, and to account for site-specific topographical or structural conditions.

Clause 19.5.2.2 states that the characteristics of the substrate exposed to a liquid release must be accounted for in consequence modeling. Clause 19.7.3 also states that topographic features that may influence the consequence outcomes should be considered. Various sections of Clause 19.8 and the proposed QRA guidelines state that hazard footprints must be calculated for all release events.

NFPA 59A (2019) requires that cascading events and topographical features be considered. The proposed QRA guidelines offer more guidance by outlining the levels of detail and general approaches for consequence modeling and remain consistent with the requirements in NFPA 59A Chapter 19.

Both the guidelines and Clause 19.8.4 state that models for calculating consequence endpoints must be approved by the authority having jurisdiction (AHJ), and alternative models must be reviewed.

C.2.2.6 Risk Estimation

Clause 19.4 states that IR shall be represented as iso-risk contours and SR shall be represented as F-N curves; this is consistent with the guidelines. Clause 19.4.3 stipulates that the risk from the QRA shall be

compared to other risks that the population may be exposed to; the proposed guidelines do not include this comparison although it is recommended for consideration by PHMSA.

Clause 19.8.5 requires that the population within the hazard footprints be estimated. The guidelines are consistent with this clause and recommend surrounding population density be determined from available data in accordance with the level of detail in the QRA.

Various sections of Clause 19.8 specify consequence modeling thresholds for usage; the proposed QRA guidelines do not recommend specific thresholds. The proposed guideline compares the thresholds in NFPA 59A (2019), RIVM (2009), and Singapore Guidelines (National Environment Agency 2016a), and notes that selection of consequence thresholds needs to consider the risk acceptance criteria to ensure consistency within a selected standard.

Clauses 19.9.1 and 19.9.2 reiterate the results presentation requirements in Clause 19.4.3, and state that the uncertainties in determining risk must be considered. The proposed guidelines recommend that IR and SR be displayed using the same approach and discusses the uncertainties inherent in the entire QRA process in the QRA preparation section of the guidelines. The discussion on uncertainty in the QRA in the proposed guidelines is more detailed than in Chapter 19. The proposed guidelines also recommend sensitivity analyses to reduce uncertainty in the QRA.

C.2.2.7 Risk Evaluation

Clause 19.10 recommends risk acceptance criteria for IR and SR. The recommendation of risk criteria is outside the scope of the proposed QRA guidelines; however, they do summarize relevant risk acceptance criteria and highlight past supporting research funded by PHMSA (see Section 3.5.7 of the main report) which demonstrate general commonality. The proposed QRA guidelines emphasize the need to choose consequence thresholds and risk acceptance criteria that are consistent.

Clause 19.11 states that risk at unacceptable levels shall be reduced to tolerable levels, and SR shall be reduced according to the as low as reasonably practicable (ALARP) principle. The guidelines are consistent with these recommendations, noting that the concept of ALARP can be difficult to establish in practice because it would require defining the concept of ‘gross disproportion’ and monetization of fatalities and irreversible harm.

Appendix D: Detailed Information for QRAs of Benchmark LNG Facilities

D.1 Facilities and Systems Definition

D.1.1 Introduction

Preliminary design bases were developed for two generic facilities. In order to produce results representative of LNG facilities in the U.S., a peak shaver facility designed to liquefy 25 million standard cubic feet per day (MMscfd) of gas and an export facility designed to liquefy 15 million tonnes per annum (MTPA) of gas were selected. It was assumed that both facilities would be receiving gas at the appropriate pressure required for liquefaction, therefore, booster compression was not included in the design.

D.1.2 Peak Shaver Facility

D.1.2.1 Overview

The Peak Shaver Facility is designed to have a single pretreatment and liquefaction train capable of liquefying 25 MMscfd of natural gas from the pipeline, utilizing a closed nitrogen loop refrigeration process. The LNG will be stored in one (1) 160,000m^3 atmospheric full containment tank and sent to the vaporizers via four (4) high pressure in-tank pumps. LNG will then be vaporized in four (4) shell and tube vaporizers using an unspecified, non-flammable heat transfer fluid. Two (2) boil-off gas (BOG) compressors will be used to compress vapor from the tank and transfer it to the inlet of the facility. LNG will also be used to load LNG trucks via one (1) low pressure in-tank pump.

The design parameters for the Peak Shaver Facility are specified in the following sections and serve as the basis for the Plot Plan, Process Flow Diagrams (PFDs), and Heat and Material Balance (HMB) documents provided in Appendix F of this report and listed in Table 19.

Table 19 Peak Shaver Facility Documents Created for this Study

Document Name	Document Number
Plot Plan – Peak Shaver	01802-DG-101
Process Flow Diagram – Peak Shaver – Inlet Gas	01802-PF-101
Process Flow Diagram – Peak Shaver – Pretreatment	01802-PF-102
Process Flow Diagram – Peak Shaver – Liquefaction	01802-PF-201
Process Flow Diagram – Peak Shaver – Balance of Plant	01802-PF-202
Heat and Material Balance – Peak Shaver	01802-PF-001

D.1.2.2 Feed Gas Parameters

The inlet feed gas parameters are listed below:

- Flowrate: 29 MMscfd (0.2 MTPA)
- Pressure: 680 psig (46.9 barg)
- Temperature: 95°F (35 °C)

D.1.2.3 Liquefaction Parameters

The parameters for the gas downstream of pretreatment that is sent to liquefaction are listed below:

- Flowrate: 25 MMscfd (0.18 MTPA)
- Pressure: 635 psig (43.8 barg)
- Temperature: 85 °F (29 °C)

D.1.2.4 LNG Storage Tank

The parameters for the LNG storage tank are listed below:

- Capacity: 160,000 m^3 (3.3 bcf)
- Pressure: 0.5 psig (0.03 barg)
- Temperature: -260 °F (-162 °C)

D.1.2.5 LNG Sendout Parameters

The parameters for the LNG being sent to the vaporizers are listed below:

- Flowrate: 400 MMscfd (2.8 MTPA)
- Pressure: 820 psig (56.5 barg)
- Temperature: -260 °F (-162 °C)

D.1.2.6 LNG Truck Loading Parameters

The parameters for the LNG being sent to the truck loading bays are listed below:

- Flowrate: 300 gpm (81.8 m^3/hr)
- Pressure: 40 psig (2.8 barg)
- Temperature: -260 °F (-162 °C)

D.1.3 Export Facility

D.1.3.1 Overview

The Export Facility is designed to have three (3) pretreatment and three (3) liquefaction trains capable of liquefying 15 MTPA of natural gas from the pipeline utilizing a closed mixed refrigerant loop. The LNG will be stored in two (2) 160,000 m^3 atmospheric full containment tanks and pumped to an LNG carrier with four (4) in-tank pumps. Three (3) boil-off gas (BOG) compressors will be used to compress vapor from the tanks and transfer it to the inlet of the facility. The vapor return line from the carrier will tie into the BOG system. The exclusion of a bottom fill line on the export facility storage tanks on drawing #01802-PF-212 in Appendix F represents traditional design practice used internationally, but is not intended to be prescriptive or to represent current guidance from U.S. regulatory entities.

The refrigerant system will be composed of nitrogen, methane, ethylene, propane, and butane. The refrigerants will be transferred directly into the refrigerant system and not stored onsite.

The design parameters for the Export Facility are specified in the following sections and serve as the basis for the Plot Plan, PFDs, and HMB documents provided as Appendix F of this report and listed in Table 20.

Table 20 Export Facility Documents Created for this Study

Document Name	Document Number
Plot Plan – Export	01802-DG-111
Process Flow Diagram – Export – Inlet Gas	01802-PF-111
Process Flow Diagram – Export – Pretreatment	01802-PF-112
Process Flow Diagram – Export – Liquefaction	01802-PF-211
Process Flow Diagram – Export – Balance of Plant	01802-PF-212
Process Flow Diagram – Export – Mixed Refrigerant	01802-PF-213
Heat and Material Balance – Export	01802-PF-011

D.1.3.2 Feed Gas Parameters

The inlet feed gas parameters are listed below:

- Flowrate: 17.11 MTPA (2,443 MMscfd)
- Pressure: 1,000 psig (68.9 barg)
- Temperature: 90°F (32 °C)

D.1.3.3 Liquefaction Parameters

The parameters for the gas downstream of pretreatment that is sent to liquefaction (per train) are listed below:

- Flowrate: 5 MTPA (714 MMscfd)
- Pressure: 850 psig (58.6 barg)
- Temperature: 85 °F (29 °C)

D.1.3.4 LNG Storage Tank

The parameters for each LNG storage tank are listed below:

- Capacity: 160,000 m^3 (3.3 bcf)
- Pressure: 0.5 psig (0.03 barg)
- Temperature: -260 °F (-162 °C)

D.1.3.5 LNG Loading Parameters

The parameters for the LNG sent to the LNG carrier are listed below:

- Flowrate: 52,834 gpm (12,000 m3/hr)
- Pressure: 40 psig (2.8 barg)
- Temperature: -260 °F (-162 °C)

D.2 Hazard Identification

D.2.1 Introduction

The following are typical hazards to be evaluated as part of a QRA for an LNG facility as a result of accidental releases of hazardous materials onsite:

- Flash fire (often referred to as flammable vapor dispersion);
- Jet fire;
- Pool fire;
- Overpressure from a vapor cloud explosion; and
- Toxic vapor dispersion

D.2.2 Flash Fire (a.k.a., flammable vapor dispersion)

Flash fires can occur if a cloud with a flammable mixture in air, between the lower flammability limit (LFL) and the upper flammability limit (UFL), reaches an ignition source and burns in an unconfined, uncongested area. A flash fire is typically of short duration; depending on the source of the flammable cloud, a flash fire may burn back to the source and turn into a jet fire or a pool fire, described below. If

the flammable concentration extends beyond a property line before igniting, the resultant flash fire can have offsite impacts.

D.2.3 Jet Fire

Jet fires occur from the ignition of high-momentum (e.g., pressurized) releases of flammable streams. Typically, jet fires occur when the release is ignited near the leak source, or if a flash fire burns back to the source. Jet fires will continue to burn until the fuel source is disrupted or shutoff. Based on the location of the source of the jet fire relative to the plant boundaries, a jet fire can have offsite impacts.

D.2.4 Pool Fire

Pool fires may occur when a significant amount of flammable liquid is spilled and accumulates on the ground. The vapor generated from the evaporation of the liquid will mix with air and becomes flammable at concentrations between the LFL and UFL, when the flammable vapors can be ignited and burn back to the pool. Heat from the fire increases the vapor generation rate, and a fire establishes over the pool surface.

The contribution of pool fires to the risk from a facility depends on the potential for rainout from the various release scenarios, the amount of rainout, and location of the impoundment basin designed to contain the spill. Pool fires are not considered in the current study, due to the limited scope of the design development in this task.

D.2.5 Overpressures from Vapor Cloud Explosions

Vapor cloud explosions (VCE) can occur when a flammable mixture is ignited inside a congested and/or confined region; the fuel composition and levels of congestion or confinement will determine the minimum size of the flammable vapor cloud required to develop damaging overpressures. The overpressure generated by a VCE can have effects on personnel and equipment within the facility, as well as offsite effects.

D.2.6 Toxic Vapor Dispersion

Releases that can contain toxic compounds, such as benzene, toluene, xylene, and hydrogen sulfide, can result in hazardous conditions for personnel and the public. For this project, only toxic hazards from the heavy hydrocarbon (NGL) streams exiting the coldbox are considered; all other streams are neglected due to the very low concentrations of toxic components.

D.2.7 Peak Shaver Facility Hazard Identification

Table 21 lists the hazards described above and how they apply to each QRA node for the Peak Shaver Facility. A node is defined as the piping and equipment between two shutoff valves in the PFDs provided in Appendix F.

Table 21 Peak Shaver Facility Hazard Identification

Node	Flash Fire	Jet Fire	Toxic Dispersion	VCE
Inlet Gas	Y	Y	N	N
Feed Gas	Y	Y	N	N
Pretreatment	Y	Y	N	Y
Liquefaction	Y	Y	N	Y
LNG Rundown	Y	Y	N	N
Natural Gas Liquids (NGL)	Y	Y	Y	Y
LNG Storage Tank	Y	Y	N	N
LNG / Natural Gas Sendout	Y	Y	N	N
LNG Truck Loading	Y	Y	N	N
Boil-Off Gas (BOG)	Y	Y	N	N

D.2.8 Export Facility Hazard Identification

Table 22 lists the hazards described above and how they apply to each QRA node for the Export Facility. A node is defined as the piping and equipment between two shutoff valves in the PFDs provided in Appendix F.

Table 22 Export Facility Hazard Identification

Node	Flash Fire	Jet Fire	Toxic Dispersion	VCE
Inlet Gas	Y	Y	N	N
Feed Gas	Y	Y	N	N
Pretreatment	Y	Y	N	Y
Liquefaction	Y	Y	N	Y
LNG Rundown	Y	Y	N	N
Natural Gas Liquids (NGL)	Y	Y	Y	Y
LNG Storage Tank	Y	Y	N	N
LNG Carrier Loading	Y	Y	N	N
Mixed Refrigerant	Y	Y	N	Y
Boil-Off Gas (BOG)	Y	Y	N	N

D.3 Frequency Analysis Results

Table 23 Weather Condition Cases and Associated Probabilities for Export Facility

Weather Scenario ID	Wind Speed (km/h)	Relative Humidity (%)	Stability Class	Temperature (°C)	Estimated Probability
1	4.0	79.0	F	14.5	14.4%
2	12.1	79.0	D- Day	26.0	13.1%
3	21.6	79.0	D- Day	26.0	12.5%
4	4.0	79.0	F	26.0	11.7%
5	21.6	79.0	D- Day	14.5	10.9%
6	12.1	79.0	D- Day	14.5	8.8%
7	12.1	79.0	D- Night	14.5	7.2%
8	4.0	79.0	B	26.0	6.6%
9	12.1	79.0	D- Night	26.0	5.1%
10	4.0	79.0	B	14.5	5.0%
11	21.6	79.0	D- Night	14.5	3.2%
12	21.6	79.0	D- Night	26.0	1.4%

Table 24 Wind Direction Probabilities for Export Facility

Weather Scenario ID	Wind Direction Probabilities*							
	0° (N)	45° (NW)	90° (W)	135° (SW)	180° (S)	225° (SE)	270° (E)	315° (NE)
1	0.143	0.086	0.066	0.064	0.096	0.154	0.161	0.232
2	0.289	0.197	0.065	0.052	0.056	0.102	0.126	0.112
3	0.399	0.145	0.020	0.027	0.054	0.080	0.082	0.192
4	0.250	0.153	0.051	0.040	0.038	0.130	0.140	0.198
5	0.085	0.041	0.020	0.125	0.286	0.230	0.084	0.130
6	0.131	0.079	0.050	0.075	0.158	0.181	0.165	0.161
7	0.141	0.061	0.025	0.074	0.164	0.234	0.126	0.177
8	0.190	0.137	0.108	0.092	0.080	0.120	0.151	0.122
9	0.311	0.147	0.018	0.020	0.044	0.142	0.163	0.155
10	0.132	0.086	0.073	0.079	0.099	0.166	0.192	0.173
11	0.076	0.020	0.014	0.131	0.323	0.224	0.045	0.167
12	0.349	0.053	0.015	0.025	0.071	0.095	0.083	0.309

* Denotes the direction from which the wind vector originates (i.e. “S” indicates wind traveling from south to north).

Table 25 Wind Direction Probabilities for Peak Shaver Facility

Weather Scenario ID	Wind Direction Probabilities*							
	0° (N)	45° (NW)	90° (W)	135° (SW)	180° (S)	225° (SE)	270° (E)	315° (NE)
1	0.031	0.087	0.173	0.221	0.137	0.180	0.130	0.041
2	0.154	0.215	0.147	0.102	0.053	0.137	0.145	0.048
3	0.123	0.144	0.129	0.093	0.065	0.109	0.213	0.123
4	0.085	0.107	0.123	0.210	0.170	0.099	0.127	0.079
5	0.144	0.096	0.089	0.069	0.098	0.126	0.188	0.190
6	0.077	0.192	0.244	0.278	0.111	0.030	0.033	0.034
7	0.023	0.148	0.362	0.314	0.073	0.041	0.025	0.014
8	0.135	0.090	0.070	0.135	0.187	0.112	0.130	0.141
9	0.141	0.318	0.222	0.141	0.055	0.038	0.046	0.040
10	0.191	0.190	0.124	0.100	0.105	0.076	0.104	0.110
11	0.154	0.161	0.101	0.181	0.191	0.058	0.076	0.078
12	0.161	0.430	0.171	0.114	0.037	0.051	0.026	0.010

*Denotes the direction from which the wind vector originates (i.e. “S” indicates wind traveling from south to north)

Frequency analysis results for the export and peak shaver facilities are tabulated in the Microsoft Excel workbooks 'D.31 Export Frequency Results Table.xlsx' and 'D.32 Peak Shaver Frequency Results Table.xlsx', respectively, which are being provided to PHMSA separately from this report due to the size of the files.

D.4 Consequence Model Outputs

Phast version 6.7 was used to evaluate all hazards associated with both the Export and Peak Shaver facilities. Although not the latest version of the software, 6.7 is the most recent version approved by PHMSA.

- The Phast calculations used the following sources of information for input parameters: Facility Design Documents, provided in Appendix F, respectively, for the Peak Shaver and Export facilities. These documents provided data on the material released, its pressure, temperature, phase, and total inventory;
- Weather data (wind speed, ambient temperature, humidity, atmospheric stability class, etc.) for two locations representative, respectively, of the typical Peak Shaver and Export facilities. The weather data is provided in Appendix F;
- Release hole sizes, based on the Facility Design Documents and hole size distribution assumptions. The release hole sizes are provided in Appendix F.

All loss of containment scenarios were modeled in Phast as horizontal releases. For VCE overpressure calculations, each congested region was assumed to be filled at 5% and 10% of its volume by a stoichiometric fuel/air mixture.

The following information was extracted from the Phast calculations:

- The distance to the lower flammability limit (LFL) was used to determine the extent of the flash fire hazards;
- The distance to a specified thermal radiation threshold was used to determine the extent of the jet fire hazards;
- The distance to a specified vapor concentration level was used to determine the extent of the toxic dispersion hazards;
- The distance to 3 psig overpressures was used to determine the extent of the vapor cloud explosion hazards. Note that unlike the three other hazards, VCEs extend from the congested/confined region in which the cloud is ignited, rather than from the release location.

A summary of the consequence analysis results for the scenarios included in this study is provided in Appendix F as summarized in the Microsoft Excel spreadsheets listed in Table 26.

Table 26 Consequence Analysis Results for Base Case Scenarios in this Study

Document Name
PHAST QRA Results_1.xlsx
PHAST QRA Results_2.xlsx

D.5 Consequence Analysis Detailed Results

For each facility, releases were modeled in Phast based on the scenarios identified in the frequency analysis (see Appendix D.3). Consequence analysis results used for each facility were tabulated in the Microsoft Excel Spreadsheets, 'PHAST QRA Results Part1.xlsx' and 'PHAST QRA Results Part2.xlsx' provided in Appendix F.

The tables in Appendix D.3 provided the frequency for each release scenario, and the consequence results include the associated fatality distance for jet fires, flash fires, and toxicity.

Each release scenario is linked to a component which can be located on the plot plans using the (X,Y) coordinates provided in the tables below, which correspond to the coordinate system superimposed on the plot plans.

Point sources are parts that would have a release modeled at a discrete point, such as pressure vessels or tanks. Distributed sources represent piping, and are described by start and end coordinates. Releases from distributed sources were modeled at 1 m increments along the length of the line.

Table 27 Point Source Locations in Peak Shaver Facility

Part Label	Peak Shaver Inventory	X Coordinate (m)	Y Coordinate (m)
PV_101_1	INV001	10	600
L-100	INV001	10	598
FM_102_1	INV001	10	596
CV_102_1	INV001	10	594
PC_102_1	INV001	10	592
AI_102_1	INV001	10	590
PV_102_1	INV001	10	588
PV_102_2	INV002	345	510
F-101	INV002	347	510
D-100	INV002	349	510
E-10-100	INV002	351	510
D-101	INV002	353	510
F-102	INV002	355	510
AI_102_2	INV001	357	510
CV_102_2.a	INV002	361	510
D-102A	INV002	363	510
CV_102_3.a	INV002	365	510
F-103	INV002	371	510
D-103	INV002	373	510
F-104	INV002	375	510
AI_103_1	INV002	377	510
PV_103_1	INV002	379	510
PV_202_1	INV005	480	540

Part Label	Peak Shaver Inventory	X Coordinate (m)	Y Coordinate (m)
CV_201_1	INV006	400	493
PC_201_1	INV006	400	460
TC_201_1	INV006	400	460
PV_201_1	INV006	360	320
FC_201_1.a	INV006	356	320
FC_201_1.b	INV006	356	318
CV_201_1.a	INV006	354	320
CV_201_1.b	INV006	354	318
T-300	INV014	311	311
T-300_PC	INV014	300	300
T-300_LI	INV014	305	300
D-300	INV012	300	440
C-300	INV013	298	440
PI_BOG104_1	INV013	296	440
E-301	INV013	294	440
HOSE_BOG101_1	INV011	475	240
CV_BOG101_1	INV011	473	240
PI_BOG101_1	INV011	471	240
FC_303_1	INV010	352	300
CV_303_1	INV010	354	300
HOSE_303_1	INV010	475	230
FC_301_1	INV008	351	289
CV_301_1	INV008	353	289
E-300	INV008	398	170
TC_302_1	INV009	396	170
PC_302_1	INV009	396	170
PV_302_1	INV009	8	610

Table 28 Point Source Locations in Export Facility

Part Label	Export Inventory	X Coordinate (m)	Y Coordinate (m)
PV_111_1	INV001	10	870
L-110	INV001	12	870
FM_111_1	INV001	14	870
CV_111_1	INV001	16	870
PC_111_1	INV001	18	870
AI_111_1	INV001	20	870
PV_111_2	INV001	22	870
PV_112_1	INV002	200	850
F-111	INV002	200	848
D-110	INV002	200	846
$\times 10^{-11}$0	INV002	200	844
D-111	INV002	200	842
F-112	INV002	200	840
AI_112_1	INV002	200	838
CV_112_1.a	INV002	210	836
D-112a	INV002	210	834
CV_112_2.a	INV002	210	832
F-113	INV002	215	825
D-113	INV002	215	823
F-114	INV002	215	821
AI_113_1	INV002	215	819
PV_113_1	INV002	215	817
PV_214_1	INV005	185	790
TC_211_1	INV006	250	690
EX-210	INV006	250	685
PC_212_1	INV006	250	680
PV_212_1	INV006	250	675
CV_217_1	INV020	244	695
D-212	INV018	240	685

Part Label	Export Inventory	X Coordinate (m)	Y Coordinate (m)
CV_218_1	INV018	244	675
C-211-2	INV018	204	685
CV_216L_1	INV018	204	690
E-212	INV018	230	685
TC_R115_1	INV018	235	685
PV_215_1	INV015	248	660
D-210	INV015	200	660
PC_R110_1	INV015	200	665
C-211-1	INV017	200	685
E-211	INV017	200	710
TC_216_1	INV017	202	710
D-211	INV017	204	710
FI_213_1	INV009	350	480
PV_213_1	INV009	348	480
T-310A/B	INV014A/B	304.1195	469.9217
T_310A/B_PC	INV014A/B	300	460
T_310A/B_LI	INV014A/B	310	460
D-310	INV012	309	550
C-310	INV013	309	556
PI_312_1	INV013	309	558
E-311	INV013	309	560
ARM_BOG111_1	INV011	385	80
PV_BOG111_1	INV011	385	82
AI_BOG111_1	INV011	385	84
PC_BOG111_1	INV011	385	86
FC_311_1	INV010	348	465
CV_311_1	INV010	350	465
CV_311_2	INV010	389.2579	88
ARM_311_1	INV010	389.2579	80

Table 29 Distributed Source Locations in Peak Shaver Facility

Part Label	Peak Shaver Inventory	Start X Coordinate (m)	Start Y Coordinate (m)	End X Coordinate (m)	End Y Coordinate (m)
101_2	INV001	10	600	10	598
102_1	INV001	10	598	10	596
102_2	INV001	10	596	10	594
102_3	INV001	10	594	10	592
102_4	INV001	10	592	10	590
102_5	INV001	10	590	10	588
102_10	INV002	351	510	353	510
102_11	INV002	353	510	355	510
102_12	INV002	355	510	357	510
102_13	INV002	357	510	359	510
102_14.a	INV002	359	510	361	510
102_15.a	INV002	361	510	363	510
102_16.a	INV002	363	510	365	510
102_17.a	INV002	365	510	369	510
102_18	INV002	369	510	371	510
102_19	INV002	371	510	373	510
102_20	INV002	373	510	375	510
102_6	INV002	10	510	345	510
102_6	INV002	10	588	10	510
102_7	INV002	345	510	347	510
102_8	INV002	347	510	349	510
102_9	INV002	349	510	351	510
103_1	INV002	375	510	377	510
103_2	INV002	377	510	379	510
103_3	INV004	379	510	400	510
202_1	INV005	400	500	480	540
201_3	INV006	400	493	400	460
201_4	INV006	400	459.7	400	320
201_4	INV006	400	320	360	320
201_5	INV006	360	320	358	320
201_6.a	INV006	358	320	356	320

Part Label	Peak Shaver Inventory	Start X Coordinate (m)	Start Y Coordinate (m)	End X Coordinate (m)	End Y Coordinate (m)
201_6.b	INV006	358	318	356	318
201_6.b	INV006	358	320	358	318
201_7.a	INV006	356	320	354	320
201_7.b	INV006	356	318	354	318
201_8.a	INV006	354	320	350	320
201_8.b	INV006	354	318	350	318
301_1	INV008	349	289	351	289
301_2	INV008	351	289	353	289
301_3	INV008	398	289	398	170
301_3	INV008	353	289	398	289
302_1	INV009	398	170	396	170
302_2	INV009	8	170	8	610
302_2	INV009	395.5	170	8	170
303_1	INV010	350	300	352	300
303_2	INV010	352	300	354	300
303_3	INV010	354	300	400	300
303_3	INV010	400	300	400	230
303_3	INV010	400	230	475	230
BOG101_1	INV011	473	240	475	240
BOG101_2	INV011	471	240	473	240
BOG101_3	INV011	402	240	471	240
BOG101_3	INV011	402	310	402	240
304_1	INV012	351	310	402	310
304_2	INV012	402	310	402	320
BOG102_1	INV012	402	440	300	440
BOG102_1	INV012	402	320	402	440
BOG102_2	INV012	300	440	298	440
BOG104_1	INV013	298	440	296	440
BOG104_2	INV013	296	440	294	440
BOG105_1	INV013	294	440	250	470

Table 30 Distributed Source Locations in Export Facility

Part Label	Export Inventory	Start X Coordinate (m)	Start Y Coordinate (m)	End X Coordinate (m)	End Y Coordinate (m)
111_1	INV001	0	870	12	870
111_2	INV001	10	870	12	870
111_3	INV001	12	870	14	870
111_4	INV001	14	870	16	870
111_5	INV001	16	870	18	870
111_6	INV001	18	870	20	870
111_7	INV001	20	870	22	870
112_1	INV002	200	870	200	850
112_1	INV002	200	870	478	870
112_1	INV002	22	870	200	870
112_10.a	INV002	210	836	210	834
112_11.a	INV002	210	834	210	832
112_12.a	INV002	210	825	212	825
112_12.a	INV002	210	832	210	825
112_13	INV002	212	825	215	825
112_14	INV002	215	825	215	823
112_15	INV002	215	823	215	821
112_2	INV002	200	850	200	848
112_3	INV002	200	848	200	846
112_4	INV002	200	846	200	844
112_5	INV002	200	844	200	842
112_6	INV002	200	842	200	840
112_7	INV002	200	840	200	838
112_8	INV002	200	838	210	838
112_9.a	INV002	210	838	210	836
113_1	INV002	215	821	215	819
113_2	INV002	215	819	215	817
113_3	INV004	215	817	250	817
113_3	INV004	250	817	250	705
214_1	INV005	250	700	185	790
211_2	INV006	250	695	250	690
211_3	INV006	250	690	250	685

Part Label	Export Inventory	Start X Coordinate (m)	Start Y Coordinate (m)	End X Coordinate (m)	End Y Coordinate (m)
212_1	INV006	250	685	250	680
212_2	INV006	250	680	250	675
212_3	INV007	250	675	250.22	600
212_3	INV007	250.22	600	389.26	600
212_3	INV007	527.7	600	389.26	600
213_1	INV009	389.26	600	389.26	480
213_2	INV009	389.26	480	350	480
213_3	INV009	350	480	348	480
213_4	INV009	348	480	343	480
311_1	INV010	346	465	348	465
311_2	INV010	348	465	350	465
311_3	INV010	350	465	389.26	465
311_4	INV010	389.26	465	389.26	88
311_5	INV010	389.26	88	389.26	80
BOG111_1	INV011	385	80	385	82
BOG111_2	INV011	385	82	385	84
BOG111_3	INV011	385	84	385	86
BOG111_4	INV011	385	86	385	450
312_1	INV012	438	450	385	450
312_1	INV012	340	450	385	450
312_2	INV012	385	450	385	530
BOG112_1	INV012	385	530	385	550
BOG112_1	INV012	385	550	309	550
BOG112_2	INV012	309	550	309	556
BOG114_1	INV013	309	556	309	558
BOG114_2	INV013	309	558	309	560
BOG115_1	INV013	309	560	50	630
215_1	INV015	248	695	248	675
215_1	INV015	248	675	248	660
215_2	INV015	248	660	200	660
R110_1	INV015	200	660	200	665
R110_2	INV015	200	665	200	685
216_1	INV017	204	710	206	710

Part Label	Export Inventory	Start X Coordinate (m)	Start Y Coordinate (m)	End X Coordinate (m)	End Y Coordinate (m)
216_1	INV017	206	710	206	685.5
216_1	INV017	206	685.5	204	685
R111_1	INV017	200	685	200	710
R112_1	INV017	200	710	202	710
R112_2	INV017	202	710	204	710
216L_1	INV018	204	710	204	690
216L_2	INV018	204	690	204	685
218_1	INV018	246	675	248	675
218_2	INV018	240	685	240	675
218_2	INV018	240	675	244	675
218_3	INV018	244	675	246	675
R115_1	INV018	230	685	235	685
R115_2	INV018	235	685	240	685
R116_1	INV018	204	685	230	685
217_1	INV020	246	695	248	695
217_2	INV020	240	685	240	695
217_2	INV020	240	695	244	695
217_3	INV020	244	695	246	695

D.6 Sample Calculation

D.6.1 Background and Objective

The following sample calculation illustrates the process for calculating individual risk and societal risk at a given point for the benchmark facility QRA. The calculation follows the framework presented in Appendix C, Section C.1 using the below equation.

$$IR_{(x,y)} = \sum_{i=1}^{n}\left(\sum_{j=1}^{J} P\left[I_i|H_j\right]\cdot\left(\sum_{l=1}^{L}\sum_{k=1}^{K} P\left[H_j|HE_k,\, W_l, E_i\right]\cdot P[HE_k|W_l, E_i]\cdot P[W_l]\right)\cdot P[E_i]\right)$$

Table 31 Symbol Definition for the Individual Risk Calculation

Symbol	Meaning	Description
$IR_{(x,y)}$	Individual risk at a location	Any point (x, y) on grid
E_i	Release event	Set of all release scenarios

I_i	Fatal event	An event where the intensity (e.g. heat flux, concentration) exceeds the fatal limit
H_j	Hazard intensity	The intensity of a hazard (e.g. heat flux, concentration)
HE_k	Hazard event	The type of hazard event that occurs (e.g. jet fire, flash fire, toxicity)
W_l	Weather combination	Combination of: (1) temperature, (2) humidity, (3) wind speed, (4) stability class, (5) wind direction, (6) irradiance

The facility plot plan and the surrounding areas are divided by grid points at 4m intervals starting from a corner of the facility plot.[20] This sample calculation was applied to the point X = -152 m, and Y = 652 m on the peak shaver facility; the facility plot plan is shown in Figure 20. This point was selected for ease of calculation as the only relevant hazard is a flash fire resulting from catastrophic failure of the LNG storage tank. Without this prior knowledge that only a single hazard is influential at this location, all equipment (and all associated all release events and hazards) would have to be iterated at this point to determine the total risk at any given location.

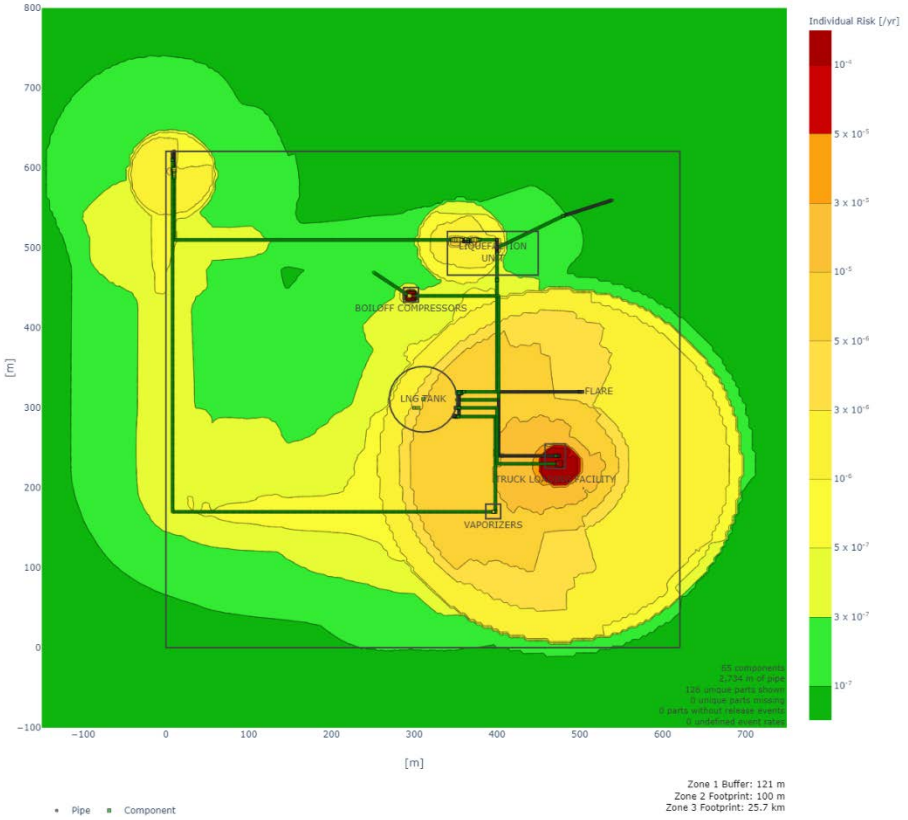


Figure 20 Peak Shaver Plot Plan with Individual Risk Results

[20] The division of the plot into a 4-m-spaced grid is for illustrative purposes in this study. The selection of grid points and their interval depends on the locations of the equipment relative to each other and relative to the plot boundary, and the extent of the hazard footprints due to the release events. In this study, the 4m grid was selected to estimate the LSIR contours within the facility with greater granularity. Coarser grid points can be used for lower resolution estimates of LSIR contours.

D.6.2 Frequency Analysis

D.6.2.1 Release Event Frequency

To begin calculating the risk, the relevant release events and their associated frequencies must be determined. The individual risk at any point is the sum of the risk from all the release events that affect that point. The frequency of a release event is calculated from the equation below:

$$\boldsymbol{P}[\boldsymbol{E_i}] = P_{equipment\ failure} * P_{ESD} * P_{Location} * P_{Release\ direc}$$

where the constituent probabilities are described in the following table.

Table 32 Release Event Probability Descriptions

Variable	Description
$\boldsymbol{P}[\boldsymbol{E_i}]$	Probability of occurrence of a given release event
$P_{equipment\ failure}$	Probability of equipment failure; approximated with equipment failure rate
P_{ESD}	Probability of failure of emergency shut-down systems, which influences release duration
$P_{Location}$	Probability of the location of failure within the equipment
$P_{Release\ direc}$	Probability of a release in a given direction, based on orientation of the equipment

For the sample point, it was known that catastrophic failure of the full containment tank was the only relevant release event. For a full calculation, all release events must be checked.

- The baseline failure frequency considered was from Table 19.6.1 in NFPA 59A (2019) for the storage tank unzippering scenario, with the value being 1×10^{-8} per vessel year for catastrophic failure for a full containment storage tank.
- The probability of failure for emergency shut-down (ESD) systems was assumed to be 10%. Release duration is the measure of successful emergency shut-down valve (ESDV) operation. If ESDV is successful (90%), the duration ranges from 2 to 10 min. If unsuccessful (10%), the duration is 60 min. These probabilities are included in the computation for illustration; however, a catastrophic failure of a storage tank has a short duration regardless of the effect of an ESD system as the full inventory is released instantaneously. As the full risk computation is repeated for both states of ESD (i.e. success and failure), the risk estimated at both states is summed so that the status of ESD system has no effect on the risk due to catastrophic failure of the tank (see Table 6 for details).
- For the storage tank, two release locations were assumed to be equally likely. A release at 1 m above grade (50%) and a release at two-thirds the tank height (50%). These release heights were chosen to illustrate the two extremes of potential release event locations.
- The probability of release direction was assumed to be equally likely in the horizontal plane of the tank to align with the eight cardinal directions. The probability of release in each direction was taken as 12.5% (one-eighth).

Combining the above information gives four unique release events: a combination of two possible release heights and two possible release durations. These events are tabulated below.

Table 33 Release Events with Frequencies

Failure Scenario	Release Duration (min)	Release Height	Equipment Failure Rate	Release Direction Probability	Release Event Frequency (per vessel year)
Tank rupture	2	1 m	1×10^{-8}	0.125	5.625×10^{-10}
Tank rupture	2	2/3 Height	1×10^{-8}	0.125	5.625×10^{-10}
Tank rupture	60*	1 m	1×10^{-8}	0.125	6.250×10^{-11}
Tank rupture	60*	2/3 Height	1×10^{-8}	0.125	6.250×10^{-11}

*The long duration is the result of an ESD failure.

The computation for the first row is carried out in the following steps, accounting for successful ESD operation and a 1 m release height:

$$\boldsymbol{P}[\boldsymbol{E_i}] = P_{equipment\ failure} * P_{ESD} * P_{Location} * P_{Release\ direc}$$

$$\boldsymbol{P}[\boldsymbol{E_i}] = 1\text{x}10^{-8} * 0.9 * 0.5 * 0.125 = 5.625\ \text{x}\ 10^{-10}$$

D.6.2.2 Weather Conditions

Weather conditions were considered as inherently random variables, and data was obtained from weather stations in the specified region for the peak shaver facility. Weather data was obtained from National Oceanic and Atmospheric Administration (NOAA) Local Climatological Data (LCD).

The weather conditions were modeled as discrete combinations of temperature, humidity, and wind speed from hourly LCD. The probability of occurrence for each combination was based on the proportion of LCD within the specified combination. The mean was taken as the representative value for the parameters in each range. Twelve combinations were used for the analysis, based on the following ranges of parameters:

- Two temperatures: 3 °C for winter and 19.5 °C for summer
- Three wind speeds: 8 km/h, 15 km/h, and 26.5 km/h
- Three stability classes: B, D and F.

These cases and their associated probabilities are tabulated below.

Table 34 Weather Condition Combination and Associated Probabilities for Peak Shaver Facility

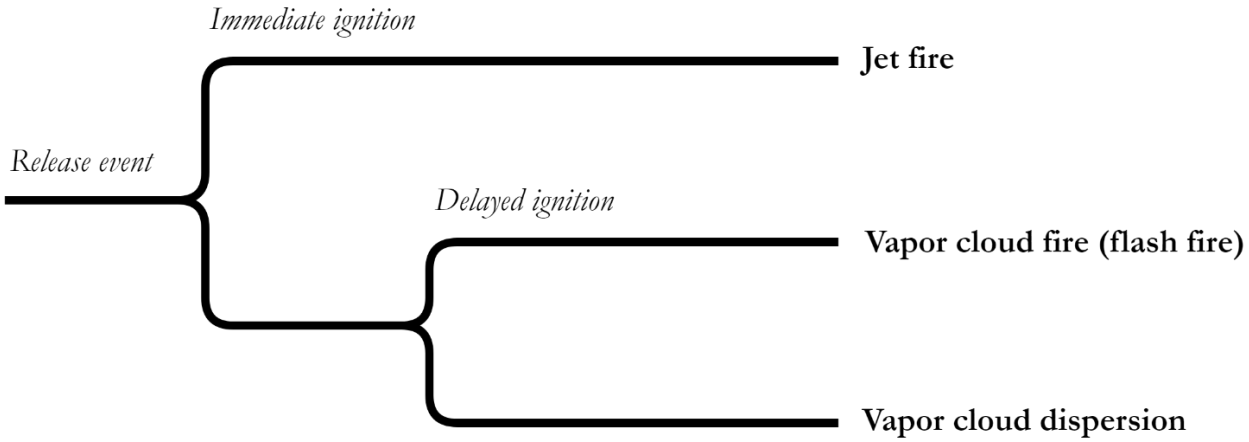
Weather Combination	Temperature (°C)	Wind Speed in Any Direction (km/h)	Stability Class	Weather Combination Probability, $P[W_i]$
1	3.0	26.5	D- Day	0.136
2	19.5	26.5	D- Day	0.119
3	19.5	15.0	D- Day	0.114
4	3.0	15.0	D- Day	0.088
5	19.5	8.0	B	0.086
6	3.0	15.0	D- Night	0.077
7	3.0	26.5	D- Night	0.077
8	3.0	8.0	B	0.076
9	19.5	15.0	D- Night	0.066
10	19.5	8.0	F	0.065
11	3.0	8.0	F	0.059
12	19.5	26.5	D- Night	0.035

All 12 combinations were considered for every previously identified release event, bringing the total number of events to consider to 48 (4 events multiplied by 12 potential weather conditions).

D.6.2.3 Probability of Ignition

The probability of ignition (POI) for each hazard event was determined based on the fluid released. For the benchmark QRA, a simplified approach to the POI was used. POI was calculated based on the event-tree in the figure below.

Table 35 Simplified Event Tree



For the example point, the only relevant hazard event is a flash fire. For a general calculation, every release event would require a POI for all potential resulting hazard events (i.e.,jet fire, flash fire).

D.6.2.3.1 POI for Sample Calculation

The release considered is from an LNG storage tank; this was assumed to be a liquid release. The direct-ignition probability was obtained from RIVM (2009) and the delayed-ignition probability was obtained from the Flemish Government's Handbook Failure Frequencies (2009). The equation to calculate the probability of a flash fire hazard event occurring based on the event-tree is shown below, with a description of the variables in the following table.

$$P\left[HE_{flash\ fire}|W_l, E_i\right] = (1 - P_{ii})P_{di}$$

Table 36 Hazard Event Probability Descriptions

Symbol	Description
$P\left[HE_{flash\ fire}|W_l, E_i\right]$	Probability of Flash Fire Occurrence
P_{ii}	Probability of Immediate Ignition
P_{di}	Probability of Delayed Ignition

The computation for the sample point only requires calculation of a single POI value, because the only release event is from the LNG tank and the only hazard event is a flash fire. Without prior knowledge, the POI would be calculated for all release events and all possible hazard events.

The values for the probabilities of immediate and delayed ignition were both taken as 0.02.

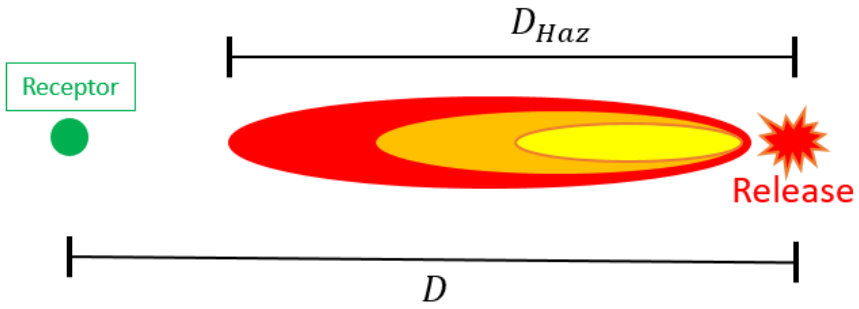
$$P\left[HE_{flash\ fire}|W_l, E_i\right] = (1 - 0.02) \times 0.02 = 0.0196$$

D.6.3 Consequence Modeling

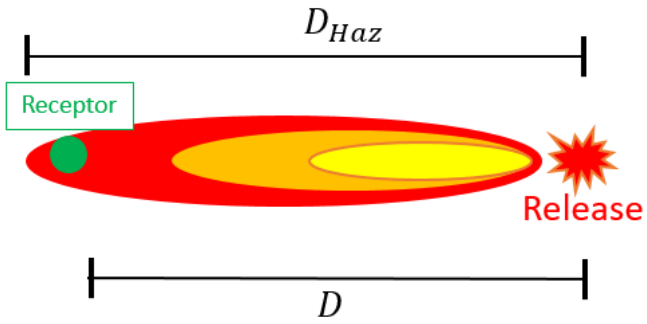
Consequence modeling was conducted using Phast. These analyses considered the inventory size, weather conditions, failure mode, release height, and fluid to model the hazard event. The primary output of the consequence modeling was the maximum downwind distance from the release to a specified hazard intensity. These outputs are required to determine the probability of a hazard intensity occurring, $P\left[H_j|HE_k,\ W_l, E_i\right]$, given specific weather conditions, release event, and hazard event.

For a flash fire, the consequence models gave the distance from the release to the point where the concentration reached the lower flammability limit. This threshold was used under the assumption that any concentration at or above the lower flammability limit can ignite. Receptors within the downwind distance would have a 100% probability of fatality.

For the benchmark QRA, the probability of a hazard intensity occurring was simplified to a binary value based on the distance from the receptor to the release. If the receptor is within the maximum downwind distance, the probability of the hazard intensity occurring at the receptor is one. If the distance of the receptor is greater than the maximum downwind distance, then the probability is zero. These two cases are illustrated in the following figure, where D represents the distance from the release to the receptor, and D_{haz} represents the maximum downwind distance.



(a) Receptor is beyond the downwind distance



(b) Receptor is within the downwind distance

Figure 21 Illustration of Receptor and Release Distance Comparison

For the sample point, the maximum downwind distances were extracted from the Phast results for each release event.

The distance from the sample point to the release is calculated using the distance formula for two-dimensional cartesian coordinates.

- Tank position: $(x_1, y_1) = (311\text{ m}, 311\text{ m})$
- Sample point position: $(x_2, y_2) = (-152\text{ m}, 652\text{ m})$

$$D = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$D = \sqrt{(-152 - 311)^2 + (652 - 311)^2} = 575\text{ m}$$

A partial listing of the release events for the sample point and their associated distances is provided in the following table for illustration. Only weather combinations one through three are shown, whereas the full listing contains combinations one through twelve.

Table 37 Comparison of Release Event and Hazard Distances

Failure Scenario	Release Duration (min)	Release Height (m)	Weather Combination	Release Direction Probability	POI	Maximum downwind Distance, D_{haz} (m)	Distance from Release, D (m)	$P[H_j \mid HE_k, W_l, E_i]$
Tank rupture	2	1	1	0.125	0.0196	5138.2	575	1
Tank rupture	2	1	2	0.125	0.0196	4667.2	575	1
Tank rupture	2	1	3	0.125	0.0196	6930.5	575	1
Tank rupture	2	24.384	1	0.125	0.0196	4342.9	575	1
Tank rupture	2	24.384	2	0.125	0.0196	4334.2	575	1
Tank rupture	2	24.384	3	0.125	0.0196	7662.0	575	1
Tank rupture	60	1	1	0.125	0.0196	5138.2	575	1
Tank rupture	60	1	2	0.125	0.0196	4667.2	575	1
Tank rupture	60	1	3	0.125	0.0196	6930.5	575	1
Tank rupture	60	24.384	1	0.125	0.0196	4342.9	575	1
Tank rupture	60	24.384	2	0.125	0.0196	4334.2	575	1
Tank rupture	60	24.384	3	0.125	0.0196	7662.0	575	1

The sample point is within the hazard distance for all release events, and the resulting value of $P[H_j \mid HE_k, W_l, E_i]$ is one.

D.6.4 Individual Risk

The final required probability to determine IR is $P[I_i \mid H_j]$, which is the probability of a fatality given a hazard intensity. From the previous section, it is known that the thresholds selected represent 100% fatality if a receptor is exposed in the downwind direction. Variability in wind direction influences the probability of fatality for a receptor, because exposure in the downwind direction will not occur 100% of the time. The probability of fatality is equal to the probability that the receptor will be downwind of the

release. This is effectively the probability of the wind blowing in the direction of the receptor from the release.

To account for the effect of variation in wind direction on the probability of fatality, a fatality contour can be created to estimate the probability of fatality in all directions surrounding the release.

D.6.4.1 Facility Contour

A fatality contour is approximated as a circle centered on the release, with the radius being equal to the maximum downwind distance determined from the consequence modeling results. A fatality contour is generated for every release, and the relative position of the receptor to the release determines the probability of fatality. An example of a fatality contour is presented in the following figure. Note that the direction of the initial release was assumed equally likely in any direction and was accounted for during the frequency analysis.

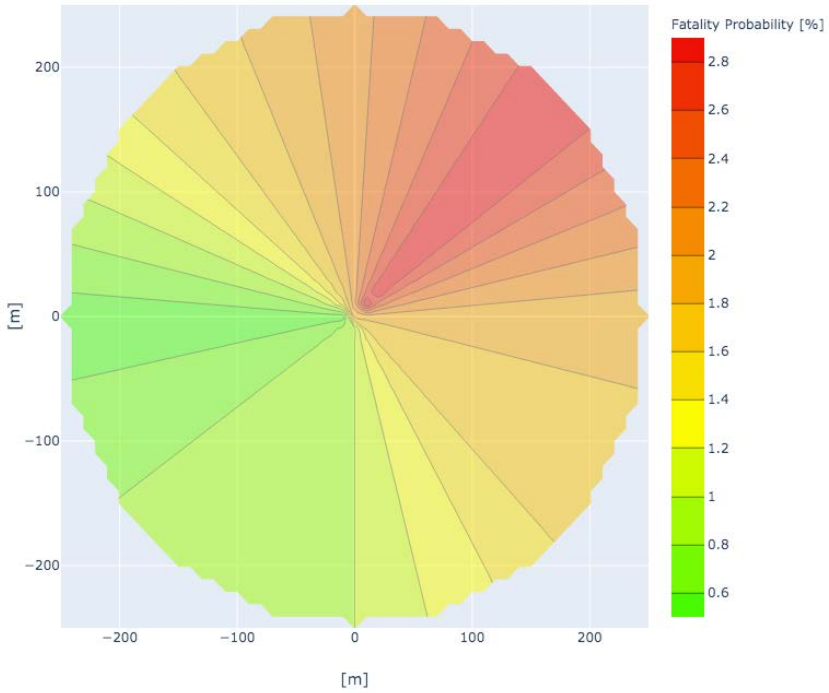


Figure 22 Fatality Contour Example

D.6.4.1.1 Wind Direction Probabilities

The analysis of the LCD yields the probability of the wind blowing from any direction. Wind directions are represented in degrees increasing counterclockwise *from* zero in the north position. As the wind direction probabilities are conditional probabilities for a given wind speed, these values must sum to one, accounting for the wind blowing from all possible directions at a given wind speed.

The relative position of the receptor and the release event can be used to determine the probability of the wind blowing from the release to the receptor. Wind direction probabilities also vary with the weather conditions (the 12 combinations previously described).

The wind direction probabilities were grouped into eight ‘slices’ of the compass, each representing one of the eight cardinal directions. For eight slices, each slice must cover a span of 45°. Each slice is represented by its bisector, which corresponds to a cardinal direction.

In Figure 23, this is illustrated with the example of 315°, which represents the northeast direction, and its probability value is the sum of the probabilities of the wind blowing from 292.5° to 337.5° (forming a 45° slice).

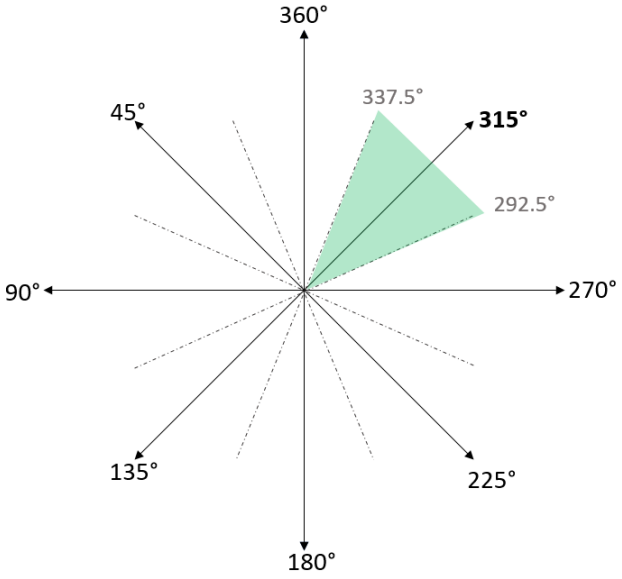


Figure 23 Illustration of Wind Direction Probability Slices

The values of the wind direction probabilities for the eight cardinal directions and for each of the twelve weather combinations are tabulated below.

Table 38 Wind Direction Probabilities

	Wind Direction (°)							
Weather Combination	**45 (NW)**	**90 (W)**	**135 (SW)**	**180 (S)**	**225 (SE)**	**270 (E)**	**315 (NE)**	**360 (N)**
1	0.1804	0.1302	0.0409	0.0310	0.0873	0.1731	0.2205	0.1366
2	0.1365	0.1448	0.0481	0.1543	0.2154	0.1465	0.1017	0.0527
3	0.1090	0.2128	0.1235	0.1234	0.1435	0.1294	0.0933	0.0650
4	0.0987	0.1273	0.0788	0.0849	0.1073	0.1226	0.2103	0.1701
5	0.1259	0.1878	0.1903	0.1443	0.0960	0.0888	0.0690	0.0979
6	0.0297	0.0332	0.0345	0.0773	0.1922	0.2445	0.2776	0.1111
7	0.0409	0.0247	0.0143	0.0233	0.1478	0.3618	0.3144	0.0727
8	0.1118	0.1301	0.1405	0.1350	0.0905	0.0698	0.1355	0.1869
9	0.0376	0.0462	0.0405	0.1406	0.3177	0.2221	0.1409	0.0546
10	0.0761	0.1042	0.1103	0.1908	0.1899	0.1237	0.1001	0.1048
11	0.0578	0.0756	0.0782	0.1541	0.1610	0.1013	0.1809	0.1910
12	0.0507	0.0258	0.0102	0.1613	0.4301	0.1706	0.1144	0.0369

For the sample point, the angle to the release must be calculated to determine the wind direction probability. Note that this process would ordinarily have to be repeated for every relevant release; however, in this case, the only concern is the release from the LNG storage tank at point X = 311 m and Y = 311 m.

Computation of the angle between the receptor and the release is shown with a schematic in Figure 24:

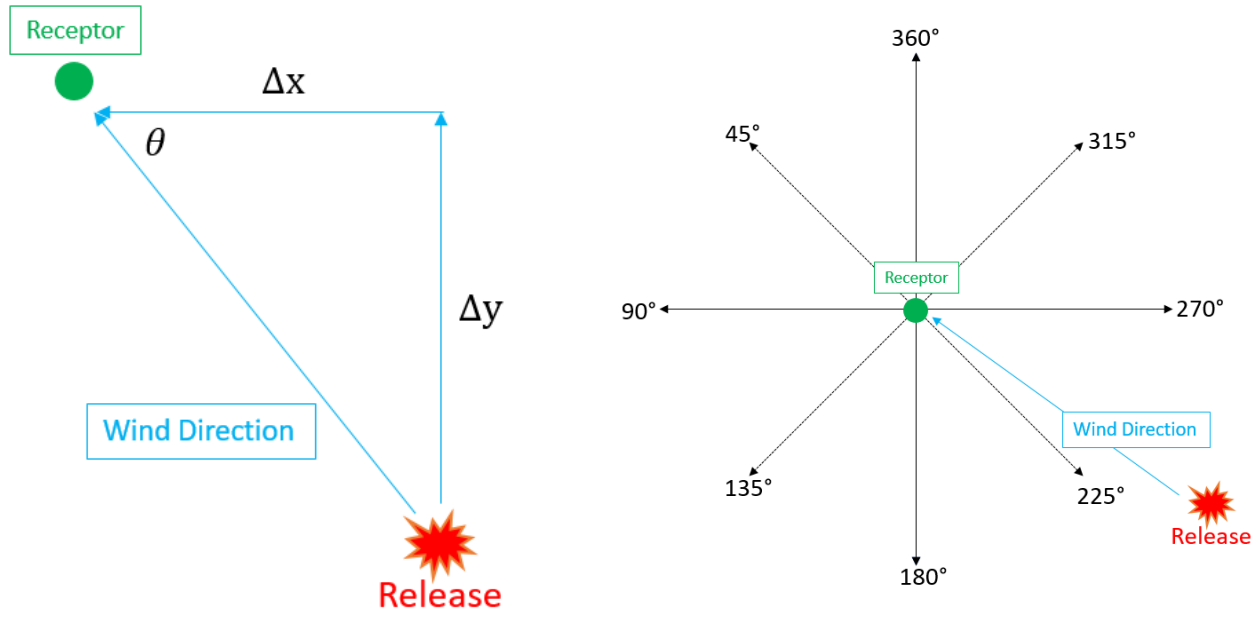


Figure 24 Relative Angle of Receptor to Release

Using the variables in Figure 24(a):

$$\theta = \tan\left(\frac{\Delta y}{\Delta x}\right) = \tan\left(\frac{|311 - 652|}{|311 - 152|}\right) = 36.4°$$

and adjusting this value to reflect the angle measurement convention (based on the LCD source) in Figure 24 (b):

$$\theta_{relative} = 270° - \theta = 233.6°$$

The probability for this angle can be obtained from interpolation of the two nearest angle values in Table 39. This calculation is shown for weather combination one, but would have to be repeated for all 12 combinations.

$$P_{Wind\ Direction} = \frac{233.6° - 225°}{270° - 225°}(P_{270°} - P_{225})° + P_{225°}$$

$$P_{Wind\ Direction} = \frac{233.6° - 225°}{270° - 225°}(0.1731 - 0.0873) + 0.0873$$

$$P_{Wind\ Direction} = P\left[I_i|H_j\right]_{233.6°,Combination\ 1} = 0.104$$

The probabilities of fatality for the sample point (based on wind direction probabilities) are tabulated below; a single value is listed for each weather combination.

Table 39 Wind Direction Probabilities for the Specified Receptor for all Weather Combinations

Weather Combination	$P[I_i \mid H_j]_{233.6^\circ}$
1	0.104
2	0.202
3	0.141
4	0.110
5	0.095
6	0.202
7	0.189
8	0.087
9	0.299
10	0.177
11	0.150
12	0.380

D.6.4.2 Individual Risk Sample Calculation

All probabilities in the IR equation have been determined for the sample point, and the calculation can be completed.

$$IR_{(x,y)} = \sum_{i=1}^{n}\left(\sum_{j=1}^{J} P[I_i|H_j] \cdot \left(\sum_{l=1}^{L}\sum_{k=1}^{K} P[H_j|HE_k,\ W_l, E_i] \cdot P[HE_k|W_l, E_i] \cdot P[W_l]\right) \cdot P[E_i]\right)$$

where

- $P[E_i]$ is determined for the four release scenarios for catastrophic failure of a storage tank, based on two release heights and ESD operation;
- $P[W_l]$ is determined from the LCD for 12 weather combinations;
- $P[HE_k|W_l, E_i]$ is determined from simplified POI models;
- $P[H_j|HE_k,\ W_l, E_i]$ is determined by comparing the sample point distance with the maximum downwind distances from the consequence model; and
- $P[I_i|H_j]$ is the probability of fatality determined from the fatality contours, which are based on wind direction.

The computation will be conducted for the sample point. A single weather combination and release event will be chosen. IR_i is the individual risk from this selected event. To obtain the IR for a point, the IR contributions from all events must be combined.

$$IR_i = P[I_i|H_j] \cdot P[H_j|HE_k,\ W_l, E_i] \cdot P[HE_k|W_l, E_i] \cdot P[W_l] \cdot P[E_i]$$

where

- Point Location X = -152 m, Y = 652 m
- Release Scenario
  - Using the first row of Table 34, for successful ESD operation at a release height of 1 m
  - $P[E_i]$ = 5.625 $\times 10^{-10}$ per year
- Weather Combination
  - Select weather combination probability from Table 35 for combination one
  - $P[W_1]$ = 0.136
- Hazard Event
  - POI calculation gives $P\left[HE_{flash\ fire}|W_1, E_i\right]$ = 0.0196
- Hazard intensity
  - Based on the maximum downwind distance from the consequence modeling and the distance, it was determined that this point is within the downwind distance
  - $P\left[H_j|HE_{flash\ fire},\ W_1, E_i\right]$ = 1
- Probability of fatality
  - Using the relative position of the point to the release (233.6°), the probability of fatality was determined from the fatality contour
  - $P\left[I_i|H_j\right]$ = 0.104

Substituting the values results in the following:

$$IR_i = 0.104 \cdot 1 \cdot 0.0176 \cdot 0.136 \cdot 5.625 \text{ x } 10^{-10} = \ 1.56 \text{ x } 10^{-13} \text{ fatalities/year}$$

D.6.4.3 Societal Risk

The SR results are presented as F-N curves, where N is the number of fatalities and F is the frequency of incidents causing N or more fatalities. These curves are generated by aggregating the frequencies of release events causing N or more fatalities (NFPA 59A 2019).

Where the IR calculation is conducted for every point in the facility, the SR calculation is conducted for every release event, and the event's associated frequency and number of fatalities.

D.6.4.3.1 Release Event Frequency

The frequency of a release event for SR is determined using the same approach as IR. The probability of fatality is not applied to the release event; it is applied to the number of fatalities. The equation for determining release event frequency, for a given release, R_i, is below. R_i is comprised of a given release event, weather combination, and resulting hazard event.

$$R_i = P\left[H_j|HE_k,\ W_l, E_i\right] \cdot P[HE_k|W_l, E_i] \cdot P[W_l] \cdot P[E_i]$$

These probabilities are identical to those in the IR equation. The frequency of the given release event, R_i, will be used in conjunction with the number of fatalities to create an F-N curve.

D.6.4.3.2 Release Event Number of Fatalities

The number of fatalities for a release is determined by the summation of the population in the area covered by the release event footprint. The population density is determined from surrounding land use. For the peak shaver facility, 3000 people/km^2 was used. For areas over water and within plant boundaries, the population density was set to zero.

The population values are also weighted by the probability of fatality, $P[I_i|H_j]$, and calculated from the fatality contours, as described in the IR calculation.

After calculation of the frequencies for all release events and their associated fatalities, the results can be aggregated into an F-N curve, shown in the following figure.

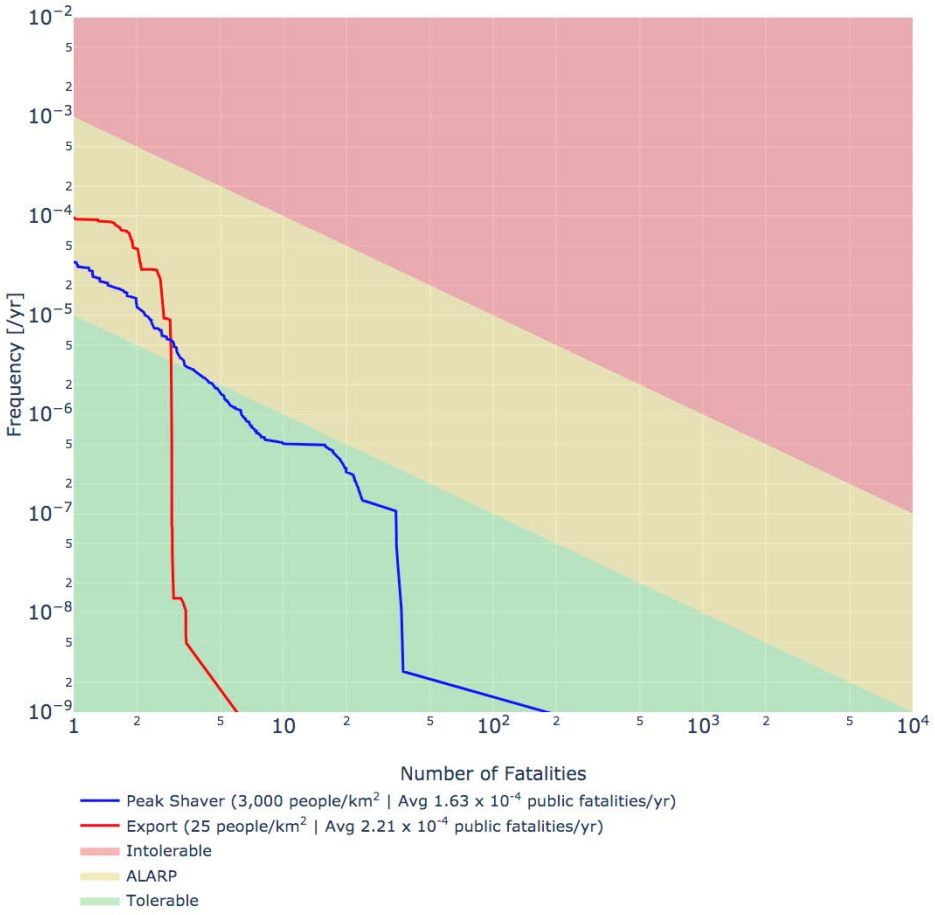


Figure 25 Societal Risk Results, F-N Curve

D.7 QRA Sensitivity Results

There were several consequence analyses conducted that centered around changing the inputs to Phast. These included:

- Increasing the operating pressure by 10% to simulate releases with higher pressure;
- Considering vapor cloud explosions that occurred when 5% and 10% of a congested region is filled with flammable material; and
- The use of single ambient temperature for all releases.

The consequence modeling associated with these sensitivities was evaluated using the same techniques as the original consequence modeling. A summary of consequence analysis results is provided in Appendix F, in the Microsoft Excel spreadsheets listed in Table 40.

Table 40 Sensitivity of Consequence Analysis Results

Document Name
PHMSA QRA Study 200210 (Peakshaver 1.1xPressure)_1.xlsx
PHMSA QRA Study 200210 (Peakshaver 1.1xPressure)_2.xlsx
PHMSA QRA Study 200210 (Export 1.1xPressure)_1.xlsx
PHMSA QRA Study 200210 (Export 1.1xPressure)_2.xlsx
PHMSA QRA Study 200210 (Peakshaver VCE).xlsx
PHMSA QRA Study 200210 (Export VCE).xlsx

The figures below graphically provide the individual results from the sensitivity analysis scenarios listed in Table 15 and summarized in Section 4.9.5.

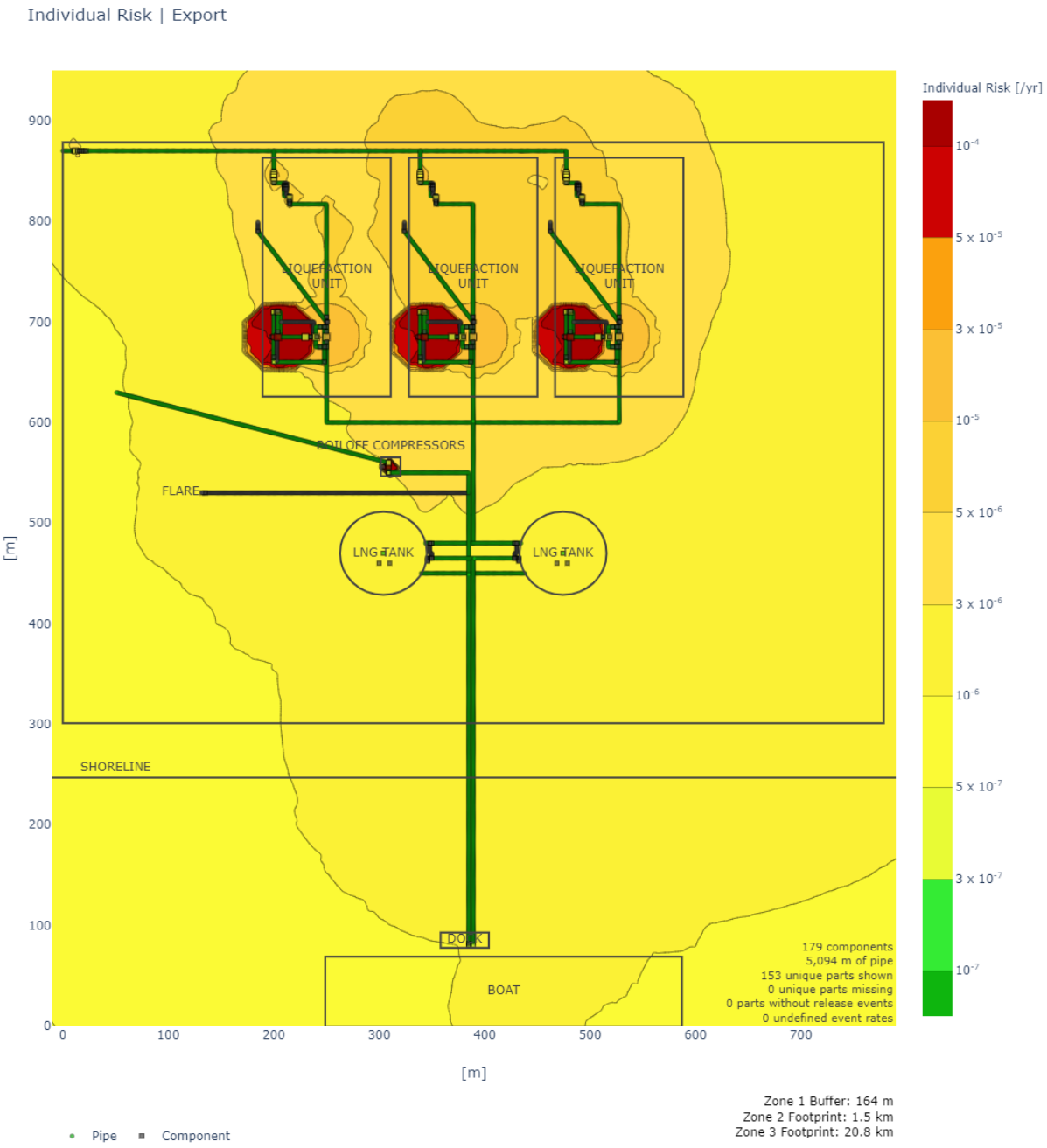


Figure 26 IR Sensitivity for Export Facility – Release Event Scenarios Case 1: Remove Instrumentation/Analysis

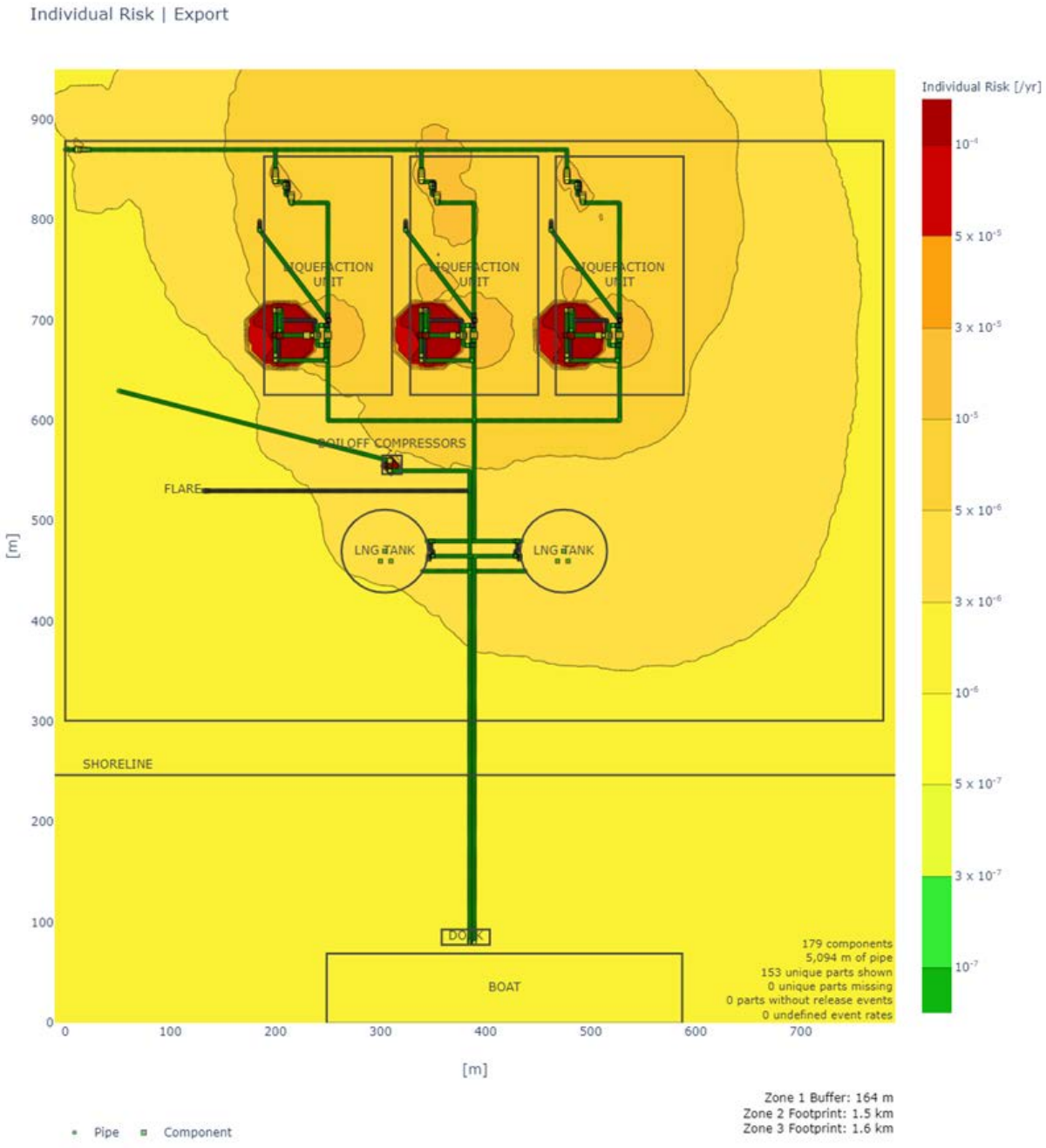


Figure 27 IR Sensitivity for Export Facility – Release Event Scenarios Case 2: Remove Low-Frequency Failures

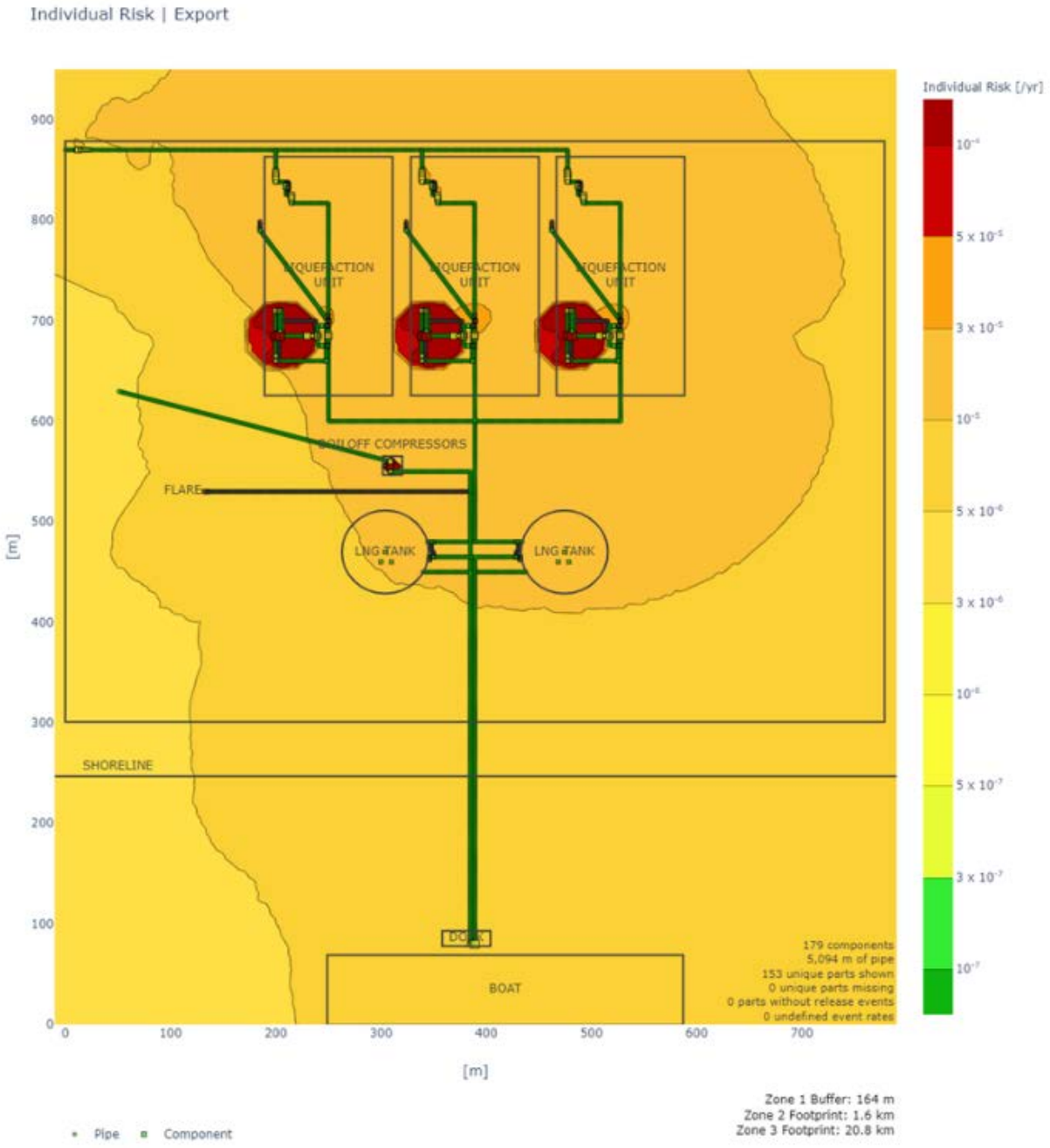


Figure 28 IR Sensitivity for Export Facility – Equipment Failure Rates Case 3: RIVM (2009) Failure Rates

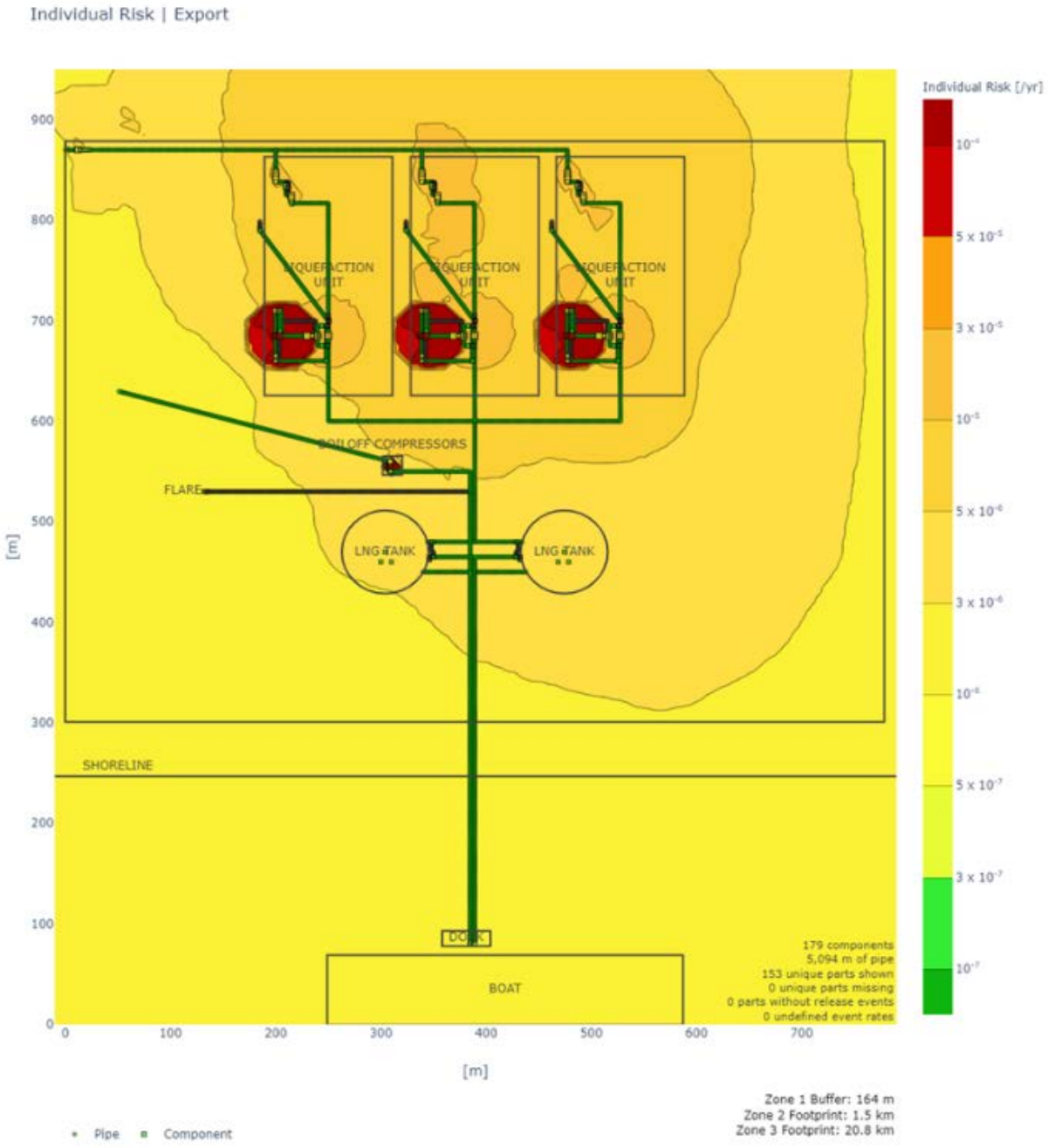


Figure 29 IR Sensitivity for Export Facility – Equipment Failure Rates Case 4: HSE (2017) Failure Rates

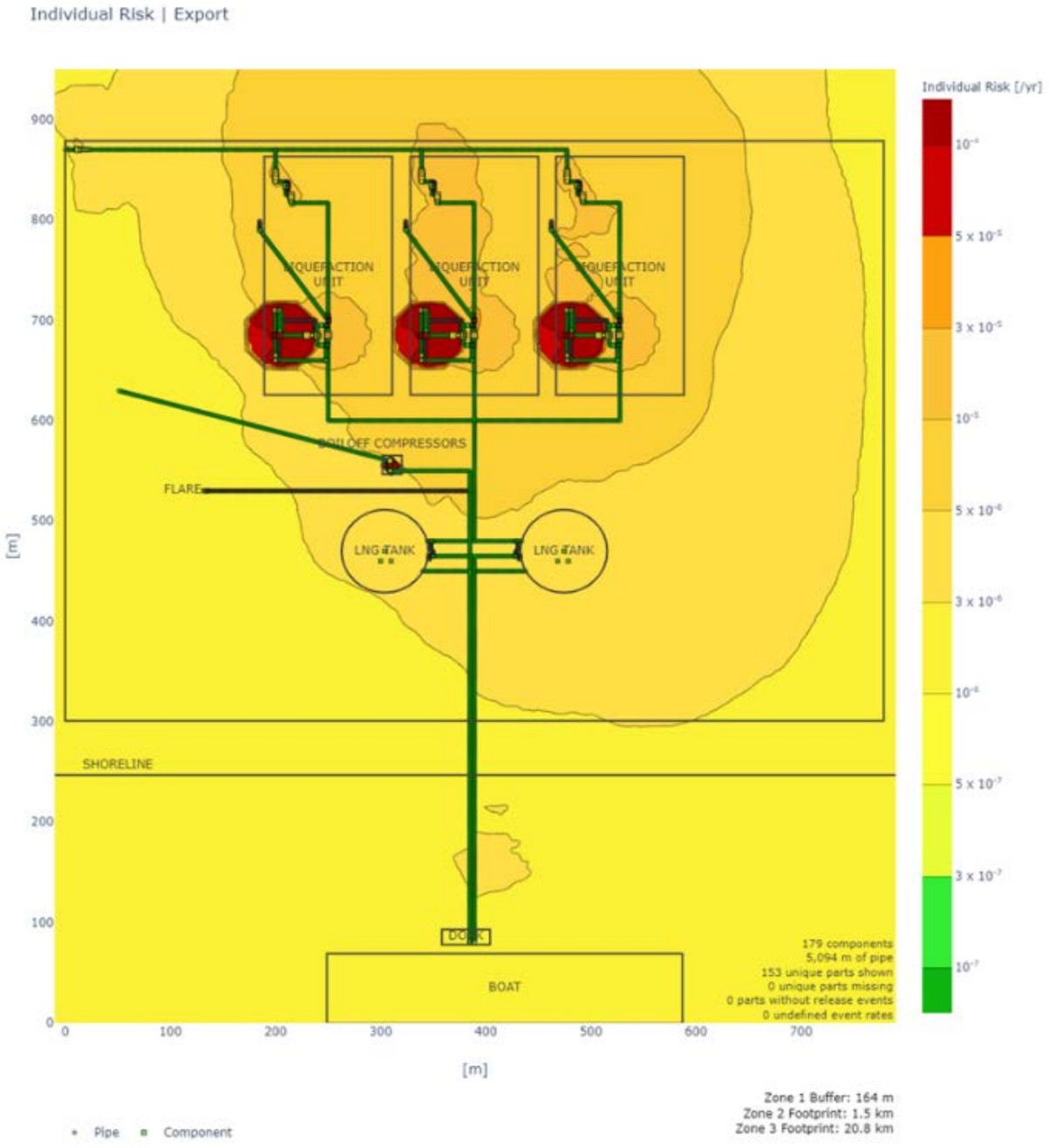


Figure 30 IR Sensitivity for Export Facility – Probability of Ignition Case 5: Jet Fire After Flash Fire

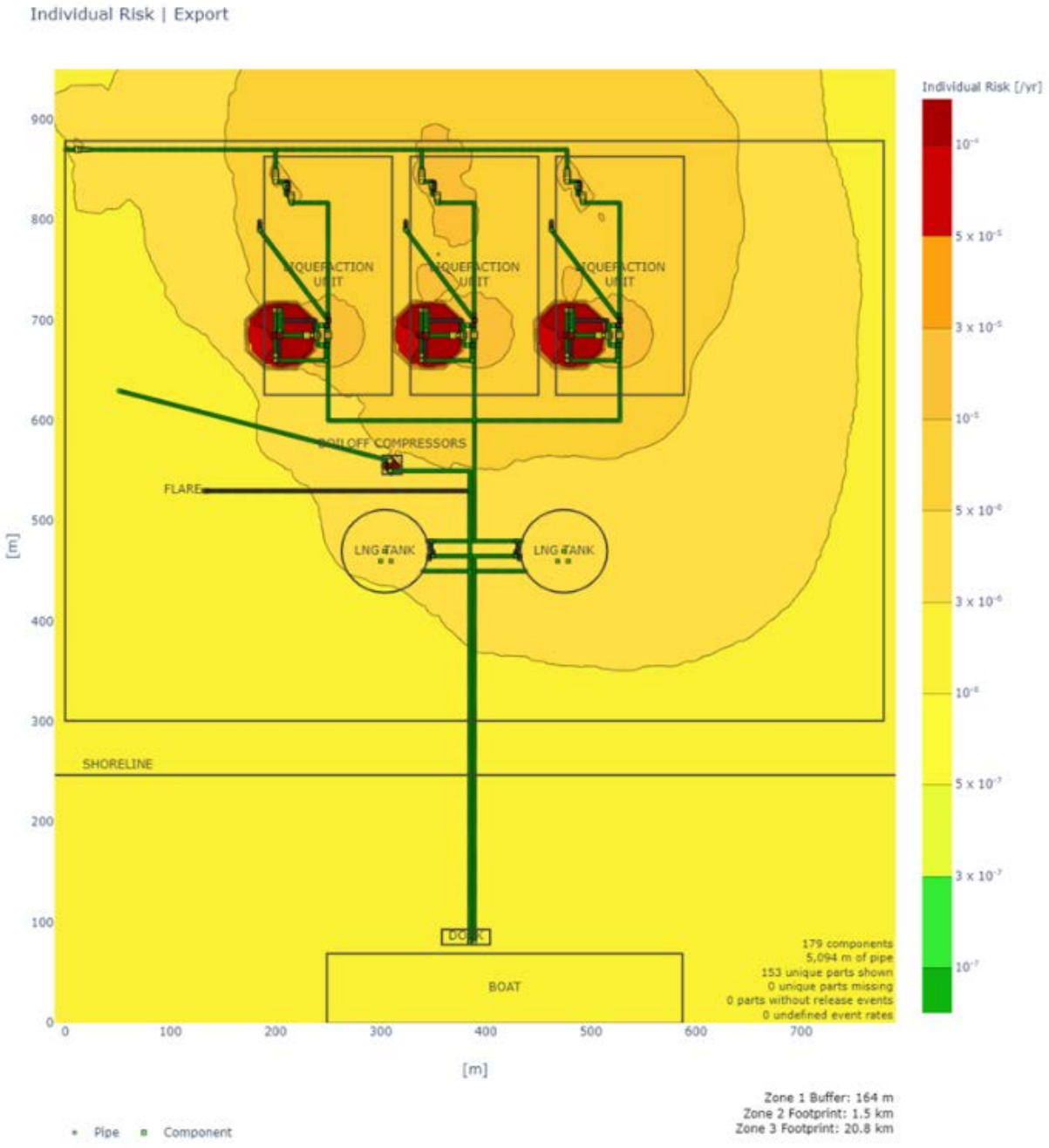


Figure 31 IR Sensitivity for Export Facility – Probability of Ignition Case 6: Delayed Gas Ignition (Residential)

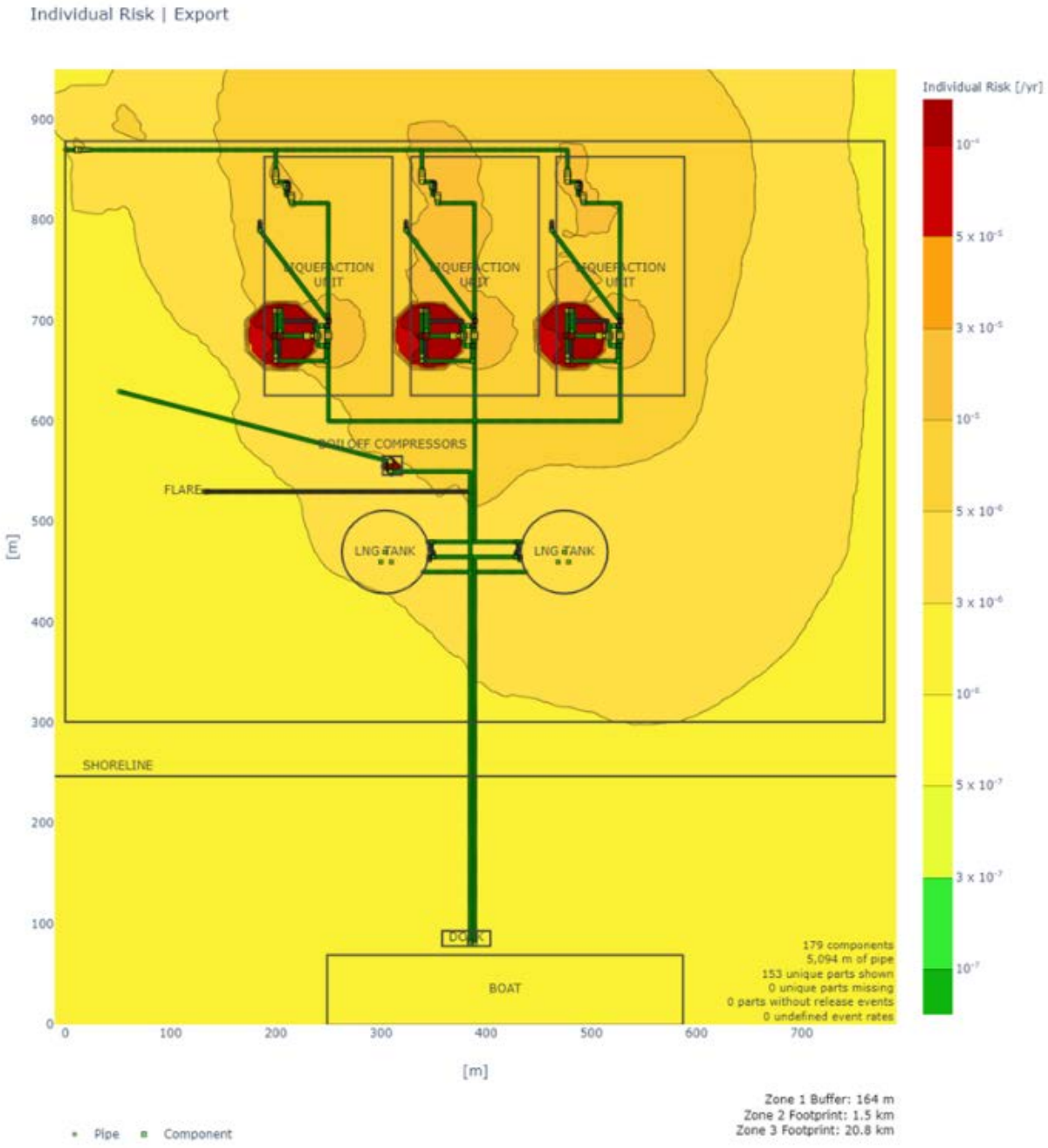


Figure 32 IR Sensitivity for Export Facility – Probability of Ignition Case 7: Delayed Gas Ignition (Industrial)

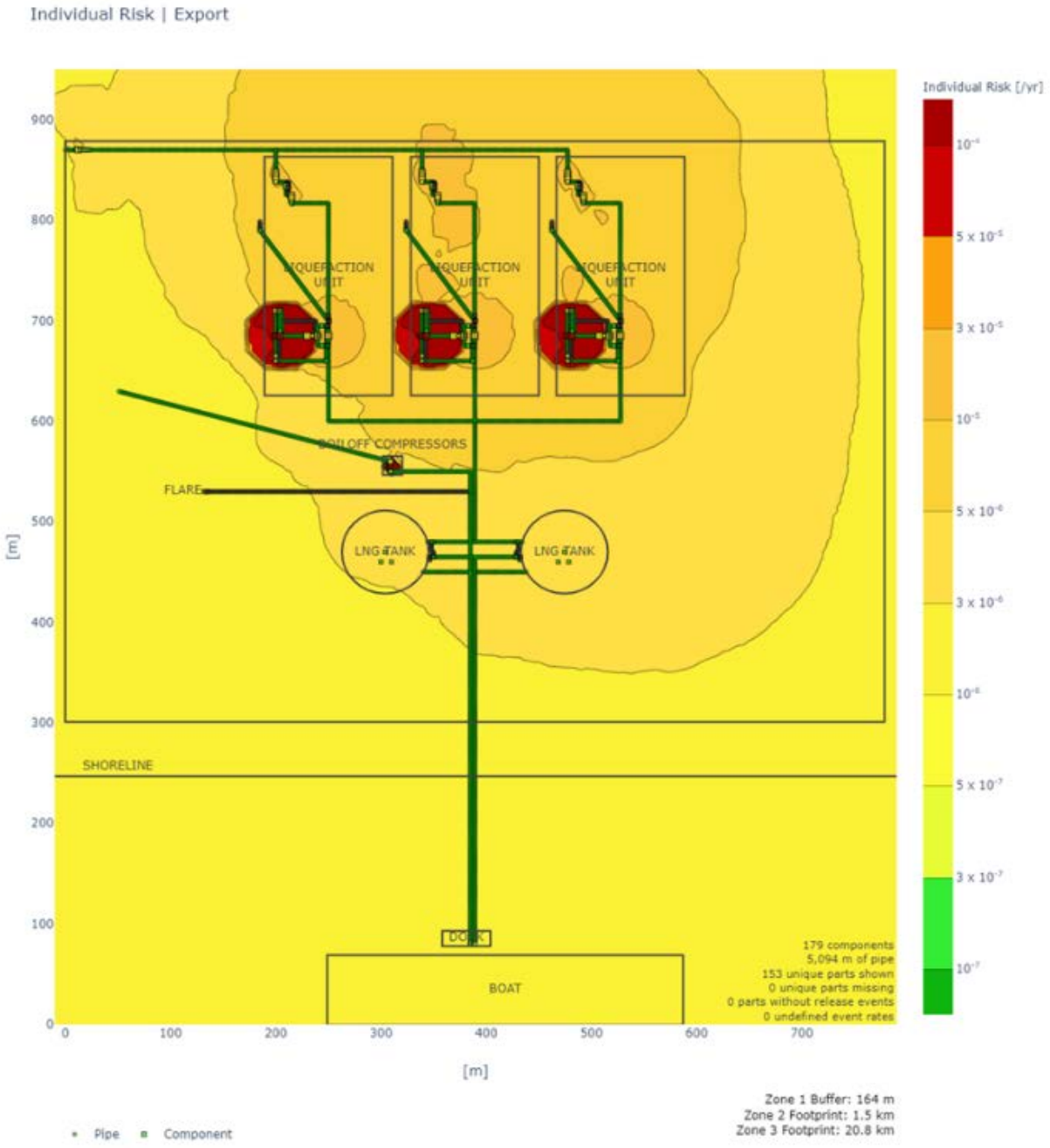


Figure 33 IR Sensitivity for Export Facility – Probability of Ignition Case 8: Delayed Gas Ignition (Residential) + Jet Fire After Flash Fire

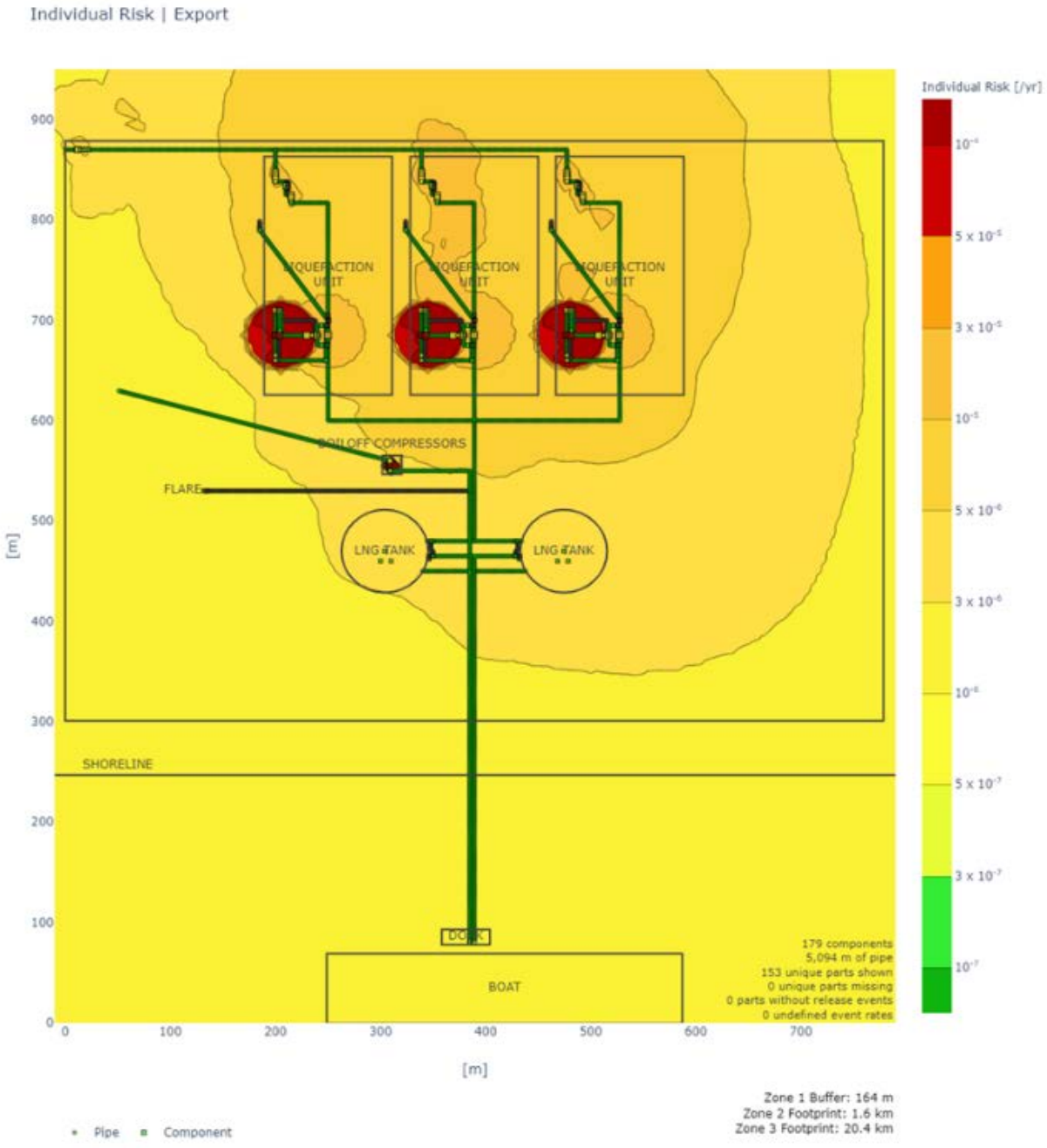


Figure 34 IR Sensitivity for Export Facility – Consequence Inputs Case 9: 10% Pressure Increase

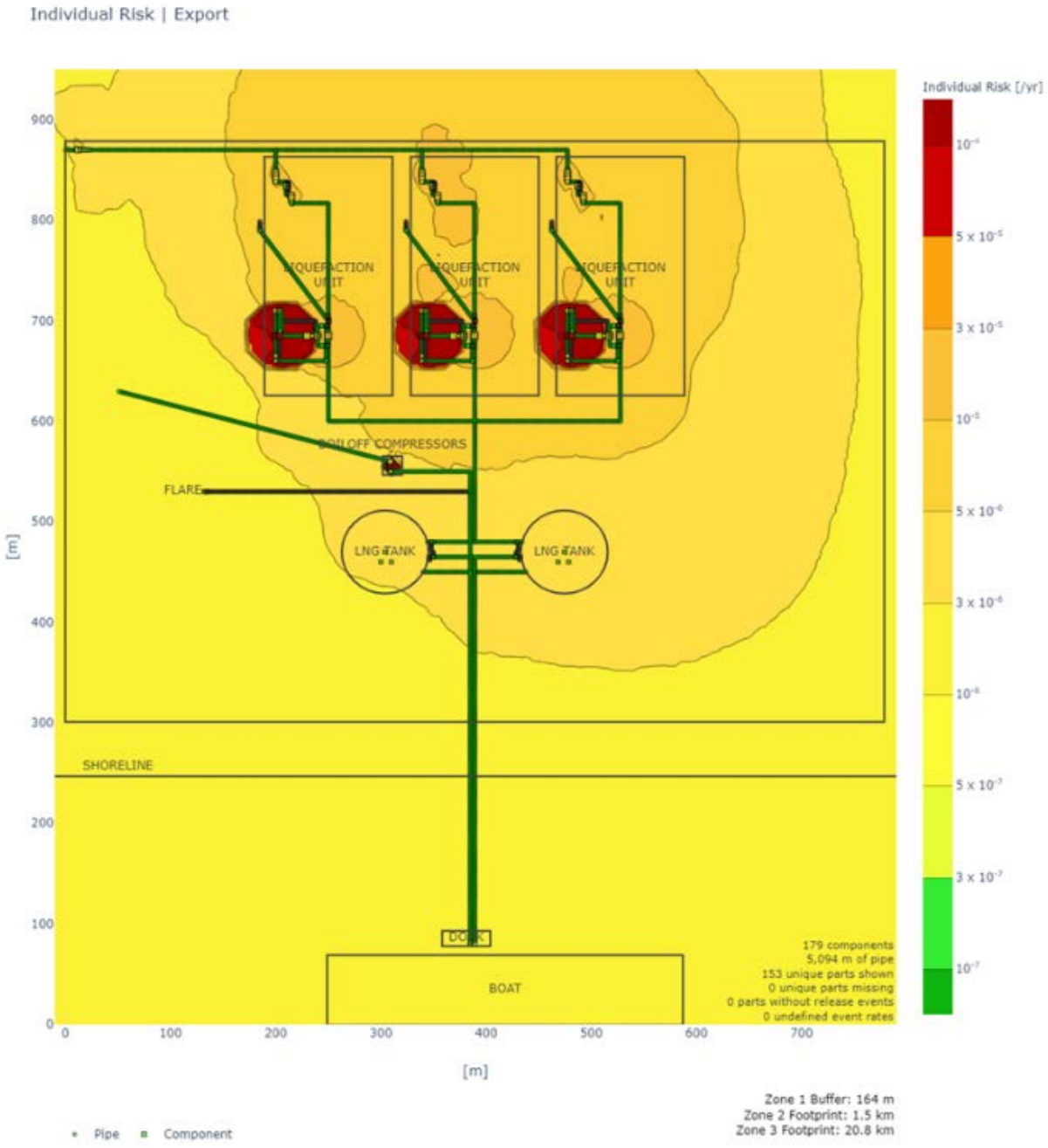


Figure 35 IR Sensitivity for Export Facility – Consequence Inputs Case 10: Include Vapor Cloud Explosion (5% Volume)

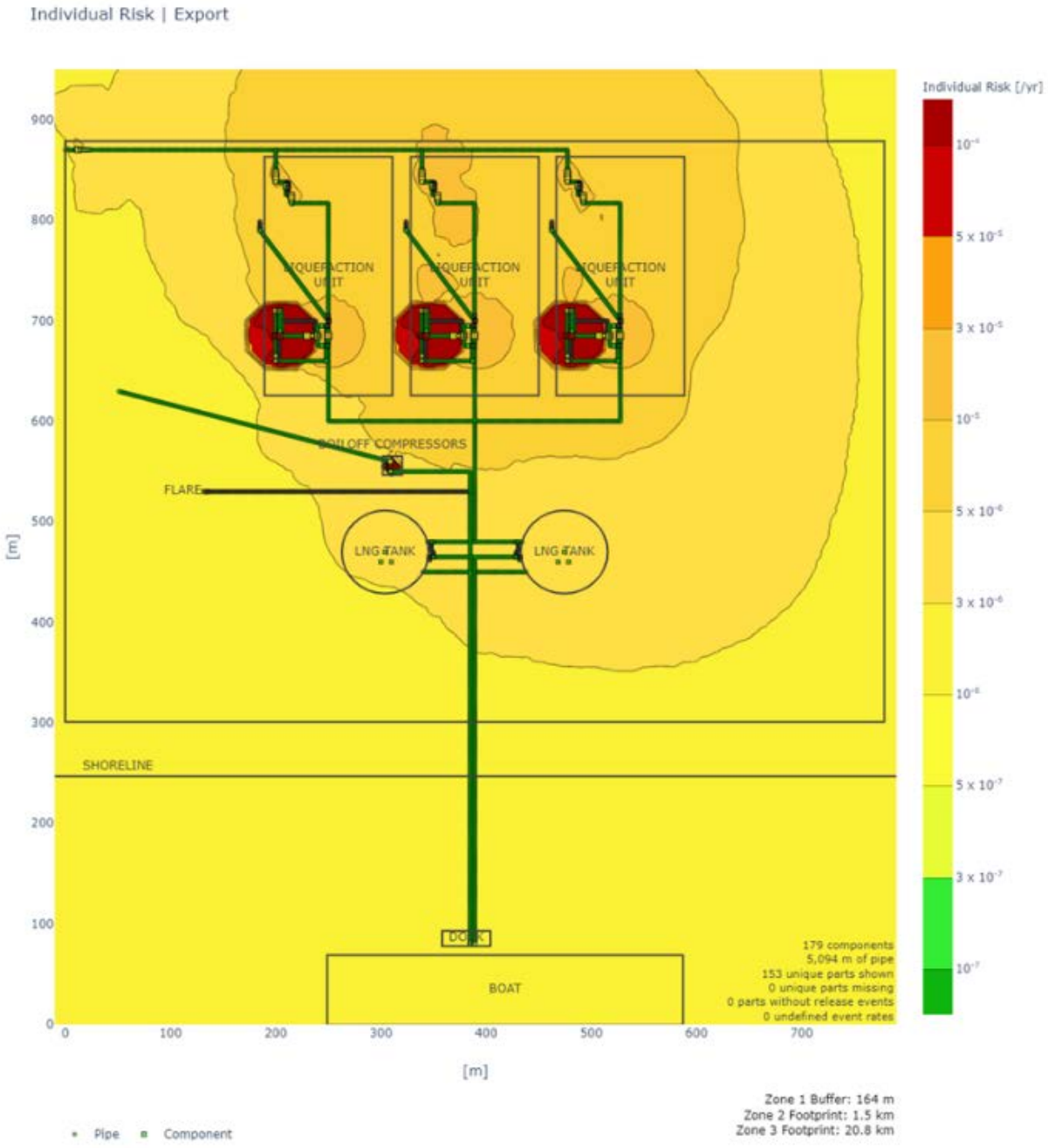


Figure 36 IR Sensitivity for Export Facility – Consequence Inputs Case 11: Include Vapor Cloud Explosion (10% Volume)

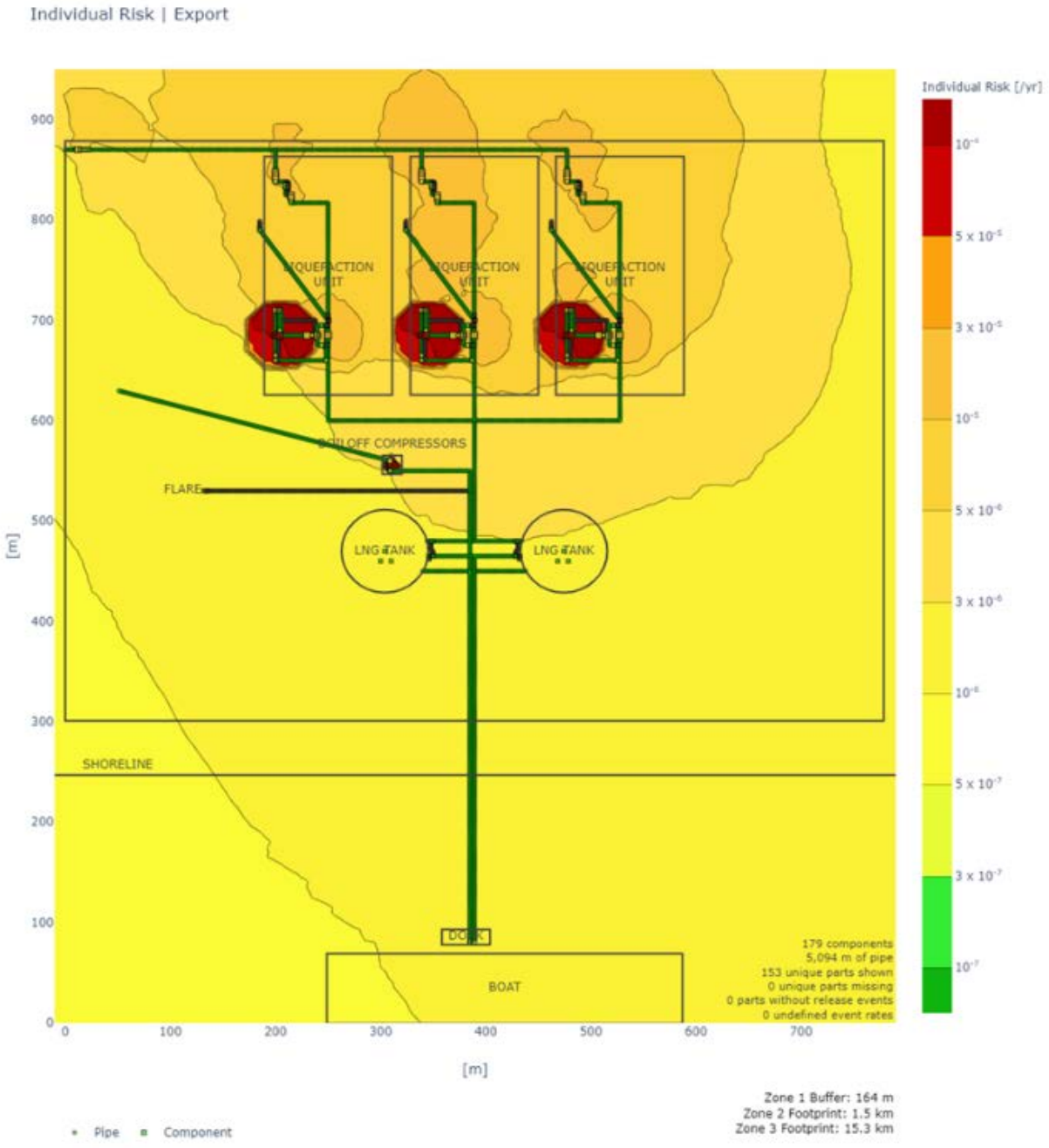


Figure 37 IR Sensitivity for Export Facility – Consequence Inputs Case 12: Single Ambient Temperature

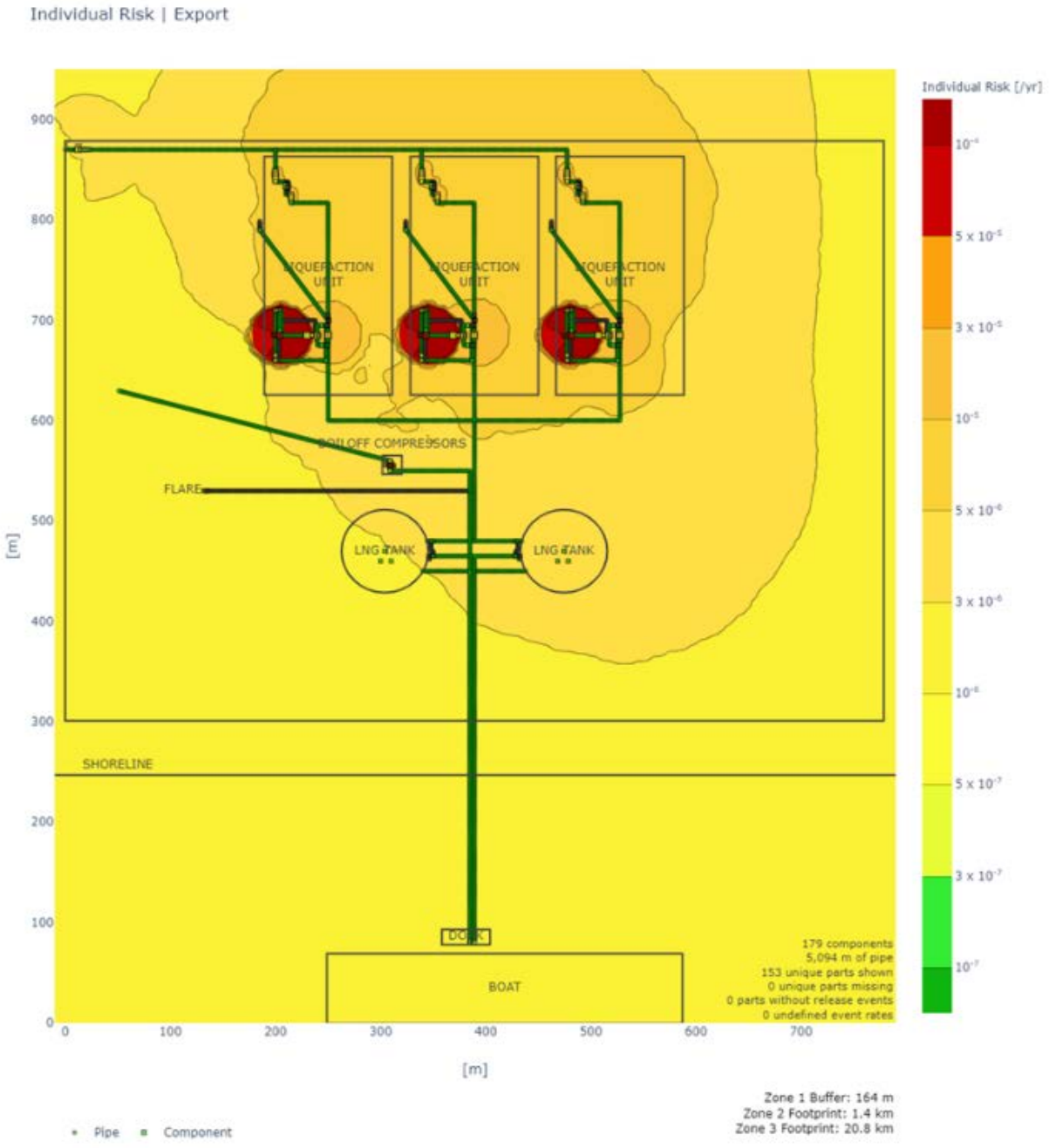


Figure 38 IR Sensitivity for Export Facility – Hazard Thresholds Case 13: Outdoor Exposure Heat Flux Threshold

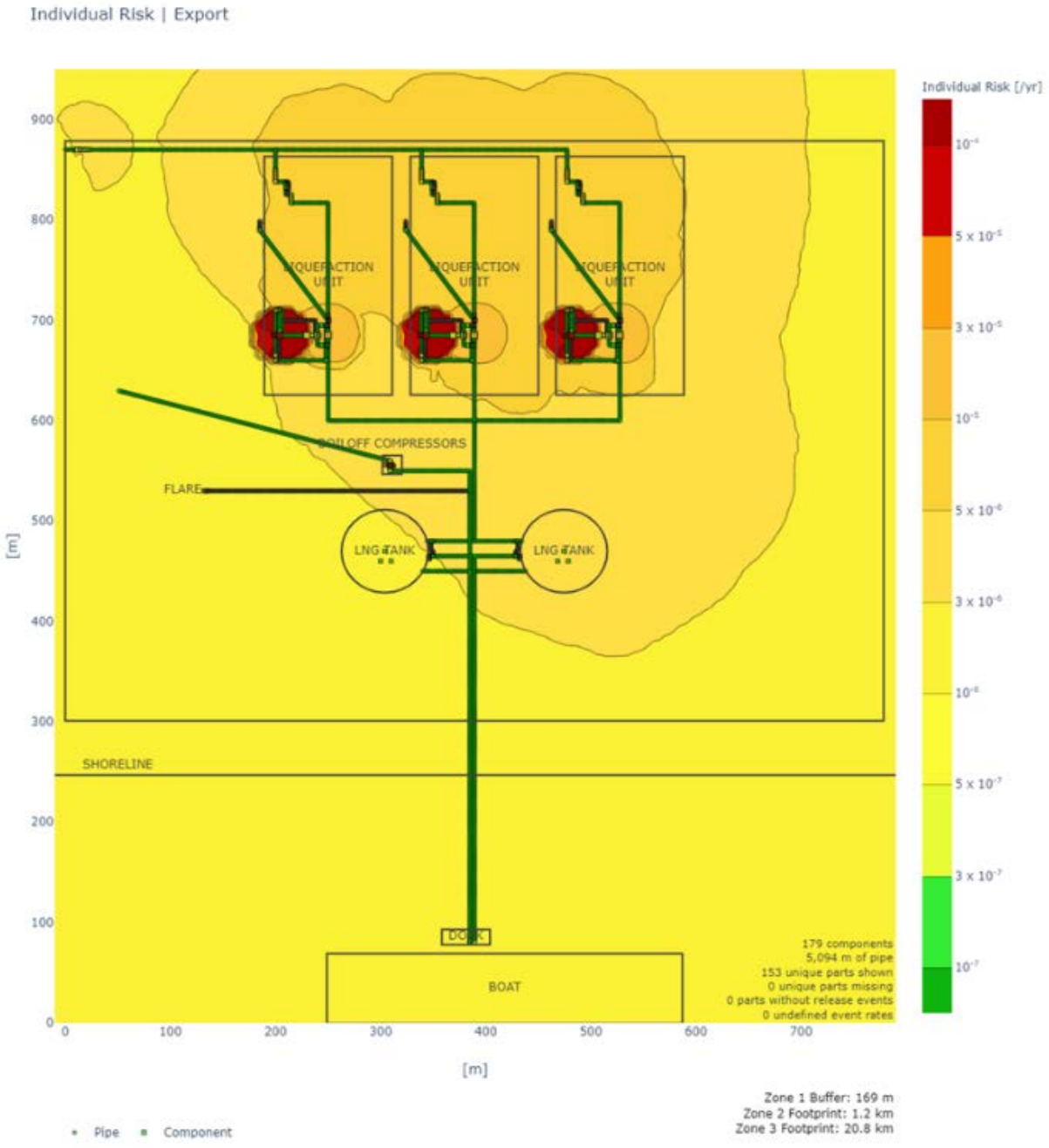


Figure 39 IR Sensitivity for Export Facility – Hazard Thresholds Case 14: Indoor Exposure Heat Flux Threshold

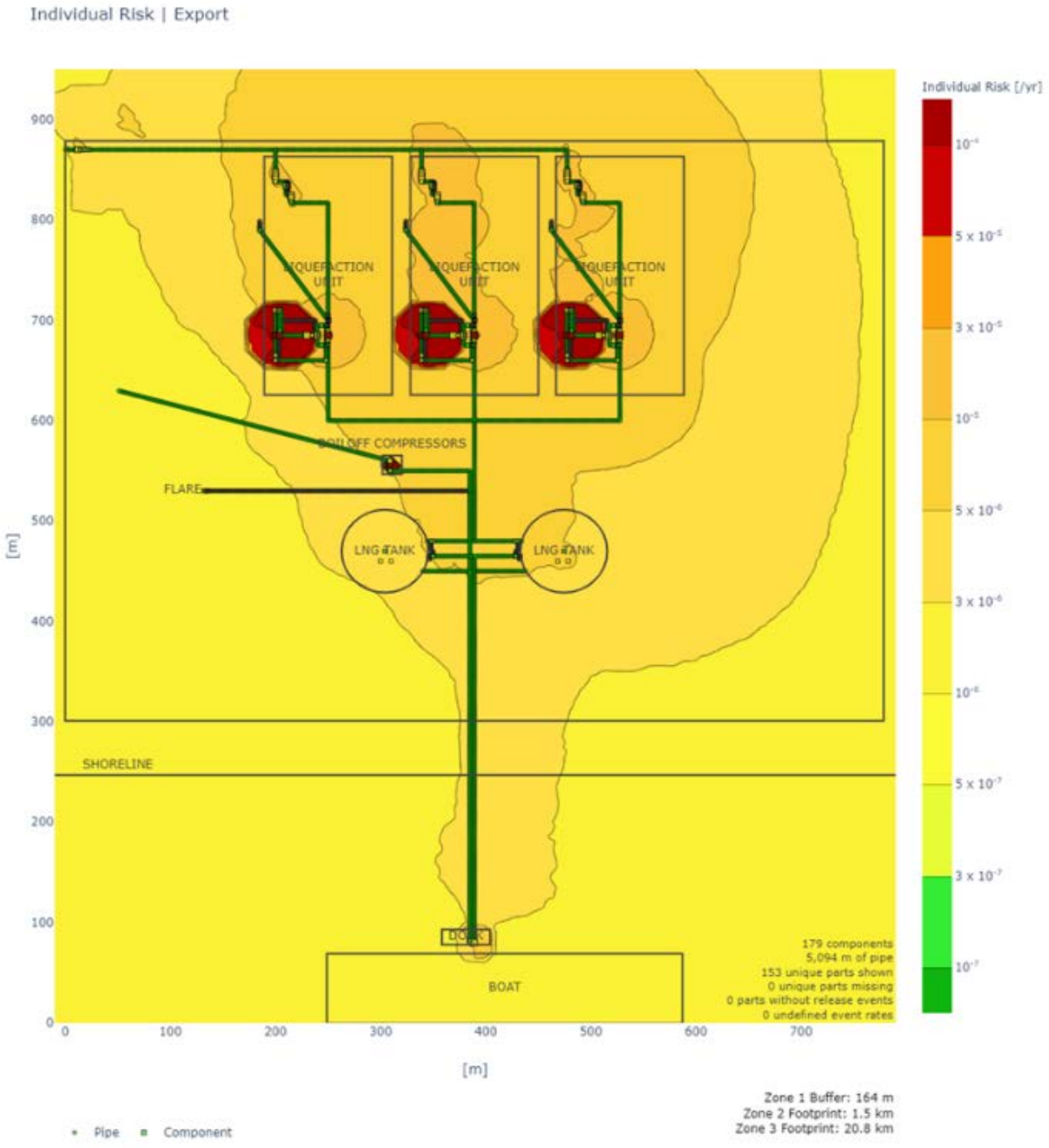


Figure 40 IR Sensitivity for Export Facility – Hazard Thresholds Case 15: Includes Asphyxiation

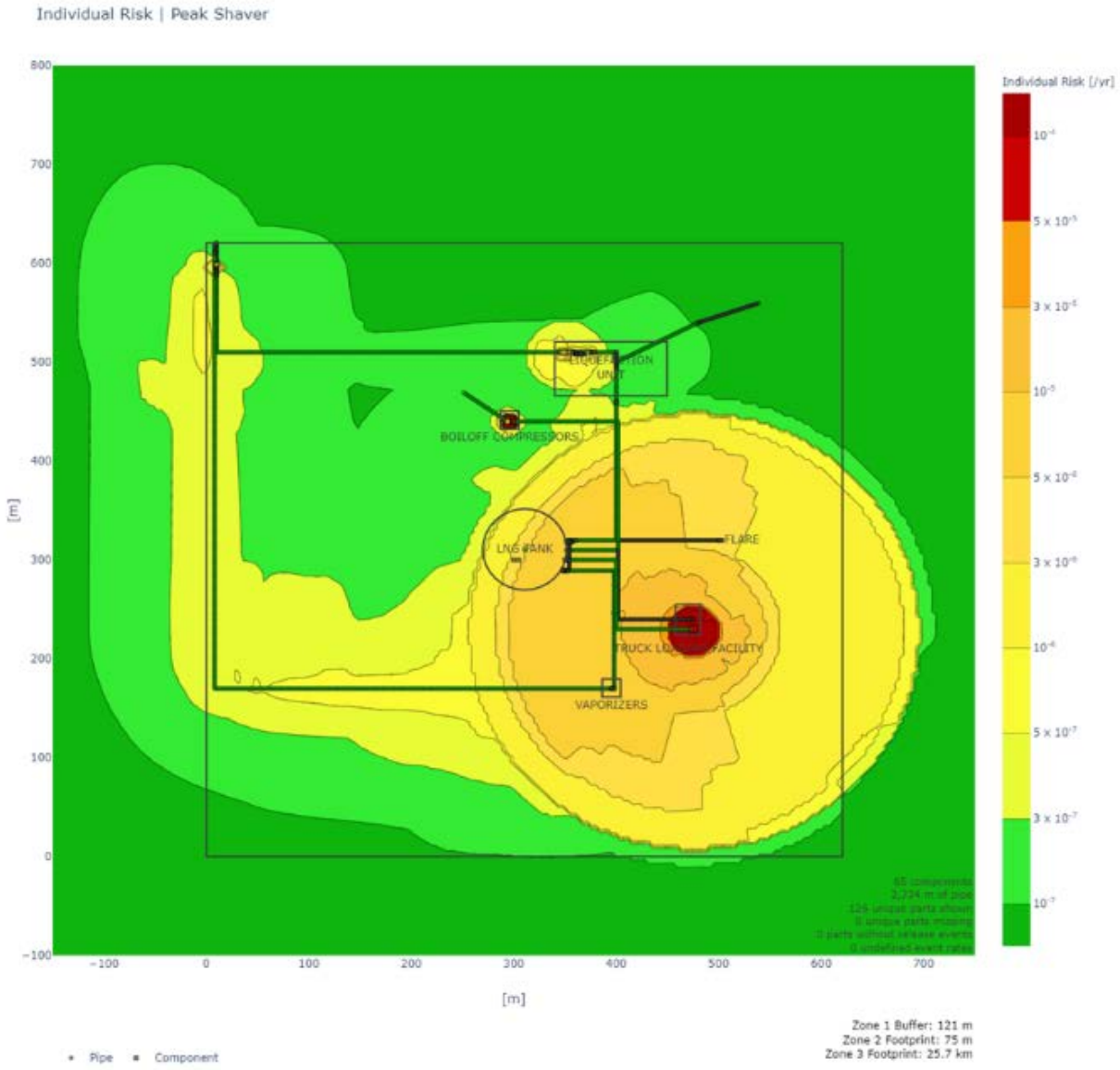


Figure 41 IR Sensitivity for Peak Shaver Facility – Release Event Scenarios Case 1: Remove Instrumentation/Analysis

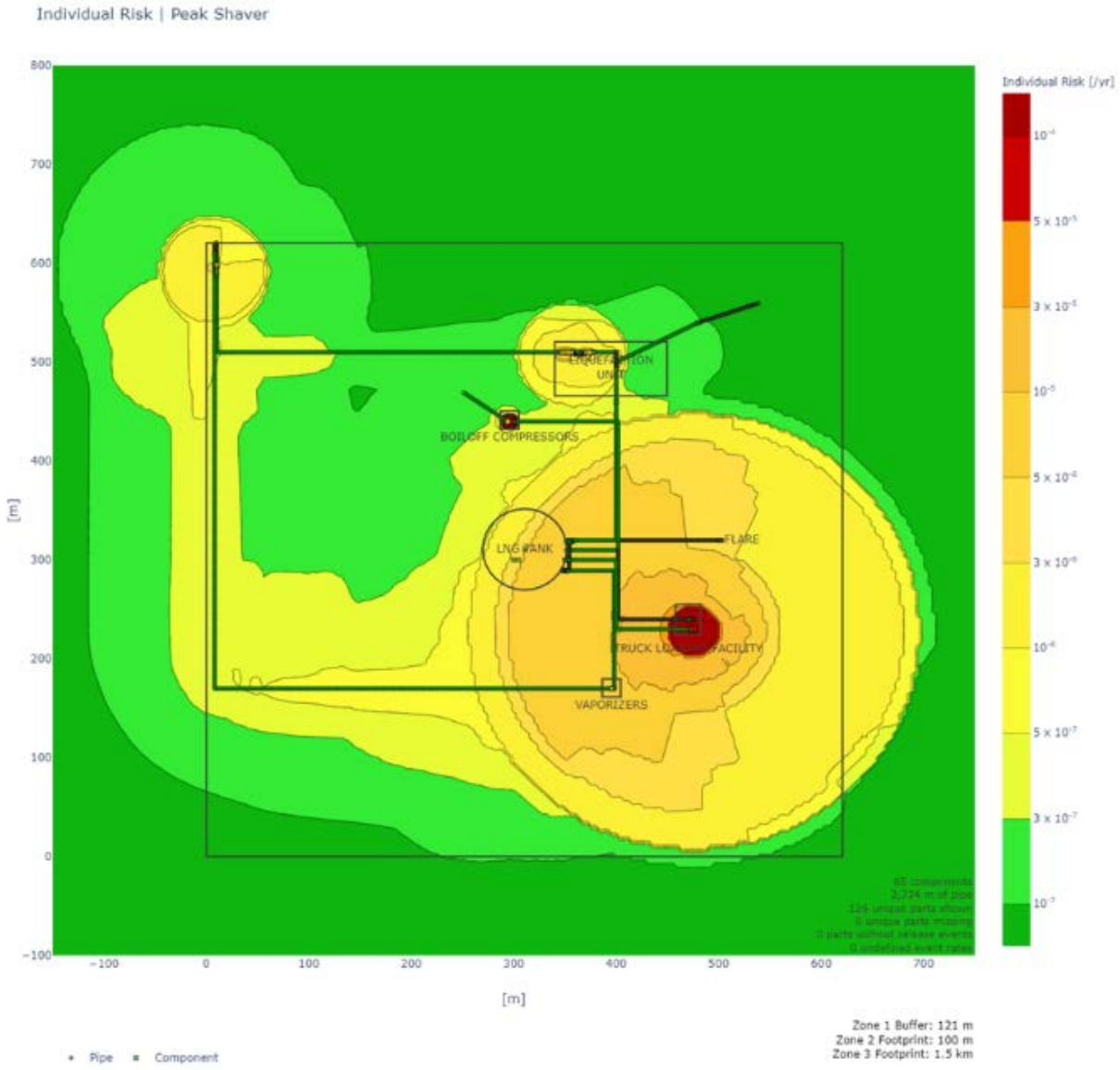


Figure 42 IR Sensitivity for Peak Shaver Facility – Release Event Scenarios Case 2: Remove Low-Frequency Failures

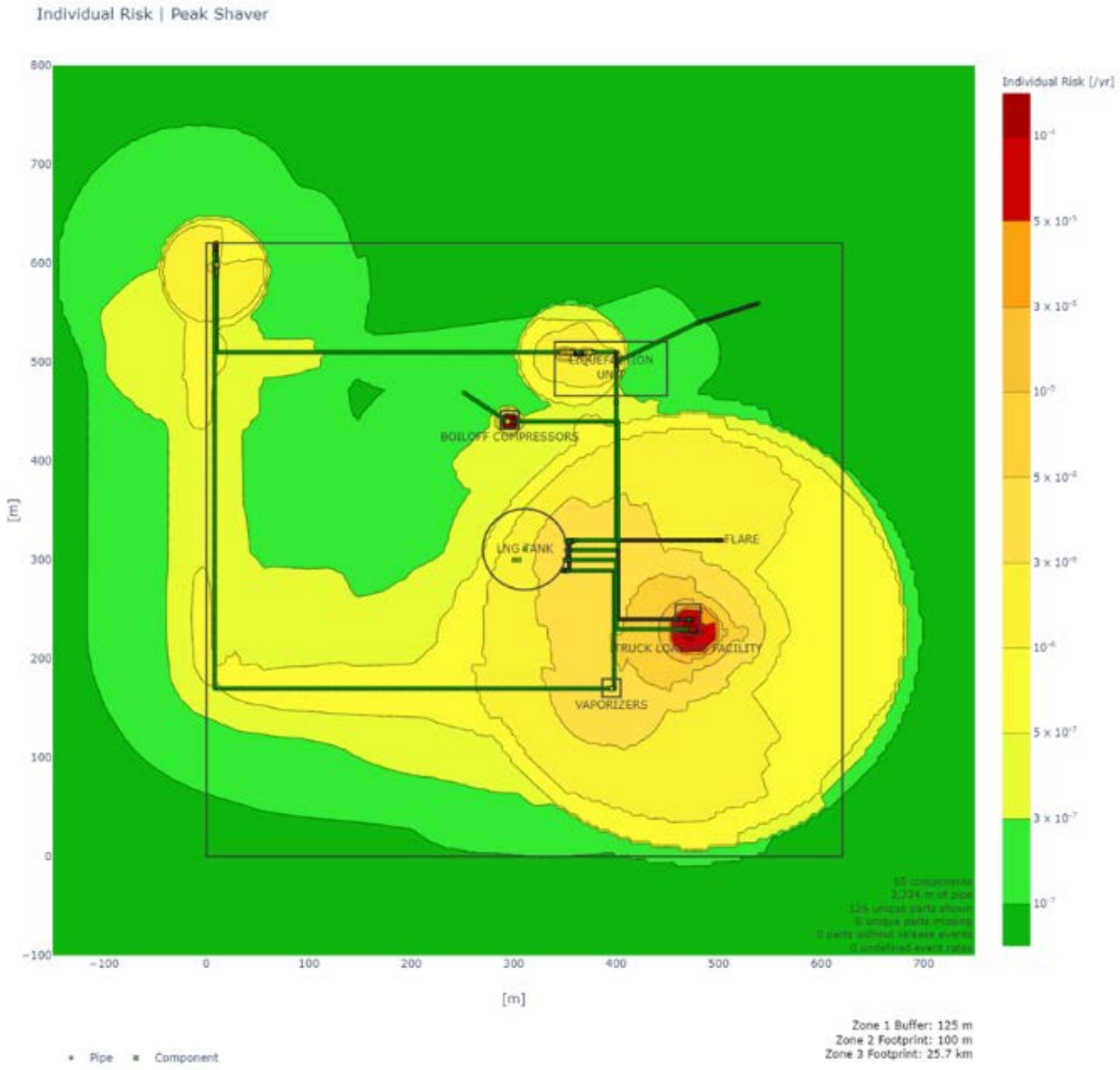


Figure 43 IR Sensitivity for Peak Shaver Facility – Equipment Failure Rates Case 3: RIVM (2009) Failure Rates

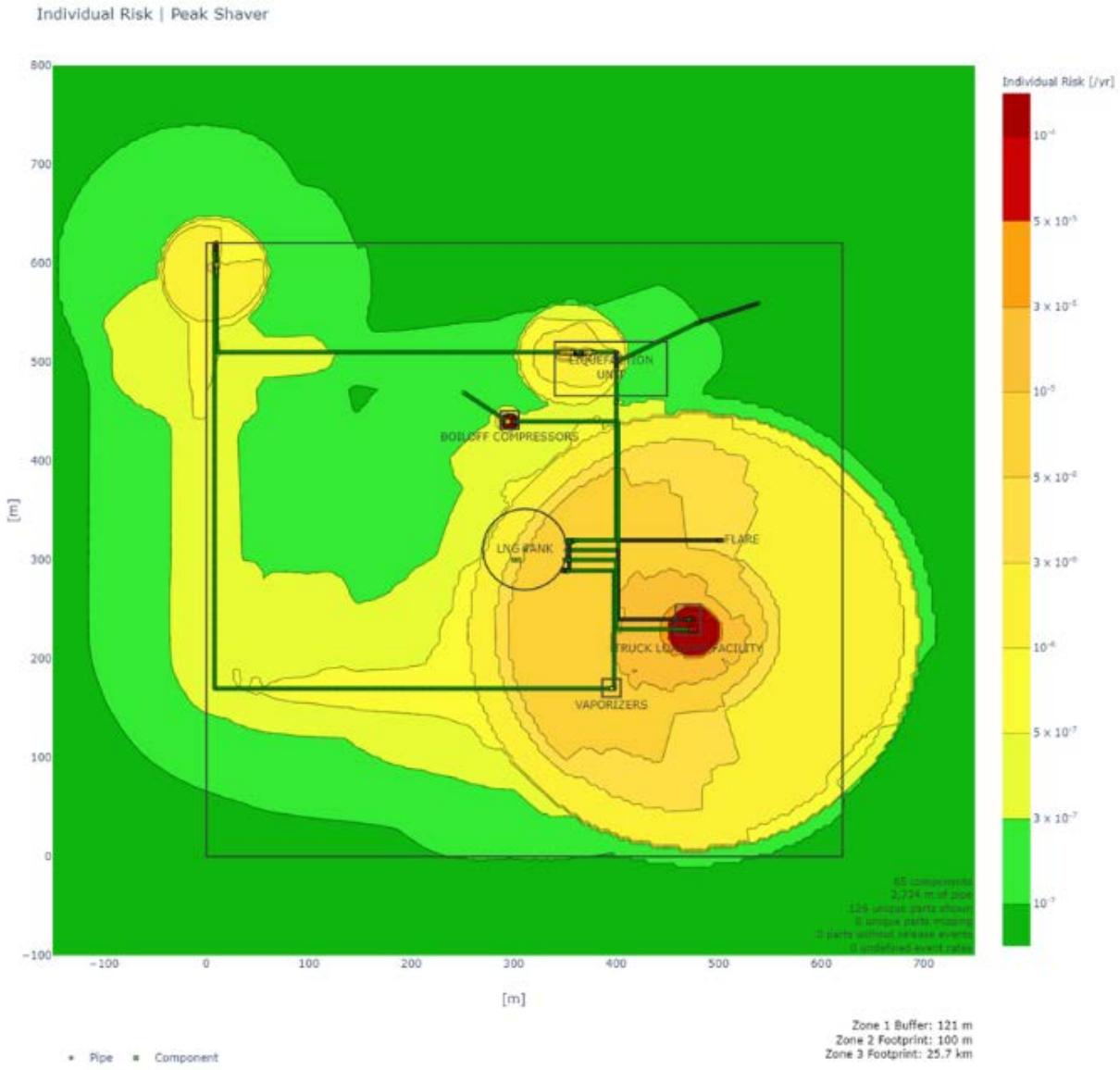


Figure 44 IR Sensitivity for Peak Shaver Facility – Equipment Failure Rates Case 4: HSE (2017) Failure Rates

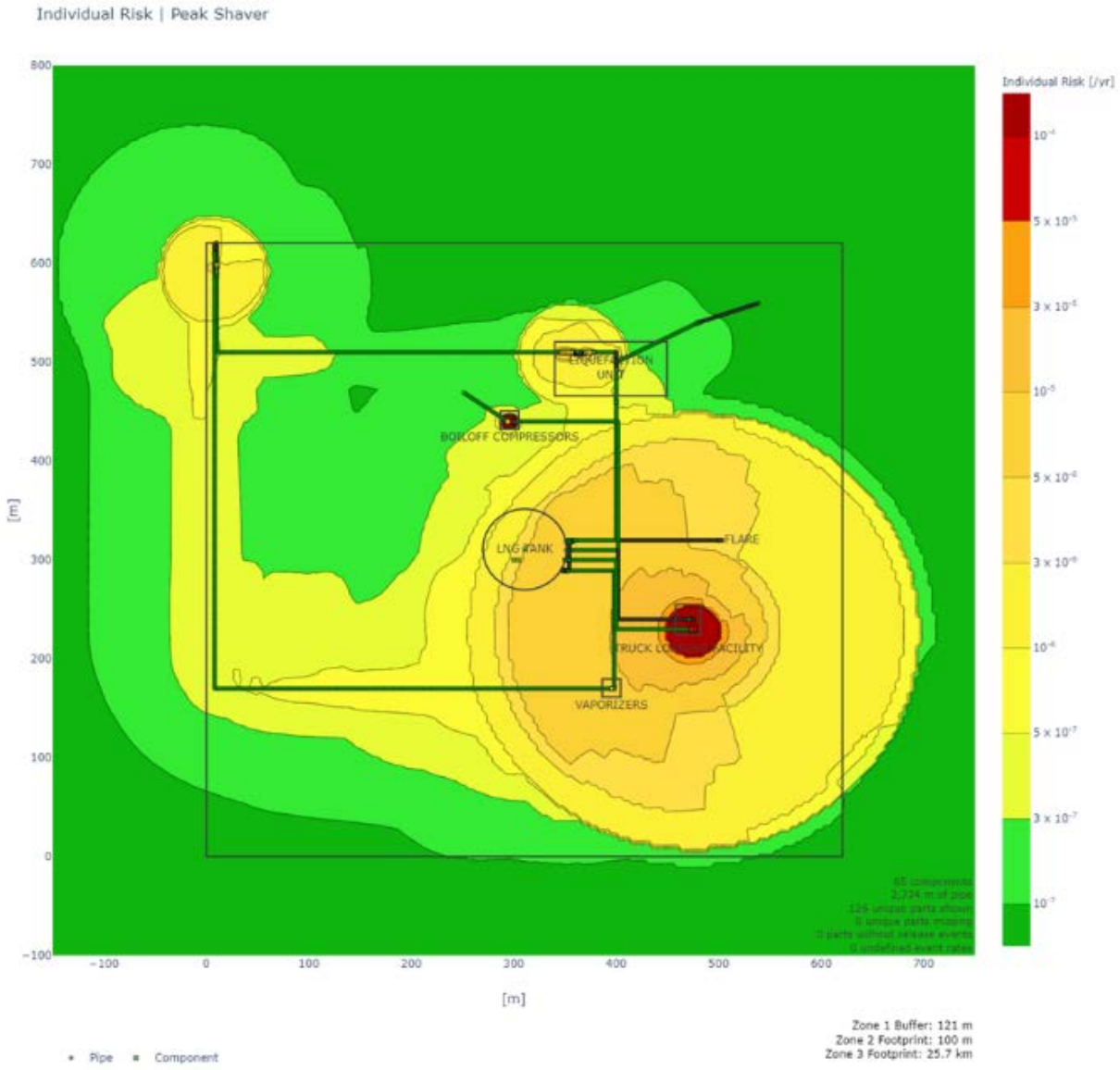


Figure 45 IR Sensitivity for Peak Shaver Facility – Probability of Ignition Case 5: Jet Fire After Flash Fire

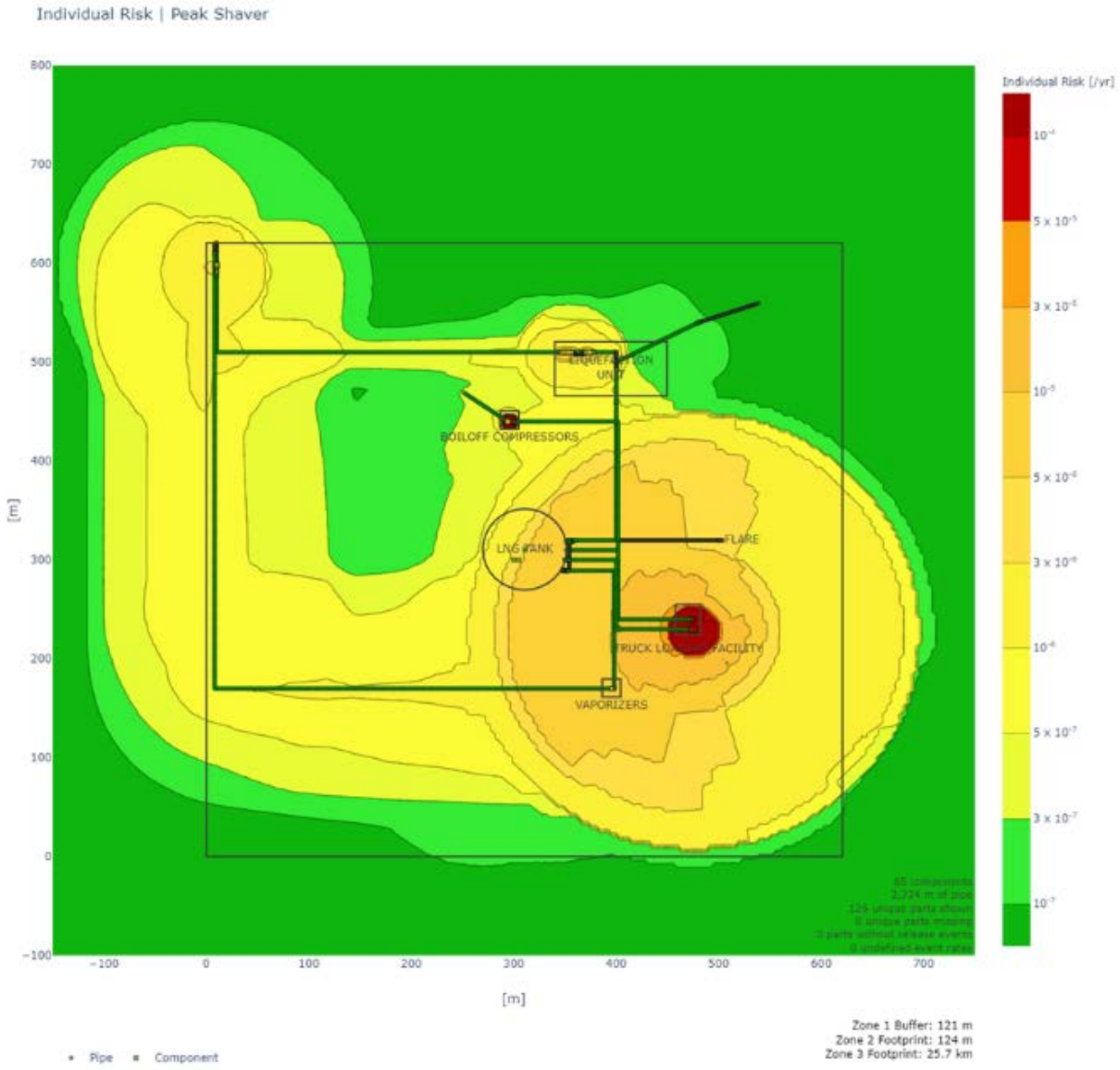


Figure 46 IR Sensitivity for Peak Shaver Facility – Probability of Ignition Case 6: Delayed Gas Ignition (Residential)

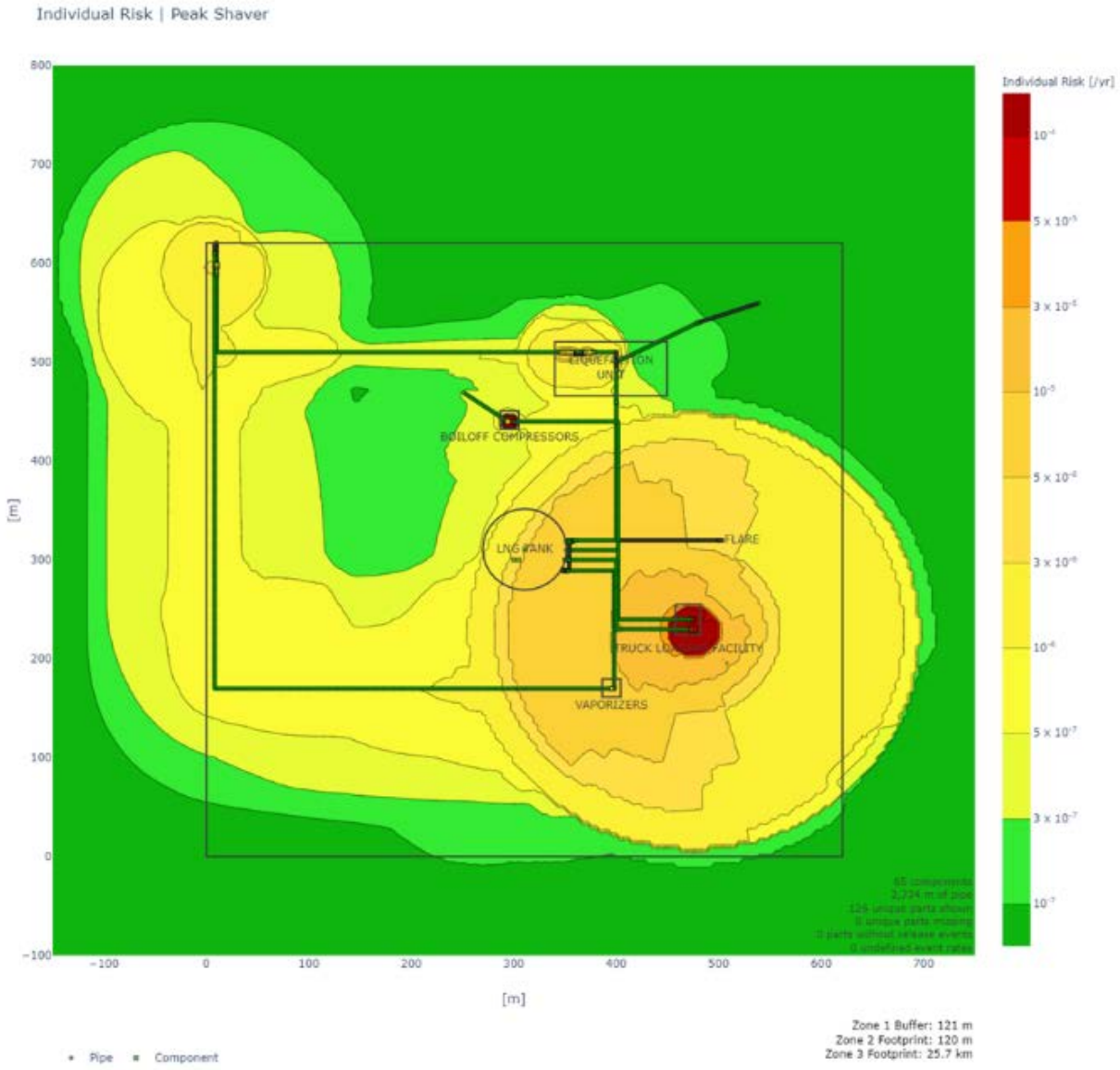


Figure 47 IR Sensitivity for Peak Shaver Facility – Probability of Ignition Case 7: Delayed Gas Ignition (Industrial)

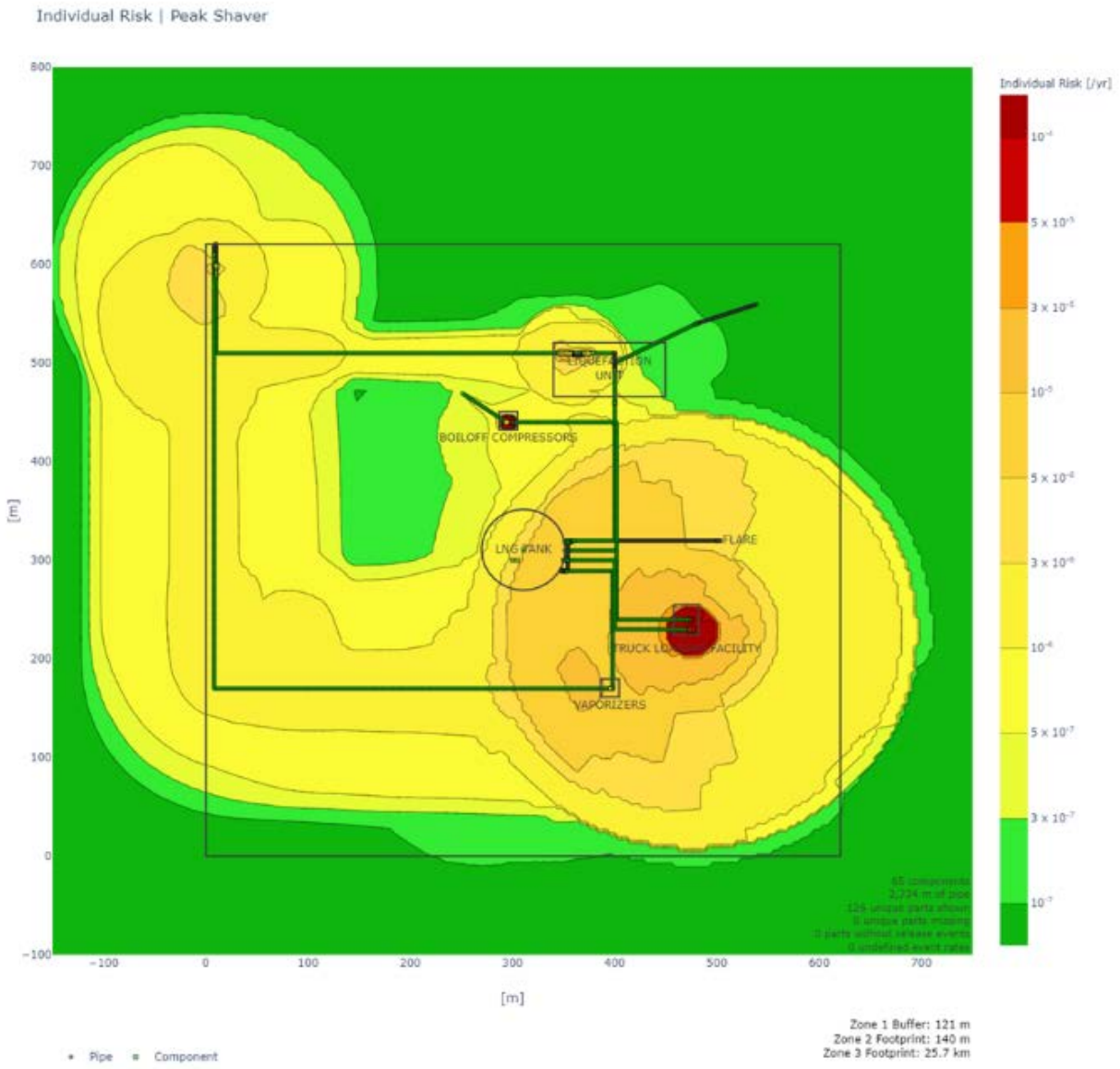


Figure 48 IR Sensitivity for Peak Shaver Facility – Probability of Ignition Case 8: Delayed Gas Ignition (Residential) + Jet Fire After Flash Fire

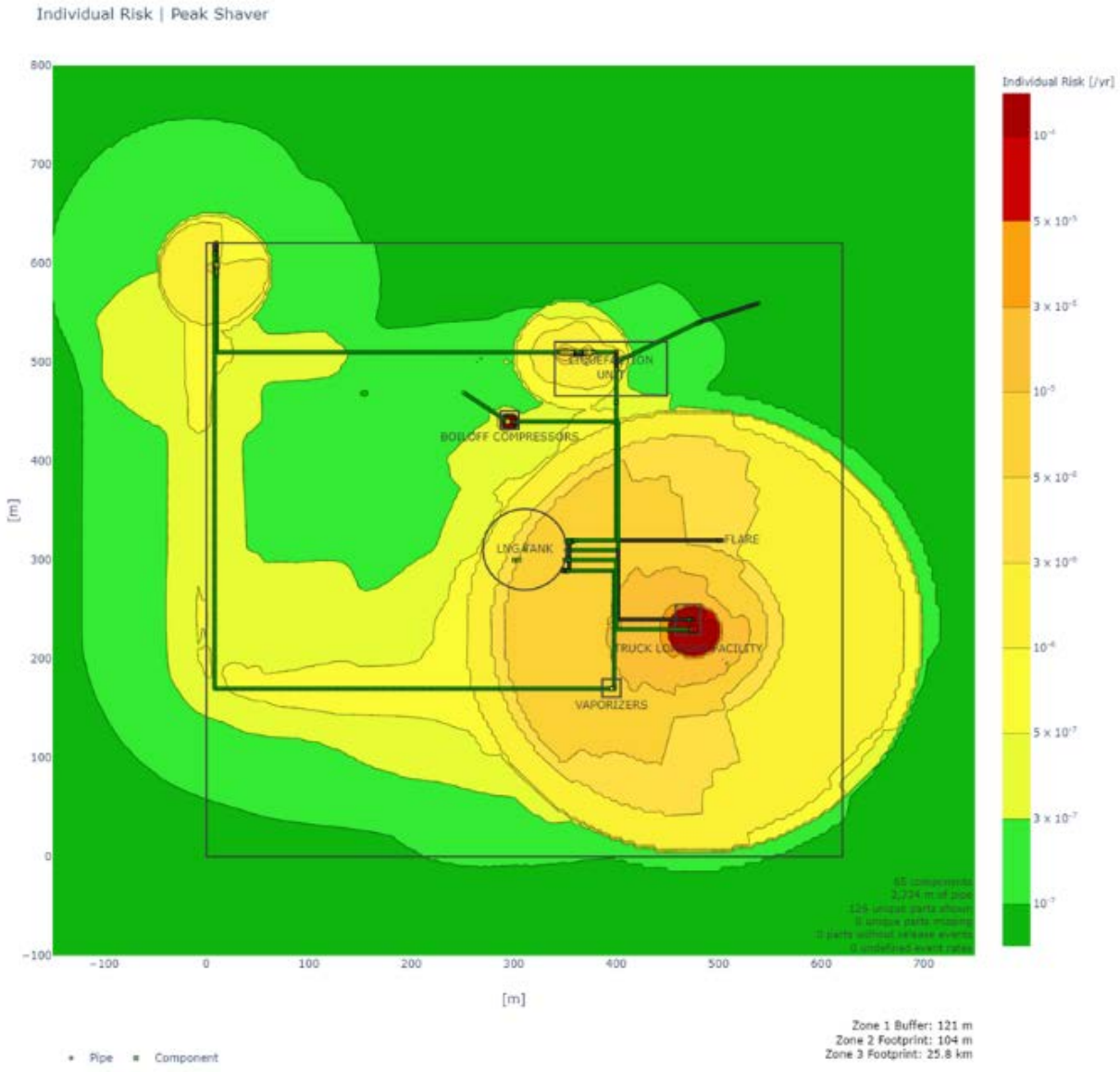


Figure 49 IR Sensitivity for Peak Shaver Facility – Consequence Inputs Case 9: 10% Pressure Increase

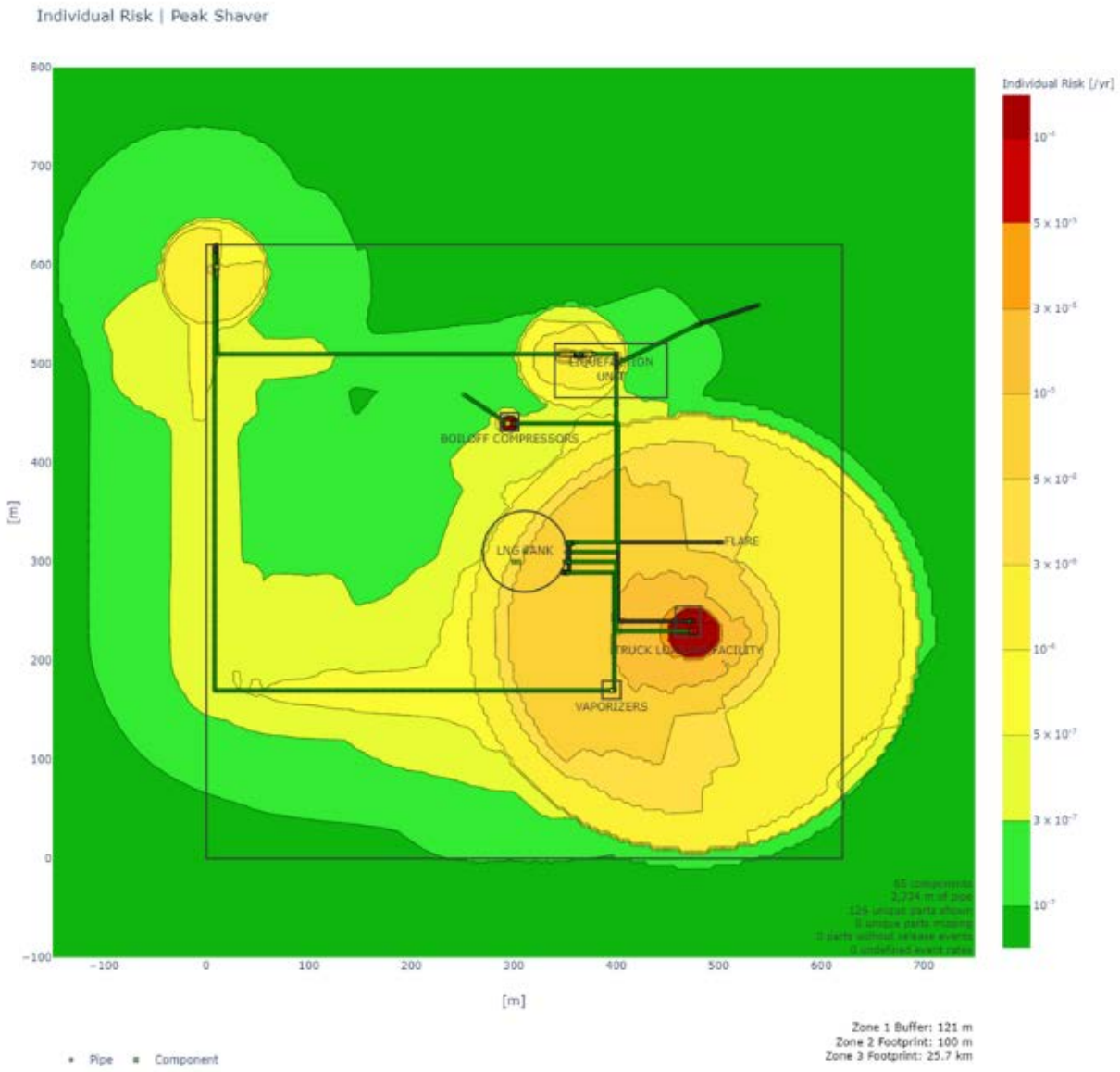


Figure 50 IR Sensitivity for Peak Shaver Facility – Consequence Inputs Case 10: Include Vapor Cloud Explosion (5% Volume)

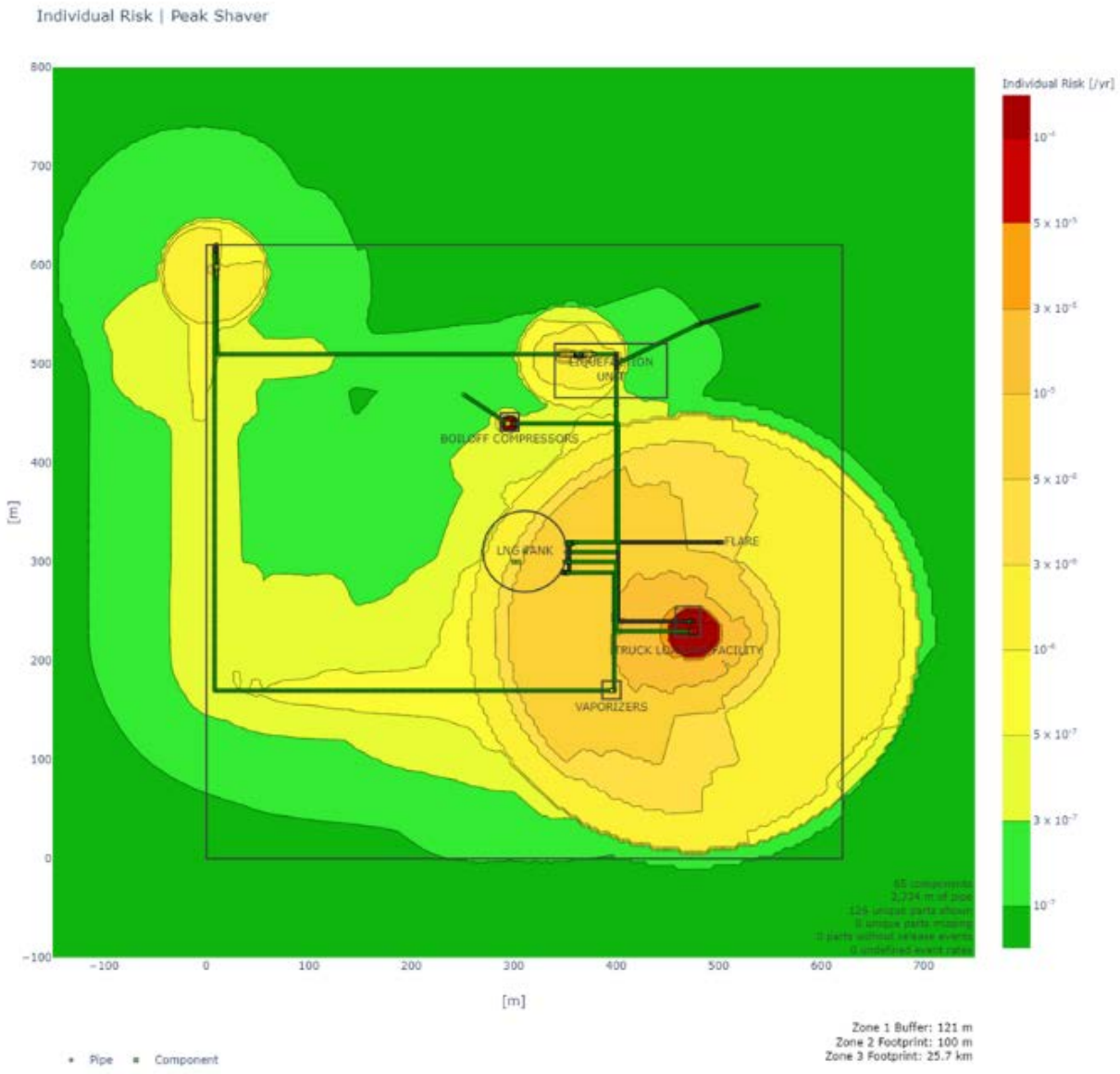


Figure 51 IR Sensitivity for Peak Shaver Facility – Consequence Inputs Case 11: Include Vapor Cloud Explosion (10% Volume)

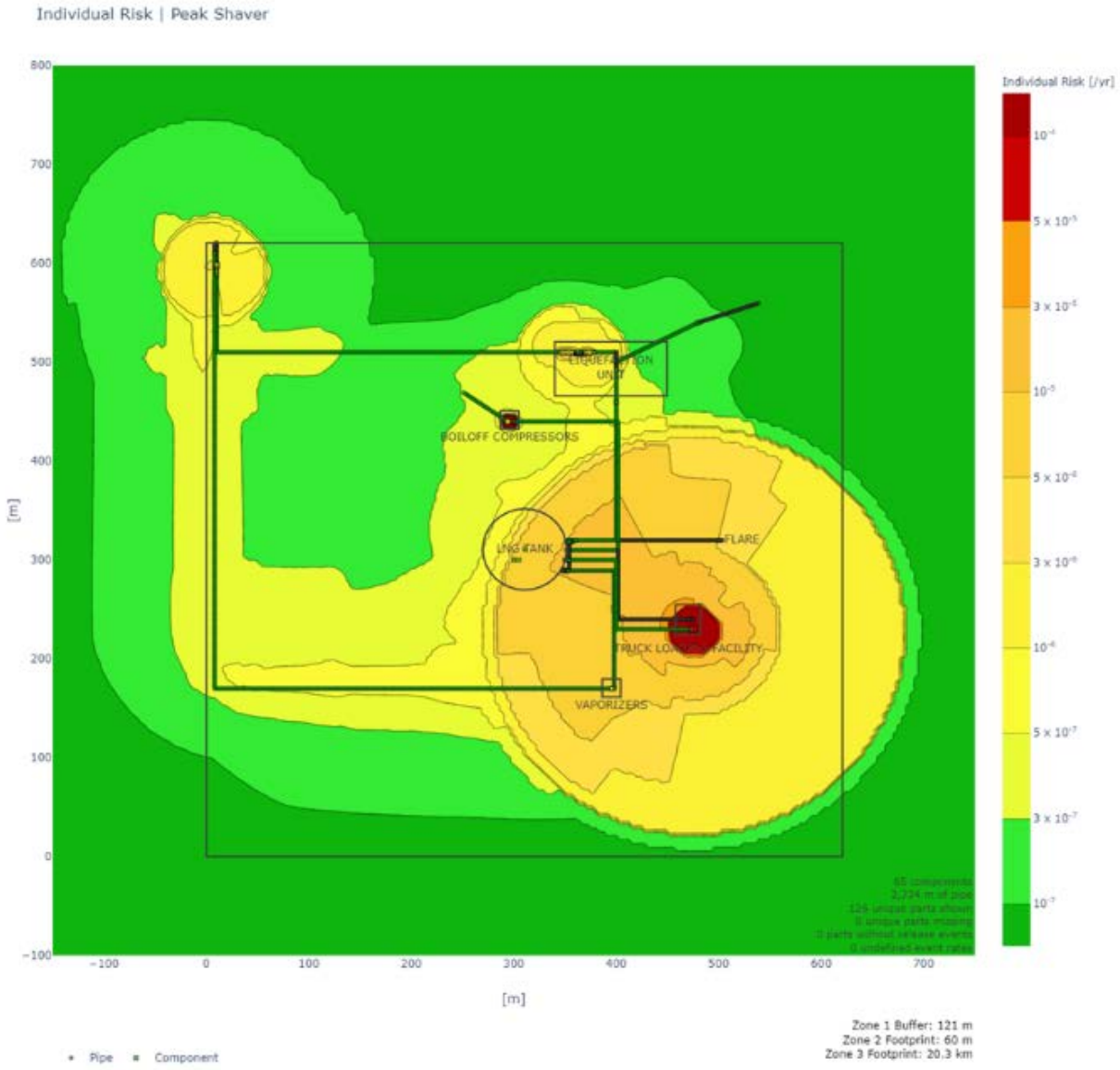


Figure 52 IR Sensitivity for Peak Shaver Facility – Consequence Inputs Case 12: Single Ambient Temperature

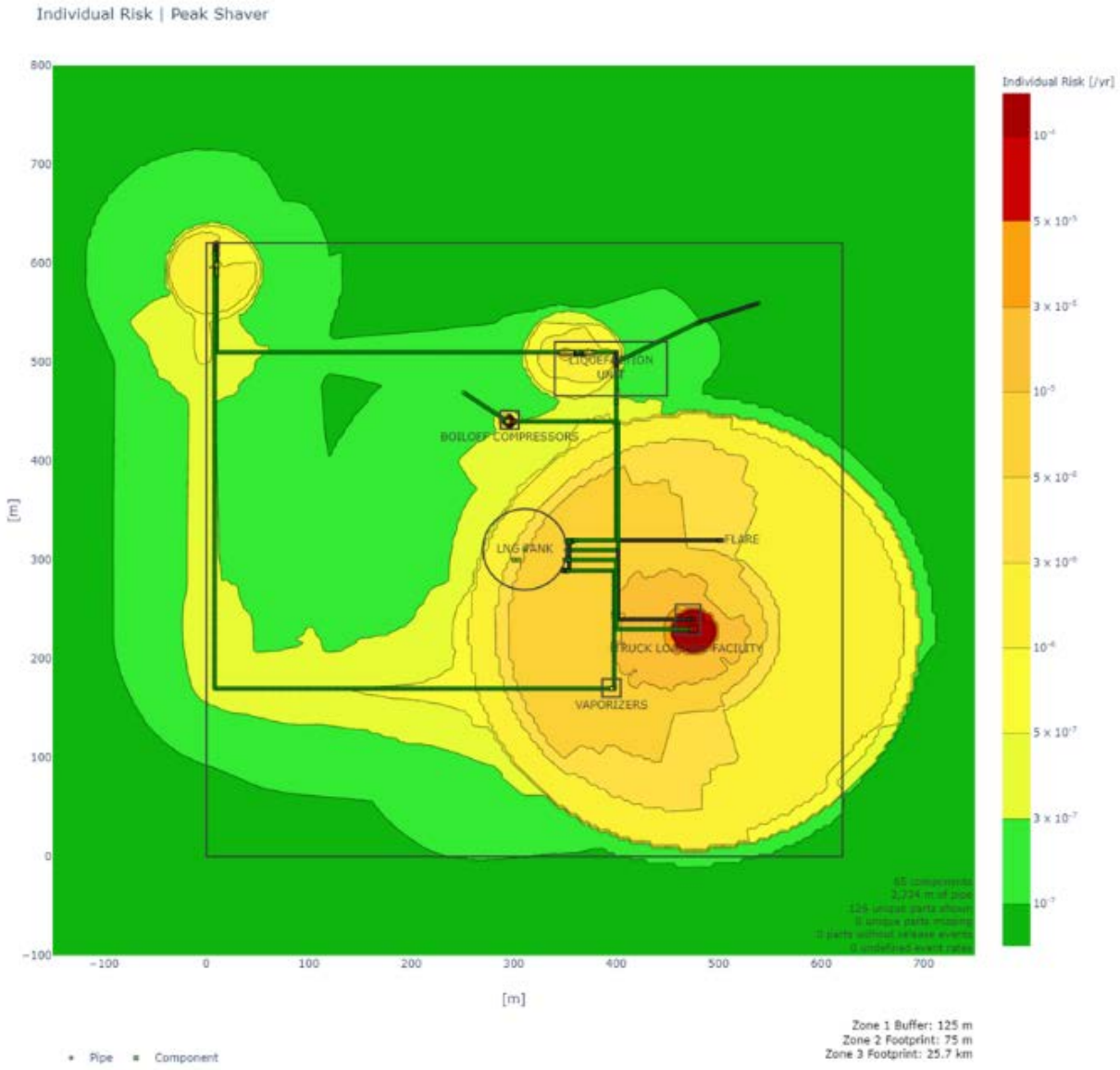


Figure 53 IR Sensitivity for Peak Shaver Facility – Hazard Thresholds Case 13: Outdoor Exposure Heat Flux Threshold

Figure 54 IR Sensitivity for Peak Shaver Facility – Hazard Thresholds Case 14: Indoor Exposure Heat Flux Threshold

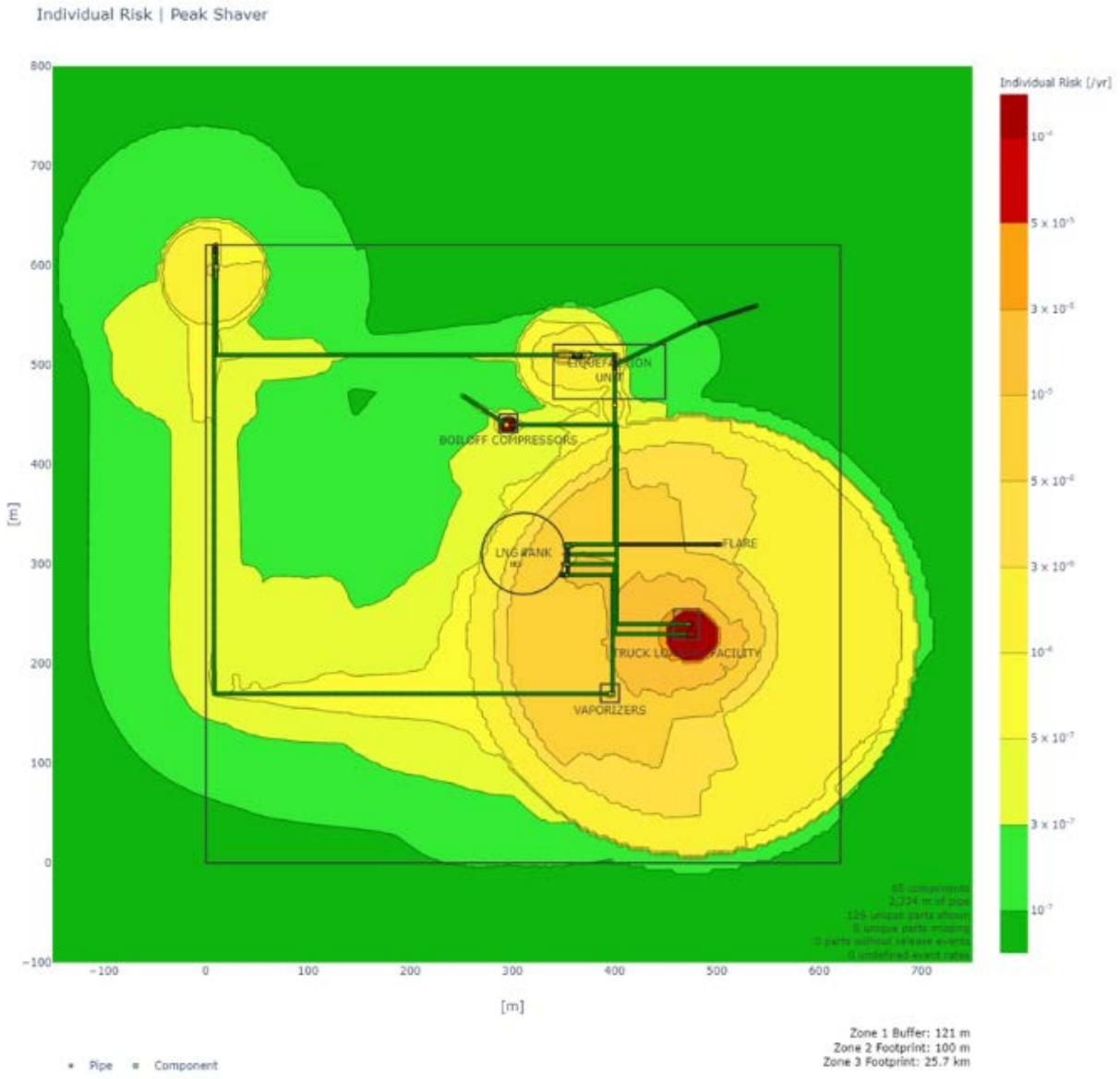


Figure 55 IR Sensitivity for Peak Shaver Facility – Hazard Thresholds Case 15: Include Asphyxiation

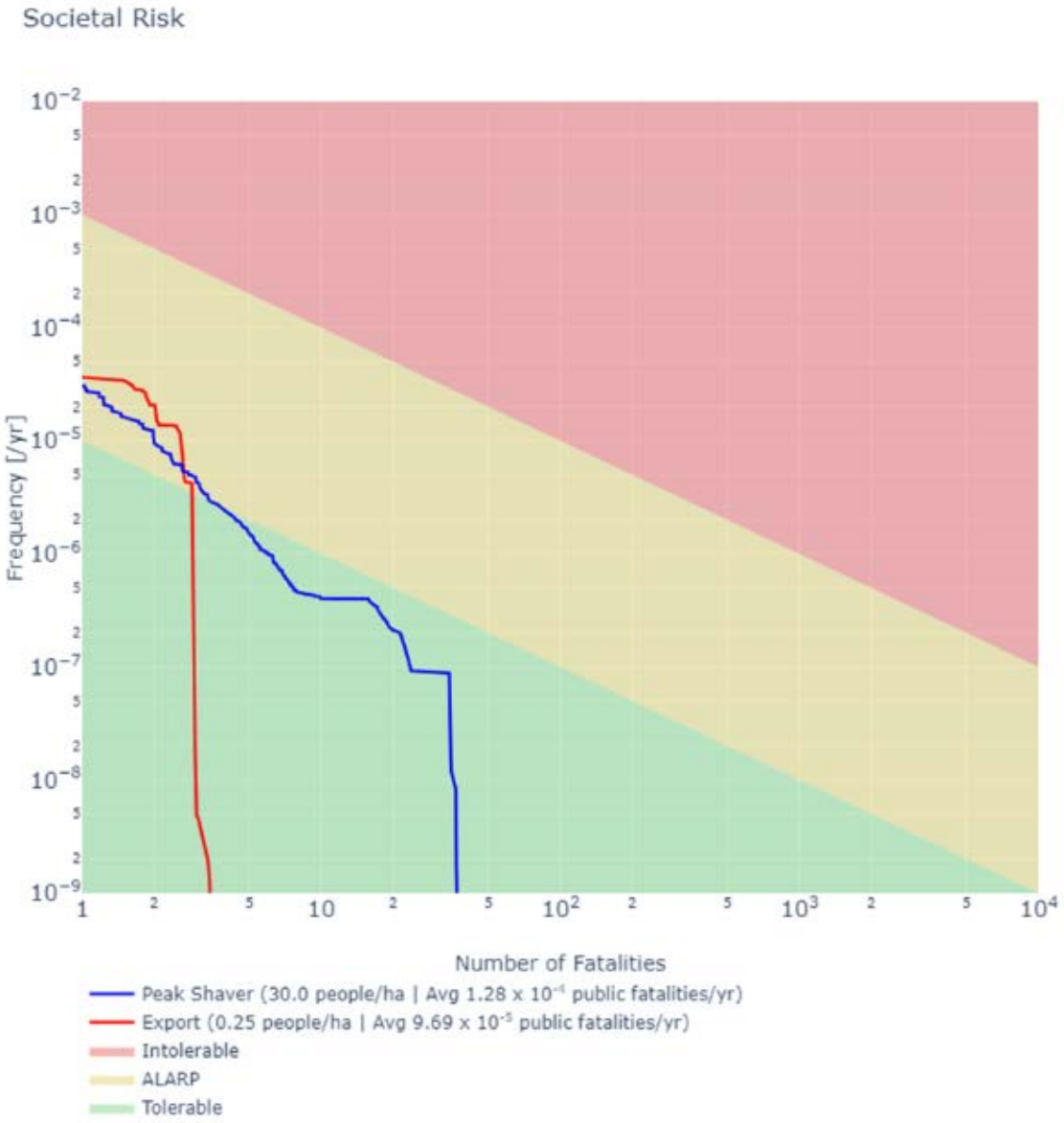


Figure 56 SR Sensitivity – Release Event Scenarios Case 1: Remove Instrumentation/Analysis

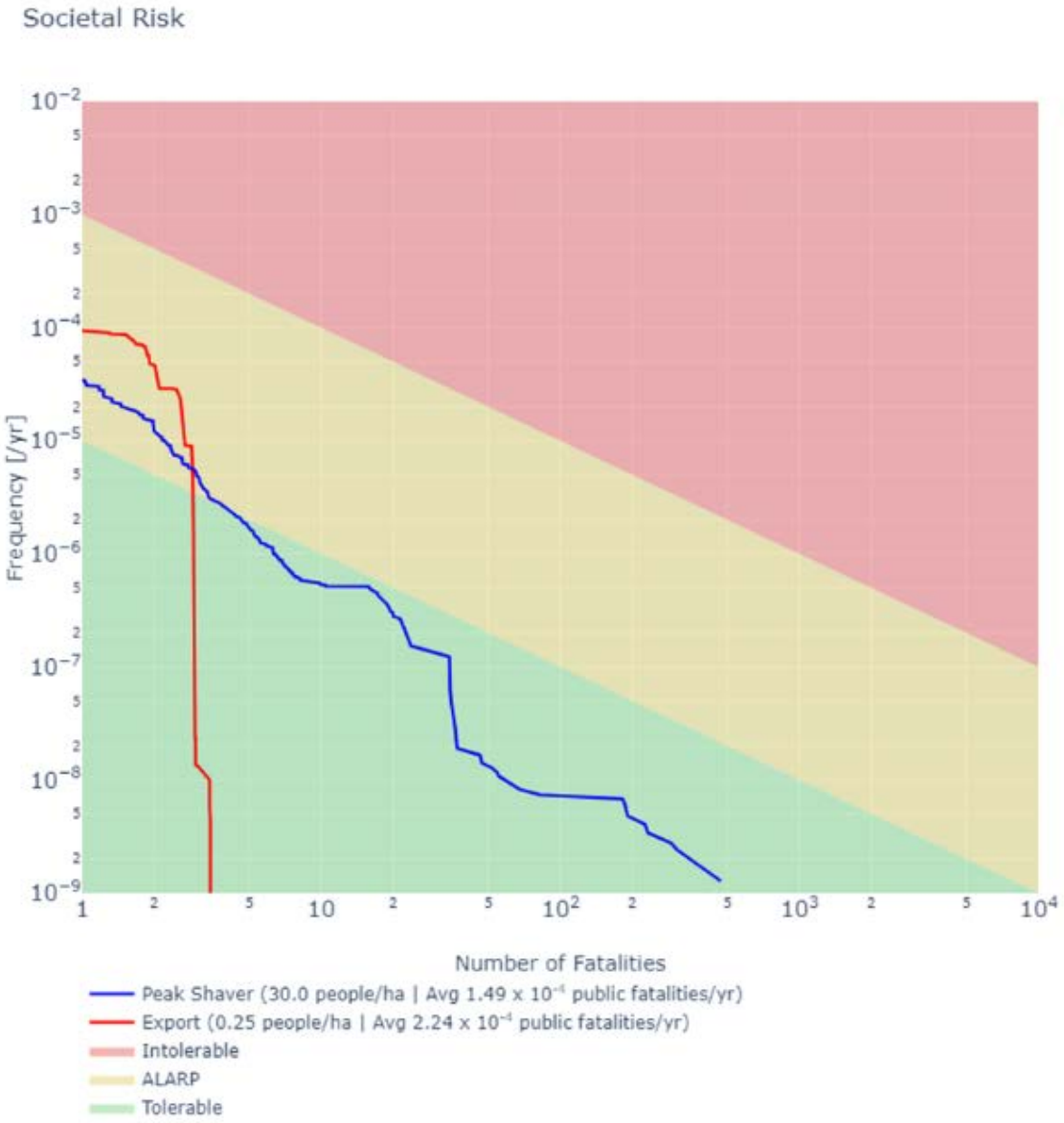


Figure 57 SR Sensitivity – Release Event Scenarios Case 2: Remove Low-Frequency Failures

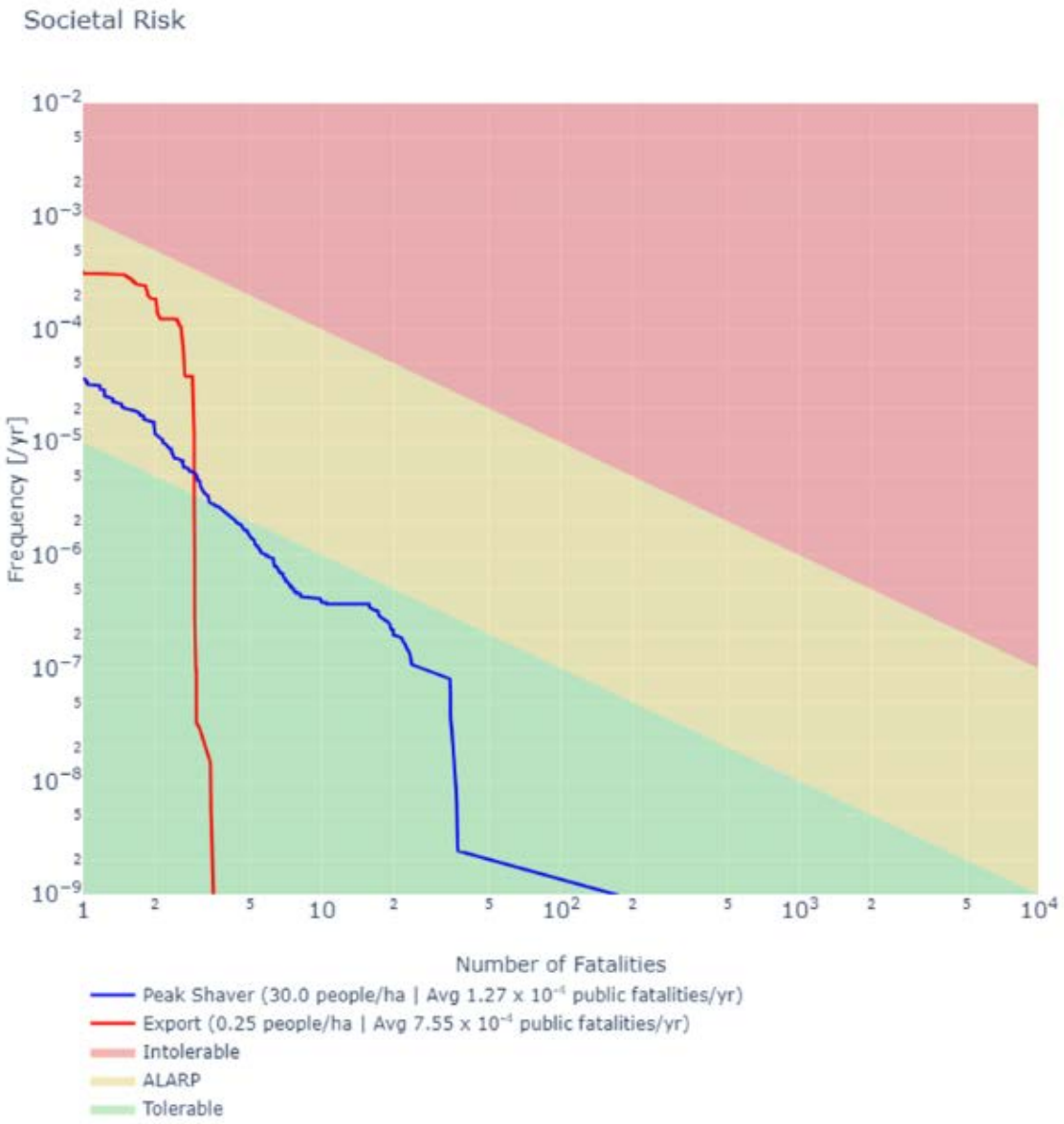


Figure 58 SR Sensitivity – Equipment Failure Rates Case 3: RIVM (2009) Failure Rates

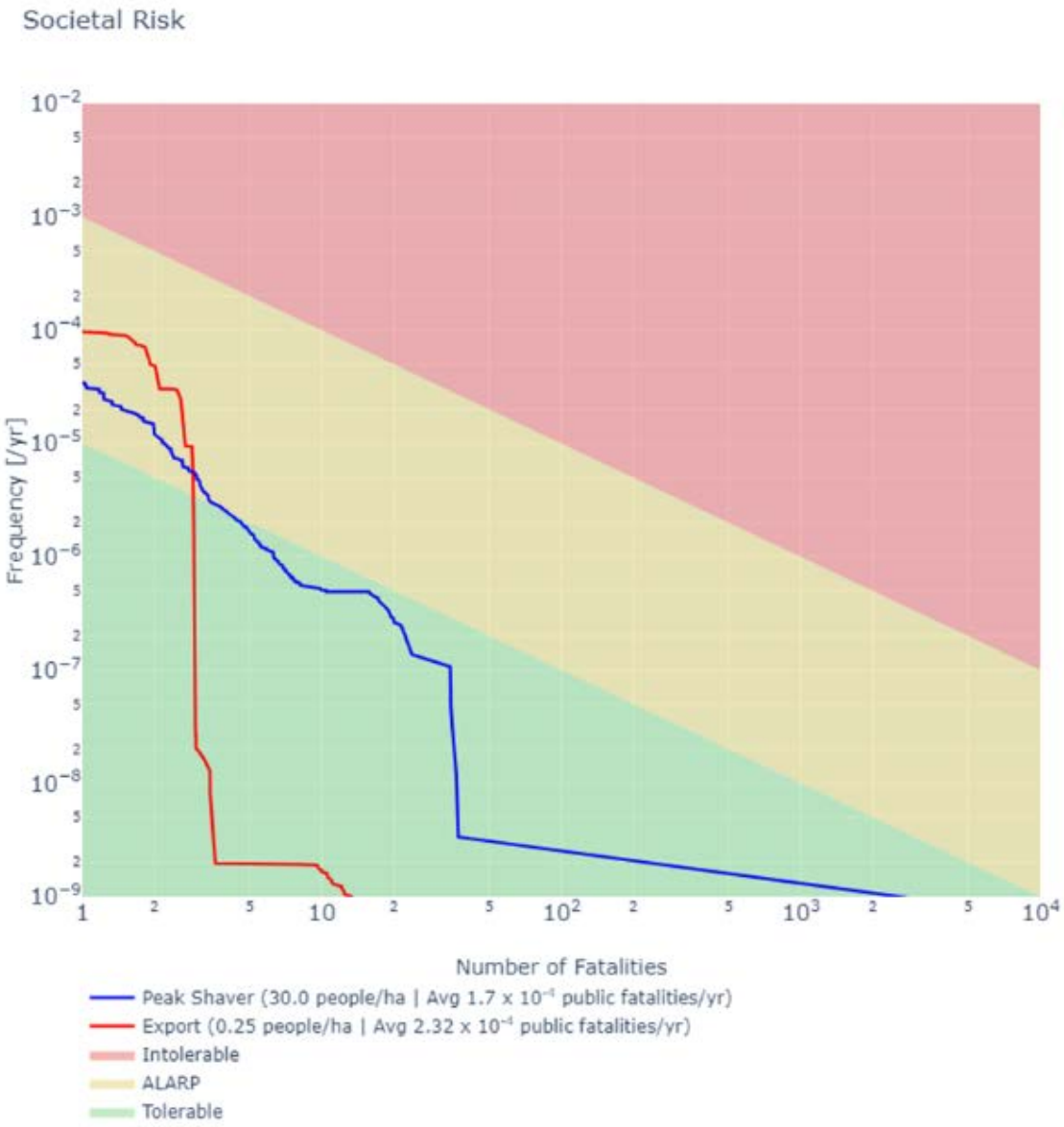


Figure 59 SR Sensitivity – Equipment Failure Rates Case 4: HSE Failure Rates

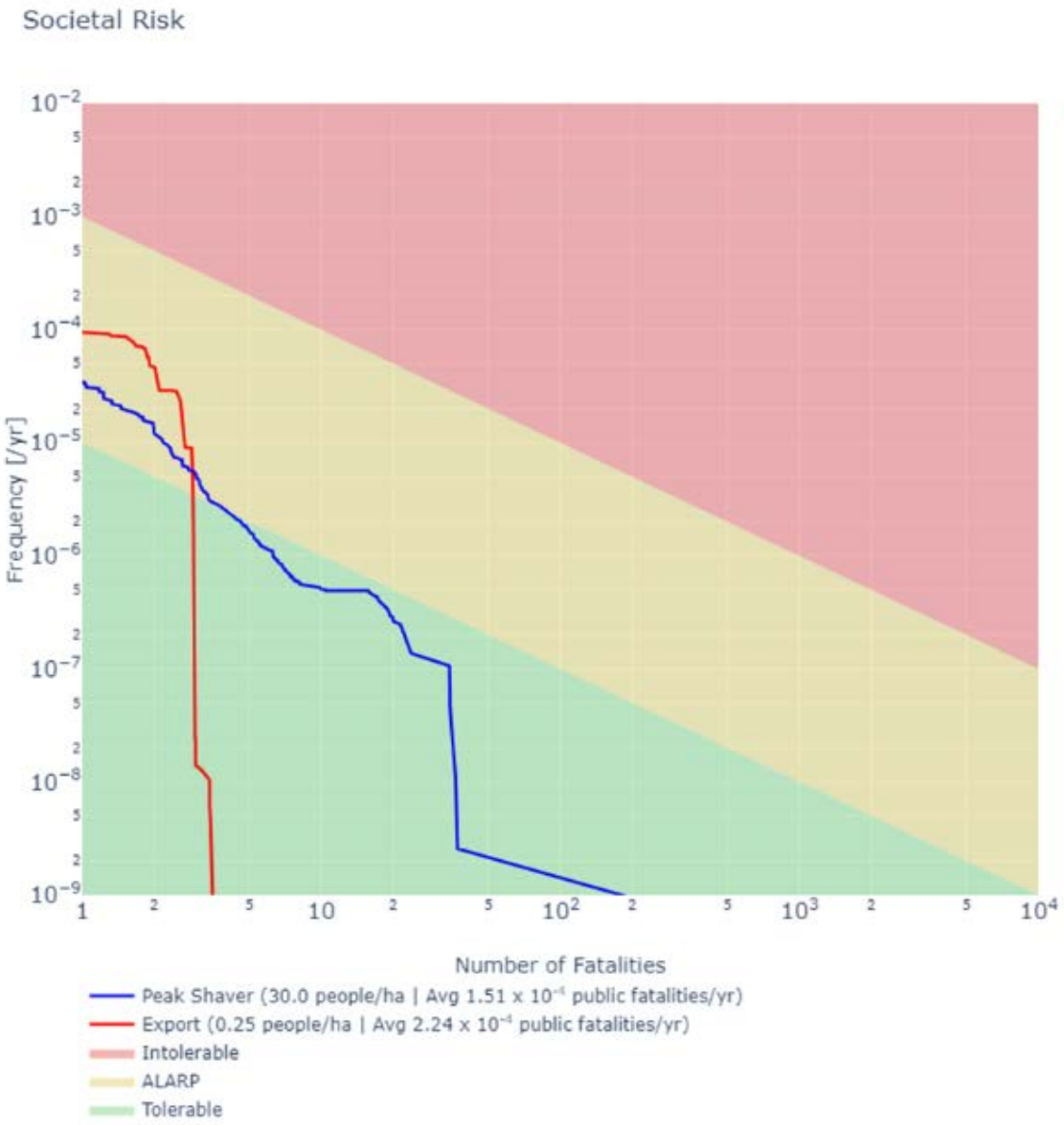


Figure 60 SR Sensitivity – Probability of Ignition Case 5: Jet Fire After Flash Fire

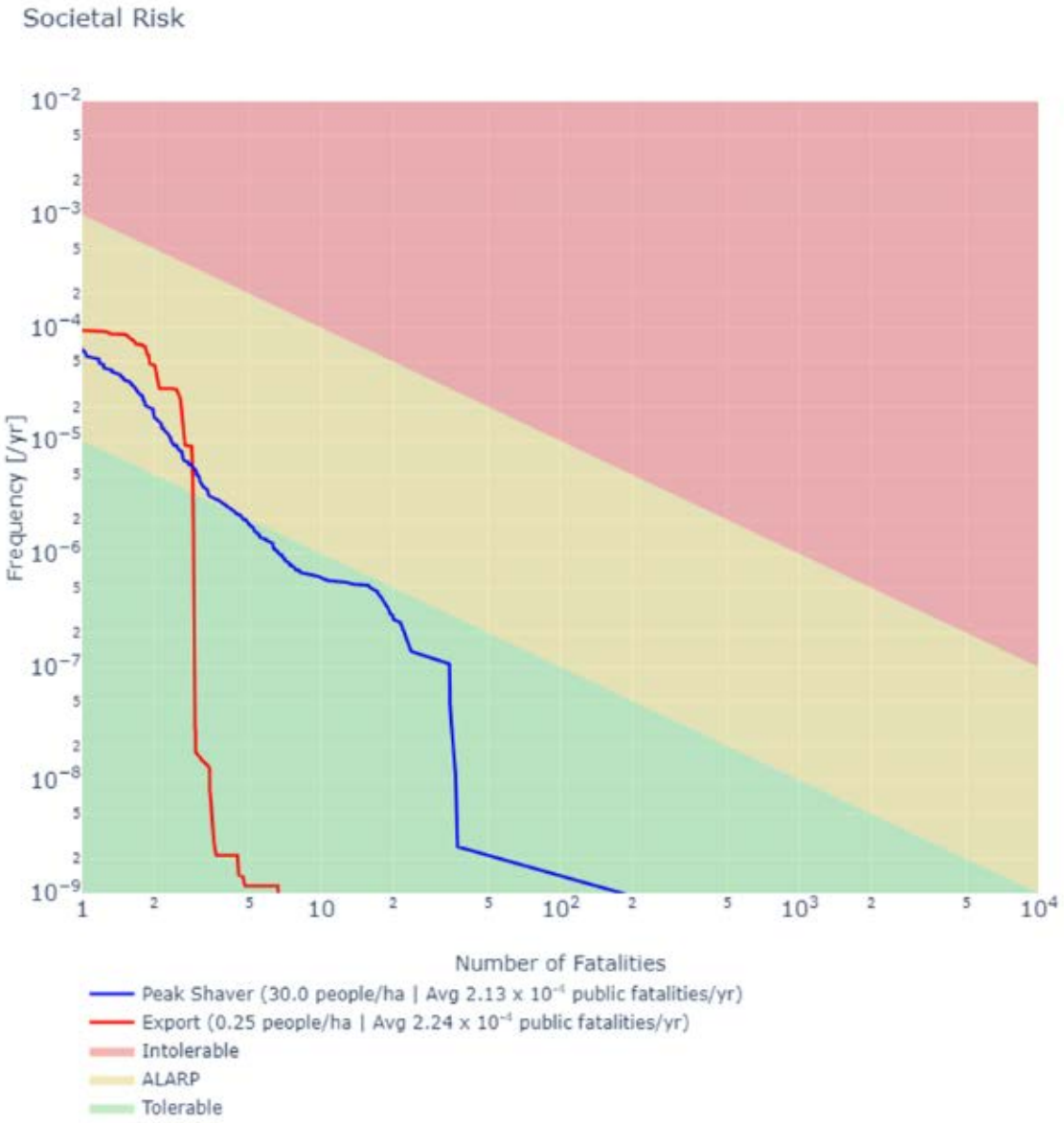


Figure 61 SR Sensitivity – Probability of Ignition Case 6: Delayed Gas Ignition (Residential)

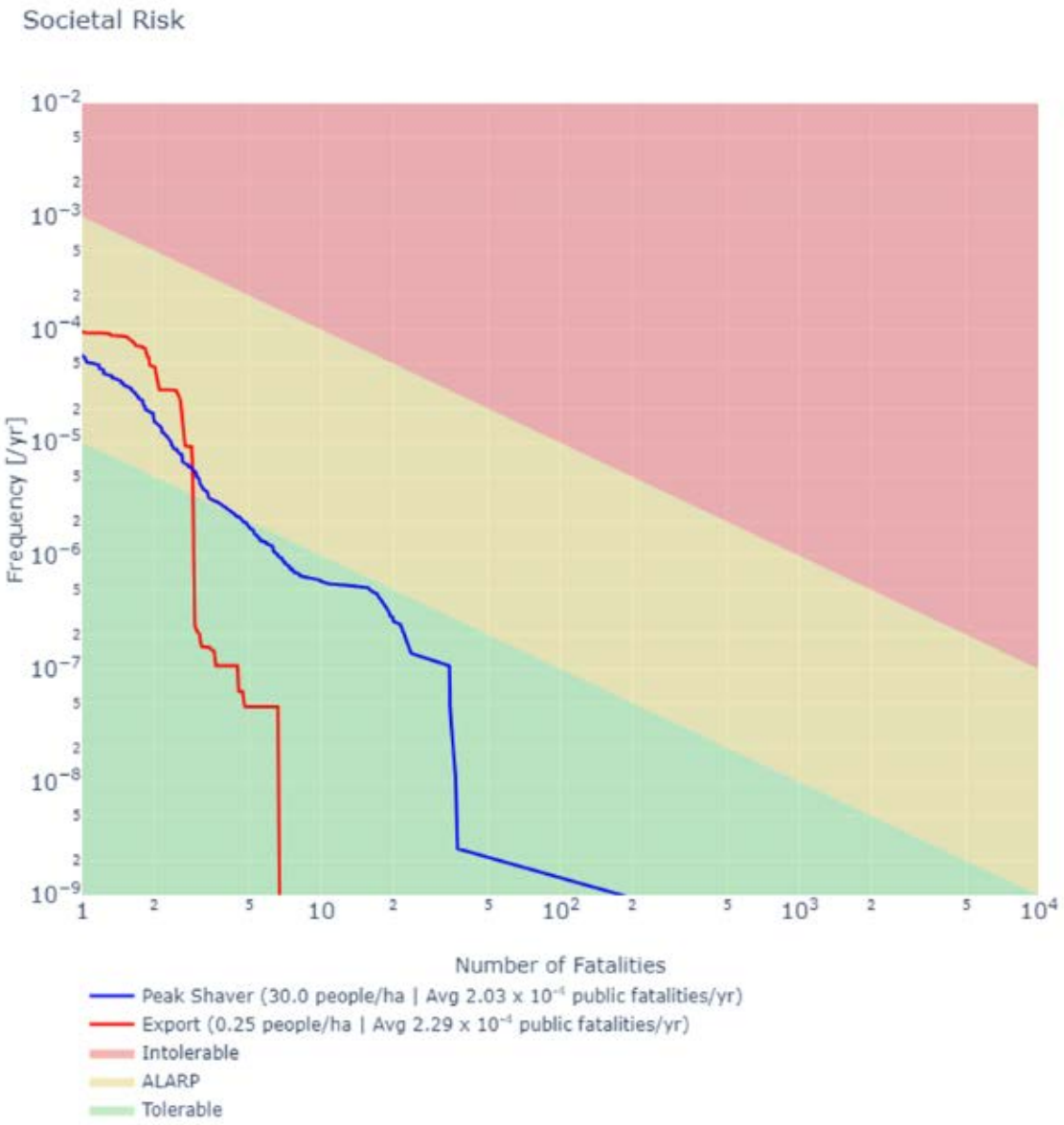


Figure 62 SR Sensitivity – Probability of Ignition Case 7: Delayed Gas Ignition (Industrial)

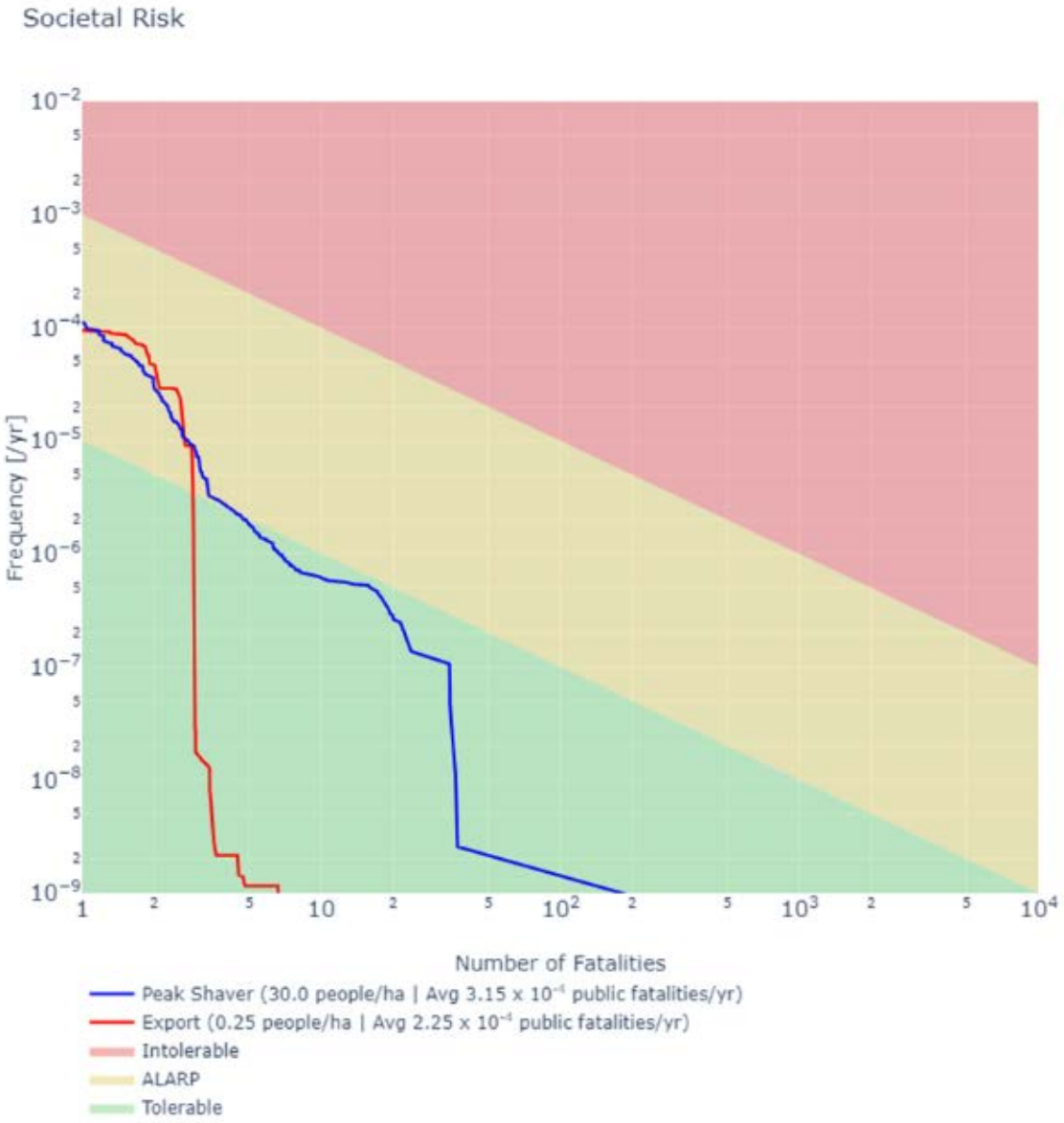


Figure 63 SR Sensitivity – Probability of Ignition Case 8: Delayed Gas Ignition (Residential) + Jet After Flash

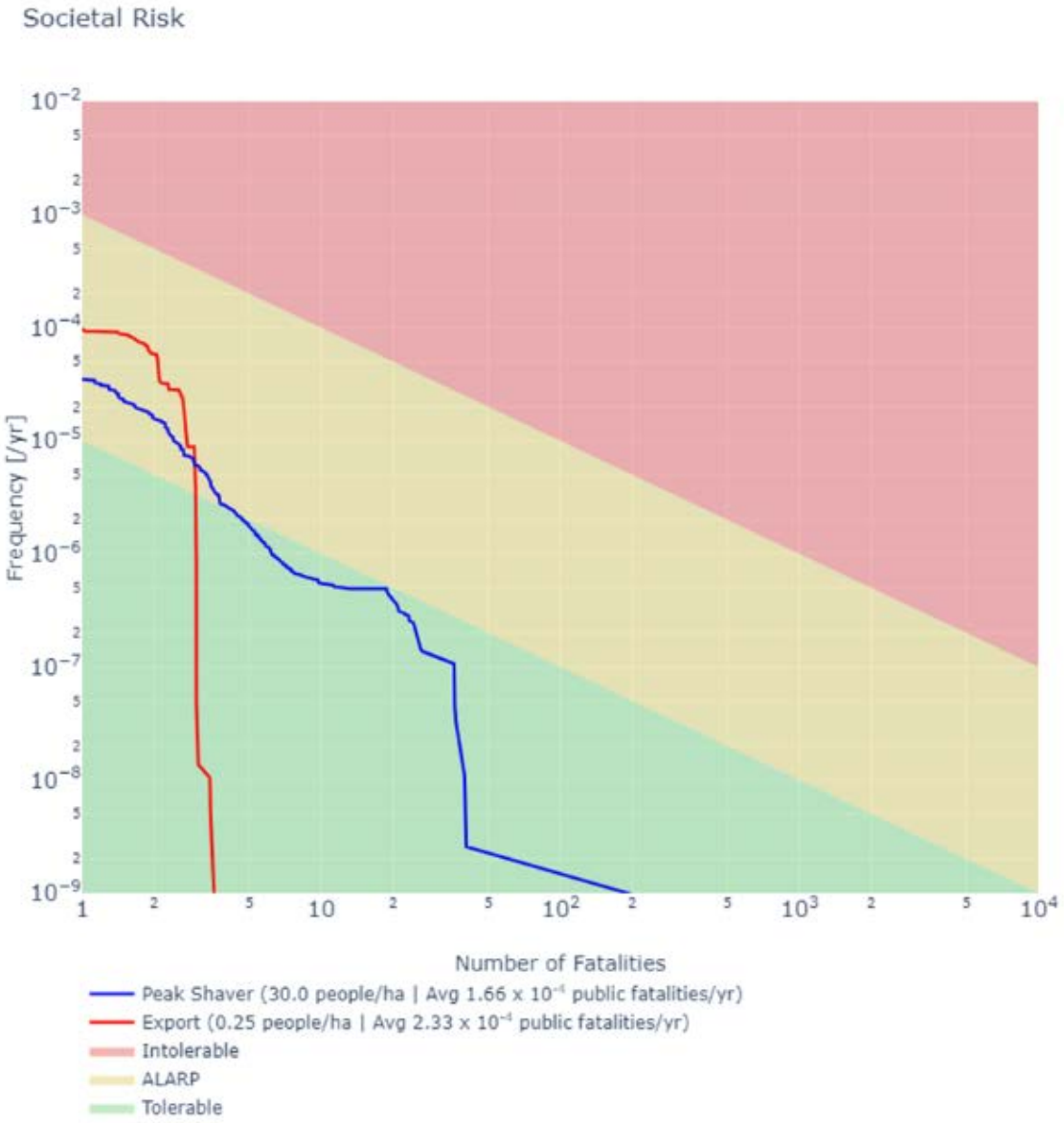


Figure 64 SR Sensitivity – Consequence Inputs Case 9: 10% Pressure Increase

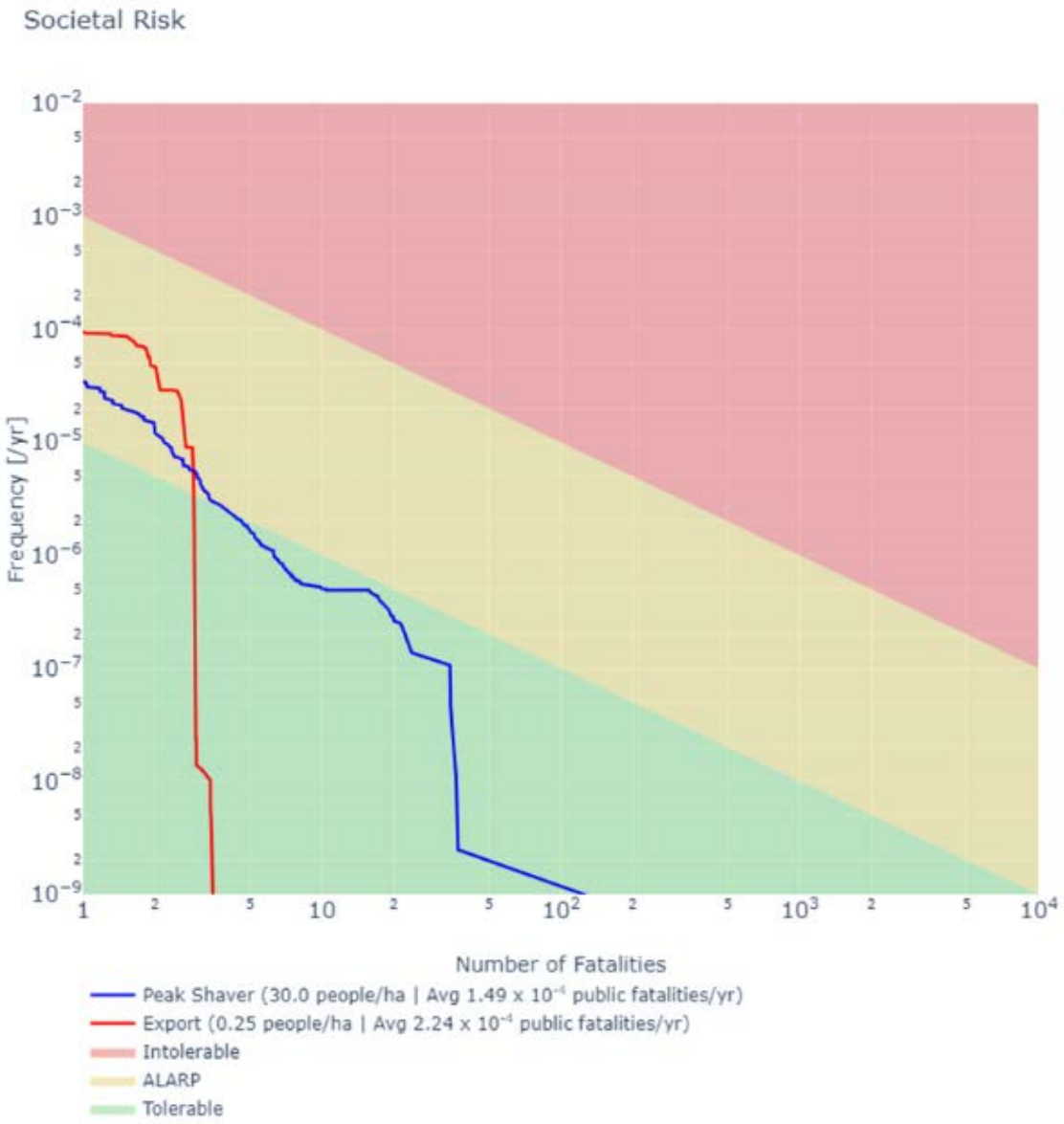


Figure 65 SR Sensitivity – Consequence Inputs Case 10: Include Vapor Cloud Explosion (5% Volume)

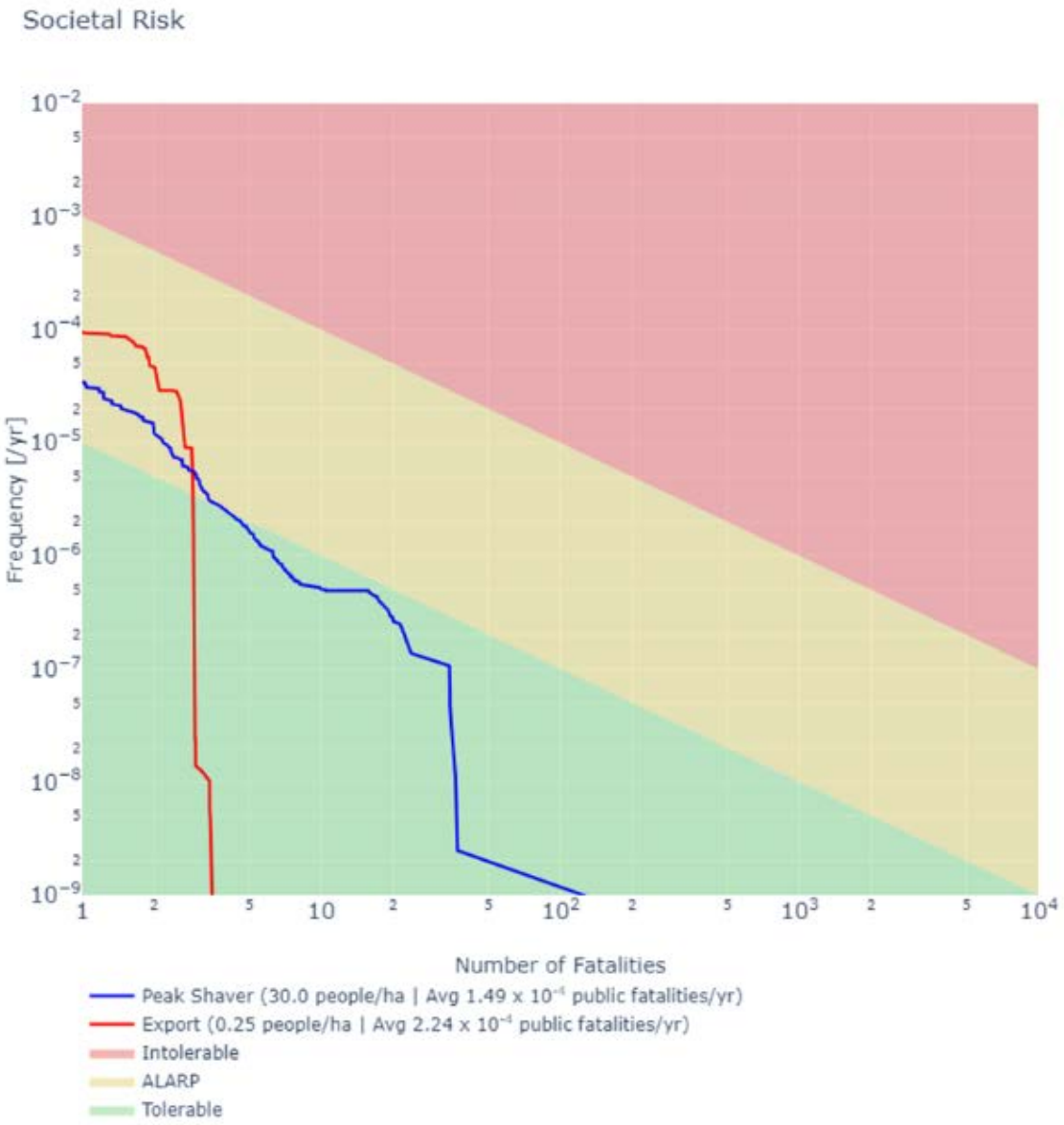


Figure 66 SR Sensitivity – Consequence Inputs Case 11: Include Vapor Cloud Explosion (10% Volume)

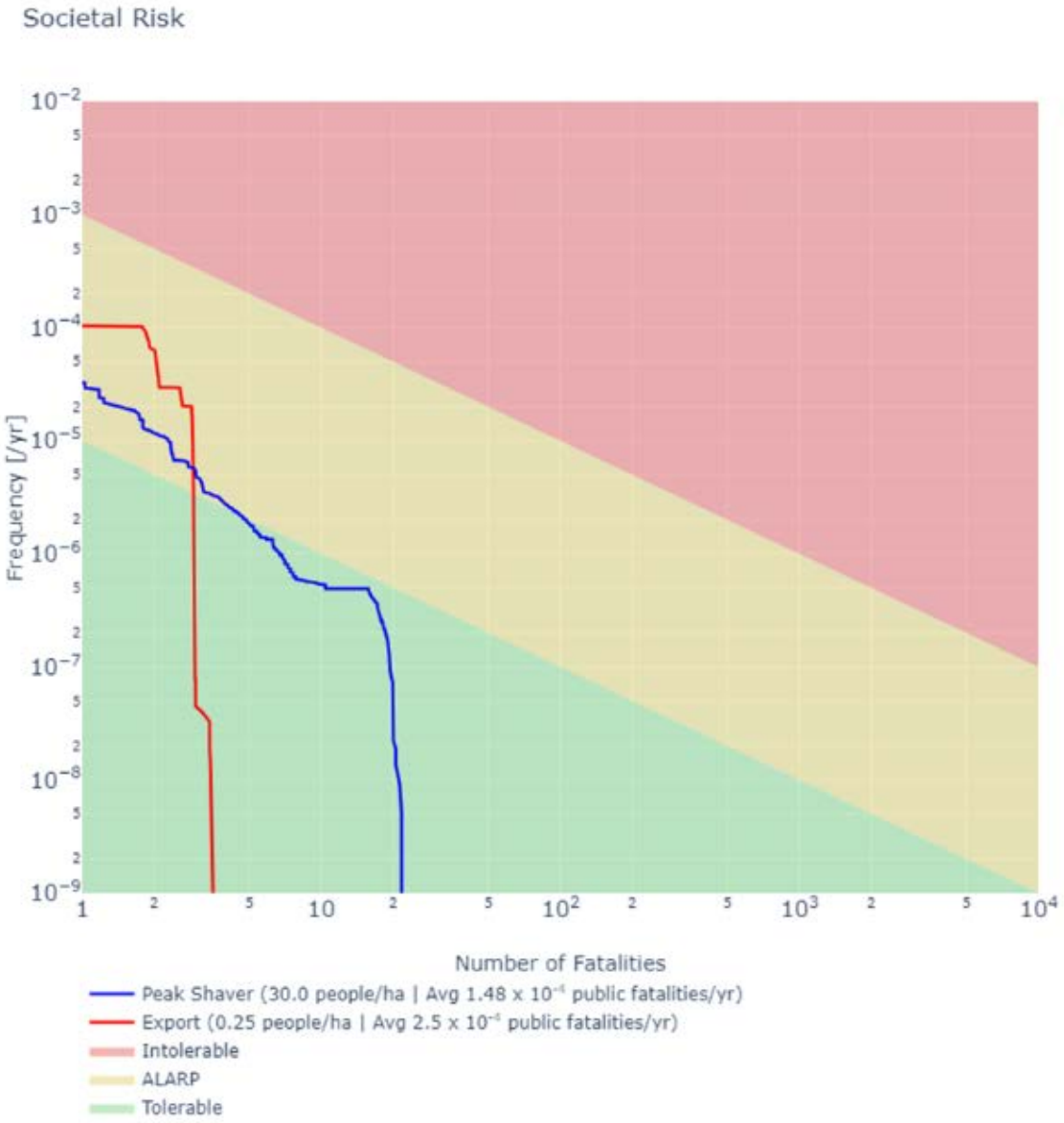


Figure 67 SR Sensitivity – Consequence Inputs Case 12: Single Ambient Temperature

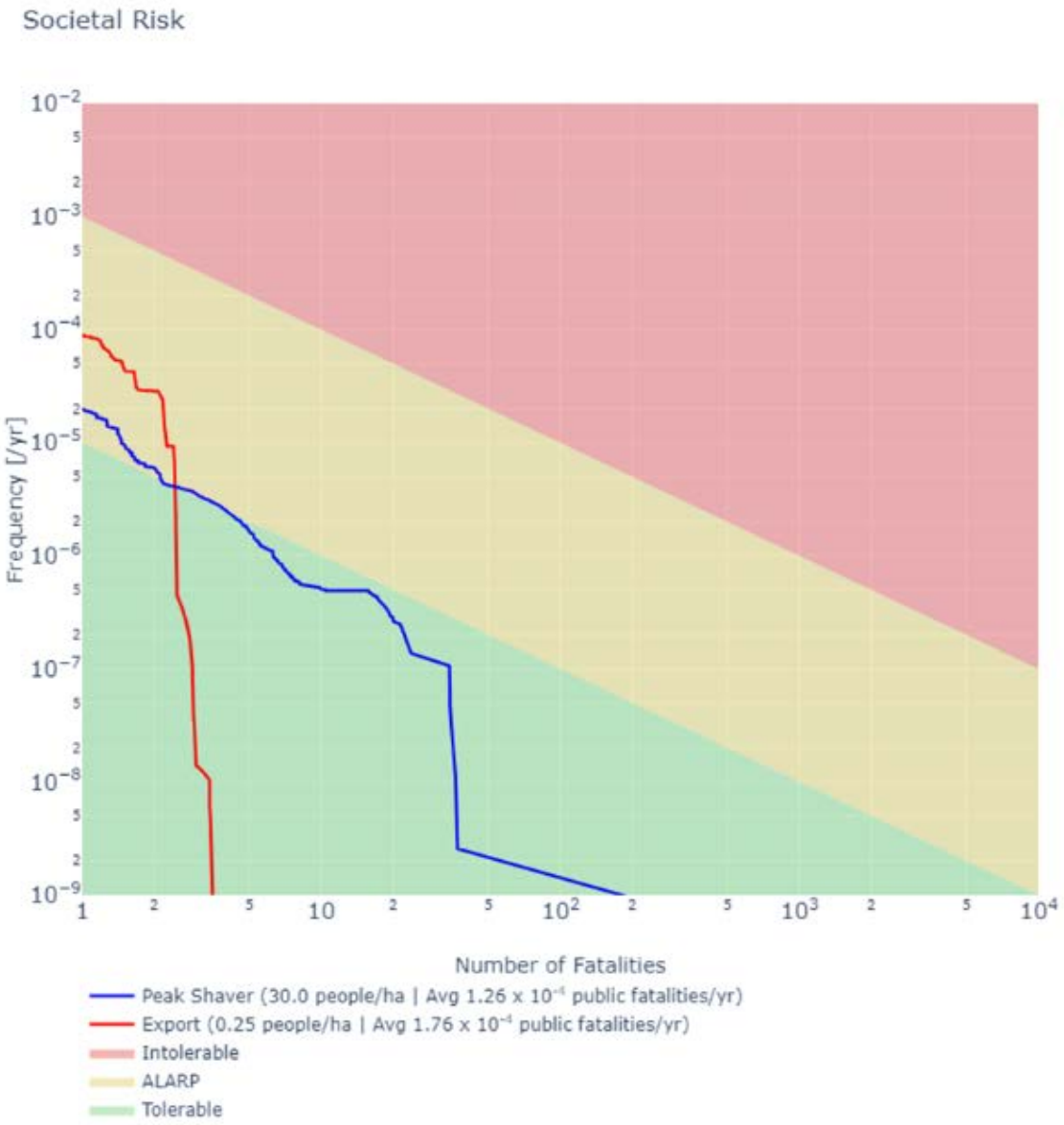


Figure 68 SR Sensitivity – Hazard Thresholds Case 13: Outdoor Exposure Heat Flux Threshold

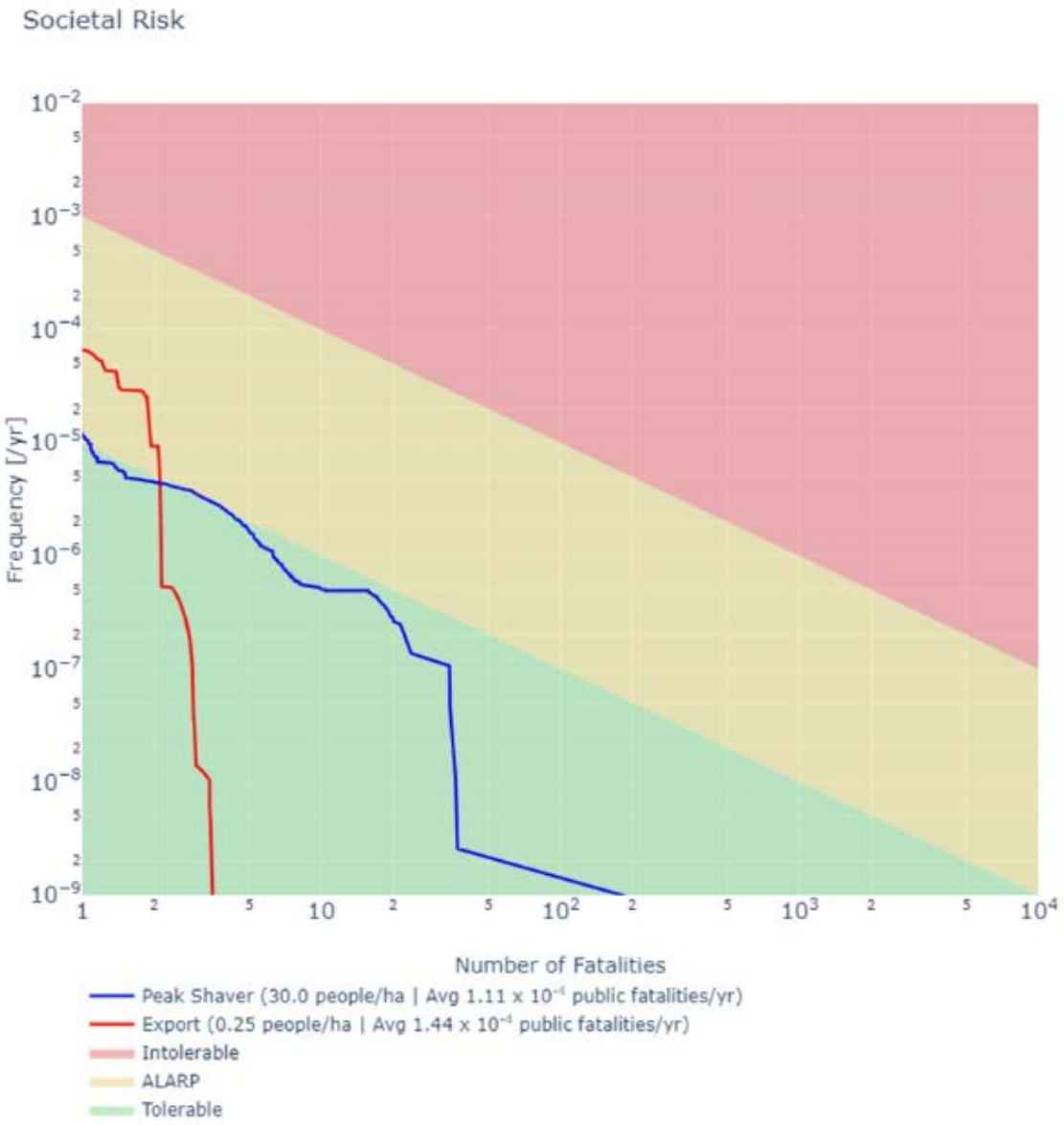


Figure 69 SR Sensitivity – Hazard Thresholds Case 14: Indoor Exposure Heat Flux Threshold

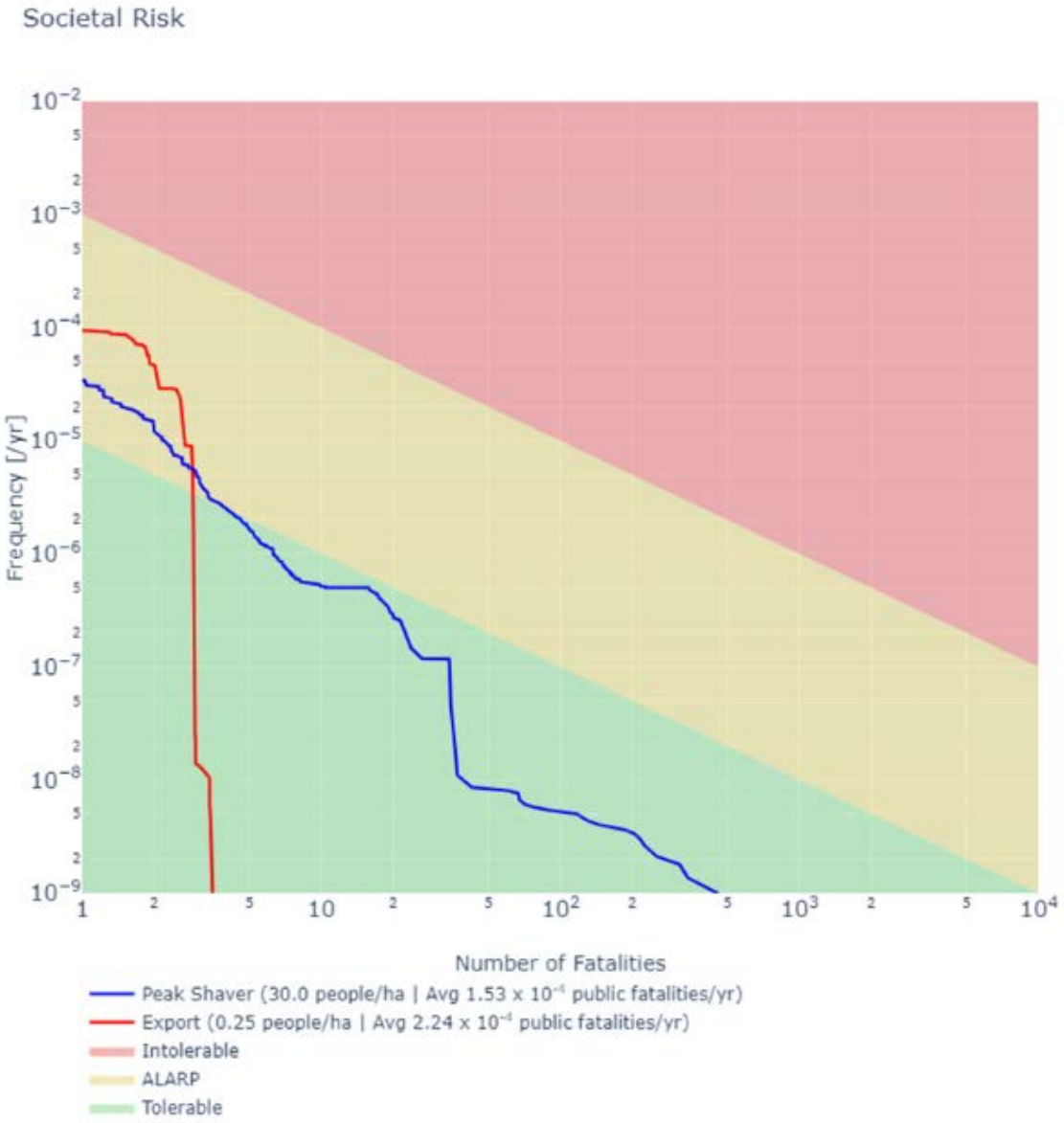


Figure 70 SR Sensitivity – Hazard Thresholds Case 15: Include Asphyxiation

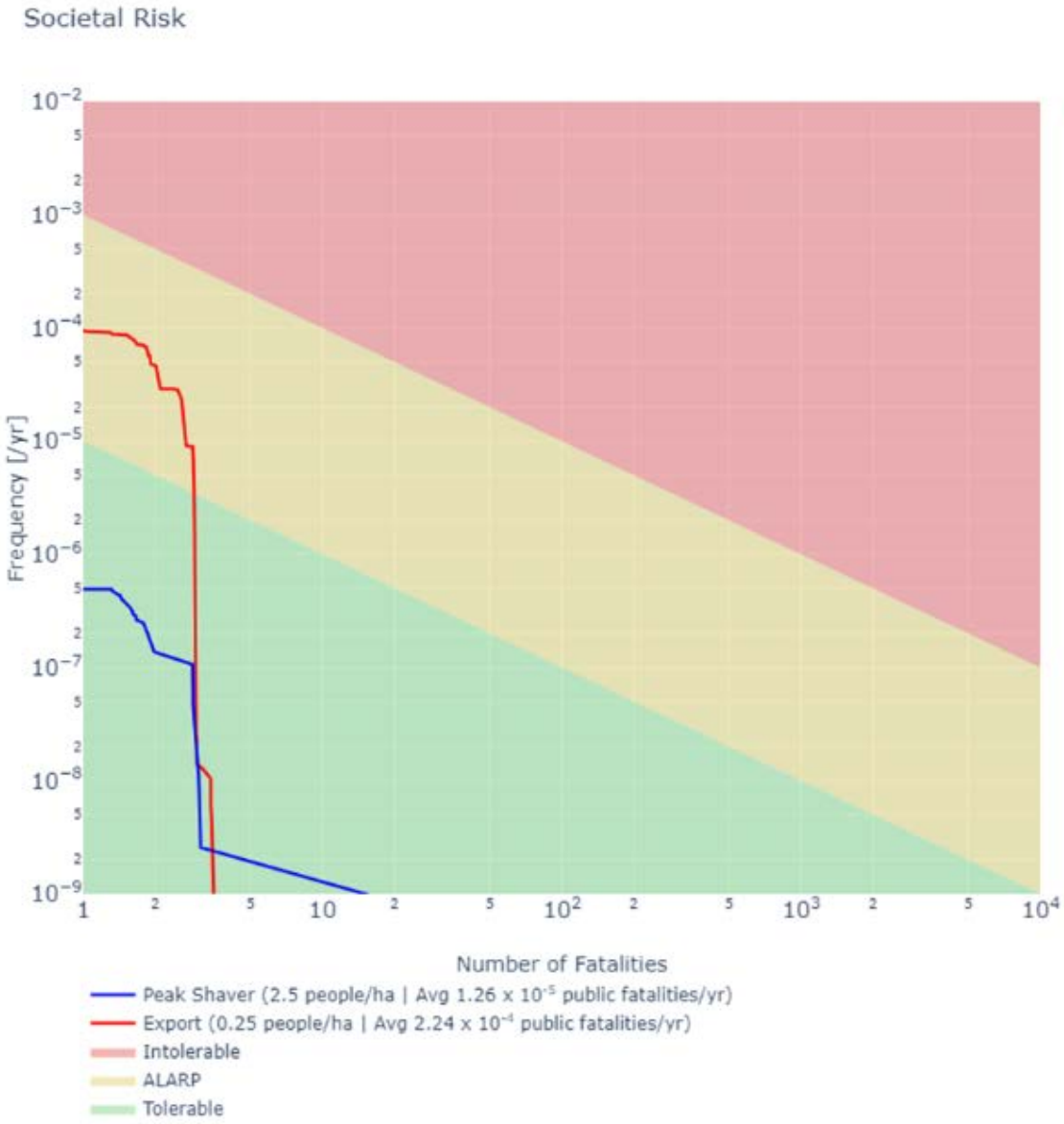


Figure 71 SR Sensitivity – SR Case 16: Industrial Land Usage Population Density

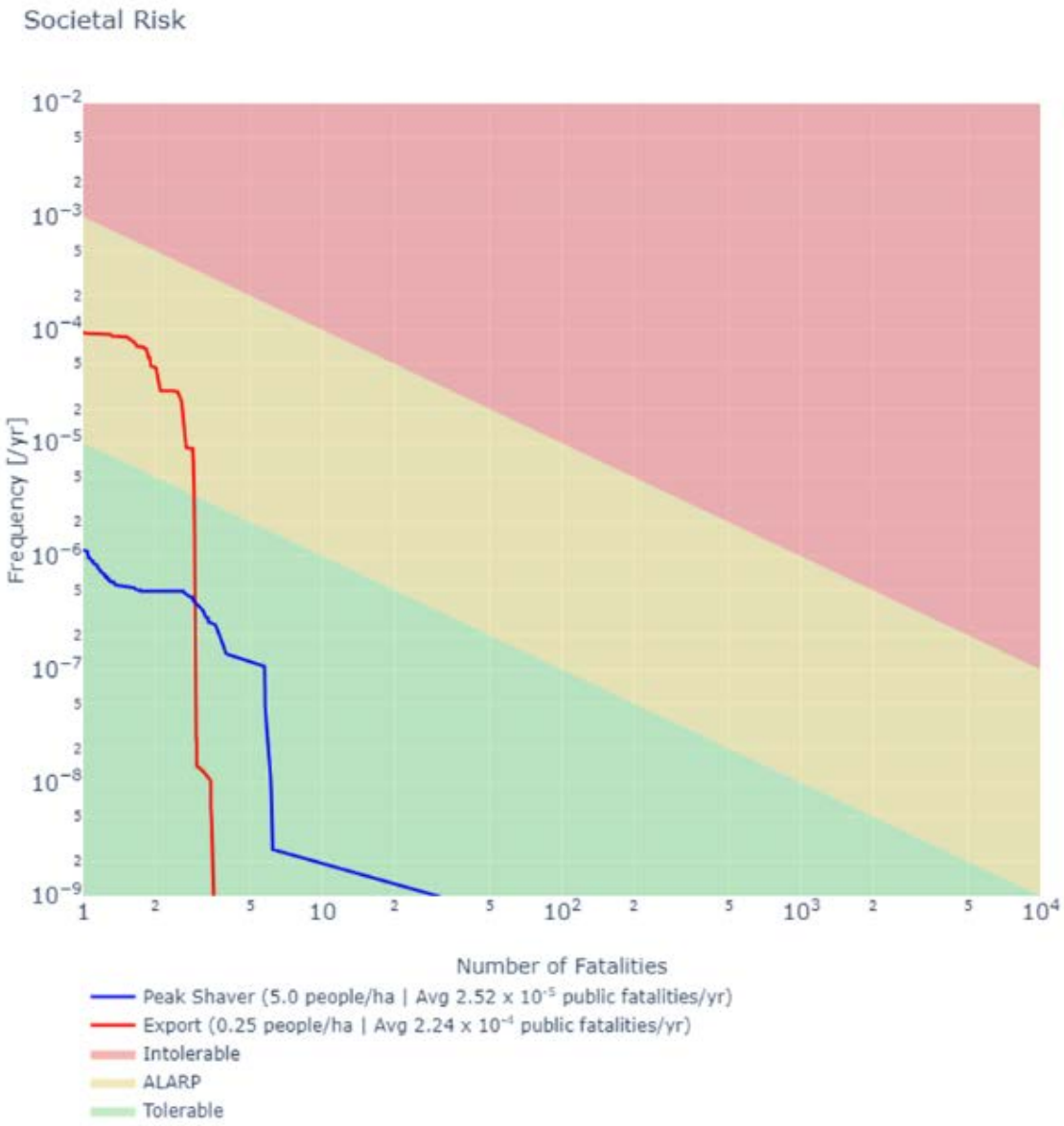


Figure 72 SR Sensitivity – SR Case 17: Industrial/Commercial Land Usage Population Density

Appendix E: Final Financial Section

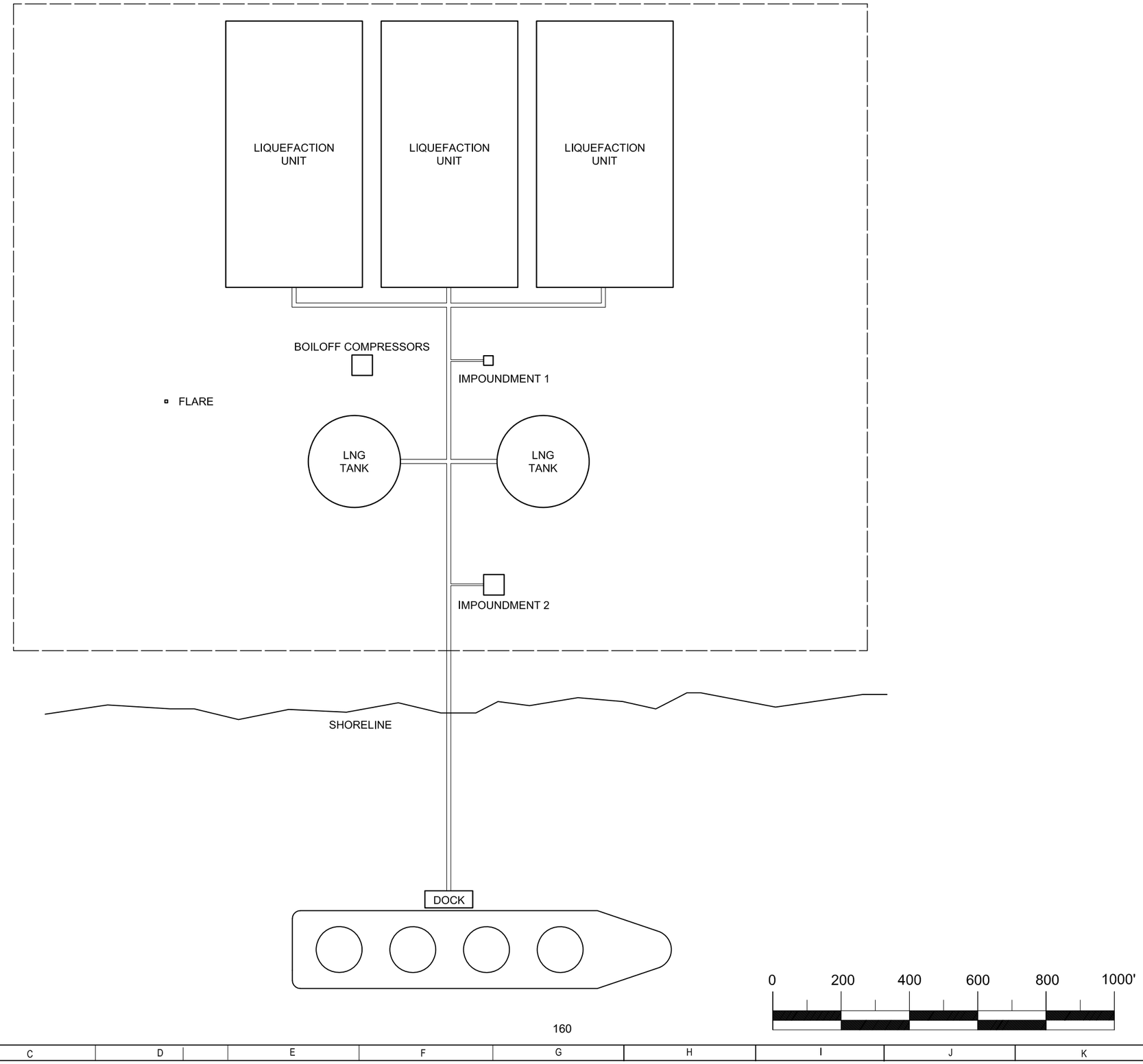
The cost of this fixed-price project was fully funded by the Government. The project team did not provide any cost share, nor was it required to.

Project expenses and billing aligned with the associated contract #693JK31810006. There were no discrepancies or variances in contributions that needed to be reconciled.

Appendix F: Attachments

Drawings and computational results generated during this project are attached, in the order listed below.

Document Name	Document Number
Plot Plan – Export	01802-DG-111
Process Flow Diagram – Export – Inlet Gas	01802-PF-111
Process Flow Diagram – Export – Pretreatment	01802-PF-112
Process Flow Diagram – Export – Liquefaction	01802-PF-211
Process Flow Diagram – Export – Balance of Plant	01802-PF-212
Process Flow Diagram – Export – Mixed Refrigerant	01802-PF-213
Heat and Material Balance – Export	01802-PF-011
Plot Plan – Peak Shaver	01802-DG-101
Process Flow Diagram – Peak Shaver – Inlet Gas	01802-PF-101
Process Flow Diagram – Peak Shaver – Pretreatment	01802-PF-102
Process Flow Diagram – Peak Shaver – Liquefaction	01802-PF-201
Process Flow Diagram – Peak Shaver – Balance of Plant	01802-PF-202
Heat and Material Balance – Peak Shaver	01802-PF-001
PHAST QRA Results_1.xlsx	
PHAST QRA Results_2.xlsx	
PHMSA QRA Study 200210 (Peakshaver 1.1xPressure)_1.xlsx	
PHMSA QRA Study 200210 (Peakshaver 1.1xPressure)_2.xlsx	
PHMSA QRA Study 200210 (Export 1.1xPressure)_1.xlsx	
PHMSA QRA Study 200210 (Export 1.1xPressure)_2.xlsx	
PHMSA QRA Study 200210 (Peakshaver VCE).xlsx	
PHMSA QRA Study 200210 (Export VCE).xlsx	



NOTES

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
C	07/02/19	ADDED SCALE	JP	PS	FG	-
B	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
A	03/15/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

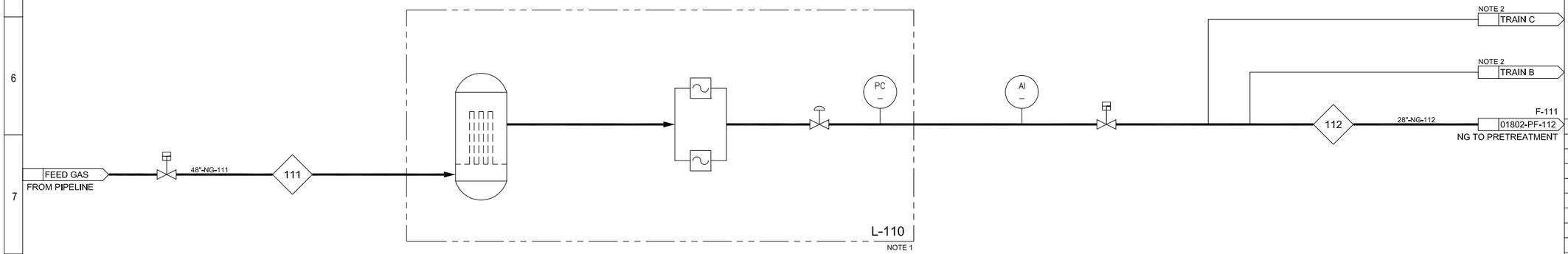
DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

BLUE

PLOT PLAN
EXPORT

BLUE 01802-DG-111 | 1 OF 1 | C
DOCUMENT NO. | SHEET | REV

L-110
METERING SKID



NOTES
1. METERING SKID CONSISTS OF FILTER COALESCERS, FLOW METERS, AND CONTROL VALVES TO FEED THE PEAKSHAVER FACILITY.
2. TRAIN B AND C ARE IDENTICAL TO TRAIN A AND ARE NOT SHOWN IN THIS DESIGN.

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
C	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
B	04/15/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-
A	03/21/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

BLUE

PROCESS FLOW DIAGRAM
EXPORT - INLET GAS

BLUE		
01802-PF-111	1 OF 1	C
DOCUMENT NO.	SHEET	REV

F-111 AMINE FILTER COALESCER

D-110 ABSORBER

E-110 ABSORBER OVERHEAD COOLER

D-111 DRYER INLET SEPARATOR

F-112 DRYER FILTER COALESCER

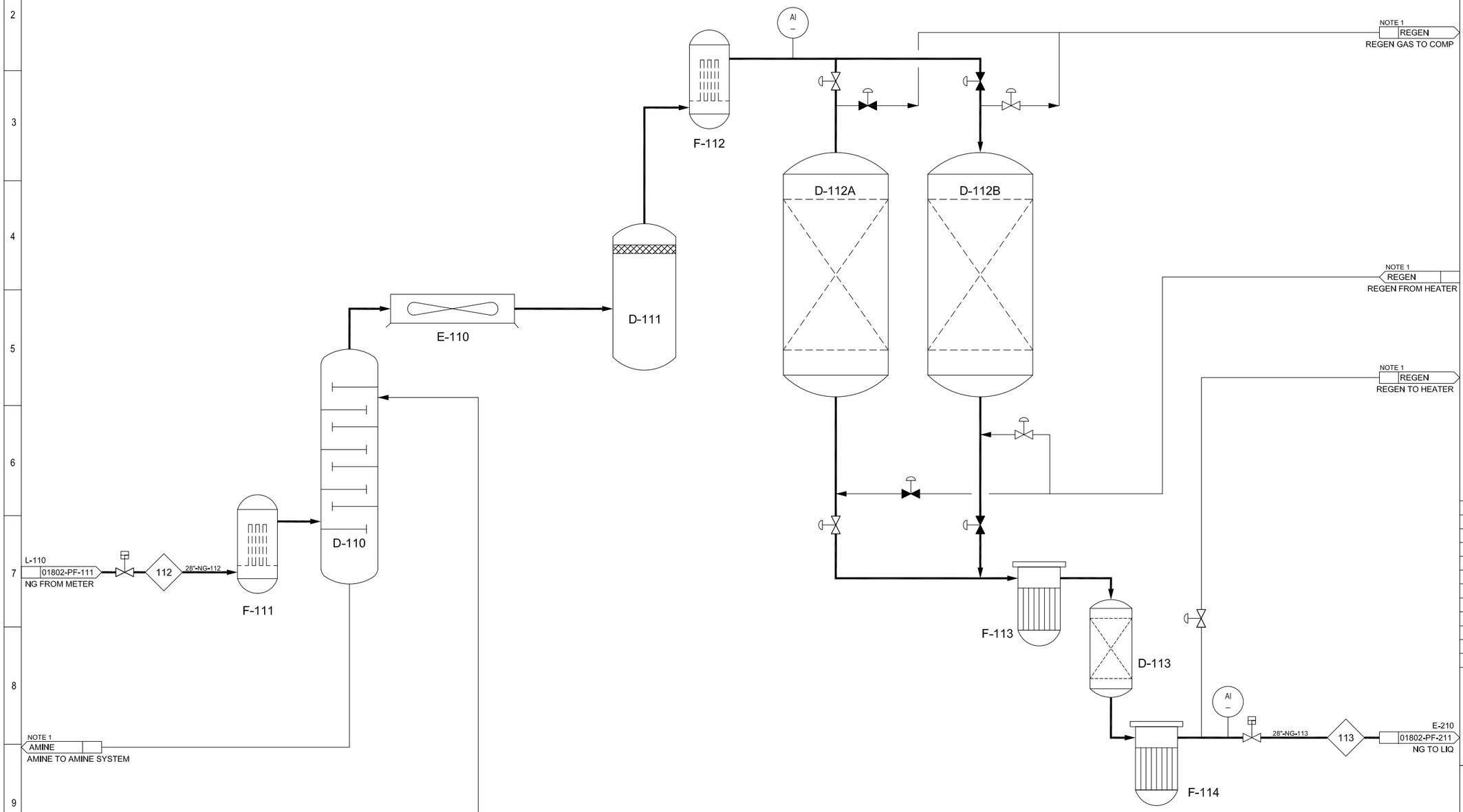
D-112A/B DEHYDRATORS

F-113 DEHYDRATOR AFTERFILTER

D-113 MERCURY REMOVAL BED

F-114 MERCURY REMOVAL AFTERFILTER

NOTES
1. REGEN GAS AND AMINE SYSTEMS NOT INCLUDED IN THE DESIGN.



REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
C	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
B	04/15/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-
A	03/21/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

BLUE

PROCESS FLOW DIAGRAM
EXPORT - PRETREATMENT

BLUE		
01802-PF-112	1 OF 1	C
DOCUMENT NO.	SHEET	REV

E-210
COLD BOX
NOTE 1

M-210
LNG EXPANDER
MOTOR

EX-210
LNG EXPANDER

F-114
01802-PF-112
NG FROM PT

28"-NG-113

113

NOTE 2

LC

217

24"-MR-221

D-212
01802-PF-213
HP MR VAPOR

218

24"-MR-222

D-212
01802-PF-213
HP MR LIQUID

72"-MR-216

215

D-210
01802-PF-213
MR TO COMPRESSOR

TC

14"-LNG-211

211

E-210
NOTE 1

M
M-210

EX-210

PC

212

14"-LNG-212

T-210
01802-PF-212
LNG TO STORAGE

NOTE 3
HHC
HHC TO STORAGE

214

8"-NGL-215

NOTES
1. COLD BOX TO CONSIST OF SEVERAL EXCHANGERS AND KNOCK OUT DRUMS. THESE ARE NOT SHOWN IN THIS DESIGN.
2. KNOCKOUT DRUM(S) WILL BE PRESENT INSIDE OF THE COLD BOX TO REMOVE HEAVY HYDROCARBONS FROM THE NATURAL GAS STREAM.
3. HEAVY HYDROCARBON PROCESSING AND STORAGE SYSTEMS NOT INCLUDED IN THE DESIGN.

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
C	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
B	04/15/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-
A	03/21/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

BLUE

PROCESS FLOW DIAGRAM
EXPORT - LIQUEFACTION

BLUE		
01802-PF-211	1 OF 1	C
DOCUMENT NO.	SHEET	REV

L-810 FLARE

T-310A/B LNG STORAGE TANK

D-310 BOG SUCTION DRUM

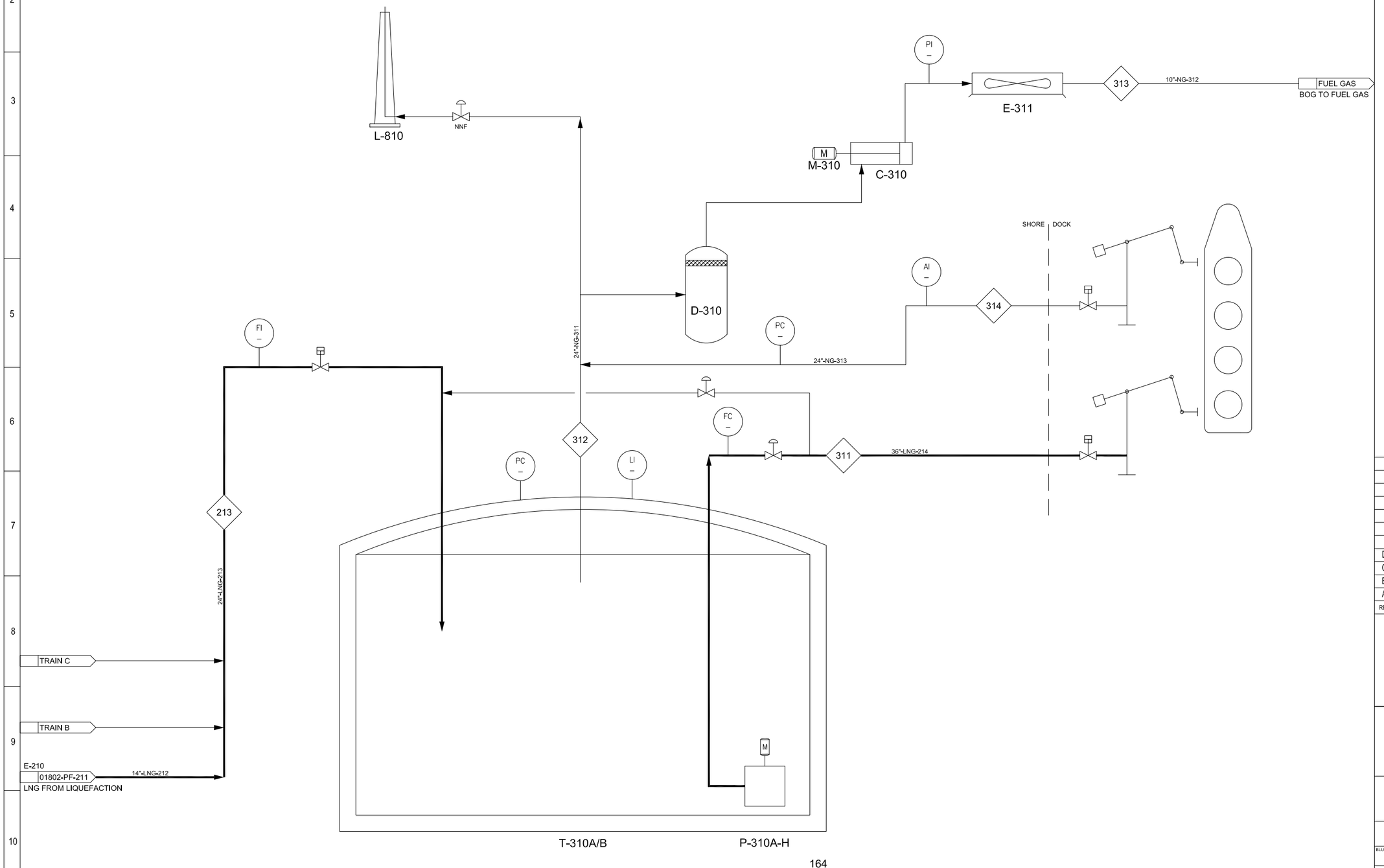
P-310A-H LNG LOADING PUMP

C-310 BOG COMPRESSOR

M-310 BOG COMPRESSOR MOTOR

E-311 BOG COMPRESSOR AFTERCOOLER

NOTES
1. FUEL GAS SYSTEM NOT INCLUDED IN THE DESIGN.



164

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
D	07/25/19	UPDATED FROM COMMENTS	JP	PS	FG	-
C	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
B	04/15/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-
A	03/21/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

BLUE

PROCESS FLOW DIAGRAM
EXPORT - BALANCE OF PLANT

BLUE		
01802-PF-212	1 OF 1	D
DOCUMENT NO.	SHEET	REV

D-210
MR COMPRESSOR
SUCTION DRUM

GT-210
MR COMPRESSOR
GAS TURBINE

C-211-1
MR COMPRESSOR
1ST STAGE

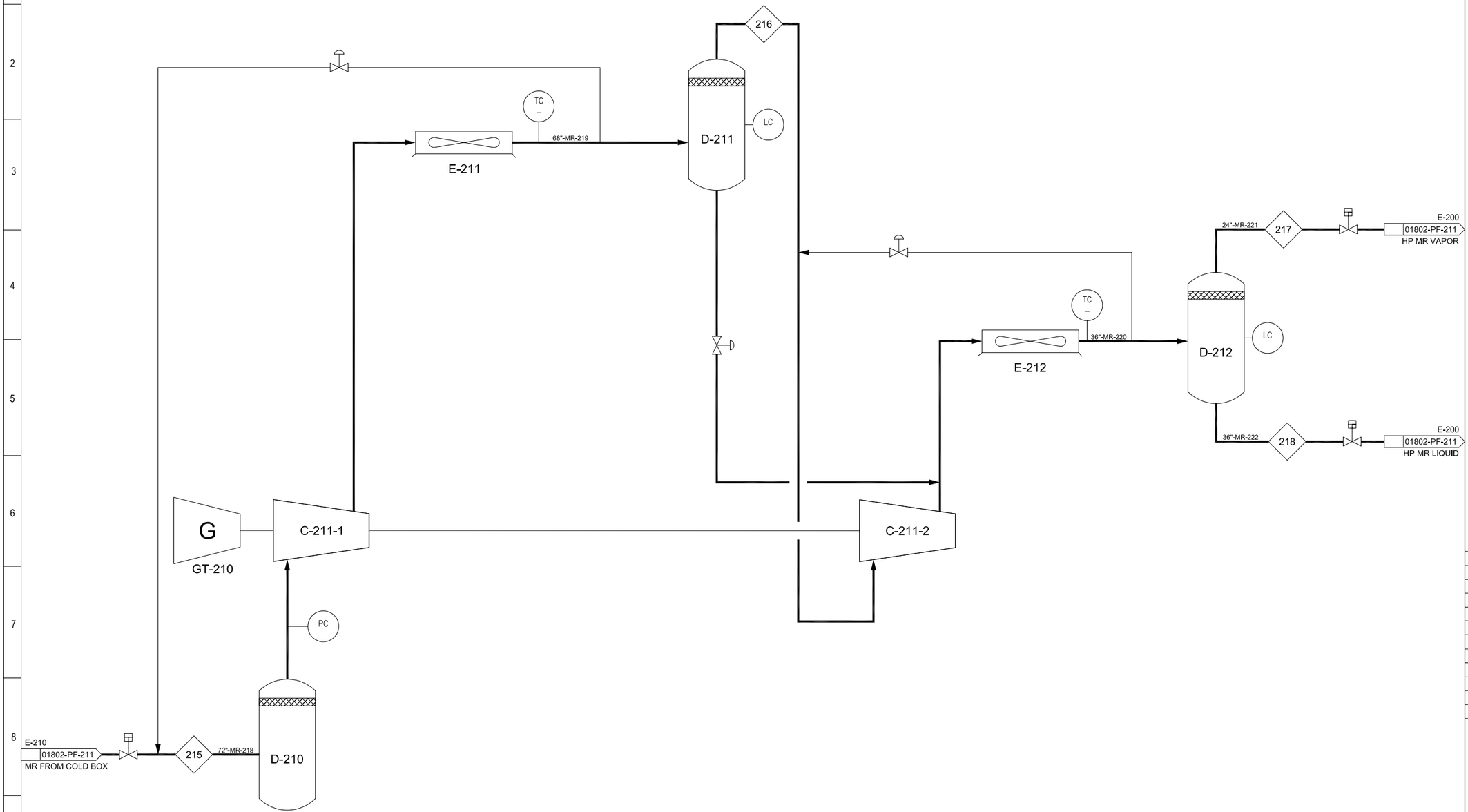
E-211
MR COMPRESSOR
1ST STAGE
AFTERCOOLER

D-211
LP MR
SEPARATOR

C-211-2
MR COMPRESSOR
2ND STAGE

E-212
MR COMPRESSOR
2ND STAGE
AFTERCOOLER

D-212
HP MR
SEPARATOR



NOTES

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
C	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
B	04/15/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-
A	03/21/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

DEPARTMENT OF TRANSPORTATION
UNITED STATES OF AMERICA

BLUE

PROCESS FLOW DIAGRAM
EXPORT - MIXED REFRIGERANT

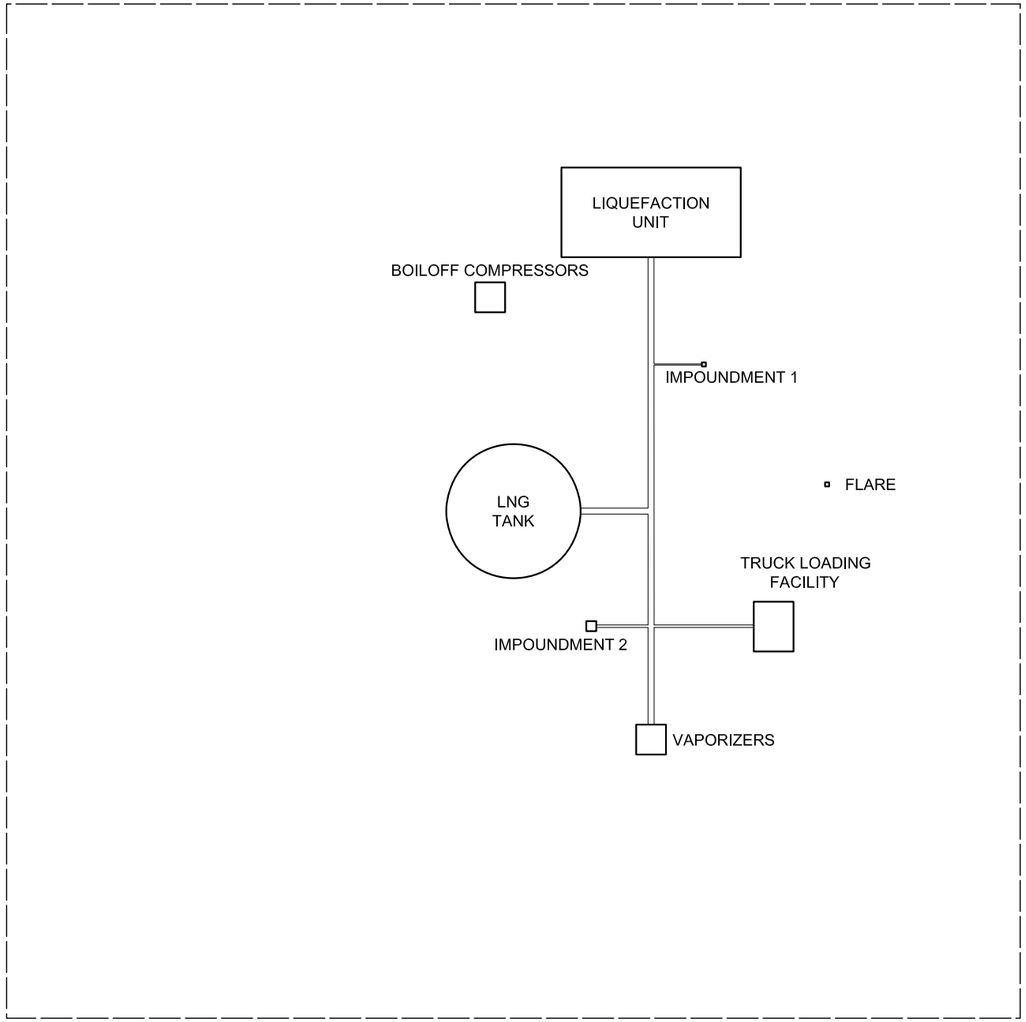
BLUE		
01802-PF-213	1 OF 1	C
DOCUMENT NO.	SHEET	REV

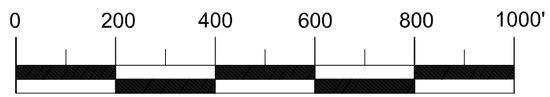
Revision:	D	Document No:	01802-PF-011
Date:	11/14/2019	Client:	GTI
By:	JP	Project:	PHMSA QRA Research
Checked:	PS	HMB Case:	Export
Approved:	FG		

Heat and Material Balance

Public

Stream Number		111	112	113	211	212	213	214	215	216	217	218	311	312	313	314
Stream Name		Inlet Gas from Pipeline	Feed Gas to Pretreatment (Train A)	Clean Gas to Liquefaction (Train A)	LNG to Expander (Train A)	Rundown to Header (Train A)	Rundown Header to Storage	Heavies to Storage (Train A)	MR to Compressor (1st Stage)	MR to Compressor (2nd Stage)	MR Vapor to Cold Box	MR Liquid to Cold Box	LNG Carrier Loading	BOG to Compressor	BOG to Fuel Gas	Carrier Vapor Return
Phase		V	V	V	L	L	L	L	V	V	V	L	L	V	V	V
Vapor Fraction		1.0	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	1.0	1.0
Total Mass Flow	lb/hr	4,500,000	1,500,000	1,350,000	1,300,000	1,300,000	3,900,000	50,000	3,500,000	3,500,000	1,155,000	2,345,000	11,290,272	150,000	150,000	115,000
Total Molar Flow	lbmol/hr	264,710	88,237	79,880	78,790	78,790	236,360	1,090	126,354	126,354	49,289	76,732	684,260	9,150	9,150	6,970
Temperature	°F	90	90	85	-255	-260	-260	-126.5	-40	80	-30	-30	-260	-260	100	-150
Pressure	psig	1,000	900	850	600	160	100	450	50	480	880	880	40	0.5	500	7.0
Molecular Weight	lb/lbmol	17.0	17.0	16.9	16.5	16.5	16.5	20.1	27.7	27.7	23.4	30.6	16.5	16.4	16.4	16.5
Specific Enthalpy	Btu/lb	-2,000	-2,000	-1,900	-2,300	-2,300	-2,300	-900	-1,300	-1,300	1,400	-1,500	-2,300	-1,700	-1,700	-1,700
Vapor																
Mass Flow	lb/hr	4,500,000	1,500,000	1,350,000	--	--	--	--	3,500,000	3,500,000	1,155,000	--	--	150,000	150,000	115,000
Molar Flow	lbmol/hr	264,710	88,237	79,880	--	--	--	--	126,354	126,354	49,289	--	--	9,150	9,150	6,970
Standard Gas Flow	MTPA	17.1	5.7	5.1	--	--	--	--	--	--	--	--	--	--	--	--
Actual Gas Flow	ft^3/hr	18,930	6,310	5,650	--	--	--	--	8,395,299	1,244,223	178,461	--	--	1,500,000	1,500,000	1,150,000
Molecular Weight	lb/lbmol	17.0	17.0	16.9	--	--	--	--	27.7	27.7	23.4	--	--	16.4	16.4	16.4
Mass Density	lb/ft^3	2.0	2.0	2.0	--	--	--	--	0.4	2.8	6.5	--	--	0.1	0.1	0.1
Mass Heat Capacity	Btu/lb-°F	0.6	0.6	0.6	--	--	--	--	0.4	0.5	0.75	--	--	0.5	0.5	0.5
Viscosity	cP	0.01	0.01	0.01	--	--	--	--	0.01	0.01	0.01	--	--	0.008	0.005	0.008
Thermal Conductivity	Btu/hr-ft-°F	0.02	0.02	0.02	--	--	--	--	0.02	0.02	0.01	--	--	0.01	0.01	0.01
Specific Enthalpy	Btu/lb	-2,000	-2,000	-1,900	--	--	--	--	-1,300	-1,300	1,400	--	--	-1,700	-1,700	-1,700
Liquid																
Mass Flow	lb/hr	--	--	--	1,300,000	1,300,000	3,900,000	50,000	--	--	--	2,345,000	11,290,272	--	--	--
Molar Flow	lbmol/hr	--	--	--	78,790	78,790	236,360	1,090	--	--	--	76,732	684,260	--	--	--
Actual Volume Flow	gal/day	--	--	--	8,640,000	8,640,000	25,920,000	446,567	--	--	--	16,845,714	76,080,960	--	--	--
Molecular Weight	lb/lbmol	--	--	--	16.5	16.5	16.5	18.2	--	--	--	30.6	16.5	--	--	--
Mass Density	lb/ft^3	--	--	--	26.6	27.2	27.2	20.1	--	--	--	25.0	27.2	--	--	--
Mass Heat Capacity	Btu/lb-°F	--	--	--	0.82	0.82	0.82	0.71	--	--	--	0.75	0.82	--	--	--
Viscosity	cP	--	--	--	0.11	0.11	0.11	0.08	--	--	--	0.06	0.11	--	--	--
Thermal Conductivity	Btu/hr-ft-°F	--	--	--	0.11	0.11	0.11	0.07	--	--	--	0.05	0.11	--	--	--
Specific Enthalpy	Btu/lb	--	--	--	-2,300	-2,300	-2,300	-900	--	--	--	-1,500	-2,300	--	--	--
Composition																
Methane	mol%	94.3	94.3	96.6	96.6	96.6	96.6	80.1	35.0	35.0	45.0	25.0	96.8	89.0	89.0	96.8
Ethane	mol%	4.0	4.0	2.7	2.7	2.7	2.7	13.2	0.0	0.0	0.0	0.0	2.8	0.0	0.0	2.8
Ethylene	mol%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	30.0	20.0	40.0	0.0	0.0	0.0	0.0
Propane	mol%	0.5	0.5	0.3	0.3	0.3	0.3	1.8	15.0	15.0	5.0	25.0	0.2	0.0	0.0	0.2
Butane	mol%	0.1	0.1	0.0	0.0	0.0	0.0	4.2	5.0	5.0	0.0	5.0	0.0	0.0	0.0	0.0
Pentane	mol%	0.02	0.02	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hexane	mol%	0.01	0.01	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heptane+	mol%	0.01	0.01	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	mol%	0.001	0.001	0.0	0.0	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Toluene	mol%	0.001	0.001	0.0	0.0	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Xylene	mol%	0.001	0.001	0.0	0.0	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydrogen Sulfide	mol%	0.001	0.001	0.0	0.0	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mercapton	mol%	0.001	0.001	0.0	0.0	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water	mol%	0.01	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide	mol%	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nitrogen	mol%	0.4	0.4	0.4	0.4	0.4	0.4	0.4	15.0	15.0	30.0	5.0	0.2	11.0	11.0	0.2
Total	mol%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0





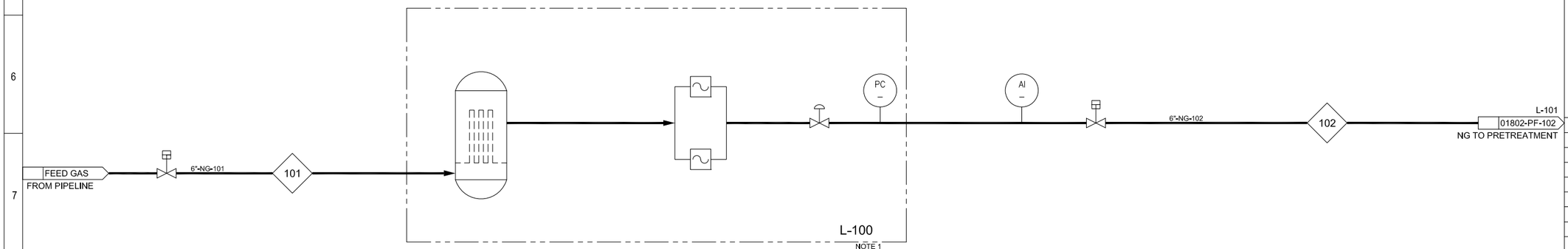
NOTES

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
C	07/02/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
B	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
A	03/15/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

PLOT PLAN
PEAKSHAVER

DOCUMENT NO.	SHEET	REV
01802-DG-101	1 OF 1	C

L-100
METERING SKID



NOTES
1. METERING SKID CONSISTS OF FILTER COALESCERS, FLOW METERS, AND CONTROL VALVES TO FEED THE PEAKSHAVER FACILITY.

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
B	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
A	03/21/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

BLUE

PROCESS FLOW DIAGRAM
PEAKSHAVER - INLET GAS

BLUE		
01802-PF-101	1 OF 1	B
DOCUMENT NO.	SHEET	REV

F-101 AMINE FILTER COALESCER

D-100 ABSORBER

E-100 ABSORBER OVERHEAD COOLER

D-101 DRYER INLET SEPARATOR

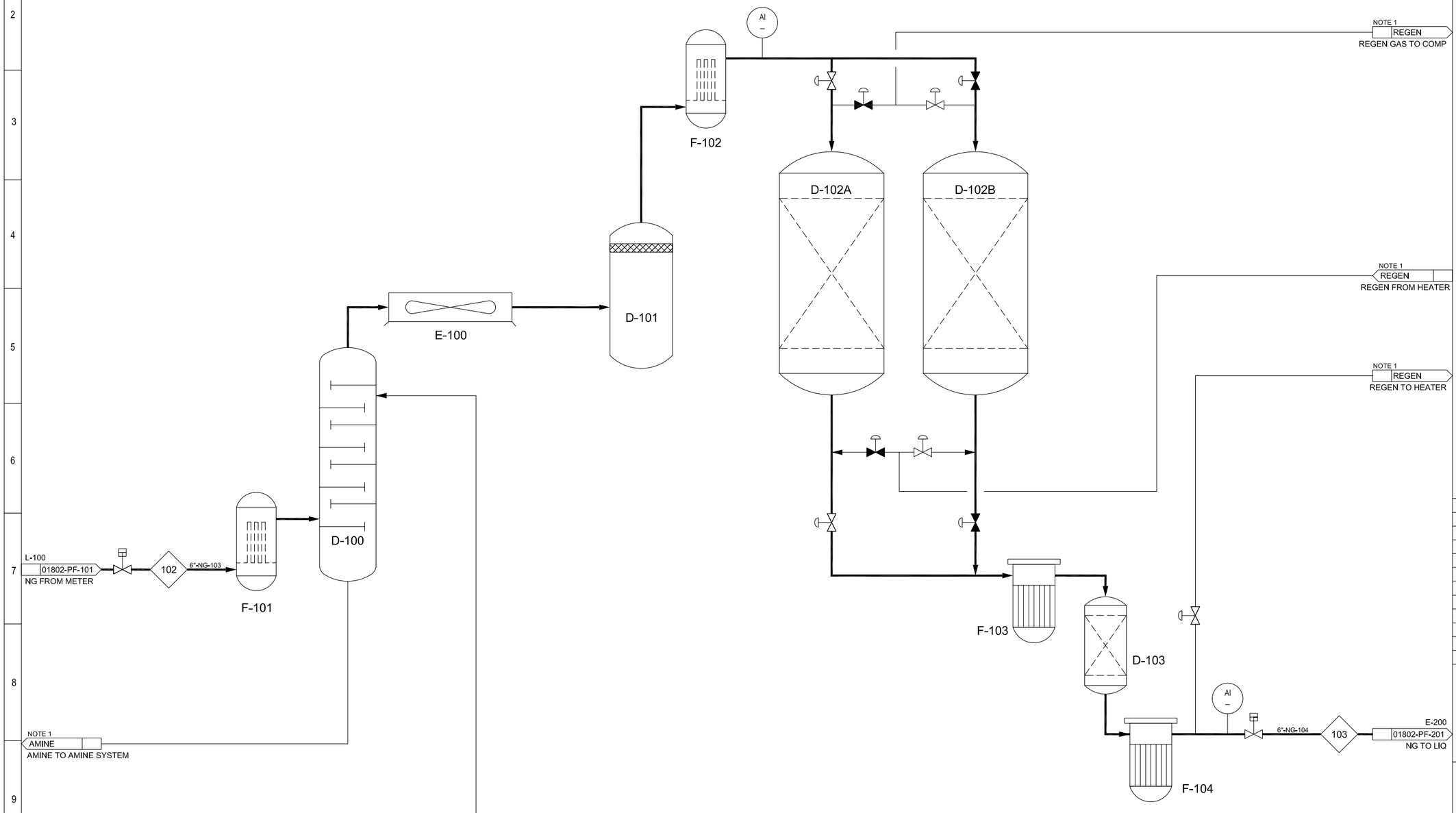
F-102 DRYER FILTER COALESCER

D-102A/B DEHYDRATORS

F-103 DEHYDRATOR AFTERFILTER

D-103 MERCURY REMOVAL BED

F-104 MERCURY REMOVAL AFTERFILTER



NOTES
1. REGEN GAS AND AMINE SYSTEMS NOT INCLUDED IN THE DESIGN.

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
C	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
B	04/15/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-
A	03/21/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

BLUE

PROCESS FLOW DIAGRAM PEAKSHAVER - PRETREATMENT

BLUE		
01802-PF-102	1 OF 1	C
DOCUMENT NO.	SHEET	REV

E-200
COLD BOX
NOTE 1

F-104
01802-PF-102
NG FROM PT

6"-NG-104

103

NOTE 3
NITROGEN
N2 TO CPMPRESSOR

NOTE 3
NITROGEN
N2 TO COMPRESSOR

NOTE 2

LC

NOTE 3
NITROGEN
N2 FROM COMPANDERS

PC

TC

201

4"-LNG-201

T-200
01802-PF-202
LNG TO STORAGE

E-200
NOTE 1

NOTE 3
NGL
NGL TO STORAGE

202

1"-NGL-204

NOTES
1. COLD BOX TO CONSIST OF SEVERAL EXCHANGERS, KNOCK OUT DRUMS, AND COMPANDERS. THESE ARE NOT SHOWN IN THIS DESIGN.
2. KNOCKOUT DRUM(S) WILL BE PRESENT INSIDE OF THE COLD BOX TO REMOVE HEAVY HYDROCARBONS FROM THE NATURAL GAS STREAM.
3. REFRIGERANT NITROGEN AND NGL PROCESSING AND STORAGE SYSTEMS NOT INCLUDED IN THE DESIGN.

REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
C	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
B	04/15/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-
A	03/21/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

BLUE

PROCESS FLOW DIAGRAM
PEAKSHAVER - LIQUEFACTION

BLUE		
01802-PF-201	1 OF 1	C
DOCUMENT NO.	SHEET	REV

L-800 FLARE

T-300 LNG STORAGE TANK

D-300 BOG SUCTION DRUM

P-300A-D LNG HP PUMPS

P-301 LNG LP PUMP

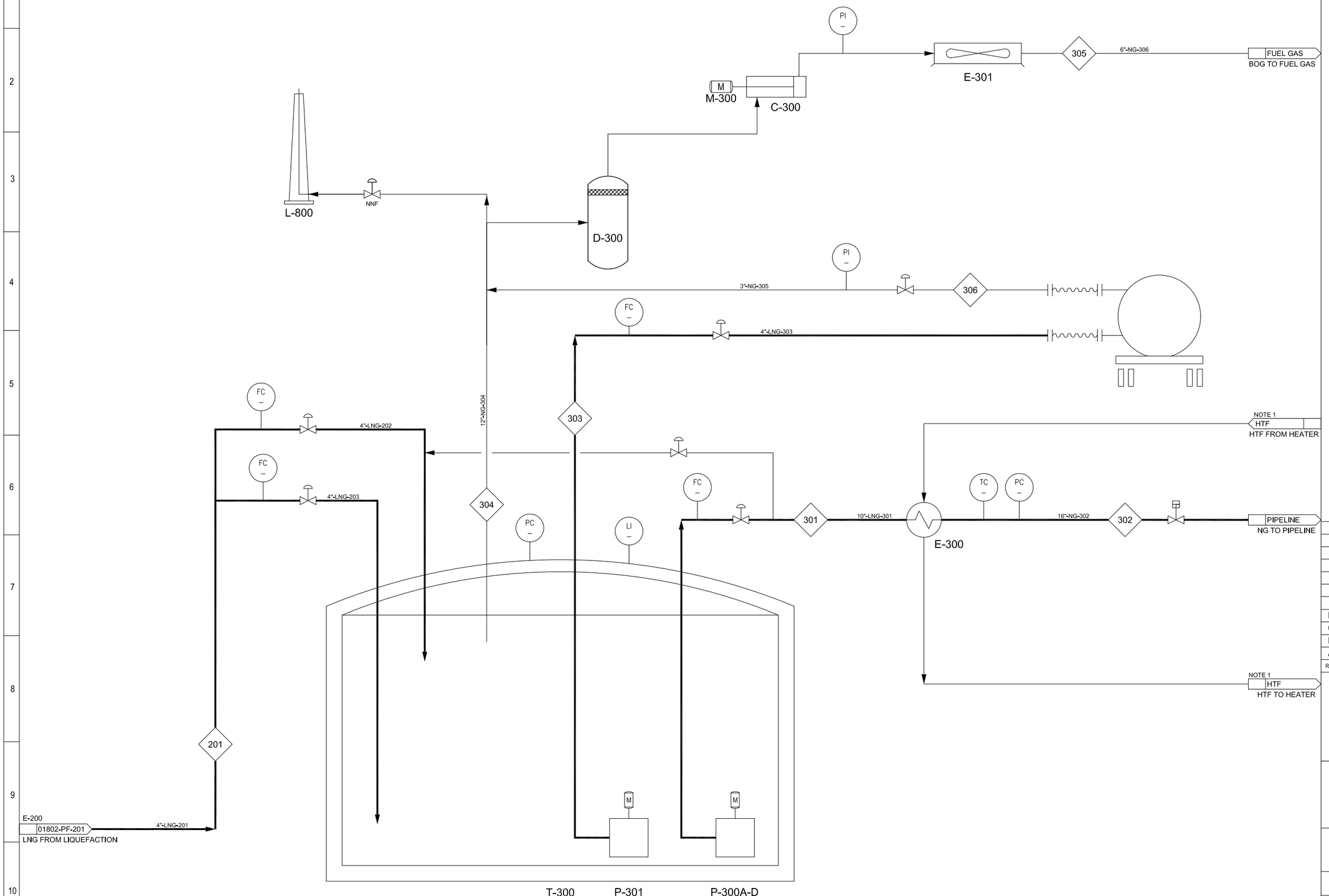
C-300 BOG COMPRESSOR

M-300 BOG COMPRESSOR MOTOR

E-301 BOG COMPRESSOR AFTERCOOLER

E-300 LNG VAPORIZER

NOTES
1. HEAT TRANSFER FLUID AND FUEL GAS SYSTEM NOT INCLUDED IN THE DESIGN.



REV	DATE	REVISION DESCRIPTION	BY	CHK	APP	CLIENT
D	07/25/19	UPDATED FROM COMMENTS	JP	PS	FG	-
C	04/25/19	ISSUED FOR PHMSA REVIEW	JP	PS	FG	-
B	04/15/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-
A	03/21/19	ISSUED FOR CLIENT REVIEW	JP	PS	FG	-

BLUE

PROCESS FLOW DIAGRAM
PEAKSHAVER - BALANCE OF PLANT

BLUE		
01802-PF-202	1 OF 1	D
DOCUMENT NO.	SHEET	REV

Revision:	D	Document No:	01802-PF-001
Date:	11/14/2019	Client:	GTI
By:	JP	Project:	PHMSA QRA Research
Checked:	PS	HMB Case:	Peakshaver
Approved:	FG		

Heat and Material Balance

Public

Stream Number		101	102	103	201	202	301	302	303	304	305	306
Stream Name		Inlet Gas from Pipeline	Feed Gas to Pretreatment	Clean Gas to Liquefaction	LNG to Storage	Heavies to Storage	LNG to Vaporizer	Natual Gas to Pipeline	LNG Truck Loading	BOG to Compressor	BOG to Fuel Gas	Truck Vapor Return
Phase		V	V	V	L	L	L	V	L	V	V	V
Vapor Fraction		1.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0	1.0	1.0	1.0
Total Mass Flow	lb/hr	53,600	53,600	48,000	46,200	1,800	732,948	732,948	64,100	3,330	3,330	943
Total Molar Flow	lbmol/hr	3,150	3,150	2,840	2,800	40	44,420	44,420	4,000	200	200	60
Temperature	°F	95	95	85	-260	-126.5	-260	60	-260	-260	100	-150
Pressure	psig	680	650	635	50	450	820	800	60	0.5	500	7
Molecular Weight	lb/lbmol	17.0	17.0	16.9	16.5	20.1	16.5	16.5	16.5	16.4	16.4	16.5
Specific Enthalpy	Btu/lb	-2,000	-2,000	-1,900	-2300	-900	-2300	-1,900	-2300	-1,700	-1,700	-1,700
Vapor												
Mass Flow	lb/hr	53,600	53,600	48,000	--	--	--	732,948	--	3,330	3,330	943
Molar Flow	lbmol/hr	3,150	3,150	2,840	--	--	--	44,420	--	200	200	60
Standard Gas Flow	MMSCFD	29	29	26	--	--	--	400	--	1.7	1.7	0.5
Actual Gas Flow	ft^3/hr	32,110	32,110	28,790	--	--	--	442,890	--	1,880	1,880	550
Molecular Weight	lb/lbmol	17.0	17.0	16.9	--	--	--	16.5	--	16.4	16.4	16.4
Mass Density	lb/ft^3	2.0	2.0	2.0	--	--	--	3.1	--	0.4	0.4	0.4
Mass Heat Capacity	Btu/lb-°F	0.6	0.6	0.6	--	--	--	0.65	--	0.5	0.5	0.5
Viscosity	cP	0.01	0.01	0.01	--	--	--	0.01	--	0.008	0.005	0.008
Thermal Conductivity	Btu/hr-ft-°F	0.02	0.02	0.02	--	--	--	0.02	--	0.01	0.01	0.01
Specific Enthalpy	Btu/lb	-2,000	-2,000	-1,900	--	--	--	-1,900	--	-1,700	-1,700	-1,700
Liquid												
Mass Flow	lb/hr	--	--	--	46,200	1,800	732,948	--	64,100	--	--	--
Molar Flow	lbmol/hr	--	--	--	2,800	40	44,420	--	4,000	--	--	--
Actual Volume Flow	gal/day	--	--	--	304,920	11,500	4,939,200	--	432,000	--	--	--
Molecular Weight	lb/lbmol	--	--	--	16.5	20.1	16.5	--	16.5	--	--	--
Mass Density	lb/ft^3	--	--	--	27.2	28.1	27.2	--	27.2	--	--	--
Mass Heat Capacity	Btu/lb-°F	--	--	--	0.82	0.71	0.82	--	0.82	--	--	--
Viscosity	cP	--	--	--	0.11	0.08	0.11	--	0.11	--	--	--
Thermal Conductivity	Btu/hr-ft-°F	--	--	--	0.11	0.07	0.11	--	0.11	--	--	--
Specific Enthalpy	Btu/lb	--	--	--	-2,300	-900.0	-2,300	--	-2,300	--	--	--
Composition												
Methane	mol%	94.3	94.3	96.6	96.6	80.1	96.8	96.8	96.8	89.00	89.00	96.8
Ethane	mol%	4.0	4.0	2.7	2.7	13.2	2.8	2.8	2.8	0.0	0.0	2.8
Ethylene	mol%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Propane	mol%	0.5	0.5	0.3	0.3	1.8	0.2	0.2	0.2	0.0	0.0	0.2
Butane	mol%	0.1	0.1	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0
Pentane	mol%	0.02	0.02	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Hexane	mol%	0.01	0.01	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Heptane+	mol%	0.01	0.01	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	mol%	0.001	0.001	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0
Toluene	mol%	0.001	0.001	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0
Xylene	mol%	0.001	0.001	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0
Hydrogen Sulfide	mol%	0.001	0.001	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0
Mercapton	mol%	0.001	0.001	0.0	0.0	0.01	0.0	0.0	0.0	0.0	0.0	0.0
Water	mol%	0.01	0.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Carbon Dioxide	mol%	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nitrogen	mol%	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	11.0	11.0	0.2
Total	mol%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

PHAST QRA Results_1 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance	Radiation Level (kW/m^2)	Release Rate (kg/s)
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 6/P	98.56426387	106.8055076	-8.959901596	5	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 6/P	86.38331269	81.82335166	-5.906530757	9	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 6/P	80.72292163	69.26928265	-4.613748886	12.61710051	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 6/P	69.15784751	40.17655867	-1.983054416	30.003942	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 6/P	100.0685794	109.7547518	-9.387193718	4.7	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 7/P	97.11313743	114.8205988	-11.21083264	5	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 7/P	84.49952104	87.69985862	-7.429431333	9	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 7/P	78.74445901	74.60362903	-5.938480048	12.61710051	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 7/P	67.22615639	45.7183923	-2.986254138	30.003942	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 7/P	98.6853331	118.3316946	-11.74763686	4.7	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 12/P	96.84511403	112.160673	-11.0083504	5	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 12/P	84.611034	85.90024629	-7.373282042	9	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 12/P	78.98950615	73.04058967	-5.901796892	12.61710051	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 12/P	67.67659876	44.44043962	-2.959815973	30.003942	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 12/P	98.36567481	115.3396035	-11.52036487	4.7	1140.596924
Export	E_INV009_610mm (2min)	610	Category 9/E	77.56218891	77.00850592	-6.349416817	5	502.1858215
Export	E_INV009_610mm (2min)	610	Category 9/E	68.52627009	58.6066805	-4.119683277	9	502.1858215
Export	E_INV009_610mm (2min)	610	Category 9/E	64.24731313	48.97598367	-3.123599173	12.61710051	502.1858215
Export	E_INV009_610mm (2min)	610	Category 9/E	55.20885649	26.07844006	-1.050065299	30.003942	502.1858215
Export	E_INV009_610mm (2min)	610	Category 9/E	78.66301391	79.12578253	-6.645561567	4.7	502.1858215
Export	E_INV009_610mm (2min)	610	Category 11/E	79.95173032	88.81677857	-7.582622258	5	502.1858215
Export	E_INV009_610mm (2min)	610	Category 11/E	69.8973223	68.15848594	-4.802250279	9	502.1858215
Export	E_INV009_610mm (2min)	610	Category 11/E	65.25991395	57.90981716	-3.671513471	12.61710051	502.1858215
Export	E_INV009_610mm (2min)	610	Category 11/E	55.93959288	34.53282356	-1.561818027	30.003942	502.1858215
Export	E_INV009_610mm (2min)	610	Category 11/E	81.19732445	91.29078409	-7.973996767	4.7	502.1858215
Export	E_INV009_610mm (2min)	610	Category 12/E	79.41927058	87.03048026	-7.423668974	5	502.1858215
Export	E_INV009_610mm (2min)	610	Category 12/E	69.6235295	66.81063997	-4.724544721	9	502.1858215
Export	E_INV009_610mm (2min)	610	Category 12/E	65.08866645	56.71682041	-3.6169053	12.61710051	502.1858215
Export	E_INV009_610mm (2min)	610	Category 12/E	55.93040514	33.56643945	-1.529439711	30.003942	502.1858215
Export	E_INV009_610mm (2min)	610	Category 12/E	80.62711509	89.42112512	-7.795822768	4.7	502.1858215
Export	E_INV010_914mm (1hr)	914	Category 9/E	111.9950591	113.0675057	-11.20092698	5	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 9/E	98.57573812	86.73967335	-7.69458904	9	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 9/E	92.18083576	73.07538077	-6.032850034	12.61710051	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 9/E	78.78278058	40.53947973	-2.609756536	30.003942	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 9/E	113.6083798	116.106606	-11.62384087	4.7	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 11/E	109.8392004	123.7814586	-10.85587639	5	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 11/E	95.65869309	95.20074883	-7.017873447	9	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 11/E	89.16289435	81.36760574	-5.545132975	12.61710051	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 11/E	76.04009462	49.95132942	-2.627695112	30.003942	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 11/E	111.6075809	127.4764543	-11.42102741	4.7	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 12/E	107.9506135	119.5590887	-10.48061843	5	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 12/E	94.3138535	92.30677263	-6.822281987	9	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 12/E	88.03611855	78.83664713	-5.395106501	12.61710051	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 12/E	75.29107471	48.01715957	-2.534671969	30.003942	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 12/E	109.6451337	123.1127476	-11.0133967	4.7	1387.421631
Export	E_INV010_914mm (2min)	914	Category 9/E	111.9950591	113.0675057	-11.20092698	5	1387.421631
Export	E_INV010_914mm (2min)	914	Category 9/E	98.57573812	86.73967335	-7.69458904	9	1387.421631
Export	E_INV010_914mm (2min)	914	Category 9/E	92.18083576	73.07538077	-6.032850034	12.61710051	1387.421631
Export	E_INV010_914mm (2min)	914	Category 9/E	78.78278058	40.53947973	-2.609756536	30.003942	1387.421631
Export	E_INV010_914mm (2min)	914	Category 9/E	113.6083798	116.106606	-11.62384087	4.7	1387.421631
Export	E_INV014_1000mm (1m)	1000	Category 3/E	95.39452794	106.2888304	-9.820802328	5	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 3/E	83.69361545	81.50175172	-6.549688278	9	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 3/E	78.27825369	69.18833406	-5.200111088	12.61710051	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 3/E	67.28313542	41.25893708	-2.470262767	30.003942	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 3/E	96.83973645	109.2265208	-10.2753188	4.7	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 11/E	96.32712368	108.9405121	-10.05300441	5	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 11/E	84.26389369	83.49162589	-6.66229373	9	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 11/E	78.71131319	70.93289895	-5.292452453	12.61710051	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 11/E	67.48042302	42.60967695	-2.529840831	30.003942	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 11/E	97.82004484	111.966972	-10.52529146	4.7	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 12/E	95.39452794	106.2888304	-9.820802328	5	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 12/E	83.69361545	81.50175172	-6.549688278	9	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 12/E	78.27825369	69.18833406	-5.200111088	12.61710051	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 12/E	67.28313542	41.25893708	-2.470262767	30.003942	1140.596924

PHAST QRA Results_1 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance	Radiation Level (kW/m^2)	Release Rate (kg/s)
Export	E_INV014_1000mm (1m)	1000	Category 12/E	96.83973645	109.2265208	-10.2753188	4.7	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 11/E	286.2042664	332.613473	-68.58621278	5	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 11/E	242.4418256	253.3353345	-42.35593808	9	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 11/E	222.2895333	215.4543435	-30.95839425	12.61710051	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 11/E	180.6292391	134.795139	-6.215932003	30.003942	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 11/E	291.6299421	342.1880347	-72.03224083	4.7	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 12/E	282.7344633	323.1091916	-65.58558827	5	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 12/E	240.5890249	246.6141061	-40.56090957	9	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 12/E	221.0579726	209.7983049	-29.54944189	12.61710051	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 12/E	180.216514	130.7414425	-4.974605679	30.003942	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 12/E	287.9359457	332.3077148	-68.84459771	4.7	1140.596924

PHAST QRA Results_1 Early Pool Fires

Not included in Export

PHAST QRA Results_1 Late Pool Fires

Not included in Export

PHAST QRA Results_1 Toxic Dispersion

Not included in Export

PHAST QRA Results_1 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 6/P	1	75	0.5	22000	202.2401428	579.4389648	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 6/P	1	75	1	44000	202.2401428	509.7138977	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 7/P	1	75	0.5	22000	357.4797974	440.5108643	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 7/P	1	75	1	44000	357.4797974	388.2270203	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 12/P	1	75	0.5	22000	452.9169312	399.0631409	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 12/P	1	75	1	44000	401.5727234	351.232666	0	1140.596924
Export	E_INV009_610mm (2min)	610	Category 9/E	1	75	0.5	22000	147.6471863	412.8510132	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 9/E	1	75	1	44000	147.6471863	366.3229675	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 11/E	1	75	0.5	22000	375.3577576	239.5923004	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 11/E	1	75	1	44000	230.353653	211.9511871	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 12/E	1	75	0.5	22000	370.1213989	239.1911926	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 12/E	1	75	1	44000	216.1177216	209.9968567	0	502.1858215
Export	E_INV010_914mm (1hr)	914	Category 9/E	1	75	0.5	22000	122.6971893	852.4042969	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 9/E	1	75	1	44000	122.6971893	758.0516968	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 11/E	1	75	0.5	22000	349.7301636	493.1086426	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 11/E	1	75	1	44000	349.7301636	434.4090576	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 12/E	1	75	0.5	22000	370.5552368	472.7588806	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 12/E	1	75	1	44000	370.5552368	417.380188	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 9/E	1	75	0.5	22000	145.9569244	444.6973877	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 9/E	1	75	1	44000	145.9569244	405.0883789	0	1387.421631
Export	E_INV014_1000mm (1m)	1000	Category 3/E	1	75	0.5	22000	369.0974426	433.6090698	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 3/E	1	75	1	44000	347.8523254	382.6832886	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 11/E	1	75	0.5	22000	347.9404602	451.6794739	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 11/E	1	75	1	44000	347.9404602	397.4352417	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 12/E	1	75	0.5	22000	369.0974426	433.6090698	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 12/E	1	75	1	44000	347.8523254	382.6832886	0	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 11/E	1	75	0.5	22000	437.9879456	332.9291382	4.91064596	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 11/E	1	75	1	44000	437.9879456	282.3106689	11.120842	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 12/E	1	75	0.5	22000	463.4155884	278.2624512	5.52143764	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 12/E	1	75	1	44000	463.4155884	237.6788483	5.52143764	1140.596924

PHAST QRA Results_1 Toxic Lethality

Not included in Export

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV001_25mm	25	Category 1/P	14.35257577	18.05247171	3.127133722	5
Peak Shaver	P_INV001_25mm	25	Category 1/P	12.41704309	13.0406138	4.161026041	9
Peak Shaver	P_INV001_25mm	25	Category 1/P	11.47553059	10.59619473	4.653241596	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 1/P	9.25444518	5.327049364	5.714057313	30.003942
Peak Shaver	P_INV001_25mm	25	Category 1/P	14.58433576	18.64859505	3.000869369	4.7
Peak Shaver	P_INV001_25mm	25	Category 2/P	14.52541177	17.60827117	3.16351235	5
Peak Shaver	P_INV001_25mm	25	Category 2/P	12.64639738	12.65593761	4.125140491	9
Peak Shaver	P_INV001_25mm	25	Category 2/P	11.72195685	10.21997475	4.59064574	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 2/P	9.391820039	4.946715937	5.616049274	30.003942
Peak Shaver	P_INV001_25mm	25	Category 2/P	14.75156431	18.19384771	3.044578906	4.7
Peak Shaver	P_INV001_25mm	25	Category 3/P	14.463805	18.00667634	3.058890887	5
Peak Shaver	P_INV001_25mm	25	Category 3/P	12.32561166	13.09206005	4.068647183	9
Peak Shaver	P_INV001_25mm	25	Category 3/P	11.2673864	10.6637775	4.554823854	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 3/P	8.566538415	5.243765527	5.59540933	30.003942
Peak Shaver	P_INV001_25mm	25	Category 3/P	14.71671605	18.58712951	2.93931206	4.7
Peak Shaver	P_INV001_25mm	25	Category 4/P	14.36875001	18.44818632	3.014228725	5
Peak Shaver	P_INV001_25mm	25	Category 4/P	12.1788541	13.47785019	4.079656612	9
Peak Shaver	P_INV001_25mm	25	Category 4/P	11.10030256	11.03896791	4.599196183	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 4/P	8.356319461	5.64104133	5.688967224	30.003942
Peak Shaver	P_INV001_25mm	25	Category 4/P	14.62723259	19.03972274	2.888777654	4.7
Peak Shaver	P_INV001_25mm	25	Category 5/P	14.40298412	18.136256	3.002602494	5
Peak Shaver	P_INV001_25mm	25	Category 5/P	12.12794172	13.26664638	4.010890453	9
Peak Shaver	P_INV001_25mm	25	Category 5/P	10.99121997	10.8428799	4.508171848	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 5/P	8.184517392	5.384997017	5.582876518	30.003942
Peak Shaver	P_INV001_25mm	25	Category 5/P	14.66953922	18.71171417	2.884038756	4.7
Peak Shaver	P_INV001_25mm	25	Category 6/P	14.36875001	18.44818632	3.014228725	5
Peak Shaver	P_INV001_25mm	25	Category 6/P	12.1788541	13.47785019	4.079656612	9
Peak Shaver	P_INV001_25mm	25	Category 6/P	11.10030256	11.03896791	4.599196183	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 6/P	8.356319461	5.64104133	5.688967224	30.003942
Peak Shaver	P_INV001_25mm	25	Category 6/P	14.62723259	19.03972274	2.888777654	4.7
Peak Shaver	P_INV001_25mm	25	Category 7/P	14.35257577	18.05247171	3.127133722	5
Peak Shaver	P_INV001_25mm	25	Category 7/P	12.41704309	13.0406138	4.161026041	9
Peak Shaver	P_INV001_25mm	25	Category 7/P	11.47553059	10.59619473	4.653241596	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 7/P	9.25444518	5.327049364	5.714057313	30.003942
Peak Shaver	P_INV001_25mm	25	Category 7/P	14.58433576	18.64859505	3.000869369	4.7
Peak Shaver	P_INV001_25mm	25	Category 8/P	14.35050809	18.57254517	2.958693436	5
Peak Shaver	P_INV001_25mm	25	Category 8/P	12.02472618	13.64110196	4.019177185	9
Peak Shaver	P_INV001_25mm	25	Category 8/P	10.87363171	11.21613019	4.540676326	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 8/P	6.742824273	5.927033373	8.142251912	30.003942
Peak Shaver	P_INV001_25mm	25	Category 8/P	14.62758462	19.15900384	2.830498248	4.7
Peak Shaver	P_INV001_25mm	25	Category 9/P	14.463805	18.00667634	3.058890887	5
Peak Shaver	P_INV001_25mm	25	Category 9/P	12.32561166	13.09206005	4.068647183	9
Peak Shaver	P_INV001_25mm	25	Category 9/P	11.2673864	10.6637775	4.554823854	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 9/P	8.566538415	5.243765527	5.59540933	30.003942
Peak Shaver	P_INV001_25mm	25	Category 9/P	14.71671605	18.58712951	2.93931206	4.7
Peak Shaver	P_INV001_25mm	25	Category 10/P	14.40298412	18.136256	3.002602494	5
Peak Shaver	P_INV001_25mm	25	Category 10/P	12.12794172	13.26664638	4.010890453	9
Peak Shaver	P_INV001_25mm	25	Category 10/P	10.99121997	10.8428799	4.508171848	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 10/P	8.184517392	5.384997017	5.582876518	30.003942
Peak Shaver	P_INV001_25mm	25	Category 10/P	14.66953922	18.71171417	2.884038756	4.7
Peak Shaver	P_INV001_25mm	25	Category 11/P	14.35050809	18.57254517	2.958693436	5
Peak Shaver	P_INV001_25mm	25	Category 11/P	12.02472618	13.64110196	4.019177185	9
Peak Shaver	P_INV001_25mm	25	Category 11/P	10.87363171	11.21613019	4.540676326	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 11/P	6.742824273	5.927033373	8.142251912	30.003942
Peak Shaver	P_INV001_25mm	25	Category 11/P	14.62758462	19.15900384	2.830498248	4.7
Peak Shaver	P_INV001_25mm	25	Category 12/P	14.52541177	17.60827117	3.16351235	5
Peak Shaver	P_INV001_25mm	25	Category 12/P	12.64639738	12.65593761	4.125140491	9
Peak Shaver	P_INV001_25mm	25	Category 12/P	11.72195685	10.21997475	4.59064574	12.61710051
Peak Shaver	P_INV001_25mm	25	Category 12/P	9.391820039	4.946715937	5.616049274	30.003942
Peak Shaver	P_INV001_25mm	25	Category 12/P	14.75156431	18.19384771	3.044578906	4.7
Peak Shaver	P_INV001_50mm	50	Category 1/P	30.80042261	41.25436932	2.694144929	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV001_50mm	50	Category 1/P	26.14070258	30.49425928	5.464887104	9
Peak Shaver	P_INV001_50mm	50	Category 1/P	23.94298229	25.33396185	6.745454756	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 1/P	19.34828714	14.4793761	9.308758894	30.003942
Peak Shaver	P_INV001_50mm	50	Category 1/P	31.38884102	42.55224839	2.308646638	4.7
Peak Shaver	P_INV001_50mm	50	Category 2/P	30.72069915	39.83582027	3.055679548	5
Peak Shaver	P_INV001_50mm	50	Category 2/P	26.26529712	29.37036425	5.616526019	9
Peak Shaver	P_INV001_50mm	50	Category 2/P	24.14583418	24.31416493	6.809554715	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 2/P	19.64902603	13.57253255	9.211595796	30.003942
Peak Shaver	P_INV001_50mm	50	Category 2/P	31.25790113	41.08691845	2.742953126	4.7
Peak Shaver	P_INV001_50mm	50	Category 3/P	31.19145003	39.90802661	1.700229954	5
Peak Shaver	P_INV001_50mm	50	Category 3/P	25.58667803	29.55343772	5.509770579	9
Peak Shaver	P_INV001_50mm	50	Category 3/P	23.18399406	24.59490461	6.724654492	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 3/P	17.825467	13.86978128	9.116599929	30.003942
Peak Shaver	P_INV001_50mm	50	Category 3/P	31.91580785	41.16192663	1.137281088	4.7
Peak Shaver	P_INV001_50mm	50	Category 4/P	31.73341453	41.35252571	0.771681471	5
Peak Shaver	P_INV001_50mm	50	Category 4/P	25.68458308	30.63837872	5.232644343	9
Peak Shaver	P_INV001_50mm	50	Category 4/P	23.13839227	25.58166345	6.655936681	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 4/P	17.79689605	14.81988652	9.207462661	30.003942
Peak Shaver	P_INV001_50mm	50	Category 4/P	32.5136352	42.65693422	0.130969932	4.7
Peak Shaver	P_INV001_50mm	50	Category 5/P	31.86332324	39.95927368	0.011419771	5
Peak Shaver	P_INV001_50mm	50	Category 5/P	25.37666185	29.58346249	4.970331833	9
Peak Shaver	P_INV001_50mm	50	Category 5/P	22.57903521	24.64539929	6.653667042	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 5/P	16.57975491	13.91515463	9.074715745	30.003942
Peak Shaver	P_INV001_50mm	50	Category 5/P	32.69009547	41.22236296	-0.685137646	4.7
Peak Shaver	P_INV001_50mm	50	Category 6/P	31.73341453	41.35252571	0.771681471	5
Peak Shaver	P_INV001_50mm	50	Category 6/P	25.68458308	30.63837872	5.232644343	9
Peak Shaver	P_INV001_50mm	50	Category 6/P	23.13839227	25.58166345	6.655936681	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 6/P	17.79689605	14.81988652	9.207462661	30.003942
Peak Shaver	P_INV001_50mm	50	Category 6/P	32.5136352	42.65693422	0.130969932	4.7
Peak Shaver	P_INV001_50mm	50	Category 7/P	30.80042261	41.25436932	2.694144929	5
Peak Shaver	P_INV001_50mm	50	Category 7/P	26.14070258	30.49425928	5.464887104	9
Peak Shaver	P_INV001_50mm	50	Category 7/P	23.94298229	25.33396185	6.745454756	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 7/P	19.34828714	14.4793761	9.308758894	30.003942
Peak Shaver	P_INV001_50mm	50	Category 7/P	31.38884102	42.55224839	2.308646638	4.7
Peak Shaver	P_INV001_50mm	50	Category 8/P	32.65607837	41.42476183	-1.207579011	5
Peak Shaver	P_INV001_50mm	50	Category 8/P	25.70644237	30.67746011	4.422764844	9
Peak Shaver	P_INV001_50mm	50	Category 8/P	22.69462938	25.62844756	6.455897975	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 8/P	16.77018993	14.89749593	9.16137547	30.003942
Peak Shaver	P_INV001_50mm	50	Category 8/P	33.53818012	42.73308816	-1.979523709	4.7
Peak Shaver	P_INV001_50mm	50	Category 9/P	31.19145003	39.90802661	1.700229954	5
Peak Shaver	P_INV001_50mm	50	Category 9/P	25.58667803	29.55343772	5.509770579	9
Peak Shaver	P_INV001_50mm	50	Category 9/P	23.18399406	24.59490461	6.724654492	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 9/P	17.825467	13.86978128	9.116599929	30.003942
Peak Shaver	P_INV001_50mm	50	Category 9/P	31.91580785	41.16192663	1.137281088	4.7
Peak Shaver	P_INV001_50mm	50	Category 10/P	31.86332324	39.95927368	0.011419771	5
Peak Shaver	P_INV001_50mm	50	Category 10/P	25.37666185	29.58346249	4.970331833	9
Peak Shaver	P_INV001_50mm	50	Category 10/P	22.57903521	24.64539929	6.653667042	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 10/P	16.57975491	13.91515463	9.074715745	30.003942
Peak Shaver	P_INV001_50mm	50	Category 10/P	32.69009547	41.22236296	-0.685137646	4.7
Peak Shaver	P_INV001_50mm	50	Category 11/P	32.65607837	41.42476183	-1.207579011	5
Peak Shaver	P_INV001_50mm	50	Category 11/P	25.70644237	30.67746011	4.422764844	9
Peak Shaver	P_INV001_50mm	50	Category 11/P	22.69462938	25.62844756	6.455897975	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 11/P	16.77018993	14.89749593	9.16137547	30.003942
Peak Shaver	P_INV001_50mm	50	Category 11/P	33.53818012	42.73308816	-1.979523709	4.7
Peak Shaver	P_INV001_50mm	50	Category 12/P	30.72069915	39.83582027	3.055679548	5
Peak Shaver	P_INV001_50mm	50	Category 12/P	26.26529712	29.37036425	5.616526019	9
Peak Shaver	P_INV001_50mm	50	Category 12/P	24.14583418	24.31416493	6.809554715	12.61710051
Peak Shaver	P_INV001_50mm	50	Category 12/P	19.64902603	13.57253255	9.211595796	30.003942
Peak Shaver	P_INV001_50mm	50	Category 12/P	31.25790113	41.08691845	2.742953126	4.7
Peak Shaver	P_INV001_152mm	152	Category 1/P	99.10953192	125.8740349	-21.96659626	5
Peak Shaver	P_INV001_152mm	152	Category 1/P	77.89761331	94.35538675	-2.411381591	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV001_152mm	152	Category 1/P	68.37352442	79.61401553	5.943784157	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 1/P	50.5324734	49.86835282	19.82880258	30.003942
Peak Shaver	P_INV001_152mm	152	Category 1/P	101.746571	129.7045926	-24.46022293	4.7
Peak Shaver	P_INV001_152mm	152	Category 2/P	95.33396147	120.2286281	-17.2099687	5
Peak Shaver	P_INV001_152mm	152	Category 2/P	75.68968135	90.16432852	0.482107412	9
Peak Shaver	P_INV001_152mm	152	Category 2/P	66.85538511	76.00758705	7.972036509	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 2/P	50.19113239	47.13784766	20.20209431	30.003942
Peak Shaver	P_INV001_152mm	152	Category 2/P	97.77594959	123.8700623	-19.4749617	4.7
Peak Shaver	P_INV001_152mm	152	Category 3/P	102.1783382	119.4443063	-28.097313	5
Peak Shaver	P_INV001_152mm	152	Category 3/P	78.44523483	89.54251923	-5.997673438	9
Peak Shaver	P_INV001_152mm	152	Category 3/P	67.6002641	75.44445729	3.554092491	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 3/P	45.98609848	46.47476735	20.16591863	30.003942
Peak Shaver	P_INV001_152mm	152	Category 3/P	105.0967308	123.0626202	-30.88150298	4.7
Peak Shaver	P_INV001_152mm	152	Category 4/P	107.1539987	125.0036057	-34.05169812	5
Peak Shaver	P_INV001_152mm	152	Category 4/P	81.71517847	93.68314367	-9.928516461	9
Peak Shaver	P_INV001_152mm	152	Category 4/P	70.10657553	79.00936526	0.61231287	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 4/P	47.29096985	49.24516394	19.16508654	30.003942
Peak Shaver	P_INV001_152mm	152	Category 4/P	110.2834402	128.8047288	-37.07436534	4.7
Peak Shaver	P_INV001_152mm	152	Category 5/P	105.7030193	118.9789551	-34.87143808	5
Peak Shaver	P_INV001_152mm	152	Category 5/P	79.84276131	89.0577073	-10.47553938	9
Peak Shaver	P_INV001_152mm	152	Category 5/P	67.88363512	74.89380716	0.223505432	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 5/P	43.75064146	45.53874159	19.04669488	30.003942
Peak Shaver	P_INV001_152mm	152	Category 5/P	108.8610056	122.593112	-37.91605493	4.7
Peak Shaver	P_INV001_152mm	152	Category 6/P	107.1539987	125.0036057	-34.05169812	5
Peak Shaver	P_INV001_152mm	152	Category 6/P	81.71517847	93.68314367	-9.928516461	9
Peak Shaver	P_INV001_152mm	152	Category 6/P	70.10657553	79.00936526	0.61231287	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 6/P	47.29096985	49.24516394	19.16508654	30.003942
Peak Shaver	P_INV001_152mm	152	Category 6/P	110.2834402	128.8047288	-37.07436534	4.7
Peak Shaver	P_INV001_152mm	152	Category 7/P	99.10953192	125.8740349	-21.96659626	5
Peak Shaver	P_INV001_152mm	152	Category 7/P	77.89761331	94.35538675	-2.411381591	9
Peak Shaver	P_INV001_152mm	152	Category 7/P	68.37352442	79.61401553	5.943784157	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 7/P	50.5324734	49.86835282	19.82880258	30.003942
Peak Shaver	P_INV001_152mm	152	Category 7/P	101.746571	129.7045926	-24.46022293	4.7
Peak Shaver	P_INV001_152mm	152	Category 8/P	111.2437099	124.5070924	-41.35768507	5
Peak Shaver	P_INV001_152mm	152	Category 8/P	83.66677755	93.19654218	-14.93891057	9
Peak Shaver	P_INV001_152mm	152	Category 8/P	70.93578283	78.47509192	-3.208295864	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 8/P	45.39252323	48.37553196	17.69889867	30.003942
Peak Shaver	P_INV001_152mm	152	Category 8/P	114.6154515	128.3023273	-44.64187134	4.7
Peak Shaver	P_INV001_152mm	152	Category 9/P	102.1783382	119.4443063	-28.097313	5
Peak Shaver	P_INV001_152mm	152	Category 9/P	78.44523483	89.54251923	-5.997673438	9
Peak Shaver	P_INV001_152mm	152	Category 9/P	67.6002641	75.44445729	3.554092491	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 9/P	45.98609848	46.47476735	20.16591863	30.003942
Peak Shaver	P_INV001_152mm	152	Category 9/P	105.0967308	123.0626202	-30.88150298	4.7
Peak Shaver	P_INV001_152mm	152	Category 10/P	105.7030193	118.9789551	-34.87143808	5
Peak Shaver	P_INV001_152mm	152	Category 10/P	79.84276131	89.0577073	-10.47553938	9
Peak Shaver	P_INV001_152mm	152	Category 10/P	67.88363512	74.89380716	0.223505432	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 10/P	43.75064146	45.53874159	19.04669488	30.003942
Peak Shaver	P_INV001_152mm	152	Category 10/P	108.8610056	122.593112	-37.91605493	4.7
Peak Shaver	P_INV001_152mm	152	Category 11/P	111.2437099	124.5070924	-41.35768507	5
Peak Shaver	P_INV001_152mm	152	Category 11/P	83.66677755	93.19654218	-14.93891057	9
Peak Shaver	P_INV001_152mm	152	Category 11/P	70.93578283	78.47509192	-3.208295864	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 11/P	45.39252323	48.37553196	17.69889867	30.003942
Peak Shaver	P_INV001_152mm	152	Category 11/P	114.6154515	128.3023273	-44.64187134	4.7
Peak Shaver	P_INV001_152mm	152	Category 12/P	95.33396147	120.2286281	-17.2099687	5
Peak Shaver	P_INV001_152mm	152	Category 12/P	75.68968135	90.16432852	0.482107412	9
Peak Shaver	P_INV001_152mm	152	Category 12/P	66.85538511	76.00758705	7.972036509	12.61710051
Peak Shaver	P_INV001_152mm	152	Category 12/P	50.19113239	47.13784766	20.20209431	30.003942
Peak Shaver	P_INV001_152mm	152	Category 12/P	97.77594959	123.8700623	-19.4749617	4.7
Peak Shaver	P_INV001_10mm	10	Category 1/P	4.822674655	4.474837062	1.926727102	5
Peak Shaver	P_INV001_10mm	10	Category 1/P	3.975051499	2.804411091	2.543806419	9
Peak Shaver	P_INV001_10mm	10	Category 1/P	3.397292174	1.923265279	2.942538817	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV001_10mm	10	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 1/P	4.903664048	4.666895768	1.875144024	4.7
Peak Shaver	P_INV001_10mm	10	Category 2/P	4.944489816	4.386756227	1.92106718	5
Peak Shaver	P_INV001_10mm	10	Category 2/P	4.041538332	2.704606907	2.614558279	9
Peak Shaver	P_INV001_10mm	10	Category 2/P	3.511053788	1.810056662	2.948889001	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 2/P	5.028783027	4.580939574	1.863974774	4.7
Peak Shaver	P_INV001_10mm	10	Category 3/P	5.02071321	4.852896286	1.869133012	5
Peak Shaver	P_INV001_10mm	10	Category 3/P	4.091692149	3.094210666	2.489218296	9
Peak Shaver	P_INV001_10mm	10	Category 3/P	3.470498654	2.147331995	2.884557622	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 3/P	5.114050567	5.053482656	1.809572474	4.7
Peak Shaver	P_INV001_10mm	10	Category 4/P	4.920964262	4.950195284	1.874699026	5
Peak Shaver	P_INV001_10mm	10	Category 4/P	4.037098392	3.207581077	2.448878292	9
Peak Shaver	P_INV001_10mm	10	Category 4/P	3.371363374	2.277714579	2.886954522	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 4/P	5.013751917	5.145157013	1.81518678	4.7
Peak Shaver	P_INV001_10mm	10	Category 5/P	5.056051869	5.072946522	1.840454235	5
Peak Shaver	P_INV001_10mm	10	Category 5/P	4.098516037	3.283812829	2.441647801	9
Peak Shaver	P_INV001_10mm	10	Category 5/P	3.434171376	2.315338919	2.858498676	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 5/P	5.151277725	5.276198367	1.787013094	4.7
Peak Shaver	P_INV001_10mm	10	Category 6/P	4.920964262	4.950195284	1.874699026	5
Peak Shaver	P_INV001_10mm	10	Category 6/P	4.037098392	3.207581077	2.448878292	9
Peak Shaver	P_INV001_10mm	10	Category 6/P	3.371363374	2.277714579	2.886954522	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 6/P	5.013751917	5.145157013	1.81518678	4.7
Peak Shaver	P_INV001_10mm	10	Category 7/P	4.822674655	4.474837062	1.926727102	5
Peak Shaver	P_INV001_10mm	10	Category 7/P	3.975051499	2.804411091	2.543806419	9
Peak Shaver	P_INV001_10mm	10	Category 7/P	3.397292174	1.923265279	2.942538817	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 7/P	4.903664048	4.666895768	1.875144024	4.7
Peak Shaver	P_INV001_10mm	10	Category 8/P	4.969459021	5.173082061	1.846973547	5
Peak Shaver	P_INV001_10mm	10	Category 8/P	4.046244694	3.399942237	2.41434024	9
Peak Shaver	P_INV001_10mm	10	Category 8/P	3.354790821	2.44832077	2.862539898	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 8/P	5.064865829	5.375306886	1.792247451	4.7
Peak Shaver	P_INV001_10mm	10	Category 9/P	5.02071321	4.852896286	1.869133012	5
Peak Shaver	P_INV001_10mm	10	Category 9/P	4.091692149	3.094210666	2.489218296	9
Peak Shaver	P_INV001_10mm	10	Category 9/P	3.470498654	2.147331995	2.884557622	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 9/P	5.114050567	5.053482656	1.809572474	4.7
Peak Shaver	P_INV001_10mm	10	Category 10/P	5.056051869	5.072946522	1.840454235	5
Peak Shaver	P_INV001_10mm	10	Category 10/P	4.098516037	3.283812829	2.441647801	9
Peak Shaver	P_INV001_10mm	10	Category 10/P	3.434171376	2.315338919	2.858498676	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 10/P	5.151277725	5.276198367	1.787013094	4.7
Peak Shaver	P_INV001_10mm	10	Category 11/P	4.969459021	5.173082061	1.846973547	5
Peak Shaver	P_INV001_10mm	10	Category 11/P	4.046244694	3.399942237	2.41434024	9
Peak Shaver	P_INV001_10mm	10	Category 11/P	3.354790821	2.44832077	2.862539898	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 11/P	5.064865829	5.375306886	1.792247451	4.7
Peak Shaver	P_INV001_10mm	10	Category 12/P	4.944489816	4.386756227	1.92106718	5
Peak Shaver	P_INV001_10mm	10	Category 12/P	4.041538332	2.704606907	2.614558279	9
Peak Shaver	P_INV001_10mm	10	Category 12/P	3.511053788	1.810056662	2.948889001	12.61710051
Peak Shaver	P_INV001_10mm	10	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV001_10mm	10	Category 12/P	5.028783027	4.580939574	1.863974774	4.7
Peak Shaver	P_INV002_25mm	25	Category 1/P	13.97249163	17.51156443	3.122154723	5
Peak Shaver	P_INV002_25mm	25	Category 1/P	12.10151105	12.63455683	4.107703911	9
Peak Shaver	P_INV002_25mm	25	Category 1/P	11.18921126	10.25290238	4.579031201	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 1/P	9.002035071	5.112924005	5.61200779	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV002_25mm	25	Category 1/P	14.19772581	18.09132344	2.999877493	4.7
Peak Shaver	P_INV002_25mm	25	Category 2/P	14.15352207	17.08683403	3.140536079	5
Peak Shaver	P_INV002_25mm	25	Category 2/P	12.33215566	12.26381256	4.0653944	9
Peak Shaver	P_INV002_25mm	25	Category 2/P	11.43425916	9.891596628	4.514034715	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 2/P	9.101916041	4.739270587	5.516263998	30.003942
Peak Shaver	P_INV002_25mm	25	Category 2/P	14.37040409	17.65636461	3.031063413	4.7
Peak Shaver	P_INV002_25mm	25	Category 3/P	14.08799227	17.49276437	3.05059859	5
Peak Shaver	P_INV002_25mm	25	Category 3/P	12.01058029	12.70315005	4.031897977	9
Peak Shaver	P_INV002_25mm	25	Category 3/P	10.98683923	10.33438934	4.491039047	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 3/P	8.366958866	5.042334447	5.49472347	30.003942
Peak Shaver	P_INV002_25mm	25	Category 3/P	14.33470686	18.05788986	2.934674008	4.7
Peak Shaver	P_INV002_25mm	25	Category 4/P	13.99035332	17.91626223	3.010029864	5
Peak Shaver	P_INV002_25mm	25	Category 4/P	11.86268611	13.07539604	4.045297042	9
Peak Shaver	P_INV002_25mm	25	Category 4/P	10.81731948	10.69775204	4.541684304	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 4/P	8.149855452	5.426892365	5.59003278	30.003942
Peak Shaver	P_INV002_25mm	25	Category 4/P	14.24102887	18.49208471	2.888714152	4.7
Peak Shaver	P_INV002_25mm	25	Category 5/P	14.03133323	17.62823424	2.99424438	5
Peak Shaver	P_INV002_25mm	25	Category 5/P	11.81987725	12.88100198	3.973394117	9
Peak Shaver	P_INV002_25mm	25	Category 5/P	10.7089824	10.51541979	4.464943337	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 5/P	7.99152481	5.182507299	5.48711173	30.003942
Peak Shaver	P_INV002_25mm	25	Category 5/P	14.29043044	18.18902857	2.878696429	4.7
Peak Shaver	P_INV002_25mm	25	Category 6/P	13.99035332	17.91626223	3.010029864	5
Peak Shaver	P_INV002_25mm	25	Category 6/P	11.86268611	13.07539604	4.045297042	9
Peak Shaver	P_INV002_25mm	25	Category 6/P	10.81731948	10.69775204	4.541684304	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 6/P	8.149855452	5.426892365	5.59003278	30.003942
Peak Shaver	P_INV002_25mm	25	Category 6/P	14.24102887	18.49208471	2.888714152	4.7
Peak Shaver	P_INV002_25mm	25	Category 7/P	13.97249163	17.51156443	3.122154723	5
Peak Shaver	P_INV002_25mm	25	Category 7/P	12.10151105	12.63455683	4.107703911	9
Peak Shaver	P_INV002_25mm	25	Category 7/P	11.18921126	10.25290238	4.579031201	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 7/P	9.002035071	5.112924005	5.61200779	30.003942
Peak Shaver	P_INV002_25mm	25	Category 7/P	14.19772581	18.09132344	2.999877493	4.7
Peak Shaver	P_INV002_25mm	25	Category 8/P	13.97299244	18.04707867	2.956079921	5
Peak Shaver	P_INV002_25mm	25	Category 8/P	11.71307896	13.24236675	3.984783782	9
Peak Shaver	P_INV002_25mm	25	Category 8/P	10.59366954	10.87701042	4.492033392	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 8/P	7.787201567	5.580231292	5.579494205	30.003942
Peak Shaver	P_INV002_25mm	25	Category 8/P	14.24238403	18.61833893	2.830898433	4.7
Peak Shaver	P_INV002_25mm	25	Category 9/P	14.08799227	17.49276437	3.05059859	5
Peak Shaver	P_INV002_25mm	25	Category 9/P	12.01058029	12.70315005	4.031897977	9
Peak Shaver	P_INV002_25mm	25	Category 9/P	10.98683923	10.33438934	4.491039047	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 9/P	8.366958866	5.042334447	5.49472347	30.003942
Peak Shaver	P_INV002_25mm	25	Category 9/P	14.33470686	18.05788986	2.934674008	4.7
Peak Shaver	P_INV002_25mm	25	Category 10/P	14.03133323	17.62823424	2.99424438	5
Peak Shaver	P_INV002_25mm	25	Category 10/P	11.81987725	12.88100198	3.973394117	9
Peak Shaver	P_INV002_25mm	25	Category 10/P	10.7089824	10.51541979	4.464943337	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 10/P	7.99152481	5.182507299	5.48711173	30.003942
Peak Shaver	P_INV002_25mm	25	Category 10/P	14.29043044	18.18902857	2.878696429	4.7
Peak Shaver	P_INV002_25mm	25	Category 11/P	13.97299244	18.04707867	2.956079921	5
Peak Shaver	P_INV002_25mm	25	Category 11/P	11.71307896	13.24236675	3.984783782	9
Peak Shaver	P_INV002_25mm	25	Category 11/P	10.59366954	10.87701042	4.492033392	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 11/P	7.787201567	5.580231292	5.579494205	30.003942
Peak Shaver	P_INV002_25mm	25	Category 11/P	14.24238403	18.61833893	2.830898433	4.7
Peak Shaver	P_INV002_25mm	25	Category 12/P	14.15352207	17.08683403	3.140536079	5
Peak Shaver	P_INV002_25mm	25	Category 12/P	12.33215566	12.26381256	4.0653944	9
Peak Shaver	P_INV002_25mm	25	Category 12/P	11.43425916	9.891596628	4.514034715	12.61710051
Peak Shaver	P_INV002_25mm	25	Category 12/P	9.101916041	4.739270587	5.516263998	30.003942
Peak Shaver	P_INV002_25mm	25	Category 12/P	14.37040409	17.65636461	3.031063413	4.7
Peak Shaver	P_INV002_50mm	50	Category 1/P	20.57987745	26.91752156	3.11130296	5
Peak Shaver	P_INV002_50mm	50	Category 1/P	17.66283549	19.70362709	4.739710465	9
Peak Shaver	P_INV002_50mm	50	Category 1/P	16.26733614	16.22376335	5.508461986	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 1/P	13.23950416	8.810852546	7.097950586	30.003942
Peak Shaver	P_INV002_50mm	50	Category 1/P	20.93048906	27.78030027	2.912693479	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV002_50mm	50	Category 2/P	20.69668223	26.136583	3.240761861	5
Peak Shaver	P_INV002_50mm	50	Category 2/P	17.87812733	19.06400058	4.767198328	9
Peak Shaver	P_INV002_50mm	50	Category 2/P	16.51737659	15.6219861	5.491787561	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 2/P	13.49939028	8.244093644	7.006698833	30.003942
Peak Shaver	P_INV002_50mm	50	Category 2/P	21.03471937	26.97803848	3.0561281	4.7
Peak Shaver	P_INV002_50mm	50	Category 3/P	20.58105384	26.37103904	3.13238313	5
Peak Shaver	P_INV002_50mm	50	Category 3/P	17.41963138	19.42676564	4.662122973	9
Peak Shaver	P_INV002_50mm	50	Category 3/P	15.88160667	16.01938199	5.389285785	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 3/P	12.23096961	8.554811504	6.903180136	30.003942
Peak Shaver	P_INV002_50mm	50	Category 3/P	20.96036337	27.19712168	2.945827856	4.7
Peak Shaver	P_INV002_50mm	50	Category 4/P	20.59544396	27.13733741	2.963623027	5
Peak Shaver	P_INV002_50mm	50	Category 4/P	17.31017714	20.04816133	4.62797134	9
Peak Shaver	P_INV002_50mm	50	Category 4/P	15.73467224	16.61185591	5.399936201	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 4/P	12.15538437	9.167088553	6.990658665	30.003942
Peak Shaver	P_INV002_50mm	50	Category 4/P	21.01570771	27.99267055	2.70854807	4.7
Peak Shaver	P_INV002_50mm	50	Category 5/P	20.65001983	26.43620466	2.731800066	5
Peak Shaver	P_INV002_50mm	50	Category 5/P	17.11500751	19.53074844	4.612770767	9
Peak Shaver	P_INV002_50mm	50	Category 5/P	15.47237072	16.15708197	5.337308511	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 5/P	11.4205852	8.652126042	6.844686216	30.003942
Peak Shaver	P_INV002_50mm	50	Category 5/P	21.12674215	27.27273888	2.396414988	4.7
Peak Shaver	P_INV002_50mm	50	Category 6/P	20.59544396	27.13733741	2.963623027	5
Peak Shaver	P_INV002_50mm	50	Category 6/P	17.31017714	20.04816133	4.62797134	9
Peak Shaver	P_INV002_50mm	50	Category 6/P	15.73467224	16.61185591	5.399936201	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 6/P	12.15538437	9.167088553	6.990658665	30.003942
Peak Shaver	P_INV002_50mm	50	Category 6/P	21.01570771	27.99267055	2.70854807	4.7
Peak Shaver	P_INV002_50mm	50	Category 7/P	20.57987745	26.91752156	3.11130296	5
Peak Shaver	P_INV002_50mm	50	Category 7/P	17.66283549	19.70362709	4.739710465	9
Peak Shaver	P_INV002_50mm	50	Category 7/P	16.26733614	16.22376335	5.508461986	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 7/P	13.23950416	8.810852546	7.097950586	30.003942
Peak Shaver	P_INV002_50mm	50	Category 7/P	20.93048906	27.78030027	2.912693479	4.7
Peak Shaver	P_INV002_50mm	50	Category 8/P	20.89394389	27.23525197	2.237815791	5
Peak Shaver	P_INV002_50mm	50	Category 8/P	17.06831939	20.14048286	4.577511373	9
Peak Shaver	P_INV002_50mm	50	Category 8/P	15.3896151	16.7411538	5.347112499	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 8/P	11.46079408	9.294989457	6.930630899	30.003942
Peak Shaver	P_INV002_50mm	50	Category 8/P	21.41201669	28.10292114	1.836335807	4.7
Peak Shaver	P_INV002_50mm	50	Category 9/P	20.58105384	26.37103904	3.13238313	5
Peak Shaver	P_INV002_50mm	50	Category 9/P	17.41963138	19.42676564	4.662122973	9
Peak Shaver	P_INV002_50mm	50	Category 9/P	15.88160667	16.01938199	5.389285785	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 9/P	12.23096961	8.554811504	6.903180136	30.003942
Peak Shaver	P_INV002_50mm	50	Category 9/P	20.96036337	27.19712168	2.945827856	4.7
Peak Shaver	P_INV002_50mm	50	Category 10/P	20.65001983	26.43620466	2.731800066	5
Peak Shaver	P_INV002_50mm	50	Category 10/P	17.11500751	19.53074844	4.612770767	9
Peak Shaver	P_INV002_50mm	50	Category 10/P	15.47237072	16.15708197	5.337308511	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 10/P	11.4205852	8.652126042	6.844686216	30.003942
Peak Shaver	P_INV002_50mm	50	Category 10/P	21.12674215	27.27273888	2.396414988	4.7
Peak Shaver	P_INV002_50mm	50	Category 11/P	20.89394389	27.23525197	2.237815791	5
Peak Shaver	P_INV002_50mm	50	Category 11/P	17.06831939	20.14048286	4.577511373	9
Peak Shaver	P_INV002_50mm	50	Category 11/P	15.3896151	16.7411538	5.347112499	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 11/P	11.46079408	9.294989457	6.930630899	30.003942
Peak Shaver	P_INV002_50mm	50	Category 11/P	21.41201669	28.10292114	1.836335807	4.7
Peak Shaver	P_INV002_50mm	50	Category 12/P	20.69668223	26.136583	3.240761861	5
Peak Shaver	P_INV002_50mm	50	Category 12/P	17.87812733	19.06400058	4.767198328	9
Peak Shaver	P_INV002_50mm	50	Category 12/P	16.51737659	15.6219861	5.491787561	12.61710051
Peak Shaver	P_INV002_50mm	50	Category 12/P	13.49939028	8.244093644	7.006698833	30.003942
Peak Shaver	P_INV002_50mm	50	Category 12/P	21.03471937	26.97803848	3.0561281	4.7
Peak Shaver	P_INV002_152mm	152	Category 1/P	20.63713594	26.99872778	3.1103281	5
Peak Shaver	P_INV002_152mm	152	Category 1/P	17.71078072	19.76471128	4.744487857	9
Peak Shaver	P_INV002_152mm	152	Category 1/P	16.30852334	16.27539047	5.515848094	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 1/P	13.27486256	8.842741156	7.109884193	30.003942
Peak Shaver	P_INV002_152mm	152	Category 1/P	20.98887681	27.86394154	2.911005449	4.7
Peak Shaver	P_INV002_152mm	152	Category 2/P	20.75319853	26.21446108	3.240813672	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV002_152mm	152	Category 2/P	17.9258234	19.12254197	4.772526915	9
Peak Shaver	P_INV002_152mm	152	Category 2/P	16.56105172	15.67134404	5.499560488	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 2/P	13.53576919	8.274126238	7.0183339	30.003942
Peak Shaver	P_INV002_152mm	152	Category 2/P	21.09231029	27.05824965	3.055527035	4.7
Peak Shaver	P_INV002_152mm	152	Category 3/P	20.6363111	26.44704458	3.134154686	5
Peak Shaver	P_INV002_152mm	152	Category 3/P	17.46593998	19.48440141	4.667494785	9
Peak Shaver	P_INV002_152mm	152	Category 3/P	15.92335399	16.06819296	5.396992275	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 3/P	12.26460584	8.585107294	6.915134477	30.003942
Peak Shaver	P_INV002_152mm	152	Category 3/P	21.01742938	27.2755017	2.945723859	4.7
Peak Shaver	P_INV002_152mm	152	Category 4/P	20.65493513	27.21727361	2.958098072	5
Peak Shaver	P_INV002_152mm	152	Category 4/P	17.35702915	20.10820283	4.632771029	9
Peak Shaver	P_INV002_152mm	152	Category 4/P	15.77672582	16.66276077	5.407310188	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 4/P	12.18860064	9.199168498	7.002746376	30.003942
Peak Shaver	P_INV002_152mm	152	Category 4/P	21.07781233	28.0753175	2.699620538	4.7
Peak Shaver	P_INV002_152mm	152	Category 5/P	20.71106411	26.51274155	2.721372703	5
Peak Shaver	P_INV002_152mm	152	Category 5/P	17.16036706	19.58774651	4.6182111	9
Peak Shaver	P_INV002_152mm	152	Category 5/P	15.51286599	16.20544074	5.345095448	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 5/P	11.44996768	8.681968615	6.856745018	30.003942
Peak Shaver	P_INV002_152mm	152	Category 5/P	21.19033147	27.35184597	2.382766539	4.7
Peak Shaver	P_INV002_152mm	152	Category 6/P	20.65493513	27.21727361	2.958098072	5
Peak Shaver	P_INV002_152mm	152	Category 6/P	17.35702915	20.10820283	4.632771029	9
Peak Shaver	P_INV002_152mm	152	Category 6/P	15.77672582	16.66276077	5.407310188	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 6/P	12.18860064	9.199168498	7.002746376	30.003942
Peak Shaver	P_INV002_152mm	152	Category 6/P	21.07781233	28.0753175	2.699620538	4.7
Peak Shaver	P_INV002_152mm	152	Category 7/P	20.63713594	26.99872778	3.1103281	5
Peak Shaver	P_INV002_152mm	152	Category 7/P	17.71078072	19.76471128	4.744487857	9
Peak Shaver	P_INV002_152mm	152	Category 7/P	16.30852334	16.27539047	5.515848094	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 7/P	13.27486256	8.842741156	7.109884193	30.003942
Peak Shaver	P_INV002_152mm	152	Category 7/P	20.98887681	27.86394154	2.911005449	4.7
Peak Shaver	P_INV002_152mm	152	Category 8/P	20.95863716	27.31556531	2.221681748	5
Peak Shaver	P_INV002_152mm	152	Category 8/P	17.11442488	20.19981045	4.58237429	9
Peak Shaver	P_INV002_152mm	152	Category 8/P	15.43059288	16.79154743	5.354584104	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 8/P	11.49227293	9.326953317	6.94277829	30.003942
Peak Shaver	P_INV002_152mm	152	Category 8/P	21.4783043	28.18564119	1.818972425	4.7
Peak Shaver	P_INV002_152mm	152	Category 9/P	20.6363111	26.44704458	3.134154686	5
Peak Shaver	P_INV002_152mm	152	Category 9/P	17.46593998	19.48440141	4.667494785	9
Peak Shaver	P_INV002_152mm	152	Category 9/P	15.92335399	16.06819296	5.396992275	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 9/P	12.26460584	8.585107294	6.915134477	30.003942
Peak Shaver	P_INV002_152mm	152	Category 9/P	21.01742938	27.2755017	2.945723859	4.7
Peak Shaver	P_INV002_152mm	152	Category 10/P	20.71106411	26.51274155	2.721372703	5
Peak Shaver	P_INV002_152mm	152	Category 10/P	17.16036706	19.58774651	4.6182111	9
Peak Shaver	P_INV002_152mm	152	Category 10/P	15.51286599	16.20544074	5.345095448	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 10/P	11.44996768	8.681968615	6.856745018	30.003942
Peak Shaver	P_INV002_152mm	152	Category 10/P	21.19033147	27.35184597	2.382766539	4.7
Peak Shaver	P_INV002_152mm	152	Category 11/P	20.95863716	27.31556531	2.221681748	5
Peak Shaver	P_INV002_152mm	152	Category 11/P	17.11442488	20.19981045	4.58237429	9
Peak Shaver	P_INV002_152mm	152	Category 11/P	15.43059288	16.79154743	5.354584104	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 11/P	11.49227293	9.326953317	6.94277829	30.003942
Peak Shaver	P_INV002_152mm	152	Category 11/P	21.4783043	28.18564119	1.818972425	4.7
Peak Shaver	P_INV002_152mm	152	Category 12/P	20.75319853	26.21446108	3.240813672	5
Peak Shaver	P_INV002_152mm	152	Category 12/P	17.9258234	19.12254197	4.772526915	9
Peak Shaver	P_INV002_152mm	152	Category 12/P	16.56105172	15.67134404	5.499560488	12.61710051
Peak Shaver	P_INV002_152mm	152	Category 12/P	13.53576919	8.274126238	7.0183339	30.003942
Peak Shaver	P_INV002_152mm	152	Category 12/P	21.09231029	27.05824965	3.055527035	4.7
Peak Shaver	P_INV002_10mm	10	Category 1/P	4.6751538	4.289677051	1.906868031	5
Peak Shaver	P_INV002_10mm	10	Category 1/P	3.805275127	2.662473366	2.557489409	9
Peak Shaver	P_INV002_10mm	10	Category 1/P	3.273859645	1.801581861	2.924781036	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 1/P	4.757491621	4.476182138	1.850447587	4.7
Peak Shaver	P_INV002_10mm	10	Category 2/P	4.792716709	4.205203161	1.907735686	5
Peak Shaver	P_INV002_10mm	10	Category 2/P	3.616715305	2.599097777	3.118500146	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV002_10mm	10	Category 2/P	3.378215936	1.691576623	2.946156268	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 2/P	4.875927945	4.392839567	1.850775784	4.7
Peak Shaver	P_INV002_10mm	10	Category 3/P	4.874415398	4.667780639	1.852566877	5
Peak Shaver	P_INV002_10mm	10	Category 3/P	3.930369665	2.953598482	2.511154233	9
Peak Shaver	P_INV002_10mm	10	Category 3/P	3.351067406	2.025624847	2.874086323	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 3/P	4.964128392	4.863026852	1.797679372	4.7
Peak Shaver	P_INV002_10mm	10	Category 4/P	4.780967886	4.761325413	1.851589106	5
Peak Shaver	P_INV002_10mm	10	Category 4/P	3.888444021	3.060696565	2.446285901	9
Peak Shaver	P_INV002_10mm	10	Category 4/P	3.258280742	2.15240612	2.863482329	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 4/P	4.86987785	4.95088386	1.797127949	4.7
Peak Shaver	P_INV002_10mm	10	Category 5/P	4.912375535	4.88679593	1.824323753	5
Peak Shaver	P_INV002_10mm	10	Category 5/P	3.948062906	3.1417022	2.452661853	9
Peak Shaver	P_INV002_10mm	10	Category 5/P	3.322500802	2.191926768	2.843463951	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 5/P	5.005965721	5.085432113	1.771076014	4.7
Peak Shaver	P_INV002_10mm	10	Category 6/P	4.780967886	4.761325413	1.851589106	5
Peak Shaver	P_INV002_10mm	10	Category 6/P	3.888444021	3.060696565	2.446285901	9
Peak Shaver	P_INV002_10mm	10	Category 6/P	3.258280742	2.15240612	2.863482329	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 6/P	4.86987785	4.95088386	1.797127949	4.7
Peak Shaver	P_INV002_10mm	10	Category 7/P	4.6751538	4.289677051	1.906868031	5
Peak Shaver	P_INV002_10mm	10	Category 7/P	3.805275127	2.662473366	2.557489409	9
Peak Shaver	P_INV002_10mm	10	Category 7/P	3.273859645	1.801581861	2.924781036	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 7/P	4.757491621	4.476182138	1.850447587	4.7
Peak Shaver	P_INV002_10mm	10	Category 8/P	4.830684459	4.984061194	1.821145462	5
Peak Shaver	P_INV002_10mm	10	Category 8/P	3.907544196	3.252996357	2.404646836	9
Peak Shaver	P_INV002_10mm	10	Category 8/P	3.238756388	2.31942678	2.836008712	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 8/P	4.923309703	5.18130583	1.768787858	4.7
Peak Shaver	P_INV002_10mm	10	Category 9/P	4.874415398	4.667780639	1.852566877	5
Peak Shaver	P_INV002_10mm	10	Category 9/P	3.930369665	2.953598482	2.511154233	9
Peak Shaver	P_INV002_10mm	10	Category 9/P	3.351067406	2.025624847	2.874086323	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 9/P	4.964128392	4.863026852	1.797679372	4.7
Peak Shaver	P_INV002_10mm	10	Category 10/P	4.912375535	4.88679593	1.824323753	5
Peak Shaver	P_INV002_10mm	10	Category 10/P	3.948062906	3.1417022	2.452661853	9
Peak Shaver	P_INV002_10mm	10	Category 10/P	3.322500802	2.191926768	2.843463951	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 10/P	5.005965721	5.085432113	1.771076014	4.7
Peak Shaver	P_INV002_10mm	10	Category 11/P	4.830684459	4.984061194	1.821145462	5
Peak Shaver	P_INV002_10mm	10	Category 11/P	3.907544196	3.252996357	2.404646836	9
Peak Shaver	P_INV002_10mm	10	Category 11/P	3.238756388	2.31942678	2.836008712	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 11/P	4.923309703	5.18130583	1.768787858	4.7
Peak Shaver	P_INV002_10mm	10	Category 12/P	4.792716709	4.205203161	1.907735686	5
Peak Shaver	P_INV002_10mm	10	Category 12/P	3.616715305	2.599097777	3.118500146	9
Peak Shaver	P_INV002_10mm	10	Category 12/P	3.378215936	1.691576623	2.946156268	12.61710051
Peak Shaver	P_INV002_10mm	10	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV002_10mm	10	Category 12/P	4.875927945	4.392839567	1.850775784	4.7
Peak Shaver	P_INV004_25mm	25	Category 1/P	13.87898471	17.37853251	3.120789482	5
Peak Shaver	P_INV004_25mm	25	Category 1/P	12.0240144	12.5346943	4.094123557	9
Peak Shaver	P_INV004_25mm	25	Category 1/P	11.11867158	10.16846334	4.560594603	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 1/P	8.93867079	5.060266189	5.587907262	30.003942
Peak Shaver	P_INV004_25mm	25	Category 1/P	14.10262048	17.95428106	2.999394391	4.7
Peak Shaver	P_INV004_25mm	25	Category 2/P	14.06261941	16.95862156	3.133530689	5
Peak Shaver	P_INV004_25mm	25	Category 2/P	12.25505635	12.16734008	4.050040403	9
Peak Shaver	P_INV004_25mm	25	Category 2/P	11.36314516	9.806513337	4.495479654	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV004_25mm	25	Category 2/P	9.02319415	4.68725648	5.492275576	30.003942
Peak Shaver	P_INV004_25mm	25	Category 2/P	14.27784391	17.52429947	3.025138675	4.7
Peak Shaver	P_INV004_25mm	25	Category 3/P	13.99575255	17.36622527	3.04853932	5
Peak Shaver	P_INV004_25mm	25	Category 3/P	11.93453355	12.60754941	4.019746529	9
Peak Shaver	P_INV004_25mm	25	Category 3/P	10.91790718	10.25331626	4.474923385	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 3/P	8.318552894	4.993084013	5.47099967	30.003942
Peak Shaver	P_INV004_25mm	25	Category 3/P	14.24073146	17.92764737	2.933374653	4.7
Peak Shaver	P_INV004_25mm	25	Category 4/P	13.89733285	17.78540513	3.008753838	5
Peak Shaver	P_INV004_25mm	25	Category 4/P	11.78479468	12.97637503	4.036900147	9
Peak Shaver	P_INV004_25mm	25	Category 4/P	10.7481778	10.61381001	4.526370707	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 4/P	8.097917625	5.373910933	5.564841813	30.003942
Peak Shaver	P_INV004_25mm	25	Category 4/P	14.14604867	18.3573514	2.888540951	4.7
Peak Shaver	P_INV004_25mm	25	Category 5/P	13.93910281	17.50300782	2.993657499	5
Peak Shaver	P_INV004_25mm	25	Category 5/P	11.74376192	12.7860531	3.964632376	9
Peak Shaver	P_INV004_25mm	25	Category 5/P	10.64094055	10.43483912	4.451286061	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 5/P	7.943892271	5.132625353	5.463319026	30.003942
Peak Shaver	P_INV004_25mm	25	Category 5/P	14.19680958	18.06029033	2.877969044	4.7
Peak Shaver	P_INV004_25mm	25	Category 6/P	13.89733285	17.78540513	3.008753838	5
Peak Shaver	P_INV004_25mm	25	Category 6/P	11.78479468	12.97637503	4.036900147	9
Peak Shaver	P_INV004_25mm	25	Category 6/P	10.7481778	10.61381001	4.526370707	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 6/P	8.097917625	5.373910933	5.564841813	30.003942
Peak Shaver	P_INV004_25mm	25	Category 6/P	14.14604867	18.3573514	2.888540951	4.7
Peak Shaver	P_INV004_25mm	25	Category 7/P	13.87898471	17.37853251	3.120789482	5
Peak Shaver	P_INV004_25mm	25	Category 7/P	12.0240144	12.5346943	4.094123557	9
Peak Shaver	P_INV004_25mm	25	Category 7/P	11.11867158	10.16846334	4.560594603	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 7/P	8.93867079	5.060266189	5.587907262	30.003942
Peak Shaver	P_INV004_25mm	25	Category 7/P	14.10262048	17.95428106	2.999394391	4.7
Peak Shaver	P_INV004_25mm	25	Category 8/P	13.88024839	17.91780815	2.955091805	5
Peak Shaver	P_INV004_25mm	25	Category 8/P	11.63652952	13.14421292	3.976370856	9
Peak Shaver	P_INV004_25mm	25	Category 8/P	10.52412647	10.79352996	4.48120621	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 8/P	7.740422263	5.527728037	5.556201253	30.003942
Peak Shaver	P_INV004_25mm	25	Category 8/P	14.14766206	18.48530223	2.830840776	4.7
Peak Shaver	P_INV004_25mm	25	Category 9/P	13.99575255	17.36622527	3.04853932	5
Peak Shaver	P_INV004_25mm	25	Category 9/P	11.93453355	12.60754941	4.019746529	9
Peak Shaver	P_INV004_25mm	25	Category 9/P	10.91790718	10.25331626	4.474923385	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 9/P	8.318552894	4.993084013	5.47099967	30.003942
Peak Shaver	P_INV004_25mm	25	Category 9/P	14.24073146	17.92764737	2.933374653	4.7
Peak Shaver	P_INV004_25mm	25	Category 10/P	13.93910281	17.50300782	2.993657499	5
Peak Shaver	P_INV004_25mm	25	Category 10/P	11.74376192	12.7860531	3.964632376	9
Peak Shaver	P_INV004_25mm	25	Category 10/P	10.64094055	10.43483912	4.451286061	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 10/P	7.943892271	5.132625353	5.463319026	30.003942
Peak Shaver	P_INV004_25mm	25	Category 10/P	14.19680958	18.06029033	2.877969044	4.7
Peak Shaver	P_INV004_25mm	25	Category 11/P	13.88024839	17.91780815	2.955091805	5
Peak Shaver	P_INV004_25mm	25	Category 11/P	11.63652952	13.14421292	3.976370856	9
Peak Shaver	P_INV004_25mm	25	Category 11/P	10.52412647	10.79352996	4.48120621	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 11/P	7.740422263	5.527728037	5.556201253	30.003942
Peak Shaver	P_INV004_25mm	25	Category 11/P	14.14766206	18.48530223	2.830840776	4.7
Peak Shaver	P_INV004_25mm	25	Category 12/P	14.06261941	16.95862156	3.133530689	5
Peak Shaver	P_INV004_25mm	25	Category 12/P	12.25505635	12.16734008	4.050040403	9
Peak Shaver	P_INV004_25mm	25	Category 12/P	11.36314516	9.806513337	4.495479654	12.61710051
Peak Shaver	P_INV004_25mm	25	Category 12/P	9.02319415	4.68725648	5.492275576	30.003942
Peak Shaver	P_INV004_25mm	25	Category 12/P	14.27784391	17.52429947	3.025138675	4.7
Peak Shaver	P_INV004_50mm	50	Category 1/P	19.35580449	25.17938482	3.128630484	5
Peak Shaver	P_INV004_50mm	50	Category 1/P	16.63657881	18.39609275	4.635626895	9
Peak Shaver	P_INV004_50mm	50	Category 1/P	15.33117597	15.12012737	5.350152019	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 1/P	12.47269719	8.127562655	6.840425073	30.003942
Peak Shaver	P_INV004_50mm	50	Category 1/P	19.68240777	25.99007571	2.945073767	4.7
Peak Shaver	P_INV004_50mm	50	Category 2/P	19.48759341	24.46874102	3.236809865	5
Peak Shaver	P_INV004_50mm	50	Category 2/P	16.856718	17.81031367	4.652015697	9
Peak Shaver	P_INV004_50mm	50	Category 2/P	15.58340086	14.56501608	5.325619094	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 2/P	10.93453128	7.776927197	10.32281859	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV004_50mm	50	Category 2/P	19.80278855	25.26022203	3.065958929	4.7
Peak Shaver	P_INV004_50mm	50	Category 3/P	19.38186294	24.73867628	3.126706841	5
Peak Shaver	P_INV004_50mm	50	Category 3/P	16.42531548	18.19168423	4.551325175	9
Peak Shaver	P_INV004_50mm	50	Category 3/P	14.98657546	14.97859542	5.224443069	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 3/P	11.49912838	7.907302657	6.648645793	30.003942
Peak Shaver	P_INV004_50mm	50	Category 3/P	19.73446485	25.51659699	2.956340729	4.7
Peak Shaver	P_INV004_50mm	50	Category 4/P	19.35834116	25.43442344	3.009801133	5
Peak Shaver	P_INV004_50mm	50	Category 4/P	16.30894422	18.76216344	4.523893503	9
Peak Shaver	P_INV004_50mm	50	Category 4/P	14.8337303	15.52178548	5.241779719	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 4/P	11.43734722	8.47985516	6.735630555	30.003942
Peak Shaver	P_INV004_50mm	50	Category 4/P	19.72299711	26.23208037	2.827083459	4.7
Peak Shaver	P_INV004_50mm	50	Category 5/P	19.35639902	24.79961032	2.928700415	5
Peak Shaver	P_INV004_50mm	50	Category 5/P	16.14354069	18.30940564	4.495718322	9
Peak Shaver	P_INV004_50mm	50	Category 5/P	14.60373254	15.12072612	5.171757126	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 5/P	10.78733779	8.012686073	6.59055803	30.003942
Peak Shaver	P_INV004_50mm	50	Category 5/P	19.78030494	25.58148986	2.659101601	4.7
Peak Shaver	P_INV004_50mm	50	Category 6/P	19.35834116	25.43442344	3.009801133	5
Peak Shaver	P_INV004_50mm	50	Category 6/P	16.30894422	18.76216344	4.523893503	9
Peak Shaver	P_INV004_50mm	50	Category 6/P	14.8337303	15.52178548	5.241779719	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 6/P	11.43734722	8.47985516	6.735630555	30.003942
Peak Shaver	P_INV004_50mm	50	Category 6/P	19.72299711	26.23208037	2.827083459	4.7
Peak Shaver	P_INV004_50mm	50	Category 7/P	19.35580449	25.17938482	3.128630484	5
Peak Shaver	P_INV004_50mm	50	Category 7/P	16.63657881	18.39609275	4.635626895	9
Peak Shaver	P_INV004_50mm	50	Category 7/P	15.33117597	15.12012737	5.350152019	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 7/P	12.47269719	8.127562655	6.840425073	30.003942
Peak Shaver	P_INV004_50mm	50	Category 7/P	19.68240777	25.99007571	2.945073767	4.7
Peak Shaver	P_INV004_50mm	50	Category 8/P	19.52047745	25.51785055	2.561605254	5
Peak Shaver	P_INV004_50mm	50	Category 8/P	16.0815209	18.86976049	4.472557821	9
Peak Shaver	P_INV004_50mm	50	Category 8/P	14.51173021	15.66178733	5.187129319	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 8/P	10.77889348	8.608026492	6.673349078	30.003942
Peak Shaver	P_INV004_50mm	50	Category 8/P	19.99087221	26.33019348	2.213739789	4.7
Peak Shaver	P_INV004_50mm	50	Category 9/P	19.38186294	24.73867628	3.126706841	5
Peak Shaver	P_INV004_50mm	50	Category 9/P	16.42531548	18.19168423	4.551325175	9
Peak Shaver	P_INV004_50mm	50	Category 9/P	14.98657546	14.97859542	5.224443069	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 9/P	11.49912838	7.907302657	6.648645793	30.003942
Peak Shaver	P_INV004_50mm	50	Category 9/P	19.73446485	25.51659699	2.956340729	4.7
Peak Shaver	P_INV004_50mm	50	Category 10/P	19.35639902	24.79961032	2.928700415	5
Peak Shaver	P_INV004_50mm	50	Category 10/P	16.14354069	18.30940564	4.495718322	9
Peak Shaver	P_INV004_50mm	50	Category 10/P	14.60373254	15.12072612	5.171757126	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 10/P	10.78733779	8.012686073	6.59055803	30.003942
Peak Shaver	P_INV004_50mm	50	Category 10/P	19.78030494	25.58148986	2.659101601	4.7
Peak Shaver	P_INV004_50mm	50	Category 11/P	19.52047745	25.51785055	2.561605254	5
Peak Shaver	P_INV004_50mm	50	Category 11/P	16.0815209	18.86976049	4.472557821	9
Peak Shaver	P_INV004_50mm	50	Category 11/P	14.51173021	15.66178733	5.187129319	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 11/P	10.77889348	8.608026492	6.673349078	30.003942
Peak Shaver	P_INV004_50mm	50	Category 11/P	19.99087221	26.33019348	2.213739789	4.7
Peak Shaver	P_INV004_50mm	50	Category 12/P	19.48759341	24.46874102	3.236809865	5
Peak Shaver	P_INV004_50mm	50	Category 12/P	16.856718	17.81031367	4.652015697	9
Peak Shaver	P_INV004_50mm	50	Category 12/P	15.58340086	14.56501608	5.325619094	12.61710051
Peak Shaver	P_INV004_50mm	50	Category 12/P	10.93453128	7.776927197	10.32281859	30.003942
Peak Shaver	P_INV004_50mm	50	Category 12/P	19.80278855	25.26022203	3.065958929	4.7
Peak Shaver	P_INV004_152mm	152	Category 1/P	19.4058471	25.2505176	3.128055221	5
Peak Shaver	P_INV004_152mm	152	Category 1/P	16.67858992	18.44960695	4.63994339	9
Peak Shaver	P_INV004_152mm	152	Category 1/P	15.36952776	15.16529094	5.356648834	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 1/P	12.50439949	8.155483193	6.850504171	30.003942
Peak Shaver	P_INV004_152mm	152	Category 1/P	19.73342665	26.06333895	2.94389061	4.7
Peak Shaver	P_INV004_152mm	152	Category 2/P	19.53705731	24.53703333	3.237078795	5
Peak Shaver	P_INV004_152mm	152	Category 2/P	16.89854539	17.86164619	4.656766669	9
Peak Shaver	P_INV004_152mm	152	Category 2/P	15.62178963	14.60829251	5.332416708	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 2/P	10.96297702	7.803283501	10.34047902	30.003942
Peak Shaver	P_INV004_152mm	152	Category 2/P	19.85318115	25.33056097	3.065671187	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV004_152mm	152	Category 3/P	19.4311232	24.8055863	3.126614752	5
Peak Shaver	P_INV004_152mm	152	Category 3/P	16.46593444	18.24226376	4.556092837	9
Peak Shaver	P_INV004_152mm	152	Category 3/P	15.02326682	15.02143438	5.23118074	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 3/P	11.52673781	7.934148429	6.663432172	30.003942
Peak Shaver	P_INV004_152mm	152	Category 3/P	19.78401537	25.58529461	2.957180639	4.7
Peak Shaver	P_INV004_152mm	152	Category 4/P	19.40833963	25.50399921	3.009162645	5
Peak Shaver	P_INV004_152mm	152	Category 4/P	16.34964313	18.81485713	4.528209927	9
Peak Shaver	P_INV004_152mm	152	Category 4/P	14.87063528	15.56641642	5.248261887	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 4/P	11.46705145	8.508002342	6.745874784	30.003942
Peak Shaver	P_INV004_152mm	152	Category 4/P	19.77430858	26.30376398	2.825401253	4.7
Peak Shaver	P_INV004_152mm	152	Category 5/P	19.40872848	24.86649615	2.921886544	5
Peak Shaver	P_INV004_152mm	152	Category 5/P	16.18332309	18.35944186	4.50053387	9
Peak Shaver	P_INV004_152mm	152	Category 5/P	14.63933121	15.16318732	5.178540171	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 5/P	10.81346671	8.038882743	6.600795173	30.003942
Peak Shaver	P_INV004_152mm	152	Category 5/P	19.8344998	25.6505348	2.650181731	4.7
Peak Shaver	P_INV004_152mm	152	Category 6/P	19.40833963	25.50399921	3.009162645	5
Peak Shaver	P_INV004_152mm	152	Category 6/P	16.34964313	18.81485713	4.528209927	9
Peak Shaver	P_INV004_152mm	152	Category 6/P	14.87063528	15.56641642	5.248261887	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 6/P	11.46705145	8.508002342	6.745874784	30.003942
Peak Shaver	P_INV004_152mm	152	Category 6/P	19.77430858	26.30376398	2.825401253	4.7
Peak Shaver	P_INV004_152mm	152	Category 7/P	19.4058471	25.2505176	3.128055221	5
Peak Shaver	P_INV004_152mm	152	Category 7/P	16.67858992	18.44960695	4.63994339	9
Peak Shaver	P_INV004_152mm	152	Category 7/P	15.36952776	15.16529094	5.356648834	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 7/P	12.50439949	8.155483193	6.850504171	30.003942
Peak Shaver	P_INV004_152mm	152	Category 7/P	19.73342665	26.06333895	2.94389061	4.7
Peak Shaver	P_INV004_152mm	152	Category 8/P	19.57625491	25.58807087	2.549189632	5
Peak Shaver	P_INV004_152mm	152	Category 8/P	16.1219079	18.92179935	4.476885243	9
Peak Shaver	P_INV004_152mm	152	Category 8/P	14.54768405	15.70598829	5.193698658	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 8/P	10.80696803	8.636116681	6.683763003	30.003942
Peak Shaver	P_INV004_152mm	152	Category 8/P	20.04884124	26.40274938	2.198641828	4.7
Peak Shaver	P_INV004_152mm	152	Category 9/P	19.4311232	24.8055863	3.126614752	5
Peak Shaver	P_INV004_152mm	152	Category 9/P	16.46593444	18.24226376	4.556092837	9
Peak Shaver	P_INV004_152mm	152	Category 9/P	15.02326682	15.02143438	5.23118074	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 9/P	11.52673781	7.934148429	6.663432172	30.003942
Peak Shaver	P_INV004_152mm	152	Category 9/P	19.78401537	25.58529461	2.957180639	4.7
Peak Shaver	P_INV004_152mm	152	Category 10/P	19.40872848	24.86649615	2.921886544	5
Peak Shaver	P_INV004_152mm	152	Category 10/P	16.18332309	18.35944186	4.50053387	9
Peak Shaver	P_INV004_152mm	152	Category 10/P	14.63933121	15.16318732	5.178540171	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 10/P	10.81346671	8.038882743	6.600795173	30.003942
Peak Shaver	P_INV004_152mm	152	Category 10/P	19.8344998	25.6505348	2.650181731	4.7
Peak Shaver	P_INV004_152mm	152	Category 11/P	19.57625491	25.58807087	2.549189632	5
Peak Shaver	P_INV004_152mm	152	Category 11/P	16.1219079	18.92179935	4.476885243	9
Peak Shaver	P_INV004_152mm	152	Category 11/P	14.54768405	15.70598829	5.193698658	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 11/P	10.80696803	8.636116681	6.683763003	30.003942
Peak Shaver	P_INV004_152mm	152	Category 11/P	20.04884124	26.40274938	2.198641828	4.7
Peak Shaver	P_INV004_152mm	152	Category 12/P	19.53705731	24.53703333	3.237078795	5
Peak Shaver	P_INV004_152mm	152	Category 12/P	16.89854539	17.86164619	4.656766669	9
Peak Shaver	P_INV004_152mm	152	Category 12/P	15.62178963	14.60829251	5.332416708	12.61710051
Peak Shaver	P_INV004_152mm	152	Category 12/P	10.96297702	7.803283501	10.34047902	30.003942
Peak Shaver	P_INV004_152mm	152	Category 12/P	19.85318115	25.33056097	3.065671187	4.7
Peak Shaver	P_INV005_25mm	25	Category 1/P	33.36630475	39.59805364	-3.893250228	5
Peak Shaver	P_INV005_25mm	25	Category 1/P	28.26541246	29.88284709	-1.834071515	9
Peak Shaver	P_INV005_25mm	25	Category 1/P	26.03533917	25.70972651	-1.162576703	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 1/P	21.63931359	16.64551404	0.079354737	30.003942
Peak Shaver	P_INV005_25mm	25	Category 1/P	34.09043217	40.81848081	-4.349465176	4.7
Peak Shaver	P_INV005_25mm	25	Category 2/P	32.71166764	38.29485739	-3.633049415	5
Peak Shaver	P_INV005_25mm	25	Category 2/P	27.84500898	29.04902728	-1.73538051	9
Peak Shaver	P_INV005_25mm	25	Category 2/P	25.69521961	24.99549903	-1.096773921	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 2/P	21.41908977	16.12181836	0.134973722	30.003942
Peak Shaver	P_INV005_25mm	25	Category 2/P	33.3897481	39.45718866	-4.034639821	4.7
Peak Shaver	P_INV005_25mm	25	Category 3/P	33.57207025	38.69953056	-2.348478121	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV005_25mm	25	Category 3/P	29.11875883	29.58581062	-1.008385041	9
Peak Shaver	P_INV005_25mm	25	Category 3/P	27.09297093	25.24389205	-0.495191727	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 3/P	22.97607102	15.54159875	0.635294867	30.003942
Peak Shaver	P_INV005_25mm	25	Category 3/P	34.14753223	39.87292231	-2.580405421	4.7
Peak Shaver	P_INV005_25mm	25	Category 4/P	34.15193411	40.03902303	-2.508417082	5
Peak Shaver	P_INV005_25mm	25	Category 4/P	29.51007893	30.48018664	-1.078299811	9
Peak Shaver	P_INV005_25mm	25	Category 4/P	27.41380286	26.01569335	-0.548264732	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 4/P	23.17143651	16.11690215	0.613729202	30.003942
Peak Shaver	P_INV005_25mm	25	Category 4/P	34.75381399	41.25870804	-2.757786283	4.7
Peak Shaver	P_INV005_25mm	25	Category 5/P	35.7953933	39.29127471	-1.190996322	5
Peak Shaver	P_INV005_25mm	25	Category 5/P	31.63393142	29.81251714	-0.227424289	9
Peak Shaver	P_INV005_25mm	25	Category 5/P	29.65236408	25.04706963	0.279978076	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 5/P	25.66792393	14.1976312	1.239522885	30.003942
Peak Shaver	P_INV005_25mm	25	Category 5/P	36.31393131	40.40931482	-1.335328204	4.7
Peak Shaver	P_INV005_25mm	25	Category 6/P	34.15193411	40.03902303	-2.508417082	5
Peak Shaver	P_INV005_25mm	25	Category 6/P	29.51007893	30.48018664	-1.078299811	9
Peak Shaver	P_INV005_25mm	25	Category 6/P	27.41380286	26.01569335	-0.548264732	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 6/P	23.17143651	16.11690215	0.613729202	30.003942
Peak Shaver	P_INV005_25mm	25	Category 6/P	34.75381399	41.25870804	-2.757786283	4.7
Peak Shaver	P_INV005_25mm	25	Category 7/P	33.36630475	39.59805364	-3.893250228	5
Peak Shaver	P_INV005_25mm	25	Category 7/P	28.26541246	29.88284709	-1.834071515	9
Peak Shaver	P_INV005_25mm	25	Category 7/P	26.03533917	25.70972651	-1.162576703	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 7/P	21.63931359	16.64551404	0.079354737	30.003942
Peak Shaver	P_INV005_25mm	25	Category 7/P	34.09043217	40.81848081	-4.349465176	4.7
Peak Shaver	P_INV005_25mm	25	Category 8/P	36.32355363	40.57494692	-1.286194987	5
Peak Shaver	P_INV005_25mm	25	Category 8/P	32.00475087	30.79015421	-0.282906282	9
Peak Shaver	P_INV005_25mm	25	Category 8/P	29.96634734	25.901307	0.219097933	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 8/P	25.8686929	14.82018847	1.200787421	30.003942
Peak Shaver	P_INV005_25mm	25	Category 8/P	36.86214488	41.73388679	-1.435889879	4.7
Peak Shaver	P_INV005_25mm	25	Category 9/P	33.57207025	38.69953056	-2.348478121	5
Peak Shaver	P_INV005_25mm	25	Category 9/P	29.11875883	29.58581062	-1.008385041	9
Peak Shaver	P_INV005_25mm	25	Category 9/P	27.09297093	25.24389205	-0.495191727	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 9/P	22.97607102	15.54159875	0.635294867	30.003942
Peak Shaver	P_INV005_25mm	25	Category 9/P	34.14753223	39.87292231	-2.580405421	4.7
Peak Shaver	P_INV005_25mm	25	Category 10/P	35.7953933	39.29127471	-1.190996322	5
Peak Shaver	P_INV005_25mm	25	Category 10/P	31.63393142	29.81251714	-0.227424289	9
Peak Shaver	P_INV005_25mm	25	Category 10/P	29.65236408	25.04706963	0.279978076	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 10/P	25.66792393	14.1976312	1.239522885	30.003942
Peak Shaver	P_INV005_25mm	25	Category 10/P	36.31393131	40.40931482	-1.335328204	4.7
Peak Shaver	P_INV005_25mm	25	Category 11/P	36.32355363	40.57494692	-1.286194987	5
Peak Shaver	P_INV005_25mm	25	Category 11/P	32.00475087	30.79015421	-0.282906282	9
Peak Shaver	P_INV005_25mm	25	Category 11/P	29.96634734	25.901307	0.219097933	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 11/P	25.8686929	14.82018847	1.200787421	30.003942
Peak Shaver	P_INV005_25mm	25	Category 11/P	36.86214488	41.73388679	-1.435889879	4.7
Peak Shaver	P_INV005_25mm	25	Category 12/P	32.71166764	38.29485739	-3.633049415	5
Peak Shaver	P_INV005_25mm	25	Category 12/P	27.84500898	29.04902728	-1.73538051	9
Peak Shaver	P_INV005_25mm	25	Category 12/P	25.69521961	24.99549903	-1.096773921	12.61710051
Peak Shaver	P_INV005_25mm	25	Category 12/P	21.41908977	16.12181836	0.134973722	30.003942
Peak Shaver	P_INV005_25mm	25	Category 12/P	33.3897481	39.45718866	-4.034639821	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 1/P	28.80456915	29.90349643	-3.337782097	5
Peak Shaver	P_INV006_25mm (all)	25	Category 1/P	24.73394398	22.99878105	-1.869342842	9
Peak Shaver	P_INV006_25mm (all)	25	Category 1/P	22.86751528	19.63246451	-1.281242212	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 1/P	19.05115135	11.59087052	-0.136633682	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 1/P	29.31138833	30.8119762	-3.547278787	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 2/P	28.33092172	28.98980953	-3.199141553	5
Peak Shaver	P_INV006_25mm (all)	25	Category 2/P	24.41025043	22.39187227	-1.800920263	9
Peak Shaver	P_INV006_25mm (all)	25	Category 2/P	22.5982166	19.0873628	-1.226445191	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 2/P	18.87638248	11.15330533	-0.109265234	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 2/P	28.8203488	29.86903899	-3.398548073	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 3/P	29.96014072	29.24762893	-2.626197317	5
Peak Shaver	P_INV006_25mm (all)	25	Category 3/P	26.07204484	22.47166476	-1.415399208	9

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV006_25mm (all)	25	Category 3/P	24.2432572	18.90194894	-0.894011904	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 3/P	20.367472	10.08424782	0.168316284	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 3/P	30.43554047	30.03181471	-2.787654344	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 4/P	30.42283134	30.05037249	-2.73298963	5
Peak Shaver	P_INV006_25mm (all)	25	Category 4/P	26.39812276	23.11507059	-1.474431306	9
Peak Shaver	P_INV006_25mm (all)	25	Category 4/P	24.51525755	19.49215579	-0.938079562	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 4/P	20.55017886	10.53239481	0.147562269	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 4/P	30.92003416	30.85963968	-2.906149755	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 5/P	32.29488723	29.76768365	-1.641203798	5
Peak Shaver	P_INV006_25mm (all)	25	Category 5/P	28.53411675	22.26112686	-0.707323306	9
Peak Shaver	P_INV006_25mm (all)	25	Category 5/P	26.72823081	18.15352284	-0.278239513	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 5/P	22.67189228	8.537465042	0.74507089	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 5/P	32.7473862	30.6042851	-1.759491176	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 6/P	30.42283134	30.05037249	-2.73298963	5
Peak Shaver	P_INV006_25mm (all)	25	Category 6/P	26.39812276	23.11507059	-1.474431306	9
Peak Shaver	P_INV006_25mm (all)	25	Category 6/P	24.51525755	19.49215579	-0.938079562	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 6/P	20.55017886	10.53239481	0.147562269	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 6/P	30.92003416	30.85963968	-2.906149755	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 7/P	28.80456915	29.90349643	-3.337782097	5
Peak Shaver	P_INV006_25mm (all)	25	Category 7/P	24.73394398	22.99878105	-1.869342842	9
Peak Shaver	P_INV006_25mm (all)	25	Category 7/P	22.86751528	19.63246451	-1.281242212	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 7/P	19.05115135	11.59087052	-0.136633682	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 7/P	29.31138833	30.8119762	-3.547278787	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 8/P	32.73630224	30.63868736	-1.713878555	5
Peak Shaver	P_INV006_25mm (all)	25	Category 8/P	28.85359077	22.9929662	-0.751883535	9
Peak Shaver	P_INV006_25mm (all)	25	Category 8/P	26.99887052	18.83380671	-0.314931261	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 8/P	22.86370349	8.926368016	0.739655775	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 8/P	33.20574855	31.50207918	-1.839279244	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 9/P	29.96014072	29.24762893	-2.626197317	5
Peak Shaver	P_INV006_25mm (all)	25	Category 9/P	26.07204484	22.47166476	-1.415399208	9
Peak Shaver	P_INV006_25mm (all)	25	Category 9/P	24.2432572	18.90194894	-0.894011904	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 9/P	20.367472	10.08424782	0.168316284	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 9/P	30.43554047	30.03181471	-2.787654344	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 10/P	32.29488723	29.76768365	-1.641203798	5
Peak Shaver	P_INV006_25mm (all)	25	Category 10/P	28.53411675	22.26112686	-0.707323306	9
Peak Shaver	P_INV006_25mm (all)	25	Category 10/P	26.72823081	18.15352284	-0.278239513	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 10/P	22.67189228	8.537465042	0.74507089	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 10/P	32.7473862	30.6042851	-1.759491176	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 11/P	32.73630224	30.63868736	-1.713878555	5
Peak Shaver	P_INV006_25mm (all)	25	Category 11/P	28.85359077	22.9929662	-0.751883535	9
Peak Shaver	P_INV006_25mm (all)	25	Category 11/P	26.99887052	18.83380671	-0.314931261	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 11/P	22.86370349	8.926368016	0.739655775	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 11/P	33.20574855	31.50207918	-1.839279244	4.7
Peak Shaver	P_INV006_25mm (all)	25	Category 12/P	28.33092172	28.98980953	-3.199141553	5
Peak Shaver	P_INV006_25mm (all)	25	Category 12/P	24.41025043	22.39187227	-1.800920263	9
Peak Shaver	P_INV006_25mm (all)	25	Category 12/P	22.5982166	19.0873628	-1.226445191	12.61710051
Peak Shaver	P_INV006_25mm (all)	25	Category 12/P	18.87638248	11.15330533	-0.109265234	30.003942
Peak Shaver	P_INV006_25mm (all)	25	Category 12/P	28.8203488	29.86903899	-3.398548073	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 1/P	27.5849849	29.05454799	-2.440948855	5
Peak Shaver	P_INV006_50mm (all)	50	Category 1/P	23.98580418	22.19364507	-1.28344777	9
Peak Shaver	P_INV006_50mm (all)	50	Category 1/P	22.32235974	18.74004695	-0.8013477	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 1/P	18.78134778	10.6759857	0.438488389	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 1/P	28.02994385	29.86337414	-2.602272352	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 2/P	27.43169596	28.52273213	-2.363548465	5
Peak Shaver	P_INV006_50mm (all)	50	Category 2/P	23.92533003	21.78882959	-1.247784254	9
Peak Shaver	P_INV006_50mm (all)	50	Category 2/P	22.29702365	18.37532583	-0.775136403	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 2/P	18.72679307	10.39288595	0.616897697	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 2/P	27.86570632	29.31500791	-2.517359642	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 3/P	28.18745513	27.10831795	-2.281971356	5
Peak Shaver	P_INV006_50mm (all)	50	Category 3/P	24.71938568	20.47935464	-1.208654279	9
Peak Shaver	P_INV006_50mm (all)	50	Category 3/P	23.07306239	16.96666614	-0.725468971	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV006_50mm (all)	50	Category 3/P	19.43248097	8.573926489	0.499325016	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 3/P	28.61021161	27.86786698	-2.42234007	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 4/P	28.24592437	27.52576858	-2.337388729	5
Peak Shaver	P_INV006_50mm (all)	50	Category 4/P	24.70537941	20.82605629	-1.238806519	9
Peak Shaver	P_INV006_50mm (all)	50	Category 4/P	23.03234915	17.30131891	-0.748570488	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 4/P	19.35382302	8.8246002	0.498358441	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 4/P	28.67679298	28.29464913	-2.477870291	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 5/P	29.91449852	26.0636982	-2.051072644	5
Peak Shaver	P_INV006_50mm (all)	50	Category 5/P	26.39818623	18.98737038	-0.974744392	9
Peak Shaver	P_INV006_50mm (all)	50	Category 5/P	24.66076509	15.03718727	-0.443094423	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 5/P	21.09619297	6.475054728	-0.433205671	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 5/P	30.33282571	26.84060059	-2.182041686	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 6/P	27.75786647	27.01634313	-2.291400008	5
Peak Shaver	P_INV006_50mm (all)	50	Category 6/P	24.27954473	20.43176073	-1.208554507	9
Peak Shaver	P_INV006_50mm (all)	50	Category 6/P	22.63535223	16.96532182	-0.725012021	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 6/P	19.02070249	8.628003831	0.498804065	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 6/P	28.18357388	27.77299363	-2.434487876	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 7/P	27.05352175	28.45611899	-2.393533605	5
Peak Shaver	P_INV006_50mm (all)	50	Category 7/P	23.52500682	21.72986274	-1.253909192	9
Peak Shaver	P_INV006_50mm (all)	50	Category 7/P	21.89226903	18.34130536	-0.776039564	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 7/P	18.41703442	10.42715082	0.447116245	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 7/P	27.48946044	29.24892339	-2.551893209	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 8/P	29.87923755	26.43444061	-2.085610037	5
Peak Shaver	P_INV006_50mm (all)	50	Category 8/P	26.31106937	19.34682818	-0.994019587	9
Peak Shaver	P_INV006_50mm (all)	50	Category 8/P	24.5533241	15.40094736	-0.455646156	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 8/P	21.00367469	6.584456155	-0.440522671	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 8/P	30.3054879	27.22066576	-2.216385671	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 9/P	27.74530161	26.6535373	-2.239350876	5
Peak Shaver	P_INV006_50mm (all)	50	Category 9/P	24.33323229	20.128009	-1.182431414	9
Peak Shaver	P_INV006_50mm (all)	50	Category 9/P	22.71224142	16.66779002	-0.704607413	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 9/P	19.12862417	8.403309717	0.499654123	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 9/P	28.16191007	27.40163137	-2.379427691	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 10/P	29.57645523	25.74613909	-2.018460934	5
Peak Shaver	P_INV006_50mm (all)	50	Category 10/P	26.09836441	18.7466507	-0.949661003	9
Peak Shaver	P_INV006_50mm (all)	50	Category 10/P	24.38792774	14.83673221	-0.439137303	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 10/P	20.8632991	6.378321616	-0.439137303	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 10/P	29.98976031	26.5144321	-2.147382741	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 11/P	29.50437032	26.07636235	-2.049125707	5
Peak Shaver	P_INV006_50mm (all)	50	Category 11/P	25.97938258	19.0743121	-0.966101938	9
Peak Shaver	P_INV006_50mm (all)	50	Category 11/P	24.24999182	15.17345973	-0.447001103	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 11/P	20.74688404	6.473093541	-0.447001103	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 11/P	29.92731451	26.85335008	-2.182831724	4.7
Peak Shaver	P_INV006_50mm (all)	50	Category 12/P	26.95689211	27.99597181	-2.321616932	5
Peak Shaver	P_INV006_50mm (all)	50	Category 12/P	23.51055675	21.37925464	-1.217722713	9
Peak Shaver	P_INV006_50mm (all)	50	Category 12/P	21.90979107	18.02434373	-0.750635611	12.61710051
Peak Shaver	P_INV006_50mm (all)	50	Category 12/P	18.48345924	10.15170183	0.454211539	30.003942
Peak Shaver	P_INV006_50mm (all)	50	Category 12/P	27.38349323	28.77435592	-2.473719225	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 1/P	14.24865707	16.2834506	3.412466649	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 1/P	12.65072823	12.36660229	3.412466649	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 1/P	11.89351966	10.37543908	3.412466649	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 1/P	10.32478086	5.689843782	3.412466649	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 1/P	14.44333877	16.74238343	3.412466649	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 2/P	17.22353851	17.44299007	-1.862982088	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 2/P	15.19632124	12.83290555	-1.017017375	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 2/P	14.23368448	10.49835007	-0.616664232	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 2/P	12.11747377	5.33050994	0.447498902	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 2/P	17.47151176	17.98102324	-1.968666748	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 3/P	17.78803848	16.57500958	-1.345510647	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 3/P	15.8004906	11.99194036	-0.597290938	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 3/P	14.83186725	9.602472576	-0.205233854	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 3/P	12.63136514	4.478877585	0.861460488	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV006_102mm (1hr)	102	Category 3/P	18.02790678	17.09890784	-1.437561894	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 4/P	17.35721616	16.40104768	-1.336700301	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 4/P	15.38283988	11.88060134	-0.586480782	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 4/P	14.4179492	9.53077633	-0.185799812	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 4/P	12.2256998	4.443005281	0.919800632	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 4/P	17.59506689	16.92075493	-1.428017229	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 5/P	18.69853875	15.29465281	-0.753158238	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 5/P	16.67398129	10.59052814	-0.031496817	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 5/P	15.60930679	8.093042651	0.4527468	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 5/P	12.63868443	3.720594716	2.372135947	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 5/P	18.93467256	15.8149921	-0.831150394	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 6/P	16.49531385	15.50417808	-1.253800545	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 6/P	14.61193241	11.20749463	-0.519901394	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 6/P	13.67601954	8.97460919	-0.102290923	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 6/P	11.53527607	4.166437818	1.063535413	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 6/P	16.72196848	15.99697733	-1.341941986	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 7/P	16.23316239	16.60191944	-1.779230135	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 7/P	14.28467314	12.20243138	-0.949125923	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 7/P	13.35895102	9.981988449	-0.55221431	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 7/P	11.32767497	5.055408271	0.494875442	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 7/P	16.47134987	17.11911633	-1.882273992	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 8/P	18.23806989	15.15276166	-0.743893014	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 8/P	16.22230065	10.53156475	-0.00203314	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 8/P	15.17782365	8.06068869	0.459806162	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 8/P	12.18684388	3.651112101	2.514204025	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 8/P	18.47258702	15.66540381	-0.821759616	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 9/P	16.91855159	15.68280674	-1.265332281	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 9/P	15.02010224	11.32261995	-0.533339545	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 9/P	14.08111438	9.050039292	-0.127141274	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 9/P	11.93650836	4.204139683	0.9925103	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 9/P	17.14514495	16.17978348	-1.353069321	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 10/P	17.66307395	14.35458646	-0.677515975	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 10/P	15.71338297	9.908465783	0.083292792	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 10/P	14.73439416	7.543739528	0.48664946	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 10/P	11.75240739	3.582857169	2.617779485	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 10/P	17.88681645	14.84659614	-0.753295404	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 11/P	17.26844942	14.25665582	-0.672470022	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 11/P	15.31067645	9.880302225	0.128645258	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 11/P	14.3595939	7.532594622	0.494443215	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 11/P	11.35892883	3.522818649	2.746331533	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 11/P	17.49099705	14.74247342	-0.747994432	4.7
Peak Shaver	P_INV006_102mm (1hr)	102	Category 12/P	16.62165958	16.77539032	-1.790529896	5
Peak Shaver	P_INV006_102mm (1hr)	102	Category 12/P	14.66397049	12.3287605	-0.966256667	9
Peak Shaver	P_INV006_102mm (1hr)	102	Category 12/P	13.72988838	10.07553344	-0.568968464	12.61710051
Peak Shaver	P_INV006_102mm (1hr)	102	Category 12/P	11.67952694	5.092410123	0.475822135	30.003942
Peak Shaver	P_INV006_102mm (1hr)	102	Category 12/P	16.86134441	17.29382105	-1.893238165	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 1/P	14.24865707	16.2834506	3.412466649	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 1/P	12.65072823	12.36660229	3.412466649	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 1/P	11.89351966	10.37543908	3.412466649	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 1/P	10.32478086	5.689843782	3.412466649	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 1/P	14.44333877	16.74238343	3.412466649	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 2/P	17.22353851	17.44299007	-1.862982088	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 2/P	15.19632124	12.83290555	-1.017017375	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 2/P	14.23368448	10.49835007	-0.616664232	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 2/P	12.11747377	5.33050994	0.447498902	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 2/P	17.47151176	17.98102324	-1.968666748	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 3/P	17.78803848	16.57500958	-1.345510647	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 3/P	15.8004906	11.99194036	-0.597290938	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 3/P	14.83186725	9.602472576	-0.205233854	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 3/P	12.63136514	4.478877585	0.861460488	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 3/P	18.02790678	17.09890784	-1.437561894	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV006_102mm (2min)	102	Category 4/P	17.35721616	16.40104768	-1.336700301	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 4/P	15.38283988	11.88060134	-0.586480782	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 4/P	14.4179492	9.53077633	-0.185799812	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 4/P	12.2256998	4.443005281	0.919800632	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 4/P	17.59506689	16.92075493	-1.428017229	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 5/P	18.69853875	15.29465281	-0.753158238	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 5/P	16.67398129	10.59052814	-0.031496817	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 5/P	15.60930679	8.093042651	0.4527468	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 5/P	12.63868443	3.720594716	2.372135947	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 5/P	18.93467256	15.8149921	-0.831150394	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 6/P	16.49531385	15.50417808	-1.253800545	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 6/P	14.61193241	11.20749463	-0.519901394	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 6/P	13.67601954	8.97460919	-0.102290923	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 6/P	11.53527607	4.166437818	1.063535413	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 6/P	16.72196848	15.99697733	-1.341941986	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 7/P	16.23316239	16.60191944	-1.779230135	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 7/P	14.28467314	12.20243138	-0.949125923	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 7/P	13.35895102	9.981988449	-0.55221431	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 7/P	11.32767497	5.055408271	0.494875442	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 7/P	16.47134987	17.11911633	-1.882273992	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 8/P	18.23806989	15.15276166	-0.743893014	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 8/P	16.22230065	10.53156475	-0.00203314	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 8/P	15.17782365	8.06068869	0.459806162	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 8/P	12.18684388	3.651112101	2.514204025	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 8/P	18.47258702	15.66540381	-0.821759616	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 9/P	16.91855159	15.68280674	-1.265332281	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 9/P	15.02010224	11.32261995	-0.533339545	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 9/P	14.08111438	9.050039292	-0.127141274	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 9/P	11.93650836	4.204139683	0.9925103	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 9/P	17.14514495	16.17978348	-1.353069321	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 10/P	17.66307395	14.35458646	-0.677515975	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 10/P	15.71338297	9.908465783	0.083292792	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 10/P	14.73439416	7.543739528	0.48664946	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 10/P	11.75240739	3.582857169	2.617779485	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 10/P	17.88681645	14.84659614	-0.753295404	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 11/P	17.26844942	14.25665582	-0.672470022	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 11/P	15.31067645	9.880302225	0.128645258	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 11/P	14.3595939	7.532594622	0.494443215	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 11/P	11.35892883	3.522818649	2.746331533	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 11/P	17.49099705	14.74247342	-0.747994432	4.7
Peak Shaver	P_INV006_102mm (2min)	102	Category 12/P	16.62165958	16.77539032	-1.790529896	5
Peak Shaver	P_INV006_102mm (2min)	102	Category 12/P	14.66397049	12.3287605	-0.966256667	9
Peak Shaver	P_INV006_102mm (2min)	102	Category 12/P	13.72988838	10.07553344	-0.568968464	12.61710051
Peak Shaver	P_INV006_102mm (2min)	102	Category 12/P	11.67952694	5.092410123	0.475822135	30.003942
Peak Shaver	P_INV006_102mm (2min)	102	Category 12/P	16.86134441	17.29382105	-1.893238165	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 1/P	46.67436165	52.68120432	-4.523111647	5
Peak Shaver	P_INV008_25mm (all)	25	Category 1/P	39.91753342	40.11443097	-2.275598272	9
Peak Shaver	P_INV008_25mm (all)	25	Category 1/P	36.91207142	34.5602509	-1.534059894	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 1/P	30.96626841	21.96140741	-0.242688163	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 1/P	47.55426796	54.25041617	-4.912357853	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 2/P	45.7521193	50.86309441	-4.243430907	5
Peak Shaver	P_INV008_25mm (all)	25	Category 2/P	39.30526999	38.93616824	-2.171003687	9
Peak Shaver	P_INV008_25mm (all)	25	Category 2/P	36.4113517	33.5338064	-1.457857299	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 2/P	30.65278138	21.15570362	-0.206132399	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 2/P	46.58265076	52.36453116	-4.591777087	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 3/P	47.25292426	51.41993065	-2.714570509	5
Peak Shaver	P_INV008_25mm (all)	25	Category 3/P	41.30076803	39.60886966	-1.279909161	9
Peak Shaver	P_INV008_25mm (all)	25	Category 3/P	38.56804543	33.72738993	-0.73652351	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 3/P	33.0041203	20.04105803	0.380948549	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 3/P	47.99474355	52.96705813	-2.929286253	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 4/P	48.08390625	53.3137611	-2.879805977	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV008_25mm (all)	25	Category 4/P	41.87693666	40.89559635	-1.360559036	9
Peak Shaver	P_INV008_25mm (all)	25	Category 4/P	39.04106377	34.85917455	-0.792763127	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 4/P	33.31286654	20.91790513	0.333917031	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 4/P	48.86177844	54.9218356	-3.112534277	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 5/P	50.58752182	52.58917459	-1.335295584	5
Peak Shaver	P_INV008_25mm (all)	25	Category 5/P	45.02476065	39.77640391	-0.356883092	9
Peak Shaver	P_INV008_25mm (all)	25	Category 5/P	42.41316086	33.17291632	0.072115492	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 5/P	36.94036472	18.12091708	1.133471775	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 5/P	51.26920589	54.07681464	-1.471077612	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 6/P	48.08390625	53.3137611	-2.879805977	5
Peak Shaver	P_INV008_25mm (all)	25	Category 6/P	41.87693666	40.89559635	-1.360559036	9
Peak Shaver	P_INV008_25mm (all)	25	Category 6/P	39.04106377	34.85917455	-0.792763127	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 6/P	33.31286654	20.91790513	0.333917031	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 6/P	48.86177844	54.9218356	-3.112534277	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 7/P	46.67436165	52.68120432	-4.523111647	5
Peak Shaver	P_INV008_25mm (all)	25	Category 7/P	39.91753342	40.11443097	-2.275598272	9
Peak Shaver	P_INV008_25mm (all)	25	Category 7/P	36.91207142	34.5602509	-1.534059894	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 7/P	30.96626841	21.96140741	-0.242688163	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 7/P	47.55426796	54.25041617	-4.912357853	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 8/P	51.3535982	54.42435816	-1.435846256	5
Peak Shaver	P_INV008_25mm (all)	25	Category 8/P	45.56910454	41.21355977	-0.416996866	9
Peak Shaver	P_INV008_25mm (all)	25	Category 8/P	42.86486547	34.45416328	0.026340701	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 8/P	37.23712787	18.73052843	1.107759162	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 8/P	52.06386138	55.96372196	-1.5779607	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 9/P	47.25292426	51.41993065	-2.714570509	5
Peak Shaver	P_INV008_25mm (all)	25	Category 9/P	41.30076803	39.60886966	-1.279909161	9
Peak Shaver	P_INV008_25mm (all)	25	Category 9/P	38.56804543	33.72738993	-0.73652351	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 9/P	33.0041203	20.04105803	0.380948549	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 9/P	47.99474355	52.96705813	-2.929286253	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 10/P	50.58752182	52.58917459	-1.335295584	5
Peak Shaver	P_INV008_25mm (all)	25	Category 10/P	45.02476065	39.77640391	-0.356883092	9
Peak Shaver	P_INV008_25mm (all)	25	Category 10/P	42.41316086	33.17291632	0.072115492	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 10/P	36.94036472	18.12091708	1.133471775	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 10/P	51.26920589	54.07681464	-1.471077612	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 11/P	51.3535982	54.42435816	-1.435846256	5
Peak Shaver	P_INV008_25mm (all)	25	Category 11/P	45.56910454	41.21355977	-0.416996866	9
Peak Shaver	P_INV008_25mm (all)	25	Category 11/P	42.86486547	34.45416328	0.026340701	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 11/P	37.23712787	18.73052843	1.107759162	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 11/P	52.06386138	55.96372196	-1.5779607	4.7
Peak Shaver	P_INV008_25mm (all)	25	Category 12/P	45.7521193	50.86309441	-4.243430907	5
Peak Shaver	P_INV008_25mm (all)	25	Category 12/P	39.30526999	38.93616824	-2.171003687	9
Peak Shaver	P_INV008_25mm (all)	25	Category 12/P	36.4113517	33.5338064	-1.457857299	12.61710051
Peak Shaver	P_INV008_25mm (all)	25	Category 12/P	30.65278138	21.15570362	-0.206132399	30.003942
Peak Shaver	P_INV008_25mm (all)	25	Category 12/P	46.58265076	52.36453116	-4.591777087	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 1/P	87.67515524	102.0501241	-8.957128599	5
Peak Shaver	P_INV008_50mm (all)	50	Category 1/P	74.53985703	77.30855856	-4.334698512	9
Peak Shaver	P_INV008_50mm (all)	50	Category 1/P	68.84991039	66.9009262	-3.062537832	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 1/P	57.68676709	43.74797054	-0.979329915	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 1/P	89.71430262	105.2303312	-10.40536514	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 2/P	85.49816948	97.91523416	-8.132069214	5
Peak Shaver	P_INV008_50mm (all)	50	Category 2/P	73.17111978	74.70742485	-4.124190314	9
Peak Shaver	P_INV008_50mm (all)	50	Category 2/P	67.73040166	64.64792837	-2.921899435	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 2/P	56.98697586	42.00117954	-0.910461701	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 2/P	87.18915233	100.819042	-9.010796748	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 3/P	87.89782665	76.29361099	-4.873831985	5
Peak Shaver	P_INV008_50mm (all)	50	Category 3/P	76.68784293	76.29361099	-2.438482873	9
Peak Shaver	P_INV008_50mm (all)	50	Category 3/P	71.56298219	65.3939492	-1.571201863	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 3/P	61.30413476	40.37388121	-0.020262716	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 3/P	89.30821453	102.044842	-5.272203885	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 4/P	89.76085217	103.3530303	-5.222252144	5
Peak Shaver	P_INV008_50mm (all)	50	Category 4/P	77.97073808	79.12581405	-2.578348024	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV008_50mm (all)	50	Category 4/P	72.61942955	67.87380483	-1.672628755	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 4/P	61.97521252	42.30450471	-0.077081827	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 4/P	91.25903802	106.4147495	-5.671996969	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 5/P	93.83112555	100.9984232	-2.333203499	5
Peak Shaver	P_INV008_50mm (all)	50	Category 5/P	83.40363811	77.16657694	-0.842129127	9
Peak Shaver	P_INV008_50mm (all)	50	Category 5/P	78.5416808	65.00317621	-0.245657793	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 5/P	68.64252522	36.66538406	0.897189556	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 5/P	95.1109953	103.7771715	-2.550033725	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 6/P	89.76085217	103.3530303	-5.222252144	5
Peak Shaver	P_INV008_50mm (all)	50	Category 6/P	77.97073808	79.12581405	-2.578348024	9
Peak Shaver	P_INV008_50mm (all)	50	Category 6/P	72.61942955	67.87380483	-1.672628755	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 6/P	61.97521252	42.30450471	-0.077081827	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 6/P	91.25903802	106.4147495	-5.671996969	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 7/P	87.67515524	102.0501241	-8.957128599	5
Peak Shaver	P_INV008_50mm (all)	50	Category 7/P	74.53985703	77.30855856	-4.334698512	9
Peak Shaver	P_INV008_50mm (all)	50	Category 7/P	68.84991039	66.9009262	-3.062537832	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 7/P	57.68676709	43.74797054	-0.979329915	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 7/P	89.71430262	105.2303312	-10.40536514	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 8/P	95.53824823	105.0570376	-2.513919387	5
Peak Shaver	P_INV008_50mm (all)	50	Category 8/P	84.6141766	80.31457263	-0.93653132	9
Peak Shaver	P_INV008_50mm (all)	50	Category 8/P	79.54479634	67.79556791	-0.315856851	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 8/P	69.29728338	38.76181138	0.856884551	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 8/P	96.88321959	107.9552085	-2.745403066	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 9/P	87.89782665	76.29361099	-4.873831985	5
Peak Shaver	P_INV008_50mm (all)	50	Category 9/P	76.68784293	76.29361099	-2.438482873	9
Peak Shaver	P_INV008_50mm (all)	50	Category 9/P	71.56298219	65.3939492	-1.571201863	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 9/P	61.30413476	40.37388121	-0.020262716	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 9/P	89.30821453	102.044842	-5.272203885	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 10/P	93.83112555	100.9984232	-2.333203499	5
Peak Shaver	P_INV008_50mm (all)	50	Category 10/P	83.40363811	77.16657694	-0.842129127	9
Peak Shaver	P_INV008_50mm (all)	50	Category 10/P	78.5416808	65.00317621	-0.245657793	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 10/P	68.64252522	36.66538406	0.897189556	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 10/P	95.1109953	103.7771715	-2.550033725	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 11/P	95.53824823	105.0570376	-2.513919387	5
Peak Shaver	P_INV008_50mm (all)	50	Category 11/P	84.6141766	80.31457263	-0.93653132	9
Peak Shaver	P_INV008_50mm (all)	50	Category 11/P	79.54479634	67.79556791	-0.315856851	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 11/P	69.29728338	38.76181138	0.856884551	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 11/P	96.88321959	107.9552085	-2.745403066	4.7
Peak Shaver	P_INV008_50mm (all)	50	Category 12/P	85.49816948	97.91523416	-8.132069214	5
Peak Shaver	P_INV008_50mm (all)	50	Category 12/P	73.17111978	74.70742485	-4.124190314	9
Peak Shaver	P_INV008_50mm (all)	50	Category 12/P	67.73040166	64.64792837	-2.921899435	12.61710051
Peak Shaver	P_INV008_50mm (all)	50	Category 12/P	56.98697586	42.00117954	-0.910461701	30.003942
Peak Shaver	P_INV008_50mm (all)	50	Category 12/P	87.18915233	100.819042	-9.010796748	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 1/P	104.1868993	117.2344601	-13.84804308	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 1/P	88.48555045	89.10604357	-8.117020879	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 1/P	81.57796952	77.21576764	-6.330989836	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 1/P	67.8927332	50.33867039	-3.209651866	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 1/P	106.3600961	120.7527073	-15.0797689	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 2/P	101.5442229	112.404103	-12.91851932	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 2/P	86.76570193	86.06645787	-7.808789495	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 2/P	80.17106417	74.55934331	-6.116088975	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 2/P	66.9911326	48.22100523	-3.082550128	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 2/P	103.5009661	115.6919663	-13.87138553	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 3/P	105.554322	112.9295976	-9.464094632	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 3/P	91.5476543	87.34580811	-5.82246545	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 3/P	85.12255477	75.12979568	-4.482239763	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 3/P	72.04400683	46.16004981	-1.923812675	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 3/P	107.3114203	116.214034	-10.03241277	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 4/P	107.9724246	117.7847591	-9.983655061	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 4/P	93.22393898	90.56278672	-6.060910121	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 4/P	86.50636213	77.98945092	-4.652453755	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV008_85mm (1hr)	85	Category 4/P	72.95295934	48.50013327	-2.029463949	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 4/P	109.8407885	121.2337669	-10.62099812	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 5/P	112.1732016	114.9142723	-5.508310017	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 5/P	99.05206105	88.50197042	-3.129755274	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 5/P	92.89849383	74.76055876	-2.152442028	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 5/P	80.17700383	41.6817679	-0.289230129	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 5/P	113.7772435	117.968628	-5.838642054	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 6/P	107.9724246	117.7847591	-9.983655061	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 6/P	93.22393898	90.56278672	-6.060910121	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 6/P	86.50636213	77.98945092	-4.652453755	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 6/P	72.95295934	48.50013327	-2.029463949	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 6/P	109.8407885	121.2337669	-10.62099812	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 7/P	104.1868993	117.2344601	-13.84804308	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 7/P	88.48555045	89.10604357	-8.117020879	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 7/P	81.57796952	77.21576764	-6.330989836	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 7/P	67.8927332	50.33867039	-3.209651866	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 7/P	106.3600961	120.7527073	-15.0797689	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 8/P	114.4037513	119.4557867	-5.792327072	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 8/P	100.6447796	92.1007198	-3.28991123	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 8/P	94.22652405	78.01086502	-2.275571868	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 8/P	81.06570232	44.20767446	-0.364274392	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 8/P	116.0954319	122.6395521	-6.150986075	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 9/P	105.554322	112.9295976	-9.464094632	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 9/P	91.5476543	87.34580811	-5.82246545	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 9/P	85.12255477	75.12979568	-4.482239763	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 9/P	72.04400683	46.16004981	-1.923812675	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 9/P	107.3114203	116.214034	-10.03241277	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 10/P	112.1732016	114.9142723	-5.508310017	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 10/P	99.05206105	88.50197042	-3.129755274	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 10/P	92.89849383	74.76055876	-2.152442028	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 10/P	80.17700383	41.6817679	-0.289230129	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 10/P	113.7772435	117.968628	-5.838642054	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 11/P	114.4037513	119.4557867	-5.792327072	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 11/P	100.6447796	92.1007198	-3.28991123	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 11/P	94.22652405	78.01086502	-2.275571868	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 11/P	81.06570232	44.20767446	-0.364274392	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 11/P	116.0954319	122.6395521	-6.150986075	4.7
Peak Shaver	P_INV008_85mm (1hr)	85	Category 12/P	101.5442229	112.404103	-12.91851932	5
Peak Shaver	P_INV008_85mm (1hr)	85	Category 12/P	86.76570193	86.06645787	-7.808789495	9
Peak Shaver	P_INV008_85mm (1hr)	85	Category 12/P	80.17106417	74.55934331	-6.116088975	12.61710051
Peak Shaver	P_INV008_85mm (1hr)	85	Category 12/P	66.9911326	48.22100523	-3.082550128	30.003942
Peak Shaver	P_INV008_85mm (1hr)	85	Category 12/P	103.5009661	115.6919663	-13.87138553	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 1/P	54.83426027	61.76401557	-5.246471795	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 1/P	47.78219512	47.19736177	-3.149028794	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 1/P	44.54744177	40.02472345	-2.300346831	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 1/P	38.05274996	23.81086489	-0.667621985	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 1/P	55.71015598	63.55818438	-5.539893448	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 2/P	54.26844672	60.10413225	-5.076179115	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 2/P	47.45806135	45.95707152	-3.066899534	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 2/P	44.31504689	38.93915221	-2.239377958	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 2/P	37.97418099	22.95820285	-0.635923323	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 2/P	55.11332288	61.78569535	-5.358209816	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 3/P	52.97447352	53.72574944	-4.079199042	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 3/P	46.61733766	40.90762055	-2.399689723	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 3/P	43.63165103	34.2813197	-1.670789476	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 3/P	37.42049713	18.53964351	-0.213139747	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 3/P	53.75169045	55.21134789	-4.30146498	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 4/P	53.62188261	55.29757457	-4.212896514	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 4/P	47.03950503	42.14705462	-2.474140098	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 4/P	43.96390419	35.40372681	-1.727994652	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 4/P	37.60455693	19.65925725	-0.237694146	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV008_254mm (1hr)	254	Category 4/P	54.42907713	56.82873381	-4.448807907	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 5/P	53.95255343	48.96254177	-4.248451079	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 5/P	47.82962779	36.21776654	-2.647120181	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 5/P	44.85889117	29.24649808	-1.888096105	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 5/P	38.18579094	13.6229573	-0.244176462	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 5/P	54.6888588	50.38658637	-4.452223786	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 6/P	50.94814115	52.34712617	-3.961603431	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 6/P	44.70444222	39.8652649	-2.300621806	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 6/P	41.78383164	33.4503072	-1.58350685	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 6/P	35.73000191	18.21240784	-0.135444987	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 6/P	51.71203655	53.80065134	-4.183997114	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 7/P	51.74741083	58.0510509	-4.911014508	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 7/P	45.10796181	44.33122221	-2.925896751	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 7/P	42.05793146	37.56717658	-2.117485389	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 7/P	35.92742228	22.24672535	-0.54703674	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 7/P	52.5713474	59.69202603	-5.187260037	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 8/P	54.72376476	50.60610966	-4.384146288	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 8/P	48.38622742	37.60076461	-2.735009229	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 8/P	45.32966843	30.52674729	-1.962413938	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 8/P	38.54001801	14.27057139	-0.291318512	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 8/P	55.48796272	52.06776531	-4.596302498	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 9/P	50.25900947	50.78707485	-3.825963621	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 9/P	44.23478912	38.63267758	-2.220161467	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 9/P	41.40489304	32.33722429	-1.524631097	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 9/P	35.51099537	17.38226785	-0.13348136	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 9/P	50.99463319	52.19616511	-4.036856441	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 10/P	51.94560277	47.00546443	-4.029536786	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 10/P	46.05296157	34.72473149	-2.481896622	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 10/P	43.19042811	27.9994519	-1.749348632	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 10/P	36.72645483	12.97614597	-0.178354146	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 10/P	52.65352027	48.37669248	-4.225224126	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 11/P	52.77881502	48.6733889	-4.169550019	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 11/P	46.67241266	36.12153925	-2.574084769	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 11/P	43.72749642	29.28429826	-1.831068675	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 11/P	37.17187183	13.62673583	-0.227170738	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 11/P	53.51700947	50.08153461	-4.373723258	4.7
Peak Shaver	P_INV008_254mm (1hr)	254	Category 12/P	51.15789255	56.4377439	-4.746341714	5
Peak Shaver	P_INV008_254mm (1hr)	254	Category 12/P	44.74982339	43.11881499	-2.843553714	9
Peak Shaver	P_INV008_254mm (1hr)	254	Category 12/P	41.79131196	36.50226317	-2.05699182	12.61710051
Peak Shaver	P_INV008_254mm (1hr)	254	Category 12/P	35.8082061	21.42614163	-0.513962601	30.003942
Peak Shaver	P_INV008_254mm (1hr)	254	Category 12/P	51.95192259	58.01473075	-5.011507486	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 1/P	20.35235997	21.89252324	-2.144656184	5
Peak Shaver	P_INV008_10mm (all)	10	Category 1/P	17.40624003	16.71955333	-0.986476346	9
Peak Shaver	P_INV008_10mm (all)	10	Category 1/P	16.0545835	14.27422654	-0.503836543	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 1/P	13.2609726	8.658666519	0.561107728	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 1/P	20.72356105	22.56013064	-2.311273497	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 2/P	20.03376018	21.26891101	-2.035581441	5
Peak Shaver	P_INV008_10mm (all)	10	Category 2/P	17.1908268	16.3076352	-0.931695288	9
Peak Shaver	P_INV008_10mm (all)	10	Category 2/P	15.87537005	13.91495914	-0.459683382	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 2/P	13.14937269	8.379568719	0.585029452	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 2/P	20.3907236	21.91392649	-2.191637967	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 3/P	20.73731212	21.6190568	-1.334897104	5
Peak Shaver	P_INV008_10mm (all)	10	Category 3/P	18.05680008	16.46455441	-0.41227515	9
Peak Shaver	P_INV008_10mm (all)	10	Category 3/P	16.74017802	13.85485123	0.128994247	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 3/P	14.11850539	7.806635012	1.062274769	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 3/P	21.06077697	22.21927787	-1.44419101	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 4/P	21.02357514	22.20211455	-1.403392655	5
Peak Shaver	P_INV008_10mm (all)	10	Category 4/P	18.26276106	16.91337954	-0.462097507	9
Peak Shaver	P_INV008_10mm (all)	10	Category 4/P	16.92463786	14.25048126	0.058793193	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 4/P	14.23401612	8.097987265	1.022500656	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 4/P	21.36100998	22.82737462	-1.527067392	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV008_10mm (all)	10	Category 5/P	22.20971098	21.98096149	-0.573448881	5
Peak Shaver	P_INV008_10mm (all)	10	Category 5/P	19.59928169	16.33993528	0.341516303	9
Peak Shaver	P_INV008_10mm (all)	10	Category 5/P	18.44140885	13.42527174	0.614543197	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 5/P	15.63630671	6.830132383	1.944122823	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 5/P	22.51737937	22.63190751	-0.668249167	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 6/P	21.02357514	22.20211455	-1.403392655	5
Peak Shaver	P_INV008_10mm (all)	10	Category 6/P	18.26276106	16.91337954	-0.462097507	9
Peak Shaver	P_INV008_10mm (all)	10	Category 6/P	16.92463786	14.25048126	0.058793193	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 6/P	14.23401612	8.097987265	1.022500656	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 6/P	21.36100998	22.82737462	-1.527067392	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 7/P	20.35235997	21.89252324	-2.144656184	5
Peak Shaver	P_INV008_10mm (all)	10	Category 7/P	17.40624003	16.71955333	-0.986476346	9
Peak Shaver	P_INV008_10mm (all)	10	Category 7/P	16.0545835	14.27422654	-0.503836543	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 7/P	13.2609726	8.658666519	0.561107728	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 7/P	20.72356105	22.56013064	-2.311273497	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 8/P	22.48060108	22.61955699	-0.632839507	5
Peak Shaver	P_INV008_10mm (all)	10	Category 8/P	19.78546665	16.83729565	0.318065893	9
Peak Shaver	P_INV008_10mm (all)	10	Category 8/P	18.59883197	13.87397468	0.58844866	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 8/P	15.76168592	7.109199642	1.889256437	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 8/P	22.79645904	23.28517379	-0.729058874	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 9/P	20.73731212	21.6190568	-1.334897104	5
Peak Shaver	P_INV008_10mm (all)	10	Category 9/P	18.05680008	16.46455441	-0.41227515	9
Peak Shaver	P_INV008_10mm (all)	10	Category 9/P	16.74017802	13.85485123	0.128994247	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 9/P	14.11850539	7.806635012	1.062274769	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 9/P	21.06077697	22.21927787	-1.44419101	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 10/P	22.20971098	21.98096149	-0.573448881	5
Peak Shaver	P_INV008_10mm (all)	10	Category 10/P	19.59928169	16.33993528	0.341516303	9
Peak Shaver	P_INV008_10mm (all)	10	Category 10/P	18.44140885	13.42527174	0.614543197	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 10/P	15.63630671	6.830132383	1.944122823	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 10/P	22.51737937	22.63190751	-0.668249167	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 11/P	22.48060108	22.61955699	-0.632839507	5
Peak Shaver	P_INV008_10mm (all)	10	Category 11/P	19.78546665	16.83729565	0.318065893	9
Peak Shaver	P_INV008_10mm (all)	10	Category 11/P	18.59883197	13.87397468	0.58844866	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 11/P	15.76168592	7.109199642	1.889256437	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 11/P	22.79645904	23.28517379	-0.729058874	4.7
Peak Shaver	P_INV008_10mm (all)	10	Category 12/P	20.03376018	21.26891101	-2.035581441	5
Peak Shaver	P_INV008_10mm (all)	10	Category 12/P	17.1908268	16.3076352	-0.931695288	9
Peak Shaver	P_INV008_10mm (all)	10	Category 12/P	15.87537005	13.91495914	-0.459683382	12.61710051
Peak Shaver	P_INV008_10mm (all)	10	Category 12/P	13.14937269	8.379568719	0.585029452	30.003942
Peak Shaver	P_INV008_10mm (all)	10	Category 12/P	20.3907236	21.91392649	-2.191637967	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 1/P	104.1868993	117.2344601	-13.84804308	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 1/P	88.48555045	89.10604357	-8.117020879	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 1/P	81.57796952	77.21576764	-6.330989836	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 1/P	67.8927332	50.33867039	-3.209651866	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 1/P	106.3600961	120.7527073	-15.0797689	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 2/P	101.5442229	112.404103	-12.91851932	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 2/P	86.76570193	86.06645787	-7.808789495	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 2/P	80.17106417	74.55934331	-6.116088975	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 2/P	66.9911326	48.22100523	-3.082550128	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 2/P	103.5009661	115.6919663	-13.87138553	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 3/P	105.554322	112.9295976	-9.464094632	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 3/P	91.5476543	87.34580811	-5.82246545	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 3/P	85.12255477	75.12979568	-4.482239763	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 3/P	72.04400683	46.16004981	-1.923812675	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 3/P	107.3114203	116.214034	-10.03241277	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 4/P	107.9724246	117.7847591	-9.983655061	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 4/P	93.22393898	90.56278672	-6.060910121	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 4/P	86.50636213	77.98945092	-4.652453755	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 4/P	72.95295934	48.50013327	-2.029463949	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 4/P	109.8407885	121.2337669	-10.62099812	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 5/P	112.1732016	114.9142723	-5.508310017	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV008_85mm (2min)	85	Category 5/P	99.05206105	88.50197042	-3.129755274	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 5/P	92.89849383	74.76055876	-2.152442028	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 5/P	80.17700383	41.6817679	-0.289230129	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 5/P	113.7772435	117.968628	-5.838642054	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 6/P	107.9724246	117.7847591	-9.983655061	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 6/P	93.22393898	90.56278672	-6.060910121	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 6/P	86.50636213	77.98945092	-4.652453755	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 6/P	72.95295934	48.50013327	-2.029463949	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 6/P	109.8407885	121.2337669	-10.62099812	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 7/P	104.1868993	117.2344601	-13.84804308	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 7/P	88.48555045	89.10604357	-8.117020879	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 7/P	81.57796952	77.21576764	-6.330989836	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 7/P	67.8927332	50.33867039	-3.209651866	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 7/P	106.3600961	120.7527073	-15.0797689	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 8/P	114.4037513	119.4557867	-5.792327072	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 8/P	100.6447796	92.1007198	-3.28991123	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 8/P	94.22652405	78.01086502	-2.275571868	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 8/P	81.06570232	44.20767446	-0.364274392	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 8/P	116.0954319	122.6395521	-6.150986075	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 9/P	105.554322	112.9295976	-9.464094632	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 9/P	91.5476543	87.34580811	-5.82246545	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 9/P	85.12255477	75.12979568	-4.482239763	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 9/P	72.04400683	46.16004981	-1.923812675	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 9/P	107.3114203	116.214034	-10.03241277	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 10/P	112.1732016	114.9142723	-5.508310017	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 10/P	99.05206105	88.50197042	-3.129755274	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 10/P	92.89849383	74.76055876	-2.152442028	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 10/P	80.17700383	41.6817679	-0.289230129	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 10/P	113.7772435	117.968628	-5.838642054	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 11/P	114.4037513	119.4557867	-5.792327072	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 11/P	100.6447796	92.1007198	-3.28991123	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 11/P	94.22652405	78.01086502	-2.275571868	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 11/P	81.06570232	44.20767446	-0.364274392	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 11/P	116.0954319	122.6395521	-6.150986075	4.7
Peak Shaver	P_INV008_85mm (2min)	85	Category 12/P	101.5442229	112.404103	-12.91851932	5
Peak Shaver	P_INV008_85mm (2min)	85	Category 12/P	86.76570193	86.06645787	-7.808789495	9
Peak Shaver	P_INV008_85mm (2min)	85	Category 12/P	80.17106417	74.55934331	-6.116088975	12.61710051
Peak Shaver	P_INV008_85mm (2min)	85	Category 12/P	66.9911326	48.22100523	-3.082550128	30.003942
Peak Shaver	P_INV008_85mm (2min)	85	Category 12/P	103.5009661	115.6919663	-13.87138553	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 1/P	54.83426027	61.76401557	-5.246471795	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 1/P	47.78219512	47.19736177	-3.149028794	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 1/P	44.54744177	40.02472345	-2.300346831	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 1/P	38.05274996	23.81086489	-0.667621985	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 1/P	55.71015598	63.55818438	-5.539893448	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 2/P	54.26844672	60.10413225	-5.076179115	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 2/P	47.45806135	45.95707152	-3.066899534	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 2/P	44.31504689	38.93915221	-2.239377958	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 2/P	37.97418099	22.95820285	-0.635923323	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 2/P	55.11332288	61.78569535	-5.358209816	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 3/P	52.97447352	53.72574944	-4.079199042	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 3/P	46.61733766	40.90762055	-2.399689723	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 3/P	43.63165103	34.2813197	-1.670789476	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 3/P	37.42049713	18.53964351	-0.213139747	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 3/P	53.75169045	55.21134789	-4.30146498	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 4/P	53.62188261	55.29757457	-4.212896514	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 4/P	47.03950503	42.14705462	-2.474140098	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 4/P	43.96390419	35.40372681	-1.727994652	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 4/P	37.60455693	19.65925725	-0.237694146	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 4/P	54.42907713	56.82873381	-4.448807907	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 5/P	53.95255343	48.96254177	-4.248451079	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 5/P	47.82962779	36.21776654	-2.647120181	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV008_254mm (2min)	254	Category 5/P	44.85889117	29.24649808	-1.888096105	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 5/P	38.18579094	13.6229573	-0.244176462	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 5/P	54.6888588	50.38658637	-4.452223786	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 6/P	50.94814115	52.34712617	-3.961603431	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 6/P	44.70444222	39.8652649	-2.300621806	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 6/P	41.78383164	33.4503072	-1.58350685	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 6/P	35.73000191	18.21240784	-0.135444987	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 6/P	51.71203655	53.80065134	-4.183997114	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 7/P	51.74741083	58.0510509	-4.911014508	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 7/P	45.10796181	44.33122221	-2.925896751	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 7/P	42.05793146	37.56717658	-2.117485389	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 7/P	35.92742228	22.24672535	-0.54703674	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 7/P	52.5713474	59.69202603	-5.187260037	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 8/P	54.72376476	50.60610966	-4.384146288	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 8/P	48.38622742	37.60076461	-2.735009229	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 8/P	45.32966843	30.52674729	-1.962413938	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 8/P	38.54001801	14.27057139	-0.291318512	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 8/P	55.48796272	52.06776531	-4.596302498	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 9/P	50.25900947	50.78707485	-3.825963621	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 9/P	44.23478912	38.63267758	-2.220161467	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 9/P	41.40489304	32.33722429	-1.524631097	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 9/P	35.51099537	17.38226785	-0.13348136	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 9/P	50.99463319	52.19616511	-4.036856441	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 10/P	51.94560277	47.00546443	-4.029536786	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 10/P	46.05296157	34.72473149	-2.481896622	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 10/P	43.19042811	27.9994519	-1.749348632	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 10/P	36.72645483	12.97614597	-0.178354146	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 10/P	52.65352027	48.37669248	-4.225224126	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 11/P	52.77881502	48.6733889	-4.169550019	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 11/P	46.67241266	36.12153925	-2.574084769	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 11/P	43.72749642	29.28429826	-1.831068675	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 11/P	37.17187183	13.62673583	-0.227170738	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 11/P	53.51700947	50.08153461	-4.373723258	4.7
Peak Shaver	P_INV008_254mm (2min)	254	Category 12/P	51.15789255	56.4377439	-4.746341714	5
Peak Shaver	P_INV008_254mm (2min)	254	Category 12/P	44.74982339	43.11881499	-2.843553714	9
Peak Shaver	P_INV008_254mm (2min)	254	Category 12/P	41.79131196	36.50226317	-2.05699182	12.61710051
Peak Shaver	P_INV008_254mm (2min)	254	Category 12/P	35.8082061	21.42614163	-0.513962601	30.003942
Peak Shaver	P_INV008_254mm (2min)	254	Category 12/P	51.95192259	58.01473075	-5.011507486	4.7
Peak Shaver	P_INV009_25mm	25	Category 1/P	16.24803845	20.75335908	3.141442497	5
Peak Shaver	P_INV009_25mm	25	Category 1/P	14.01619493	15.07086024	4.359474207	9
Peak Shaver	P_INV009_25mm	25	Category 1/P	12.93438245	12.30888007	4.945087274	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 1/P	10.47366668	6.391791943	6.20257468	30.003942
Peak Shaver	P_INV009_25mm	25	Category 1/P	16.51506219	21.4308808	2.99422035	4.7
Peak Shaver	P_INV009_25mm	25	Category 2/P	16.40966878	20.21271723	3.201759918	5
Peak Shaver	P_INV009_25mm	25	Category 2/P	14.23893421	14.6119145	4.352689038	9
Peak Shaver	P_INV009_25mm	25	Category 2/P	13.1755932	11.86927521	4.914597486	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 2/P	10.69031571	5.961676758	6.099001806	30.003942
Peak Shaver	P_INV009_25mm	25	Category 2/P	16.66935457	20.87640558	3.064200486	4.7
Peak Shaver	P_INV009_25mm	25	Category 3/P	16.3302094	20.56642976	3.09293253	5
Peak Shaver	P_INV009_25mm	25	Category 3/P	13.88913656	15.02827545	4.250922298	9
Peak Shaver	P_INV009_25mm	25	Category 3/P	12.68794356	12.30350566	4.80957408	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 3/P	9.587853969	6.24730183	6.055471585	30.003942
Peak Shaver	P_INV009_25mm	25	Category 3/P	16.61846876	21.22164518	2.958237068	4.7
Peak Shaver	P_INV009_25mm	25	Category 4/P	16.25643824	21.09989935	3.027029944	5
Peak Shaver	P_INV009_25mm	25	Category 4/P	13.74851195	15.4860034	4.252517711	9
Peak Shaver	P_INV009_25mm	25	Category 4/P	12.5268652	12.74077596	4.838403144	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 4/P	9.573781229	6.731344649	6.129521956	30.003942
Peak Shaver	P_INV009_25mm	25	Category 4/P	16.5549442	21.76984649	2.879476927	4.7
Peak Shaver	P_INV009_25mm	25	Category 5/P	16.25488611	20.66396149	3.037865473	5
Peak Shaver	P_INV009_25mm	25	Category 5/P	13.65879994	15.18557273	4.193545108	9
Peak Shaver	P_INV009_25mm	25	Category 5/P	12.37589717	12.47414791	4.750188176	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV009_25mm	25	Category 5/P	9.160804461	6.386970593	6.001713847	30.003942
Peak Shaver	P_INV009_25mm	25	Category 5/P	16.56175227	21.31299215	2.898642521	4.7
Peak Shaver	P_INV009_25mm	25	Category 6/P	16.25643824	21.09989935	3.027029944	5
Peak Shaver	P_INV009_25mm	25	Category 6/P	13.74851195	15.4860034	4.252517711	9
Peak Shaver	P_INV009_25mm	25	Category 6/P	12.5268652	12.74077596	4.838403144	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 6/P	9.573781229	6.731344649	6.129521956	30.003942
Peak Shaver	P_INV009_25mm	25	Category 6/P	16.5549442	21.76984649	2.879476927	4.7
Peak Shaver	P_INV009_25mm	25	Category 7/P	16.24803845	20.75335908	3.141442497	5
Peak Shaver	P_INV009_25mm	25	Category 7/P	14.01619493	15.07086024	4.359474207	9
Peak Shaver	P_INV009_25mm	25	Category 7/P	12.93438245	12.30888007	4.945087274	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 7/P	10.47366668	6.391791943	6.20257468	30.003942
Peak Shaver	P_INV009_25mm	25	Category 7/P	16.51506219	21.4308808	2.99422035	4.7
Peak Shaver	P_INV009_25mm	25	Category 8/P	16.2324107	21.18979979	2.968417479	5
Peak Shaver	P_INV009_25mm	25	Category 8/P	13.56877484	15.62986624	4.192462407	9
Peak Shaver	P_INV009_25mm	25	Category 8/P	12.26359412	12.90548977	4.780079447	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 8/P	8.9949923	6.855933164	6.059608747	30.003942
Peak Shaver	P_INV009_25mm	25	Category 8/P	16.54981096	21.85224224	2.822041808	4.7
Peak Shaver	P_INV009_25mm	25	Category 9/P	16.3302094	20.56642976	3.09293253	5
Peak Shaver	P_INV009_25mm	25	Category 9/P	13.88913656	15.02827545	4.250922298	9
Peak Shaver	P_INV009_25mm	25	Category 9/P	12.68794356	12.30350566	4.80957408	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 9/P	9.587853969	6.24730183	6.055471585	30.003942
Peak Shaver	P_INV009_25mm	25	Category 9/P	16.61846876	21.22164518	2.958237068	4.7
Peak Shaver	P_INV009_25mm	25	Category 10/P	16.25488611	20.66396149	3.037865473	5
Peak Shaver	P_INV009_25mm	25	Category 10/P	13.65879994	15.18557273	4.193545108	9
Peak Shaver	P_INV009_25mm	25	Category 10/P	12.37589717	12.47414791	4.750188176	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 10/P	9.160804461	6.386970593	6.001713847	30.003942
Peak Shaver	P_INV009_25mm	25	Category 10/P	16.56175227	21.31299215	2.898642521	4.7
Peak Shaver	P_INV009_25mm	25	Category 11/P	16.2324107	21.18979979	2.968417479	5
Peak Shaver	P_INV009_25mm	25	Category 11/P	13.56877484	15.62986624	4.192462407	9
Peak Shaver	P_INV009_25mm	25	Category 11/P	12.26359412	12.90548977	4.780079447	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 11/P	8.9949923	6.855933164	6.059608747	30.003942
Peak Shaver	P_INV009_25mm	25	Category 11/P	16.54981096	21.85224224	2.822041808	4.7
Peak Shaver	P_INV009_25mm	25	Category 12/P	16.40966878	20.21271723	3.201759918	5
Peak Shaver	P_INV009_25mm	25	Category 12/P	14.23893421	14.6119145	4.352689038	9
Peak Shaver	P_INV009_25mm	25	Category 12/P	13.1755932	11.86927521	4.914597486	12.61710051
Peak Shaver	P_INV009_25mm	25	Category 12/P	10.69031571	5.961676758	6.099001806	30.003942
Peak Shaver	P_INV009_25mm	25	Category 12/P	16.66935457	20.87640558	3.064200486	4.7
Peak Shaver	P_INV009_50mm	50	Category 1/P	34.51379307	46.31645479	2.232690639	5
Peak Shaver	P_INV009_50mm	50	Category 1/P	29.1077824	34.29551623	5.640089801	9
Peak Shaver	P_INV009_50mm	50	Category 1/P	26.60408345	28.55184813	7.128853966	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 1/P	21.40869027	16.50677016	10.08759376	30.003942
Peak Shaver	P_INV009_50mm	50	Category 1/P	35.2119489	47.77189297	1.733201648	4.7
Peak Shaver	P_INV009_50mm	50	Category 2/P	34.26991803	44.64617154	2.823792691	5
Peak Shaver	P_INV009_50mm	50	Category 2/P	29.17565219	32.99243242	5.844520035	9
Peak Shaver	P_INV009_50mm	50	Category 2/P	26.77143266	27.38097717	7.226630183	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 2/P	21.69883183	15.47997403	9.998894586	30.003942
Peak Shaver	P_INV009_50mm	50	Category 2/P	34.91167394	46.04604023	2.400534064	4.7
Peak Shaver	P_INV009_50mm	50	Category 3/P	35.08899966	44.68560247	0.796937748	5
Peak Shaver	P_INV009_50mm	50	Category 3/P	28.51630707	33.12159351	5.585528294	9
Peak Shaver	P_INV009_50mm	50	Category 3/P	25.70526594	27.61013624	7.160081801	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 3/P	19.6865403	15.76047881	9.91074296	30.003942
Peak Shaver	P_INV009_50mm	50	Category 3/P	35.92870873	46.08600642	0.119123014	4.7
Peak Shaver	P_INV009_50mm	50	Category 4/P	35.82135823	46.37432298	-0.364577377	5
Peak Shaver	P_INV009_50mm	50	Category 4/P	28.74846714	34.38565043	5.137352183	9
Peak Shaver	P_INV009_50mm	50	Category 4/P	25.72565212	28.74142353	7.042025528	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 4/P	19.68934862	16.82419879	9.993344454	30.003942
Peak Shaver	P_INV009_50mm	50	Category 4/P	36.72484239	47.83370095	-1.131110587	4.7
Peak Shaver	P_INV009_50mm	50	Category 5/P	35.93281712	44.71881707	-1.243231468	5
Peak Shaver	P_INV009_50mm	50	Category 5/P	28.41728483	33.13776756	4.734122199	9
Peak Shaver	P_INV009_50mm	50	Category 5/P	25.1154672	27.63471308	6.929548622	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 5/P	18.30345876	15.77725798	9.873592009	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV009_50mm	50	Category 5/P	36.88244303	46.12173653	-2.059906588	4.7
Peak Shaver	P_INV009_50mm	50	Category 6/P	35.82135823	46.37432298	-0.364577377	5
Peak Shaver	P_INV009_50mm	50	Category 6/P	28.74846714	34.38565043	5.137352183	9
Peak Shaver	P_INV009_50mm	50	Category 6/P	25.72565212	28.74142353	7.042025528	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 6/P	19.68934862	16.82419879	9.993344454	30.003942
Peak Shaver	P_INV009_50mm	50	Category 6/P	36.72484239	47.83370095	-1.131110587	4.7
Peak Shaver	P_INV009_50mm	50	Category 7/P	34.51379307	46.31645479	2.232690639	5
Peak Shaver	P_INV009_50mm	50	Category 7/P	29.1077824	34.29551623	5.640089801	9
Peak Shaver	P_INV009_50mm	50	Category 7/P	26.60408345	28.55184813	7.128853966	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 7/P	21.40869027	16.50677016	10.08759376	30.003942
Peak Shaver	P_INV009_50mm	50	Category 7/P	35.2119489	47.77189297	1.733201648	4.7
Peak Shaver	P_INV009_50mm	50	Category 8/P	36.93639609	46.4235643	-2.708393972	5
Peak Shaver	P_INV009_50mm	50	Category 8/P	28.89697485	34.41138406	4.010766652	9
Peak Shaver	P_INV009_50mm	50	Category 8/P	25.37059954	28.77225214	6.554352557	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 8/P	18.54474941	16.87697841	9.957333217	30.003942
Peak Shaver	P_INV009_50mm	50	Category 8/P	37.95107842	47.88493336	-3.613627246	4.7
Peak Shaver	P_INV009_50mm	50	Category 9/P	35.08899966	44.68560247	0.796937748	5
Peak Shaver	P_INV009_50mm	50	Category 9/P	28.51630707	33.12159351	5.585528294	9
Peak Shaver	P_INV009_50mm	50	Category 9/P	25.70526594	27.61013624	7.160081801	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 9/P	19.6865403	15.76047881	9.91074296	30.003942
Peak Shaver	P_INV009_50mm	50	Category 9/P	35.92870873	46.08600642	0.119123014	4.7
Peak Shaver	P_INV009_50mm	50	Category 10/P	35.93281712	44.71881707	-1.243231468	5
Peak Shaver	P_INV009_50mm	50	Category 10/P	28.41728483	33.13776756	4.734122199	9
Peak Shaver	P_INV009_50mm	50	Category 10/P	25.1154672	27.63471308	6.929548622	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 10/P	18.30345876	15.77725798	9.873592009	30.003942
Peak Shaver	P_INV009_50mm	50	Category 10/P	36.88244303	46.12173653	-2.059906588	4.7
Peak Shaver	P_INV009_50mm	50	Category 11/P	36.93639609	46.4235643	-2.708393972	5
Peak Shaver	P_INV009_50mm	50	Category 11/P	28.89697485	34.41138406	4.010766652	9
Peak Shaver	P_INV009_50mm	50	Category 11/P	25.37059954	28.77225214	6.554352557	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 11/P	18.54474941	16.87697841	9.957333217	30.003942
Peak Shaver	P_INV009_50mm	50	Category 11/P	37.95107842	47.88493336	-3.613627246	4.7
Peak Shaver	P_INV009_50mm	50	Category 12/P	34.26991803	44.64617154	2.823792691	5
Peak Shaver	P_INV009_50mm	50	Category 12/P	29.17565219	32.99243242	5.844520035	9
Peak Shaver	P_INV009_50mm	50	Category 12/P	26.77143266	27.38097717	7.226630183	12.61710051
Peak Shaver	P_INV009_50mm	50	Category 12/P	21.69883183	15.47997403	9.998894586	30.003942
Peak Shaver	P_INV009_50mm	50	Category 12/P	34.91167394	46.04604023	2.400534064	4.7
Peak Shaver	P_INV009_40mm	40	Category 1/P	27.27165442	36.33854187	2.904911705	5
Peak Shaver	P_INV009_40mm	40	Category 1/P	23.2365875	26.79468749	5.247887406	9
Peak Shaver	P_INV009_40mm	40	Category 1/P	21.32181457	22.20704151	6.341014823	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 1/P	17.2924658	12.52493062	8.54040577	30.003942
Peak Shaver	P_INV009_40mm	40	Category 1/P	27.7596575	37.48399634	2.618506667	4.7
Peak Shaver	P_INV009_40mm	40	Category 2/P	27.28091598	35.14943953	3.165654766	5
Peak Shaver	P_INV009_40mm	40	Category 2/P	23.40679798	25.8397996	5.350511072	9
Peak Shaver	P_INV009_40mm	40	Category 2/P	21.5557979	21.33797597	6.371886275	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 2/P	17.59425315	11.73313631	8.445055847	30.003942
Peak Shaver	P_INV009_40mm	40	Category 2/P	27.74886225	36.26001292	2.902588637	4.7
Peak Shaver	P_INV009_40mm	40	Category 3/P	27.45022264	35.25707141	2.423718883	5
Peak Shaver	P_INV009_40mm	40	Category 3/P	22.78740461	26.08819147	5.258143696	9
Peak Shaver	P_INV009_40mm	40	Category 3/P	20.69924654	21.65948789	6.281367345	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 3/P	15.95136166	12.04407459	8.34707384	30.003942
Peak Shaver	P_INV009_40mm	40	Category 3/P	28.06507108	36.36699251	1.971449403	4.7
Peak Shaver	P_INV009_40mm	40	Category 4/P	27.81631392	36.46569287	1.719994326	5
Peak Shaver	P_INV009_40mm	40	Category 4/P	22.76310486	27.00148116	5.147220047	9
Peak Shaver	P_INV009_40mm	40	Category 4/P	20.60716696	22.50756791	6.24003137	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 4/P	15.91923518	12.88266526	8.437004617	30.003942
Peak Shaver	P_INV009_40mm	40	Category 4/P	28.47926568	37.61914234	1.195428462	4.7
Peak Shaver	P_INV009_40mm	40	Category 5/P	27.95855695	35.3240561	1.081418843	5
Peak Shaver	P_INV009_40mm	40	Category 5/P	22.46406396	26.13003356	5.044298936	9
Peak Shaver	P_INV009_40mm	40	Category 5/P	20.14762627	21.7405671	6.24022573	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 5/P	14.8401239	12.11013899	8.29523301	30.003942
Peak Shaver	P_INV009_40mm	40	Category 5/P	28.66425514	36.44410291	0.507824514	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV009_40mm	40	Category 6/P	27.81631392	36.46569287	1.719994326	5
Peak Shaver	P_INV009_40mm	40	Category 6/P	22.76310486	27.00148116	5.147220047	9
Peak Shaver	P_INV009_40mm	40	Category 6/P	20.60716696	22.50756791	6.24003137	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 6/P	15.91923518	12.88266526	8.437004617	30.003942
Peak Shaver	P_INV009_40mm	40	Category 6/P	28.47926568	37.61914234	1.195428462	4.7
Peak Shaver	P_INV009_40mm	40	Category 7/P	27.27165442	36.33854187	2.904911705	5
Peak Shaver	P_INV009_40mm	40	Category 7/P	23.2365875	26.79468749	5.247887406	9
Peak Shaver	P_INV009_40mm	40	Category 7/P	21.32181457	22.20704151	6.341014823	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 7/P	17.2924658	12.52493062	8.54040577	30.003942
Peak Shaver	P_INV009_40mm	40	Category 7/P	27.7596575	37.48399634	2.618506667	4.7
Peak Shaver	P_INV009_40mm	40	Category 8/P	28.55578271	36.55827653	0.099380717	5
Peak Shaver	P_INV009_40mm	40	Category 8/P	22.64251553	27.04889444	4.693354331	9
Peak Shaver	P_INV009_40mm	40	Category 8/P	20.14550534	22.57366608	6.190628069	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 8/P	14.99748162	12.97891539	8.383985313	30.003942
Peak Shaver	P_INV009_40mm	40	Category 8/P	29.31447828	37.71682529	-0.549018079	4.7
Peak Shaver	P_INV009_40mm	40	Category 9/P	27.45022264	35.25707141	2.423718883	5
Peak Shaver	P_INV009_40mm	40	Category 9/P	22.78740461	26.08819147	5.258143696	9
Peak Shaver	P_INV009_40mm	40	Category 9/P	20.69924654	21.65948789	6.281367345	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 9/P	15.95136166	12.04407459	8.34707384	30.003942
Peak Shaver	P_INV009_40mm	40	Category 9/P	28.06507108	36.36699251	1.971449403	4.7
Peak Shaver	P_INV009_40mm	40	Category 10/P	27.95855695	35.3240561	1.081418843	5
Peak Shaver	P_INV009_40mm	40	Category 10/P	22.46406396	26.13003356	5.044298936	9
Peak Shaver	P_INV009_40mm	40	Category 10/P	20.14762627	21.7405671	6.24022573	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 10/P	14.8401239	12.11013899	8.29523301	30.003942
Peak Shaver	P_INV009_40mm	40	Category 10/P	28.66425514	36.44410291	0.507824514	4.7
Peak Shaver	P_INV009_40mm	40	Category 11/P	28.55578271	36.55827653	0.099380717	5
Peak Shaver	P_INV009_40mm	40	Category 11/P	22.64251553	27.04889444	4.693354331	9
Peak Shaver	P_INV009_40mm	40	Category 11/P	20.14550534	22.57366608	6.190628069	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 11/P	14.99748162	12.97891539	8.383985313	30.003942
Peak Shaver	P_INV009_40mm	40	Category 11/P	29.31447828	37.71682529	-0.549018079	4.7
Peak Shaver	P_INV009_40mm	40	Category 12/P	27.28091598	35.14943953	3.165654766	5
Peak Shaver	P_INV009_40mm	40	Category 12/P	23.40679798	25.8397996	5.350511072	9
Peak Shaver	P_INV009_40mm	40	Category 12/P	21.5557979	21.33797597	6.371886275	12.61710051
Peak Shaver	P_INV009_40mm	40	Category 12/P	17.59425315	11.73313631	8.445055847	30.003942
Peak Shaver	P_INV009_40mm	40	Category 12/P	27.74886225	36.26001292	2.902588637	4.7
Peak Shaver	P_INV009_135mm	135	Category 1/P	81.88867461	105.9340404	-13.71967462	5
Peak Shaver	P_INV009_135mm	135	Category 1/P	64.98819945	79.2213521	1.407313847	9
Peak Shaver	P_INV009_135mm	135	Category 1/P	57.4522928	66.71520556	7.722882308	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 1/P	43.42102963	41.3464443	17.83803201	30.003942
Peak Shaver	P_INV009_135mm	135	Category 1/P	83.99993208	109.1804388	-15.67104596	4.7
Peak Shaver	P_INV009_135mm	135	Category 2/P	79.19468529	101.2843996	-10.19495176	5
Peak Shaver	P_INV009_135mm	135	Category 2/P	63.51545799	75.7641119	3.433264645	9
Peak Shaver	P_INV009_135mm	135	Category 2/P	56.512015	63.72970866	9.065222832	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 2/P	43.29904681	39.02731597	18.03777628	30.003942
Peak Shaver	P_INV009_135mm	135	Category 2/P	81.15298404	104.3755749	-11.96545687	4.7
Peak Shaver	P_INV009_135mm	135	Category 3/P	84.44788697	100.7431179	-18.98608972	5
Peak Shaver	P_INV009_135mm	135	Category 3/P	65.29954732	75.36559973	-1.542601928	9
Peak Shaver	P_INV009_135mm	135	Category 3/P	56.6091868	63.38755565	5.856655034	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 3/P	39.36943424	38.69073596	18.33443228	30.003942
Peak Shaver	P_INV009_135mm	135	Category 3/P	86.81301569	103.8155756	-21.20954874	4.7
Peak Shaver	P_INV009_135mm	135	Category 4/P	88.18611331	105.3287565	-23.58089535	5
Peak Shaver	P_INV009_135mm	135	Category 4/P	67.66742397	78.78418428	-4.456372805	9
Peak Shaver	P_INV009_135mm	135	Category 4/P	58.37443796	66.34805835	3.742773742	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 4/P	40.27128015	41.04008712	17.79210842	30.003942
Peak Shaver	P_INV009_135mm	135	Category 4/P	90.71987661	108.5566537	-25.99973003	4.7
Peak Shaver	P_INV009_135mm	135	Category 5/P	87.40751279	100.4360797	-24.79063213	5
Peak Shaver	P_INV009_135mm	135	Category 5/P	66.38104792	75.05289457	-5.251927913	9
Peak Shaver	P_INV009_135mm	135	Category 5/P	56.72611801	63.03526307	3.159828363	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 5/P	37.06400965	38.06299067	17.60590796	30.003942
Peak Shaver	P_INV009_135mm	135	Category 5/P	89.98607925	103.5040123	-27.25253165	4.7
Peak Shaver	P_INV009_135mm	135	Category 6/P	88.18611331	105.3287565	-23.58089535	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV009_135mm	135	Category 6/P	67.66742397	78.78418428	-4.456372805	9
Peak Shaver	P_INV009_135mm	135	Category 6/P	58.37443796	66.34805835	3.742773742	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 6/P	40.27128015	41.04008712	17.79210842	30.003942
Peak Shaver	P_INV009_135mm	135	Category 6/P	90.71987661	108.5566537	-25.99973003	4.7
Peak Shaver	P_INV009_135mm	135	Category 7/P	81.88867461	105.9340404	-13.71967462	5
Peak Shaver	P_INV009_135mm	135	Category 7/P	64.98819945	79.2213521	1.407313847	9
Peak Shaver	P_INV009_135mm	135	Category 7/P	57.4522928	66.71520556	7.722882308	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 7/P	43.42102963	41.3464443	17.83803201	30.003942
Peak Shaver	P_INV009_135mm	135	Category 7/P	83.99993208	109.1804388	-15.67104596	4.7
Peak Shaver	P_INV009_135mm	135	Category 8/P	91.65767873	104.9936855	-29.87330602	5
Peak Shaver	P_INV009_135mm	135	Category 8/P	69.24073786	78.47023377	-8.645628958	9
Peak Shaver	P_INV009_135mm	135	Category 8/P	58.96501066	66.0070689	0.613171151	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 8/P	38.44165083	40.47796162	16.74652319	30.003942
Peak Shaver	P_INV009_135mm	135	Category 8/P	94.40800827	108.2103032	-32.53300268	4.7
Peak Shaver	P_INV009_135mm	135	Category 9/P	84.44788697	100.7431179	-18.98608972	5
Peak Shaver	P_INV009_135mm	135	Category 9/P	65.29954732	75.36559973	-1.542601928	9
Peak Shaver	P_INV009_135mm	135	Category 9/P	56.6091868	63.38755565	5.856655034	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 9/P	39.36943424	38.69073596	18.33443228	30.003942
Peak Shaver	P_INV009_135mm	135	Category 9/P	86.81301569	103.8155756	-21.20954874	4.7
Peak Shaver	P_INV009_135mm	135	Category 10/P	87.40751279	100.4360797	-24.79063213	5
Peak Shaver	P_INV009_135mm	135	Category 10/P	66.38104792	75.05289457	-5.251927913	9
Peak Shaver	P_INV009_135mm	135	Category 10/P	56.72611801	63.03526307	3.159828363	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 10/P	37.06400965	38.06299067	17.60590796	30.003942
Peak Shaver	P_INV009_135mm	135	Category 10/P	89.98607925	103.5040123	-27.25253165	4.7
Peak Shaver	P_INV009_135mm	135	Category 11/P	91.65767873	104.9936855	-29.87330602	5
Peak Shaver	P_INV009_135mm	135	Category 11/P	69.24073786	78.47023377	-8.645628958	9
Peak Shaver	P_INV009_135mm	135	Category 11/P	58.96501066	66.0070689	0.613171151	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 11/P	38.44165083	40.47796162	16.74652319	30.003942
Peak Shaver	P_INV009_135mm	135	Category 11/P	94.40800827	108.2103032	-32.53300268	4.7
Peak Shaver	P_INV009_135mm	135	Category 12/P	79.19468529	101.2843996	-10.19495176	5
Peak Shaver	P_INV009_135mm	135	Category 12/P	63.51545799	75.7641119	3.433264645	9
Peak Shaver	P_INV009_135mm	135	Category 12/P	56.512015	63.72970866	9.065222832	12.61710051
Peak Shaver	P_INV009_135mm	135	Category 12/P	43.29904681	39.02731597	18.03777628	30.003942
Peak Shaver	P_INV009_135mm	135	Category 12/P	81.15298404	104.3755749	-11.96545687	4.7
Peak Shaver	P_INV009_406mm	406	Category 1/P	81.90298899	105.9509436	-13.72620452	5
Peak Shaver	P_INV009_406mm	406	Category 1/P	64.99894077	79.23416479	1.404462042	9
Peak Shaver	P_INV009_406mm	406	Category 1/P	57.46138373	66.72611919	7.721724791	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 1/P	43.42704252	41.35364504	17.83982922	30.003942
Peak Shaver	P_INV009_406mm	406	Category 1/P	84.01471173	109.1978431	-15.67808313	4.7
Peak Shaver	P_INV009_406mm	406	Category 2/P	79.20813814	101.3004583	-10.20048576	5
Peak Shaver	P_INV009_406mm	406	Category 2/P	63.52561593	75.77630285	3.431103594	9
Peak Shaver	P_INV009_406mm	406	Category 2/P	56.52065411	63.7400953	9.064598108	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 2/P	43.30488834	39.03416519	18.03970614	30.003942
Peak Shaver	P_INV009_406mm	406	Category 2/P	81.16683976	104.3921025	-11.97140482	4.7
Peak Shaver	P_INV009_406mm	406	Category 3/P	84.46269724	100.7589795	-18.99345159	5
Peak Shaver	P_INV009_406mm	406	Category 3/P	65.31050845	75.37761548	-1.546078849	9
Peak Shaver	P_INV009_406mm	406	Category 3/P	56.61836631	63.39776038	5.854980671	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 3/P	39.37486709	38.69733232	18.33639284	30.003942
Peak Shaver	P_INV009_406mm	406	Category 3/P	86.82827641	103.8318998	-21.21735526	4.7
Peak Shaver	P_INV009_406mm	406	Category 4/P	88.20193747	105.3454411	-23.58938189	5
Peak Shaver	P_INV009_406mm	406	Category 4/P	67.67913489	78.79681057	-4.460675479	9
Peak Shaver	P_INV009_406mm	406	Category 4/P	58.38422118	66.35878364	3.740420845	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 4/P	40.27720971	41.04704189	17.79350111	30.003942
Peak Shaver	P_INV009_406mm	406	Category 4/P	90.73620072	108.5738299	-26.00872619	4.7
Peak Shaver	P_INV009_406mm	406	Category 5/P	87.42285315	100.4518134	-24.79889232	5
Peak Shaver	P_INV009_406mm	406	Category 5/P	66.392331	75.06477498	-5.256107081	9
Peak Shaver	P_INV009_406mm	406	Category 5/P	56.73546433	63.04531423	3.15757114	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 5/P	37.06959266	38.06933783	17.60729665	30.003942
Peak Shaver	P_INV009_406mm	406	Category 5/P	90.00190893	103.5202102	-27.26128688	4.7
Peak Shaver	P_INV009_406mm	406	Category 6/P	88.20193747	105.3454411	-23.58938189	5
Peak Shaver	P_INV009_406mm	406	Category 6/P	67.67913489	78.79681057	-4.460675479	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV009_406mm	406	Category 6/P	58.38422118	66.35878364	3.740420845	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 6/P	40.27720971	41.04704189	17.79350111	30.003942
Peak Shaver	P_INV009_406mm	406	Category 6/P	90.73620072	108.5738299	-26.00872619	4.7
Peak Shaver	P_INV009_406mm	406	Category 7/P	81.90298899	105.9509436	-13.72620452	5
Peak Shaver	P_INV009_406mm	406	Category 7/P	64.99894077	79.23416479	1.404462042	9
Peak Shaver	P_INV009_406mm	406	Category 7/P	57.46138373	66.72611919	7.721724791	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 7/P	43.42704252	41.35364504	17.83982922	30.003942
Peak Shaver	P_INV009_406mm	406	Category 7/P	84.01471173	109.1978431	-15.67808313	4.7
Peak Shaver	P_INV009_406mm	406	Category 8/P	91.67408587	105.0102363	-29.88273349	5
Peak Shaver	P_INV009_406mm	406	Category 8/P	69.2528135	78.48272341	-8.650687056	9
Peak Shaver	P_INV009_406mm	406	Category 8/P	58.97502833	66.01764481	0.610182081	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 8/P	38.44747961	40.48467036	16.74750177	30.003942
Peak Shaver	P_INV009_406mm	406	Category 8/P	94.42494482	108.2273456	-32.54297054	4.7
Peak Shaver	P_INV009_406mm	406	Category 9/P	84.46269724	100.7589795	-18.99345159	5
Peak Shaver	P_INV009_406mm	406	Category 9/P	65.31050845	75.37761548	-1.546078849	9
Peak Shaver	P_INV009_406mm	406	Category 9/P	56.61836631	63.39776038	5.854980671	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 9/P	39.37486709	38.69733232	18.33639284	30.003942
Peak Shaver	P_INV009_406mm	406	Category 9/P	86.82827641	103.8318998	-21.21735526	4.7
Peak Shaver	P_INV009_406mm	406	Category 10/P	87.42285315	100.4518134	-24.79889232	5
Peak Shaver	P_INV009_406mm	406	Category 10/P	66.392331	75.06477498	-5.256107081	9
Peak Shaver	P_INV009_406mm	406	Category 10/P	56.73546433	63.04531423	3.15757114	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 10/P	37.06959266	38.06933783	17.60729665	30.003942
Peak Shaver	P_INV009_406mm	406	Category 10/P	90.00190893	103.5202102	-27.26128688	4.7
Peak Shaver	P_INV009_406mm	406	Category 11/P	91.67408587	105.0102363	-29.88273349	5
Peak Shaver	P_INV009_406mm	406	Category 11/P	69.2528135	78.48272341	-8.650687056	9
Peak Shaver	P_INV009_406mm	406	Category 11/P	58.97502833	66.01764481	0.610182081	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 11/P	38.44747961	40.48467036	16.74750177	30.003942
Peak Shaver	P_INV009_406mm	406	Category 11/P	94.42494482	108.2273456	-32.54297054	4.7
Peak Shaver	P_INV009_406mm	406	Category 12/P	79.20813814	101.3004583	-10.20048576	5
Peak Shaver	P_INV009_406mm	406	Category 12/P	63.52561593	75.77630285	3.431103594	9
Peak Shaver	P_INV009_406mm	406	Category 12/P	56.52065411	63.7400953	9.064598108	12.61710051
Peak Shaver	P_INV009_406mm	406	Category 12/P	43.30488834	39.03416519	18.03970614	30.003942
Peak Shaver	P_INV009_406mm	406	Category 12/P	81.16683976	104.3921025	-11.97140482	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 1/P	29.86388444	31.10756454	-3.476216799	5
Peak Shaver	P_INV010_25mm (all)	25	Category 1/P	25.62468585	23.91438378	-1.948265808	9
Peak Shaver	P_INV010_25mm (all)	25	Category 1/P	23.68215733	20.44078715	-1.34243484	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 1/P	19.71972179	12.15173862	-0.170769803	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 1/P	30.39395606	32.04982832	-3.698450478	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 2/P	29.36618123	30.1558947	-3.332744161	5
Peak Shaver	P_INV010_25mm (all)	25	Category 2/P	25.28282134	23.28244162	-1.877941867	9
Peak Shaver	P_INV010_25mm (all)	25	Category 2/P	23.40070781	19.8768264	-1.289153872	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 2/P	19.5382467	11.69448102	-0.143564186	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 2/P	29.87741772	31.06336848	-3.542960516	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 3/P	30.98664642	30.40229976	-2.673030011	5
Peak Shaver	P_INV010_25mm (all)	25	Category 3/P	26.96206677	23.39299058	-1.438592844	9
Peak Shaver	P_INV010_25mm (all)	25	Category 3/P	25.07478252	19.71222779	-0.914481042	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 3/P	21.08441815	10.62186219	0.157018193	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 3/P	31.47881541	31.21271057	-2.838592671	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 4/P	31.47080982	31.24564959	-2.783958847	5
Peak Shaver	P_INV010_25mm (all)	25	Category 4/P	27.30556149	24.06546697	-1.504076996	9
Peak Shaver	P_INV010_25mm (all)	25	Category 4/P	25.35643974	20.32715432	-0.958648649	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 4/P	21.27499612	11.24719608	0.134838854	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 4/P	31.98522557	32.0807069	-2.961902408	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 5/P	33.3460435	30.98636506	-1.637594578	5
Peak Shaver	P_INV010_25mm (all)	25	Category 5/P	29.48027508	23.21571378	-0.703617707	9
Peak Shaver	P_INV010_25mm (all)	25	Category 5/P	27.62651765	18.9836824	-0.277285466	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 5/P	23.48931106	9.035347488	0.760492695	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 5/P	33.81323434	31.85656925	-1.759173555	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 6/P	31.47080982	31.24564959	-2.783958847	5
Peak Shaver	P_INV010_25mm (all)	25	Category 6/P	27.30556149	24.06546697	-1.504076996	9
Peak Shaver	P_INV010_25mm (all)	25	Category 6/P	25.35643974	20.32715432	-0.958648649	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV010_25mm (all)	25	Category 6/P	21.27499612	11.24719608	0.134838854	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 6/P	31.98522557	32.0807069	-2.961902408	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 7/P	29.86388444	31.10756454	-3.476216799	5
Peak Shaver	P_INV010_25mm (all)	25	Category 7/P	25.62468585	23.91438378	-1.948265808	9
Peak Shaver	P_INV010_25mm (all)	25	Category 7/P	23.68215733	20.44078715	-1.34243484	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 7/P	19.71972179	12.15173862	-0.170769803	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 7/P	30.39395606	32.04982832	-3.698450478	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 8/P	33.80675626	31.90298218	-1.714230674	5
Peak Shaver	P_INV010_25mm (all)	25	Category 8/P	29.8124901	23.98042911	-0.749409197	9
Peak Shaver	P_INV010_25mm (all)	25	Category 8/P	27.90653208	19.69487538	-0.311205193	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 8/P	23.68414264	9.450482976	0.757680998	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 8/P	34.29203848	32.79603954	-1.840474659	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 9/P	30.98664642	30.40229976	-2.673030011	5
Peak Shaver	P_INV010_25mm (all)	25	Category 9/P	26.96206677	23.39299058	-1.438592844	9
Peak Shaver	P_INV010_25mm (all)	25	Category 9/P	25.07478252	19.71222779	-0.914481042	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 9/P	21.08441815	10.62186219	0.157018193	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 9/P	31.47881541	31.21271057	-2.838592671	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 10/P	33.3460435	30.98636506	-1.637594578	5
Peak Shaver	P_INV010_25mm (all)	25	Category 10/P	29.48027508	23.21571378	-0.703617707	9
Peak Shaver	P_INV010_25mm (all)	25	Category 10/P	27.62651765	18.9836824	-0.277285466	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 10/P	23.48931106	9.035347488	0.760492695	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 10/P	33.81323434	31.85656925	-1.759173555	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 11/P	33.80675626	31.90298218	-1.714230674	5
Peak Shaver	P_INV010_25mm (all)	25	Category 11/P	29.8124901	23.98042911	-0.749409197	9
Peak Shaver	P_INV010_25mm (all)	25	Category 11/P	27.90653208	19.69487538	-0.311205193	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 11/P	23.68414264	9.450482976	0.757680998	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 11/P	34.29203848	32.79603954	-1.840474659	4.7
Peak Shaver	P_INV010_25mm (all)	25	Category 12/P	29.36618123	30.1558947	-3.332744161	5
Peak Shaver	P_INV010_25mm (all)	25	Category 12/P	25.28282134	23.28244162	-1.877941867	9
Peak Shaver	P_INV010_25mm (all)	25	Category 12/P	23.40070781	19.8768264	-1.289153872	12.61710051
Peak Shaver	P_INV010_25mm (all)	25	Category 12/P	19.5382467	11.69448102	-0.143564186	30.003942
Peak Shaver	P_INV010_25mm (all)	25	Category 12/P	29.87741772	31.06336848	-3.542960516	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 1/P	36.48353361	38.86675078	-3.470399421	5
Peak Shaver	P_INV010_50mm (all)	50	Category 1/P	31.58915654	29.85978642	-1.929244785	9
Peak Shaver	P_INV010_50mm (all)	50	Category 1/P	29.34262189	25.40524929	-1.315882198	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 1/P	24.78194981	14.95291937	-0.133472411	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 1/P	37.09309081	40.05057663	-3.689932326	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 2/P	35.88237463	37.63769911	-3.326458652	5
Peak Shaver	P_INV010_50mm (all)	50	Category 2/P	31.17340134	28.99092885	-1.855896382	9
Peak Shaver	P_INV010_50mm (all)	50	Category 2/P	28.99975231	24.63275018	-1.260687344	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 2/P	24.56065223	14.34714355	-0.103271346	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 2/P	36.46765411	38.72901205	-3.53382393	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 3/P	37.93814915	37.14511742	-3.488337089	5
Peak Shaver	P_INV010_50mm (all)	50	Category 3/P	33.16041747	28.35162667	-2.025122902	9
Peak Shaver	P_INV010_50mm (all)	50	Category 3/P	30.90070086	23.72848011	-1.37344754	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 3/P	26.26295445	12.45264273	-0.35760979	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 3/P	38.52091665	38.15786852	-3.681660922	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 4/P	37.68232647	37.35888695	-3.523031054	5
Peak Shaver	P_INV010_50mm (all)	50	Category 4/P	32.842315	28.54104722	-2.033853624	9
Peak Shaver	P_INV010_50mm (all)	50	Category 4/P	30.56433513	23.94180547	-1.376459465	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 4/P	25.92549272	12.68421948	-0.370761949	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 4/P	38.27545993	38.3797983	-3.721085981	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 5/P	39.72161817	35.61372492	-2.93168049	5
Peak Shaver	P_INV010_50mm (all)	50	Category 5/P	35.03823456	26.40302503	-1.629833623	9
Peak Shaver	P_INV010_50mm (all)	50	Category 5/P	32.76168774	21.28428531	-1.031186836	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 5/P	27.78780116	9.633952489	-0.268510687	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 5/P	40.28290655	36.63295203	-3.095386254	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 6/P	36.95052873	36.58588412	-3.441832626	5
Peak Shaver	P_INV010_50mm (all)	50	Category 6/P	32.20575187	27.94155223	-1.977344026	9
Peak Shaver	P_INV010_50mm (all)	50	Category 6/P	29.9709461	23.4283462	-1.328508428	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 6/P	25.44181997	12.37389927	-0.382051162	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV010_50mm (all)	50	Category 6/P	37.5311712	37.58868656	-3.63640325	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 7/P	36.48353361	38.86675078	-3.470399421	5
Peak Shaver	P_INV010_50mm (all)	50	Category 7/P	31.58915654	29.85978642	-1.929244785	9
Peak Shaver	P_INV010_50mm (all)	50	Category 7/P	29.34262189	25.40524929	-1.315882198	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 7/P	24.78194981	14.95291937	-0.133472411	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 7/P	37.09309081	40.05057663	-3.689932326	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 8/P	39.29706081	35.74598146	-2.93666903	5
Peak Shaver	P_INV010_50mm (all)	50	Category 8/P	34.57873885	26.60037063	-1.622380947	9
Peak Shaver	P_INV010_50mm (all)	50	Category 8/P	32.29472043	21.53903687	-1.016456776	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 8/P	27.38302985	9.735855611	-0.285216806	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 8/P	39.86468962	36.76464427	-3.102496078	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 9/P	37.29080885	36.4724284	-3.417155104	5
Peak Shaver	P_INV010_50mm (all)	50	Category 9/P	32.5953881	27.82425184	-1.975229166	9
Peak Shaver	P_INV010_50mm (all)	50	Category 9/P	30.37326426	23.28150675	-1.330979375	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 9/P	25.83158793	12.18598679	-0.367779267	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 9/P	37.86394835	37.46690254	-3.607532294	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 10/P	39.27559736	35.18587898	-2.887169706	5
Peak Shaver	P_INV010_50mm (all)	50	Category 10/P	34.64425626	26.07518411	-1.596607199	9
Peak Shaver	P_INV010_50mm (all)	50	Category 10/P	32.3914723	21.01021748	-1.000700437	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 10/P	27.48365872	9.493231095	-0.276133029	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 10/P	39.83046614	36.19367593	-3.049311434	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 11/P	38.80786879	35.26907993	-2.887663323	5
Peak Shaver	P_INV010_50mm (all)	50	Category 11/P	34.1480403	26.23391665	-1.586073659	9
Peak Shaver	P_INV010_50mm (all)	50	Category 11/P	31.89087907	21.23194435	-0.984046473	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 11/P	27.05163704	9.576597851	-0.293439368	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 11/P	39.36832356	36.275062	-3.051733544	4.7
Peak Shaver	P_INV010_50mm (all)	50	Category 12/P	35.88237463	37.63769911	-3.326458652	5
Peak Shaver	P_INV010_50mm (all)	50	Category 12/P	31.17340134	28.99092885	-1.855896382	9
Peak Shaver	P_INV010_50mm (all)	50	Category 12/P	28.99975231	24.63275018	-1.260687344	12.61710051
Peak Shaver	P_INV010_50mm (all)	50	Category 12/P	24.56065223	14.34714355	-0.103271346	30.003942
Peak Shaver	P_INV010_50mm (all)	50	Category 12/P	36.46765411	38.72901205	-3.53382393	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 1/P	19.278089	20.12311602	-1.988174827	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 1/P	16.94535406	14.93630054	-1.082483909	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 1/P	15.85035683	12.32475731	-0.666760822	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 1/P	13.47006735	6.463390787	0.43659421	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 1/P	19.56312909	20.73056227	-2.102620035	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 2/P	19.56063918	20.13343065	-1.978485028	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 2/P	17.23772285	14.94050629	-1.083614067	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 2/P	16.14295132	12.31489538	-0.669310092	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 2/P	13.75567805	6.427288396	0.432552407	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 2/P	19.84441271	20.74108415	-2.092312497	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 3/P	20.18371485	19.07898683	-1.412012491	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 3/P	17.89433512	13.97562878	-0.630609816	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 3/P	16.78784785	11.30056721	-0.235687503	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 3/P	14.29918644	5.386067943	0.834854581	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 3/P	20.45952489	19.66160926	-1.509186324	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 4/P	19.83523909	19.01591229	-1.41723414	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 4/P	17.54478339	13.94914742	-0.630127864	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 4/P	16.43791153	11.30374816	-0.227660316	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 4/P	13.97158667	5.395204978	0.835145844	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 4/P	20.11333371	19.59792739	-1.514056306	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 5/P	21.27347829	17.72080514	-0.930291094	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 5/P	18.95726781	12.444126	-0.209789347	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 5/P	17.6904269	9.606451168	0.383367364	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 5/P	14.60343123	4.20717256	1.82122738	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 5/P	21.54605176	18.30066184	-1.011396463	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 6/P	18.98887543	18.1276489	-1.345604111	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 6/P	16.78974391	13.27593182	-0.571268735	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 6/P	15.72109271	10.7420301	-0.16521833	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 6/P	13.32005824	5.103805539	0.930613395	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 6/P	19.25435171	18.6838158	-1.439696766	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV010_102mm (1hr)	102	Category 7/P	18.57460047	19.32040918	-1.911077117	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 7/P	16.32556919	14.32688754	-1.027808274	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 7/P	15.26717478	11.81043766	-0.617873331	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 7/P	12.96496143	6.160794357	0.465425616	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 7/P	18.85008902	19.90501385	-2.024141415	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 8/P	20.91685919	17.70247974	-0.931485325	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 8/P	18.60212015	12.48391433	-0.208679401	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 8/P	17.33608859	9.670497573	0.395081604	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 8/P	14.2402806	4.147653592	1.933466589	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 8/P	21.19093532	18.28065053	-1.016469435	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 9/P	19.30289053	18.16485522	-1.338058416	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 9/P	17.10891568	13.28735067	-0.574193273	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 9/P	16.03986721	10.72751795	-0.172174703	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 9/P	13.63595553	5.087134724	0.897129993	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 9/P	19.56691104	18.72536669	-1.430194623	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 10/P	20.33957095	16.8620786	-0.865836882	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 10/P	18.11643728	11.8084533	-0.154265349	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 10/P	16.90088441	9.094223087	0.420827153	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 10/P	13.82171969	4.077630447	2.020007087	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 10/P	20.60201438	17.41701384	-0.947845699	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 11/P	20.0461944	16.88642587	-0.873264686	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 11/P	17.81522417	11.87808775	-0.149123581	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 11/P	16.6078478	9.172820949	0.417210145	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 11/P	13.51283923	4.027529785	2.120396106	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 11/P	20.30745136	17.43837304	-0.951753138	4.7
Peak Shaver	P_INV010_102mm (1hr)	102	Category 12/P	18.88361531	19.37415185	-1.903359212	5
Peak Shaver	P_INV010_102mm (1hr)	102	Category 12/P	16.63857968	14.36384394	-1.02819442	9
Peak Shaver	P_INV010_102mm (1hr)	102	Category 12/P	15.57936306	11.82884786	-0.62143294	12.61710051
Peak Shaver	P_INV010_102mm (1hr)	102	Category 12/P	13.26940626	6.146968345	0.455014172	30.003942
Peak Shaver	P_INV010_102mm (1hr)	102	Category 12/P	19.15680821	19.95994847	-2.013143751	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 1/P	13.06534643	12.92287049	-1.522879958	5
Peak Shaver	P_INV010_10mm (all)	10	Category 1/P	11.16169484	9.86162929	-0.659204401	9
Peak Shaver	P_INV010_10mm (all)	10	Category 1/P	10.22549547	8.29844386	-0.187694619	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 1/P	8.230800963	4.567362384	0.853617886	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 1/P	13.29912633	13.27927532	-1.631989926	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 2/P	12.89252718	12.63306192	-1.459114261	5
Peak Shaver	P_INV010_10mm (all)	10	Category 2/P	11.03936317	9.639880731	-0.61962517	9
Peak Shaver	P_INV010_10mm (all)	10	Category 2/P	10.11477017	8.099445294	-0.13709459	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 2/P	8.157138082	4.420110582	0.887018057	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 2/P	13.11841134	12.98123782	-1.56782857	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 3/P	13.60552048	12.74137899	-1.101812321	5
Peak Shaver	P_INV010_10mm (all)	10	Category 3/P	11.74994429	9.599742975	-0.307965086	9
Peak Shaver	P_INV010_10mm (all)	10	Category 3/P	10.78659677	7.933731161	0.21350587	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 3/P	8.660672941	3.937892471	1.388336167	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 3/P	13.82699326	13.10100678	-1.193474362	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 4/P	13.77634883	13.03806683	-1.152921416	5
Peak Shaver	P_INV010_10mm (all)	10	Category 4/P	11.87237082	9.837430156	-0.342670896	9
Peak Shaver	P_INV010_10mm (all)	10	Category 4/P	10.85905229	8.150331596	0.243795935	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 4/P	8.704307263	4.08685001	1.425383428	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 4/P	14.0030652	13.40482733	-1.247962631	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 5/P	14.64360263	12.8643018	-0.518163072	5
Peak Shaver	P_INV010_10mm (all)	10	Category 5/P	12.77523026	9.360425852	0.301963267	9
Peak Shaver	P_INV010_10mm (all)	10	Category 5/P	11.91122033	7.439761267	0.596756378	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 5/P	9.287293947	3.365657409	2.532108181	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 5/P	14.86017712	13.25365181	-0.601521131	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 6/P	13.77634883	13.03806683	-1.152921416	5
Peak Shaver	P_INV010_10mm (all)	10	Category 6/P	11.87237082	9.837430156	-0.342670896	9
Peak Shaver	P_INV010_10mm (all)	10	Category 6/P	10.85905229	8.150331596	0.243795935	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 6/P	8.704307263	4.08685001	1.425383428	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 6/P	14.0030652	13.40482733	-1.247962631	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 7/P	13.06534643	12.92287049	-1.522879958	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV010_10mm (all)	10	Category 7/P	11.16169484	9.86162929	-0.659204401	9
Peak Shaver	P_INV010_10mm (all)	10	Category 7/P	10.22549547	8.29844386	-0.187694619	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 7/P	8.230800963	4.567362384	0.853617886	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 7/P	13.29912633	13.27927532	-1.631989926	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 8/P	14.80889098	13.18740666	-0.562012011	5
Peak Shaver	P_INV010_10mm (all)	10	Category 8/P	12.85742076	9.631536751	0.344340588	9
Peak Shaver	P_INV010_10mm (all)	10	Category 8/P	12.0128834	7.686291554	0.571553568	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 8/P	9.367294056	3.473087796	2.51095634	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 8/P	15.0291338	13.58508784	-0.646444645	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 9/P	13.60552048	12.74137899	-1.101812321	5
Peak Shaver	P_INV010_10mm (all)	10	Category 9/P	11.74994429	9.599742975	-0.307965086	9
Peak Shaver	P_INV010_10mm (all)	10	Category 9/P	10.78659677	7.933731161	0.21350587	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 9/P	8.660672941	3.937892471	1.388336167	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 9/P	13.82699326	13.10100678	-1.193474362	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 10/P	14.64360263	12.8643018	-0.518163072	5
Peak Shaver	P_INV010_10mm (all)	10	Category 10/P	12.77523026	9.360425852	0.301963267	9
Peak Shaver	P_INV010_10mm (all)	10	Category 10/P	11.91122033	7.439761267	0.596756378	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 10/P	9.287293947	3.365657409	2.532108181	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 10/P	14.86017712	13.25365181	-0.601521131	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 11/P	14.80889098	13.18740666	-0.562012011	5
Peak Shaver	P_INV010_10mm (all)	10	Category 11/P	12.85742076	9.631536751	0.344340588	9
Peak Shaver	P_INV010_10mm (all)	10	Category 11/P	12.0128834	7.686291554	0.571553568	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 11/P	9.367294056	3.473087796	2.51095634	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 11/P	15.0291338	13.58508784	-0.646444645	4.7
Peak Shaver	P_INV010_10mm (all)	10	Category 12/P	12.89252718	12.63306192	-1.459114261	5
Peak Shaver	P_INV010_10mm (all)	10	Category 12/P	11.03936317	9.639880731	-0.61962517	9
Peak Shaver	P_INV010_10mm (all)	10	Category 12/P	10.11477017	8.099445294	-0.13709459	12.61710051
Peak Shaver	P_INV010_10mm (all)	10	Category 12/P	8.157138082	4.420110582	0.887018057	30.003942
Peak Shaver	P_INV010_10mm (all)	10	Category 12/P	13.11841134	12.98123782	-1.56782857	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 1/P	19.278089	20.12311602	-1.988174827	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 1/P	16.94535406	14.93630054	-1.082483909	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 1/P	15.85035683	12.32475731	-0.666760822	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 1/P	13.47006735	6.463390787	0.43659421	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 1/P	19.56312909	20.73056227	-2.102620035	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 2/P	19.56063918	20.13343065	-1.978485028	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 2/P	17.23772285	14.94050629	-1.083614067	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 2/P	16.14295132	12.31489538	-0.669310092	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 2/P	13.75567805	6.427288396	0.432552407	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 2/P	19.84441271	20.74108415	-2.092312497	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 3/P	20.18371485	19.07898683	-1.412012491	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 3/P	17.89433512	13.97562878	-0.630609816	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 3/P	16.78784785	11.30056721	-0.235687503	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 3/P	14.29918644	5.386067943	0.834854581	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 3/P	20.45952489	19.66160926	-1.509186324	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 4/P	19.83523909	19.01591229	-1.41723414	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 4/P	17.54478339	13.94914742	-0.630127864	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 4/P	16.43791153	11.30374816	-0.227660316	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 4/P	13.97158667	5.395204978	0.835145844	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 4/P	20.11333371	19.59792739	-1.514056306	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 5/P	21.27347829	17.72080514	-0.930291094	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 5/P	18.95726781	12.444126	-0.209789347	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 5/P	17.6904269	9.606451168	0.383367364	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 5/P	14.60343123	4.20717256	1.82122738	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 5/P	21.54605176	18.30066184	-1.011396463	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 6/P	18.98887543	18.1276489	-1.345604111	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 6/P	16.78974391	13.27593182	-0.571268735	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 6/P	15.72109271	10.7420301	-0.16521833	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 6/P	13.32005824	5.103805539	0.930613395	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 6/P	19.25435171	18.6838158	-1.439696766	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 7/P	18.57460047	19.32040918	-1.911077117	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 7/P	16.32556919	14.32688754	-1.027808274	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV010_102mm (2min)	102	Category 7/P	15.26717478	11.81043766	-0.617873331	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 7/P	12.96496143	6.160794357	0.465425616	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 7/P	18.85008902	19.90501385	-2.024141415	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 8/P	20.91685919	17.70247974	-0.931485325	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 8/P	18.60212015	12.48391433	-0.208679401	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 8/P	17.33608859	9.670497573	0.395081604	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 8/P	14.2402806	4.147653592	1.933466589	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 8/P	21.19093532	18.28065053	-1.016469435	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 9/P	19.30289053	18.16485522	-1.338058416	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 9/P	17.10891568	13.28735067	-0.574193273	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 9/P	16.03986721	10.72751795	-0.172174703	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 9/P	13.63595553	5.087134724	0.897129993	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 9/P	19.56691104	18.72536669	-1.430194623	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 10/P	20.33957095	16.8620786	-0.865836882	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 10/P	18.11643728	11.8084533	-0.154265349	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 10/P	16.90088441	9.094223087	0.420827153	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 10/P	13.82171969	4.077630447	2.020007087	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 10/P	20.60201438	17.41701384	-0.947845699	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 11/P	20.0461944	16.88642587	-0.873264686	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 11/P	17.81522417	11.87808775	-0.149123581	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 11/P	16.6078478	9.172820949	0.417210145	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 11/P	13.51283923	4.027529785	2.120396106	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 11/P	20.30745136	17.43837304	-0.951753138	4.7
Peak Shaver	P_INV010_102mm (2min)	102	Category 12/P	18.88361531	19.37415185	-1.903359212	5
Peak Shaver	P_INV010_102mm (2min)	102	Category 12/P	16.63857968	14.36384394	-1.02819442	9
Peak Shaver	P_INV010_102mm (2min)	102	Category 12/P	15.57936306	11.82884786	-0.62143294	12.61710051
Peak Shaver	P_INV010_102mm (2min)	102	Category 12/P	13.26940626	6.146968345	0.455014172	30.003942
Peak Shaver	P_INV010_102mm (2min)	102	Category 12/P	19.15680821	19.95994847	-2.013143751	4.7
Peak Shaver	P_INV011_25mm	25	Category 1/P	1.343052133	0.647594815	3.206265142	5
Peak Shaver	P_INV011_25mm	25	Category 1/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 1/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 1/P	1.570565986	0.761565454	2.847580471	4.7
Peak Shaver	P_INV011_25mm	25	Category 2/P	1.297402753	0.622264199	3.446676658	5
Peak Shaver	P_INV011_25mm	25	Category 2/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 2/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 2/P	1.539763157	0.73659927	3.066471888	4.7
Peak Shaver	P_INV011_25mm	25	Category 3/P	1.759964532	1.079723526	2.130347616	5
Peak Shaver	P_INV011_25mm	25	Category 3/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 3/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 3/P	1.900287247	1.201637863	1.933036965	4.7
Peak Shaver	P_INV011_25mm	25	Category 4/P	1.783875175	1.134663395	1.967791505	5
Peak Shaver	P_INV011_25mm	25	Category 4/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 4/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 4/P	1.908734598	1.254904644	1.795587049	4.7
Peak Shaver	P_INV011_25mm	25	Category 5/P	1.768564373	1.235619291	1.78954149	5
Peak Shaver	P_INV011_25mm	25	Category 5/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 5/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 5/P	1.886649129	1.366145285	1.644272119	4.7
Peak Shaver	P_INV011_25mm	25	Category 6/P	1.783875175	1.134663395	1.967791505	5
Peak Shaver	P_INV011_25mm	25	Category 6/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 6/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 6/P	1.908734598	1.254904644	1.795587049	4.7
Peak Shaver	P_INV011_25mm	25	Category 7/P	1.343052133	0.647594815	3.206265142	5
Peak Shaver	P_INV011_25mm	25	Category 7/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 7/P	0	0	0	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV011_25mm	25	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 7/P	1.570565986	0.761565454	2.847580471	4.7
Peak Shaver	P_INV011_25mm	25	Category 8/P	1.787302613	1.304620459	1.668842555	5
Peak Shaver	P_INV011_25mm	25	Category 8/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 8/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 8/P	1.90232786	1.432654452	1.521211337	4.7
Peak Shaver	P_INV011_25mm	25	Category 9/P	1.759964532	1.079723526	2.130347616	5
Peak Shaver	P_INV011_25mm	25	Category 9/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 9/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 9/P	1.900287247	1.201637863	1.933036965	4.7
Peak Shaver	P_INV011_25mm	25	Category 10/P	1.768564373	1.235619291	1.78954149	5
Peak Shaver	P_INV011_25mm	25	Category 10/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 10/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 10/P	1.886649129	1.366145285	1.644272119	4.7
Peak Shaver	P_INV011_25mm	25	Category 11/P	1.787302613	1.304620459	1.668842555	5
Peak Shaver	P_INV011_25mm	25	Category 11/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 11/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 11/P	1.90232786	1.432654452	1.521211337	4.7
Peak Shaver	P_INV011_25mm	25	Category 12/P	1.297402753	0.622264199	3.446676658	5
Peak Shaver	P_INV011_25mm	25	Category 12/P	0	0	0	9
Peak Shaver	P_INV011_25mm	25	Category 12/P	0	0	0	12.61710051
Peak Shaver	P_INV011_25mm	25	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV011_25mm	25	Category 12/P	1.539763157	0.73659927	3.066471888	4.7
Peak Shaver	P_INV011_50mm	50	Category 1/P	0	0	0	5
Peak Shaver	P_INV011_50mm	50	Category 1/P	0	0	0	9
Peak Shaver	P_INV011_50mm	50	Category 1/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 1/P	0	0	0	4.7
Peak Shaver	P_INV011_50mm	50	Category 2/P	0	0	0	5
Peak Shaver	P_INV011_50mm	50	Category 2/P	0	0	0	9
Peak Shaver	P_INV011_50mm	50	Category 2/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 2/P	0	0	0	4.7
Peak Shaver	P_INV011_50mm	50	Category 3/P	0	0	0	5
Peak Shaver	P_INV011_50mm	50	Category 3/P	0	0	0	9
Peak Shaver	P_INV011_50mm	50	Category 3/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 3/P	0	0	0	4.7
Peak Shaver	P_INV011_50mm	50	Category 4/P	0	0	0	5
Peak Shaver	P_INV011_50mm	50	Category 4/P	0	0	0	9
Peak Shaver	P_INV011_50mm	50	Category 4/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 4/P	0	0	0	4.7
Peak Shaver	P_INV011_50mm	50	Category 5/P	2.741116816	1.437428758	1.041067984	5
Peak Shaver	P_INV011_50mm	50	Category 5/P	0	0	0	9
Peak Shaver	P_INV011_50mm	50	Category 5/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 5/P	2.827712508	1.560677705	0.944666619	4.7
Peak Shaver	P_INV011_50mm	50	Category 6/P	0	0	0	5
Peak Shaver	P_INV011_50mm	50	Category 6/P	0	0	0	9
Peak Shaver	P_INV011_50mm	50	Category 6/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 6/P	0	0	0	4.7
Peak Shaver	P_INV011_50mm	50	Category 7/P	0	0	0	5
Peak Shaver	P_INV011_50mm	50	Category 7/P	0	0	0	9
Peak Shaver	P_INV011_50mm	50	Category 7/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 7/P	0	0	0	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV011_50mm	50	Category 7/P	0	0	0	4.7
Peak Shaver	P_INV011_50mm	50	Category 8/P	2.730157258	1.536290724	0.956317485	5
Peak Shaver	P_INV011_50mm	50	Category 8/P	0.670652893	0.281203755	4.083791639	9
Peak Shaver	P_INV011_50mm	50	Category 8/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 8/P	2.844594169	1.670458936	0.885991048	4.7
Peak Shaver	P_INV011_50mm	50	Category 9/P	0	0	0	5
Peak Shaver	P_INV011_50mm	50	Category 9/P	0	0	0	9
Peak Shaver	P_INV011_50mm	50	Category 9/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 9/P	0	0	0	4.7
Peak Shaver	P_INV011_50mm	50	Category 10/P	2.741116816	1.437428758	1.041067984	5
Peak Shaver	P_INV011_50mm	50	Category 10/P	0	0	0	9
Peak Shaver	P_INV011_50mm	50	Category 10/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 10/P	2.827712508	1.560677705	0.944666619	4.7
Peak Shaver	P_INV011_50mm	50	Category 11/P	2.730157258	1.536290724	0.956317485	5
Peak Shaver	P_INV011_50mm	50	Category 11/P	0.670652893	0.281203755	4.083791639	9
Peak Shaver	P_INV011_50mm	50	Category 11/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 11/P	2.844594169	1.670458936	0.885991048	4.7
Peak Shaver	P_INV011_50mm	50	Category 12/P	0	0	0	5
Peak Shaver	P_INV011_50mm	50	Category 12/P	0	0	0	9
Peak Shaver	P_INV011_50mm	50	Category 12/P	0	0	0	12.61710051
Peak Shaver	P_INV011_50mm	50	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV011_50mm	50	Category 12/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 1/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 1/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 1/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 1/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 2/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 2/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 2/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 2/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 3/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 3/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 3/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 3/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 4/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 4/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 4/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 4/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 5/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 5/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 5/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 5/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 6/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 6/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 6/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 6/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 7/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 7/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 7/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 7/P	0	0	0	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV011_76mm	76	Category 8/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 8/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 8/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 8/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 9/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 9/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 9/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 9/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 10/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 10/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 10/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 10/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 11/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 11/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 11/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 11/P	0	0	0	4.7
Peak Shaver	P_INV011_76mm	76	Category 12/P	0	0	0	5
Peak Shaver	P_INV011_76mm	76	Category 12/P	0	0	0	9
Peak Shaver	P_INV011_76mm	76	Category 12/P	0	0	0	12.61710051
Peak Shaver	P_INV011_76mm	76	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV011_76mm	76	Category 12/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 1/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 1/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 1/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 1/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 2/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 2/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 2/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 2/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 3/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 3/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 3/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 3/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 4/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 4/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 4/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 4/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 5/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 5/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 5/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 5/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 6/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 6/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 6/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 6/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 7/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 7/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 7/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 7/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 8/P	0	0	0	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV011_8mm	8	Category 8/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 8/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 8/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 9/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 9/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 9/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 9/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 10/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 10/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 10/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 10/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 11/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 11/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 11/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 11/P	0	0	0	4.7
Peak Shaver	P_INV011_8mm	8	Category 12/P	0	0	0	5
Peak Shaver	P_INV011_8mm	8	Category 12/P	0	0	0	9
Peak Shaver	P_INV011_8mm	8	Category 12/P	0	0	0	12.61710051
Peak Shaver	P_INV011_8mm	8	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV011_8mm	8	Category 12/P	0	0	0	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 1/P	3.219695206	4.326918505	4.811200146	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 1/P	2.640243673	2.977006997	4.811200146	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 1/P	2.356154486	2.595842268	4.811200146	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 1/P	1.922382682	1.553488625	4.816624084	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 1/P	3.287935287	4.457559355	4.811200146	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 2/P	5.78785949	5.443236503	-0.212365326	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 2/P	4.913447793	3.856674499	0.382649215	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 2/P	4.432438376	3.048889109	0.780031742	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 2/P	2.961952676	1.44094459	2.856389095	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 2/P	5.904847054	5.630250274	-0.310865958	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 3/P	6.10296983	5.290005015	0.136089087	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 3/P	5.217274536	3.665700741	0.710167256	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 3/P	4.647528587	2.834866009	1.257457308	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 3/P	2.922103086	1.67699145	3.888655082	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 3/P	6.198353444	5.47156686	0.086775751	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 4/P	6.028851513	5.288968959	0.126665704	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 4/P	5.142217892	3.670997455	0.699916356	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 4/P	4.574516971	2.842645869	1.242359821	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 4/P	2.51359003	1.745397994	4.550750931	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 4/P	6.12429815	5.47230447	0.077606479	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 5/P	6.708376904	5.053279318	0.405991222	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 5/P	5.644334126	3.304271299	1.239858879	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 5/P	4.916422243	2.442193141	2.039994192	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 5/P	6.812761816	5.249301475	0.347896301	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 6/P	5.952657211	5.219634385	0.137229248	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 6/P	5.071632668	3.619675443	0.711707868	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 6/P	4.504787219	2.800941642	1.255787914	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 6/P	2.769863165	1.64444848	3.948334504	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 6/P	6.047518867	5.400966293	0.08781749	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 7/P	5.671596562	5.395171764	-0.213949503	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 7/P	4.799232691	3.821193273	0.38193913	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 7/P	4.317213086	3.02208604	0.782511981	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 7/P	2.861157625	1.423323214	2.865219208	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 7/P	5.787695263	5.581215302	-0.311030222	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 8/P	6.601321698	5.043913253	0.401358781	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 8/P	5.540859762	3.305975954	1.23130714	9

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV012_25mm (1hr)	25	Category 8/P	4.810482523	2.444184964	2.039977414	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 8/P	6.705977055	5.238292038	0.342538337	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 9/P	6.040944328	5.233943873	0.143715499	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 9/P	5.159320232	3.6242744	0.719763258	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 9/P	4.590647709	2.801515713	1.270142055	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 9/P	2.873861694	1.667785151	3.910710176	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 9/P	6.136814515	5.41400035	0.09219856	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 10/P	6.477363829	4.986982909	0.701092421	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 10/P	5.55934266	3.255387806	1.257561472	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 10/P	4.833325606	2.404942417	2.061350886	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 10/P	6.72420739	5.176399519	0.356365187	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 11/P	6.495209678	4.957148913	0.411769242	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 11/P	5.438176458	3.245562941	1.25272482	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 11/P	4.709809028	2.398052925	2.066394503	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 11/P	6.597986247	5.148804253	0.354606066	4.7
Peak Shaver	P_INV012_25mm (1hr)	25	Category 12/P	5.731319966	5.389811923	-0.199487481	5
Peak Shaver	P_INV012_25mm (1hr)	25	Category 12/P	4.858901363	3.817042281	0.399664694	9
Peak Shaver	P_INV012_25mm (1hr)	25	Category 12/P	4.383698214	3.012742	0.789425607	12.61710051
Peak Shaver	P_INV012_25mm (1hr)	25	Category 12/P	2.922071787	1.422514999	2.874592608	30.003942
Peak Shaver	P_INV012_25mm (1hr)	25	Category 12/P	5.847763725	5.575259191	-0.298014425	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 1/P	6.839204902	6.539255529	-0.453332067	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 1/P	5.819245219	4.678603814	0.249692469	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 1/P	5.32605704	3.731952673	0.58882078	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 1/P	3.679166511	1.766789933	2.503485915	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 1/P	6.958260127	6.755651196	-0.533771836	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 2/P	6.900906599	6.521448341	-0.43810962	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 2/P	5.886687372	4.66062584	0.258861652	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 2/P	5.39112213	3.717767597	0.60577672	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 2/P	3.745561093	1.759527154	2.516935651	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 2/P	7.020147845	6.736405802	-0.518355485	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 3/P	7.217320503	6.322292169	0.035558652	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 3/P	6.265531232	4.431121585	0.549939874	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 3/P	5.683548894	3.451136054	1.03612579	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 3/P	3.789942663	1.836704329	3.511910711	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 3/P	7.350075473	6.538677707	-0.065382105	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 4/P	7.094529628	6.315642769	0.087768338	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 4/P	6.170375262	4.436886841	0.545995684	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 4/P	5.590749101	3.461311219	1.026134244	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 4/P	3.679446767	1.812804729	3.54322708	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 4/P	7.258960198	6.535123503	-0.076500779	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 5/P	7.92645467	6.045175579	0.28901944	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 5/P	6.816555219	3.992907529	1.008425747	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 5/P	6.062984822	2.98037491	1.75207458	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 5/P	8.039551903	6.272563098	0.239105281	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 6/P	7.001663131	6.215830711	0.070103178	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 6/P	6.071247405	4.361669655	0.55882383	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 6/P	5.493069615	3.400463598	1.045731955	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 6/P	3.598146608	1.798059791	3.577310246	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 6/P	7.140081918	6.428981617	-0.044065736	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 7/P	6.748545611	6.449036063	-0.435884104	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 7/P	5.739826731	4.61037957	0.25988586	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 7/P	5.248776766	3.675687245	0.601702861	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 7/P	3.627981873	1.737227189	2.506371958	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 7/P	6.867901983	6.662976465	-0.518304666	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 8/P	7.787796829	6.025648117	0.287677998	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 8/P	6.693920961	3.988760309	0.981466907	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 8/P	5.926823518	2.966498061	1.757969764	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV012_30mm (1hr)	30	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 8/P	7.900710171	6.250651595	0.237541924	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 9/P	7.130137372	6.240817254	0.043263524	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 9/P	6.12019356	4.378447905	0.693357005	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 9/P	5.6030637	3.402468809	1.052666878	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 9/P	3.722945174	1.824667704	3.539639951	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 9/P	7.252367289	6.453444215	-0.038462035	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 10/P	7.79772553	5.939347171	0.301052037	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 10/P	6.701100341	3.91721743	1.015923866	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 10/P	5.941124373	2.908528437	1.783291175	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 10/P	7.909269499	6.163409931	0.250213877	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 11/P	7.639659165	5.90159334	0.30078498	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 11/P	6.539227432	3.905000352	1.033371866	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 11/P	5.788492175	2.899898879	1.789814161	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 11/P	7.746305942	6.122660235	0.260122582	4.7
Peak Shaver	P_INV012_30mm (1hr)	30	Category 12/P	6.823749068	6.445237051	-0.42455105	5
Peak Shaver	P_INV012_30mm (1hr)	30	Category 12/P	5.820112648	4.603026539	0.264265726	9
Peak Shaver	P_INV012_30mm (1hr)	30	Category 12/P	5.327962374	3.66863116	0.610114148	12.61710051
Peak Shaver	P_INV012_30mm (1hr)	30	Category 12/P	3.691733821	1.737179502	2.53831951	30.003942
Peak Shaver	P_INV012_30mm (1hr)	30	Category 12/P	6.942305447	6.657997702	-0.505042863	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 1/P	19.61825917	20.51419227	-2.010930379	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 1/P	17.24178735	15.2412104	-1.097084037	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 1/P	16.12667482	12.58700248	-0.678036985	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 1/P	13.70405121	6.623303784	0.43559517	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 1/P	19.90920341	21.13204324	-2.127484515	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 2/P	19.88721351	20.50398144	-1.999297736	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 2/P	17.52125665	15.22988683	-1.093431628	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 2/P	16.40729148	12.56405108	-0.675737459	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 2/P	13.98175572	6.458552628	0.43157562	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 2/P	20.17569873	21.12110269	-2.11339852	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 3/P	20.51209618	19.41864381	-1.427011661	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 3/P	18.18150286	14.24329404	-0.639770411	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 3/P	17.05651787	11.5292433	-0.244299977	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 3/P	14.54652793	5.504140231	0.791983891	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 3/P	20.79440176	20.00880802	-1.523980723	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 4/P	20.18787814	19.38512378	-1.434363712	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 4/P	17.85235439	14.23946776	-0.639919998	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 4/P	16.72690441	11.55186658	-0.239529951	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 4/P	14.2214641	5.524272892	0.819431898	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 4/P	20.47044474	19.9768247	-1.533354513	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 5/P	21.63018692	18.0547159	-0.960546647	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 5/P	19.27383263	12.69768873	-0.23806222	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 5/P	17.9827409	9.813043266	0.365304793	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 5/P	14.88711995	4.269654421	1.728770325	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 5/P	21.90879392	18.64325217	-1.04443878	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 6/P	19.33698351	18.49222993	-1.36087931	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 6/P	17.09629638	13.56227398	-0.584785801	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 6/P	16.00717109	10.98639177	-0.176352196	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 6/P	13.5708935	5.234340594	0.909240994	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 6/P	19.6096252	19.05793212	-1.459707557	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 7/P	18.90940175	19.70391409	-1.935000525	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 7/P	16.61622237	14.62546923	-1.040957267	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 7/P	15.53965113	12.06708042	-0.630720004	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 7/P	13.19778182	6.315957931	0.459141392	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 7/P	19.18900255	20.29786428	-2.046817236	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 8/P	21.2908559	18.05745337	-0.96200744	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 8/P	18.93413736	12.75449438	-0.238283843	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 8/P	17.64302936	9.891920477	0.375507752	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 8/P	14.53587327	4.212585989	1.842112971	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV012_102mm (1hr)	102	Category 8/P	21.57088316	18.64493313	-1.049330194	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 9/P	19.63509946	18.50793313	-1.353538595	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 9/P	17.39990159	13.55696857	-0.583911814	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 9/P	16.31317708	10.95719968	-0.183060422	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 9/P	13.874608	5.208420582	0.878561598	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 9/P	19.90507668	19.07697933	-1.448414241	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 10/P	20.70647733	17.2041506	-0.896779358	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 10/P	18.44312459	12.06717349	-0.184361561	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 10/P	17.20066734	9.305250034	0.40556565	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 10/P	14.10922723	4.142023609	1.935394474	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 10/P	20.97397105	17.76795452	-0.979453159	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 11/P	20.44225968	17.26064803	-0.905825911	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 11/P	18.16913506	12.16185995	-0.183996654	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 11/P	16.92698741	9.406516742	0.409914649	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 11/P	13.82924825	4.094829574	2.020661357	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 11/P	20.71127955	17.8226925	-0.989815832	4.7
Peak Shaver	P_INV012_102mm (1hr)	102	Category 12/P	19.19876323	19.73155275	-1.923158792	5
Peak Shaver	P_INV012_102mm (1hr)	102	Category 12/P	16.91415013	14.64298216	-1.040729653	9
Peak Shaver	P_INV012_102mm (1hr)	102	Category 12/P	15.83671682	12.06889846	-0.631222214	12.61710051
Peak Shaver	P_INV012_102mm (1hr)	102	Category 12/P	13.49021365	6.291293073	0.449781389	30.003942
Peak Shaver	P_INV012_102mm (1hr)	102	Category 12/P	19.47754592	20.32665593	-2.034821212	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 1/P	46.18674508	52.05860433	-5.190110973	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 1/P	40.47265388	39.29418466	-3.279438218	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 1/P	37.83310541	32.99747623	-2.458096606	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 1/P	32.51417293	18.92629856	-0.84140629	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 1/P	46.89122407	53.57685372	-5.443100476	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 2/P	46.03879525	50.96052655	-5.088707585	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 2/P	40.46963598	38.47579428	-3.22882982	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 2/P	37.88592119	32.27883907	-2.421886525	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 2/P	32.65592664	18.36406907	-0.825570482	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 2/P	46.72375335	52.43935912	-5.33379981	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 3/P	45.27989164	45.96943197	-3.618209591	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 3/P	40.08016224	34.49571206	-2.134722352	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 3/P	37.63204028	28.59625472	-1.470151263	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 3/P	32.57888908	14.98462043	-0.195139452	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 3/P	45.91441593	47.3032473	-3.810184972	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 4/P	45.70892263	47.27664025	-3.723599285	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 4/P	40.34438981	35.52313451	-2.198372285	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 4/P	37.82890635	29.52013306	-1.517807652	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 4/P	32.65817507	15.63078484	-0.199084242	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 4/P	46.36330342	48.6490799	-3.922731672	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 5/P	45.3514152	40.74107345	-2.667192397	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 5/P	40.41685468	29.7584379	-1.411846135	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 5/P	38.03084355	23.79164792	-0.825917195	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 5/P	32.9797582	10.80745471	-0.132439416	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 5/P	45.9448939	41.96957253	-2.82357698	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 6/P	42.34037775	43.51269695	-3.392749084	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 6/P	37.38427804	32.63796821	-1.967599146	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 6/P	35.05664354	27.07770108	-1.327639024	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 6/P	30.28230553	14.2020772	-0.123846032	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 6/P	42.94682549	44.77958795	-3.578123192	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 7/P	43.19913796	48.43031948	-4.798107013	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 7/P	37.86872198	36.52174422	-3.002771661	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 7/P	35.40275106	30.639604	-2.227879814	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 7/P	30.42171295	17.4753714	-0.681152769	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 7/P	43.85632127	49.84569577	-5.035593211	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 8/P	46.05162582	42.21927578	-2.771147671	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 8/P	40.94066286	30.98377349	-1.484157685	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 8/P	38.48035318	24.90505683	-0.880445999	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 8/P	33.30925222	11.33638052	-0.130998241	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 8/P	46.666749	43.4801117	-2.932960823	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV012_305mm (1hr)	305	Category 9/P	41.80177759	42.16779813	-3.280994573	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 9/P	37.01248787	31.58496567	-1.898405673	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 9/P	34.75339949	26.13160698	-1.274162752	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 9/P	30.11181701	13.55843844	-0.133927725	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 9/P	42.38576438	43.39222512	-3.459290131	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 10/P	41.45240384	36.9400621	-2.349802933	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 10/P	36.9454932	26.88097712	-1.180650329	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 10/P	34.75521748	21.40904422	-0.620707816	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 10/P	30.22660974	9.601652994	-0.201872195	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 10/P	41.99204407	38.06160962	-2.493010897	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 11/P	42.43398698	38.61479421	-2.470325986	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 11/P	37.73331488	28.24747788	-1.2652318	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 11/P	35.45937683	22.62726153	-0.68952963	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 11/P	30.7753325	10.16784894	-0.194232414	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 11/P	43.00144693	39.77926312	-2.622797103	4.7
Peak Shaver	P_INV012_305mm (1hr)	305	Category 12/P	42.82261958	47.13596243	-4.672603974	5
Peak Shaver	P_INV012_305mm (1hr)	305	Category 12/P	37.65360817	35.55012412	-2.932495852	9
Peak Shaver	P_INV012_305mm (1hr)	305	Category 12/P	35.25400248	29.79101345	-2.174723755	12.61710051
Peak Shaver	P_INV012_305mm (1hr)	305	Category 12/P	30.37974033	16.84371091	-0.65229099	30.003942
Peak Shaver	P_INV012_305mm (1hr)	305	Category 12/P	43.45765456	48.50710321	-4.900506823	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 1/P	2.16614141	2.038955085	0.398962934	5
Peak Shaver	P_INV012_10mm (all)	10	Category 1/P	1.492593785	1.25287313	1.097807933	9
Peak Shaver	P_INV012_10mm (all)	10	Category 1/P	0.935003365	0.807439504	1.715839277	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 1/P	2.230889469	2.127378022	0.339708997	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 2/P	2.180088417	2.033648596	0.412589538	5
Peak Shaver	P_INV012_10mm (all)	10	Category 2/P	1.51376988	1.249490544	1.101570871	9
Peak Shaver	P_INV012_10mm (all)	10	Category 2/P	0.947955284	0.807985346	1.744448384	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 2/P	2.2442899	2.121717786	0.354141842	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 3/P	2.251396387	1.968584958	0.676073806	5
Peak Shaver	P_INV012_10mm (all)	10	Category 3/P	1.475371091	1.163493858	1.550470116	9
Peak Shaver	P_INV012_10mm (all)	10	Category 3/P	0.888447084	0.720413607	2.327967687	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 3/P	2.325753496	2.057447753	0.604639775	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 4/P	2.230776696	1.96812506	0.660083842	5
Peak Shaver	P_INV012_10mm (all)	10	Category 4/P	1.455508219	1.161184755	1.525760503	9
Peak Shaver	P_INV012_10mm (all)	10	Category 4/P	0.866472925	0.713601299	2.302992443	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 4/P	2.30469747	2.058302235	0.589276182	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 5/P	2.367952065	1.851199047	1.114372773	5
Peak Shaver	P_INV012_10mm (all)	10	Category 5/P	1.352151941	1.009438718	2.334341698	9
Peak Shaver	P_INV012_10mm (all)	10	Category 5/P	0.766177091	0.605891905	3.399116737	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 5/P	2.462022196	1.946519626	1.021625945	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 6/P	2.217657865	1.956812724	0.662808633	5
Peak Shaver	P_INV012_10mm (all)	10	Category 6/P	1.44254068	1.151993831	1.530320388	9
Peak Shaver	P_INV012_10mm (all)	10	Category 6/P	0.854589616	0.704670006	2.309386079	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 6/P	2.291378336	2.046715476	0.59176218	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 7/P	2.152819277	2.027015906	0.401893734	5
Peak Shaver	P_INV012_10mm (all)	10	Category 7/P	1.487078419	1.241181436	1.085198788	9
Peak Shaver	P_INV012_10mm (all)	10	Category 7/P	0.922354031	0.797431787	1.721955906	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 7/P	2.217684711	2.114401186	0.342194908	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 8/P	2.334063811	1.848674282	1.09650235	5
Peak Shaver	P_INV012_10mm (all)	10	Category 8/P	1.324637202	1.004756985	2.313517583	9
Peak Shaver	P_INV012_10mm (all)	10	Category 8/P	0.715465666	0.577372533	3.412914055	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 8/P	2.428980577	1.943184462	1.004305748	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 9/P	2.242494234	1.961041723	0.677833898	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV012_10mm (all)	10	Category 9/P	1.467109412	1.157431867	1.553523418	9
Peak Shaver	P_INV012_10mm (all)	10	Category 9/P	0.879293842	0.714292493	2.332149431	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 9/P	2.316783556	2.049667227	0.606087443	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 10/P	2.351478793	1.839846302	1.118233393	5
Peak Shaver	P_INV012_10mm (all)	10	Category 10/P	1.342553942	1.002422763	2.340074009	9
Peak Shaver	P_INV012_10mm (all)	10	Category 10/P	0.705352789	0.583032339	3.407060047	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 10/P	2.44621351	1.934921869	1.025342168	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 11/P	2.31470448	1.833734756	1.101562191	5
Peak Shaver	P_INV012_10mm (all)	10	Category 11/P	1.311085123	0.99519336	2.322520263	9
Peak Shaver	P_INV012_10mm (all)	10	Category 11/P	0.698654189	0.564053569	3.419202329	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 11/P	2.407360669	1.930888535	1.009309769	4.7
Peak Shaver	P_INV012_10mm (all)	10	Category 12/P	2.168900811	2.02313616	0.414977739	5
Peak Shaver	P_INV012_10mm (all)	10	Category 12/P	1.502833273	1.240715624	1.103586766	9
Peak Shaver	P_INV012_10mm (all)	10	Category 12/P	0.936543345	0.799581315	1.749549531	12.61710051
Peak Shaver	P_INV012_10mm (all)	10	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV012_10mm (all)	10	Category 12/P	2.233038086	2.110913896	0.356406552	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 1/P	3.219695206	4.326918505	4.811200146	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 1/P	2.640243673	2.977006997	4.811200146	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 1/P	2.356154486	2.595842268	4.811200146	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 1/P	1.922382682	1.553488625	4.816624084	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 1/P	3.287935287	4.457559355	4.811200146	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 2/P	5.78785949	5.443236503	-0.212365326	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 2/P	4.913447793	3.856674499	0.382649215	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 2/P	4.432438376	3.048889109	0.780031742	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 2/P	2.961952676	1.44094459	2.856389095	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 2/P	5.904847054	5.630250274	-0.310865958	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 3/P	6.10296983	5.290005015	0.136089087	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 3/P	5.217274536	3.665700741	0.710167256	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 3/P	4.647528587	2.834866009	1.257457308	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 3/P	2.922103086	1.67699145	3.888655082	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 3/P	6.198353444	5.47156686	0.086775751	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 4/P	6.028851513	5.288968959	0.126665704	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 4/P	5.142217892	3.670997455	0.699916356	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 4/P	4.574516971	2.842645869	1.242359821	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 4/P	2.51359003	1.745397994	4.550750931	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 4/P	6.12429815	5.47230447	0.077606479	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 5/P	6.708376904	5.053279318	0.405991222	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 5/P	5.644334126	3.304271299	1.239858879	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 5/P	4.916422243	2.442193141	2.039994192	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 5/P	6.812761816	5.249301475	0.347896301	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 6/P	5.952657211	5.219634385	0.137229248	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 6/P	5.071632668	3.619675443	0.711707868	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 6/P	4.504787219	2.800941642	1.255787914	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 6/P	2.769863165	1.64444848	3.948334504	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 6/P	6.047518867	5.400966293	0.08781749	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 7/P	5.671596562	5.395171764	-0.213949503	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 7/P	4.799232691	3.821193273	0.38193913	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 7/P	4.317213086	3.02208604	0.782511981	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 7/P	2.861157625	1.423323214	2.865219208	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 7/P	5.787695263	5.581215302	-0.311030222	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 8/P	6.601321698	5.043913253	0.401358781	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 8/P	5.540859762	3.305975954	1.23130714	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 8/P	4.810482523	2.444184964	2.039977414	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 8/P	6.705977055	5.238292038	0.342538337	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 9/P	6.040944328	5.233943873	0.143715499	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 9/P	5.159320232	3.6242744	0.719763258	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV012_25mm (10min)	25	Category 9/P	4.590647709	2.801515713	1.270142055	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 9/P	2.873861694	1.667785151	3.910710176	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 9/P	6.136814515	5.41400035	0.09219856	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 10/P	6.477363829	4.986982909	0.701092421	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 10/P	5.55934266	3.255387806	1.257561472	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 10/P	4.833325606	2.404942417	2.061350886	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 10/P	6.72420739	5.176399519	0.356365187	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 11/P	6.495209678	4.957148913	0.411769242	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 11/P	5.438176458	3.245562941	1.25272482	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 11/P	4.709809028	2.398052925	2.066394503	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 11/P	6.597986247	5.148804253	0.354606066	4.7
Peak Shaver	P_INV012_25mm (10min)	25	Category 12/P	5.731319966	5.389811923	-0.199487481	5
Peak Shaver	P_INV012_25mm (10min)	25	Category 12/P	4.858901363	3.817042281	0.399664694	9
Peak Shaver	P_INV012_25mm (10min)	25	Category 12/P	4.383698214	3.012742	0.789425607	12.61710051
Peak Shaver	P_INV012_25mm (10min)	25	Category 12/P	2.922071787	1.422514999	2.874592608	30.003942
Peak Shaver	P_INV012_25mm (10min)	25	Category 12/P	5.847763725	5.575259191	-0.298014425	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 1/P	6.839204902	6.539255529	-0.453332067	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 1/P	5.819245219	4.678603814	0.249692469	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 1/P	5.32605704	3.731952673	0.58882078	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 1/P	3.679166511	1.766789933	2.503485915	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 1/P	6.958260127	6.755651196	-0.533771836	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 2/P	6.900906599	6.521448341	-0.43810962	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 2/P	5.886687372	4.66062584	0.258861652	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 2/P	5.39112213	3.717767597	0.60577672	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 2/P	3.745561093	1.759527154	2.516935651	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 2/P	7.020147845	6.736405802	-0.518355485	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 3/P	7.217320503	6.322292169	0.035558652	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 3/P	6.265531232	4.431121585	0.549939874	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 3/P	5.683548894	3.451136054	1.03612579	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 3/P	3.789942663	1.836704329	3.511910711	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 3/P	7.350075473	6.538677707	-0.065382105	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 4/P	7.094529628	6.315642769	0.087768338	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 4/P	6.170375262	4.436886841	0.545995684	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 4/P	5.590749101	3.461311219	1.026134244	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 4/P	3.679446767	1.812804729	3.54322708	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 4/P	7.258960198	6.535123503	-0.076500779	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 5/P	7.92645467	6.045175579	0.28901944	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 5/P	6.816555219	3.992907529	1.008425747	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 5/P	6.062984822	2.98037491	1.75207458	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 5/P	8.039551903	6.272563098	0.239105281	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 6/P	7.001663131	6.215830711	0.070103178	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 6/P	6.071247405	4.361669655	0.55882383	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 6/P	5.493069615	3.400463598	1.045731955	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 6/P	3.598146608	1.798059791	3.577310246	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 6/P	7.140081918	6.428981617	-0.044065736	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 7/P	6.748545611	6.449036063	-0.435884104	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 7/P	5.739826731	4.61037957	0.25988586	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 7/P	5.248776766	3.675687245	0.601702861	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 7/P	3.627981873	1.737227189	2.506371958	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 7/P	6.867901983	6.662976465	-0.518304666	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 8/P	7.787796829	6.025648117	0.287677998	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 8/P	6.693920961	3.988760309	0.981466907	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 8/P	5.926823518	2.966498061	1.757969764	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 8/P	7.900710171	6.250651595	0.237541924	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 9/P	7.130137372	6.240817254	0.043263524	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 9/P	6.12019356	4.378447905	0.693357005	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 9/P	5.6030637	3.402468809	1.052666878	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV012_30mm (10min)	30	Category 9/P	3.722945174	1.824667704	3.539639951	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 9/P	7.252367289	6.453444215	-0.038462035	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 10/P	7.79772553	5.939347171	0.301052037	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 10/P	6.701100341	3.91721743	1.015923866	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 10/P	5.941124373	2.908528437	1.783291175	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 10/P	7.909269499	6.163409931	0.250213877	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 11/P	7.639659165	5.90159334	0.30078498	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 11/P	6.539227432	3.905000352	1.033371866	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 11/P	5.788492175	2.899898879	1.789814161	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 11/P	7.746305942	6.122660235	0.260122582	4.7
Peak Shaver	P_INV012_30mm (10min)	30	Category 12/P	6.823749068	6.445237051	-0.42455105	5
Peak Shaver	P_INV012_30mm (10min)	30	Category 12/P	5.820112648	4.603026539	0.264265726	9
Peak Shaver	P_INV012_30mm (10min)	30	Category 12/P	5.327962374	3.66863116	0.610114148	12.61710051
Peak Shaver	P_INV012_30mm (10min)	30	Category 12/P	3.691733821	1.737179502	2.53831951	30.003942
Peak Shaver	P_INV012_30mm (10min)	30	Category 12/P	6.942305447	6.657997702	-0.505042863	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 1/P	19.61825917	20.51419227	-2.010930379	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 1/P	17.24178735	15.2412104	-1.097084037	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 1/P	16.12667482	12.58700248	-0.678036985	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 1/P	13.70405121	6.623303784	0.43559517	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 1/P	19.90920341	21.13204324	-2.127484515	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 2/P	19.88721351	20.50398144	-1.999297736	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 2/P	17.52125665	15.22988683	-1.093431628	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 2/P	16.40729148	12.56405108	-0.675737459	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 2/P	13.98175572	6.458552628	0.43157562	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 2/P	20.17569873	21.12110269	-2.11339852	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 3/P	20.51209618	19.41864381	-1.427011661	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 3/P	18.18150286	14.24329404	-0.639770411	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 3/P	17.05651787	11.5292433	-0.244299977	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 3/P	14.54652793	5.504140231	0.791983891	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 3/P	20.79440176	20.00880802	-1.523980723	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 4/P	20.18787814	19.38512378	-1.434363712	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 4/P	17.85235439	14.23946776	-0.639919998	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 4/P	16.72690441	11.55186658	-0.239529951	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 4/P	14.2214641	5.524272892	0.819431898	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 4/P	20.47044474	19.9768247	-1.533354513	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 5/P	21.63018692	18.0547159	-0.960546647	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 5/P	19.27383263	12.69768873	-0.23806222	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 5/P	17.9827409	9.813043266	0.365304793	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 5/P	14.88711995	4.269654421	1.728770325	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 5/P	21.90879392	18.64325217	-1.04443878	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 6/P	19.33698351	18.49222993	-1.36087931	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 6/P	17.09629638	13.56227398	-0.584785801	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 6/P	16.00717109	10.98639177	-0.176352196	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 6/P	13.5708935	5.234340594	0.909240994	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 6/P	19.6096252	19.05793212	-1.459707557	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 7/P	18.90940175	19.70391409	-1.935000525	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 7/P	16.61622237	14.62546923	-1.040957267	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 7/P	15.53965113	12.06708042	-0.630720004	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 7/P	13.19778182	6.315957931	0.459141392	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 7/P	19.18900255	20.29786428	-2.046817236	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 8/P	21.2908559	18.05745337	-0.96200744	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 8/P	18.93413736	12.75449438	-0.238283843	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 8/P	17.64302936	9.891920477	0.375507752	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 8/P	14.53587327	4.212585989	1.842112971	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 8/P	21.57088316	18.64493313	-1.049330194	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 9/P	19.63509946	18.50793313	-1.353538595	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 9/P	17.39990159	13.55696857	-0.583911814	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 9/P	16.31317708	10.95719968	-0.183060422	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 9/P	13.874608	5.208420582	0.878561598	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV012_102mm (2min)	102	Category 9/P	19.90507668	19.07697933	-1.448414241	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 10/P	20.70647733	17.2041506	-0.896779358	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 10/P	18.44312459	12.06717349	-0.184361561	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 10/P	17.20066734	9.305250034	0.40556565	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 10/P	14.10922723	4.142023609	1.935394474	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 10/P	20.97397105	17.76795452	-0.979453159	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 11/P	20.44225968	17.26064803	-0.905825911	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 11/P	18.16913506	12.16185995	-0.183996654	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 11/P	16.92698741	9.406516742	0.409914649	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 11/P	13.82924825	4.094829574	2.020661357	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 11/P	20.71127955	17.8226925	-0.989815832	4.7
Peak Shaver	P_INV012_102mm (2min)	102	Category 12/P	19.19876323	19.73155275	-1.923158792	5
Peak Shaver	P_INV012_102mm (2min)	102	Category 12/P	16.91415013	14.64298216	-1.040729653	9
Peak Shaver	P_INV012_102mm (2min)	102	Category 12/P	15.83671682	12.06889846	-0.631222214	12.61710051
Peak Shaver	P_INV012_102mm (2min)	102	Category 12/P	13.49021365	6.291293073	0.449781389	30.003942
Peak Shaver	P_INV012_102mm (2min)	102	Category 12/P	19.47754592	20.32665593	-2.034821212	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 1/P	46.18674508	52.05860433	-5.190110973	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 1/P	40.47265388	39.29418466	-3.279438218	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 1/P	37.83310541	32.99747623	-2.458096606	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 1/P	32.51417293	18.92629856	-0.84140629	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 1/P	46.89122407	53.57685372	-5.443100476	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 2/P	46.03879525	50.96052655	-5.088707585	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 2/P	40.46963598	38.47579428	-3.22882982	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 2/P	37.88592119	32.27883907	-2.421886525	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 2/P	32.65592664	18.36406907	-0.825570482	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 2/P	46.72375335	52.43935912	-5.33379981	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 3/P	45.27989164	45.96943197	-3.618209591	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 3/P	40.08016224	34.49571206	-2.134722352	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 3/P	37.63204028	28.59625472	-1.470151263	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 3/P	32.57888908	14.98462043	-0.195139452	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 3/P	45.91441593	47.3032473	-3.810184972	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 4/P	45.70892263	47.27664025	-3.723599285	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 4/P	40.34438981	35.52313451	-2.198372285	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 4/P	37.82890635	29.52013306	-1.517807652	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 4/P	32.65817507	15.63078484	-0.199084242	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 4/P	46.36330342	48.6490799	-3.922731672	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 5/P	45.3514152	40.74107345	-2.667192397	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 5/P	40.41685468	29.7584379	-1.411846135	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 5/P	38.03084355	23.79164792	-0.825917195	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 5/P	32.9797582	10.80745471	-0.132439416	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 5/P	45.9448939	41.96957253	-2.82357698	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 6/P	42.34037775	43.51269695	-3.392749084	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 6/P	37.38427804	32.63796821	-1.967599146	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 6/P	35.05664354	27.07770108	-1.327639024	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 6/P	30.28230553	14.2020772	-0.123846032	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 6/P	42.94682549	44.77958795	-3.578123192	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 7/P	43.19913796	48.43031948	-4.798107013	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 7/P	37.86872198	36.52174422	-3.002771661	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 7/P	35.40275106	30.639604	-2.227879814	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 7/P	30.42171295	17.4753714	-0.681152769	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 7/P	43.85632127	49.84569577	-5.035593211	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 8/P	46.05162582	42.21927578	-2.771147671	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 8/P	40.94066286	30.98377349	-1.484157685	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 8/P	38.48035318	24.90505683	-0.880445999	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 8/P	33.30925222	11.33638052	-0.130998241	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 8/P	46.666749	43.4801117	-2.932960823	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 9/P	41.80177759	42.16779813	-3.280994573	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 9/P	37.01248787	31.58496567	-1.898405673	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 9/P	34.75339949	26.13160698	-1.274162752	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 9/P	30.11181701	13.55843844	-0.133927725	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 9/P	42.38576438	43.39222512	-3.459290131	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV012_305mm (2min)	305	Category 10/P	41.45240384	36.9400621	-2.349802933	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 10/P	36.9454932	26.88097712	-1.180650329	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 10/P	34.75521748	21.40904422	-0.620707816	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 10/P	30.22660974	9.601652994	-0.201872195	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 10/P	41.99204407	38.06160962	-2.493010897	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 11/P	42.43398698	38.61479421	-2.470325986	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 11/P	37.73331488	28.24747788	-1.2652318	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 11/P	35.45937683	22.62726153	-0.68952963	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 11/P	30.7753325	10.16784894	-0.194232414	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 11/P	43.00144693	39.77926312	-2.622797103	4.7
Peak Shaver	P_INV012_305mm (2min)	305	Category 12/P	42.82261958	47.13596243	-4.672603974	5
Peak Shaver	P_INV012_305mm (2min)	305	Category 12/P	37.65360817	35.55012412	-2.932495852	9
Peak Shaver	P_INV012_305mm (2min)	305	Category 12/P	35.25400248	29.79101345	-2.174723755	12.61710051
Peak Shaver	P_INV012_305mm (2min)	305	Category 12/P	30.37974033	16.84371091	-0.65229099	30.003942
Peak Shaver	P_INV012_305mm (2min)	305	Category 12/P	43.45765456	48.50710321	-4.900506823	4.7
Peak Shaver	P_INV013_25mm	25	Category 1/P	3.860507722	3.310725876	1.82106794	5
Peak Shaver	P_INV013_25mm	25	Category 1/P	2.950510018	1.895255664	2.501665328	9
Peak Shaver	P_INV013_25mm	25	Category 1/P	2.482480388	1.128496866	2.992065307	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 1/P	3.939557281	3.469301674	1.762456195	4.7
Peak Shaver	P_INV013_25mm	25	Category 2/P	3.956041071	3.239264858	1.841114924	5
Peak Shaver	P_INV013_25mm	25	Category 2/P	3.049220363	1.804539891	2.514411943	9
Peak Shaver	P_INV013_25mm	25	Category 2/P	2.481707631	1.02901196	3.165449084	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 2/P	4.037449902	3.39980509	1.775030164	4.7
Peak Shaver	P_INV013_25mm	25	Category 3/P	4.075893597	3.677764511	1.764432402	5
Peak Shaver	P_INV013_25mm	25	Category 3/P	3.105243641	2.174100457	2.446748847	9
Peak Shaver	P_INV013_25mm	25	Category 3/P	2.61565513	1.364289108	2.929125849	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 3/P	4.160517719	3.845196169	1.706828201	4.7
Peak Shaver	P_INV013_25mm	25	Category 4/P	3.996599137	3.758339868	1.75188076	5
Peak Shaver	P_INV013_25mm	25	Category 4/P	3.065998713	2.279400227	2.440311994	9
Peak Shaver	P_INV013_25mm	25	Category 4/P	2.586390671	1.473177049	2.830981916	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 4/P	4.08086819	3.924456876	1.693228852	4.7
Peak Shaver	P_INV013_25mm	25	Category 5/P	4.128669981	3.889856423	1.73217643	5
Peak Shaver	P_INV013_25mm	25	Category 5/P	3.146332851	2.359657412	2.417205851	9
Peak Shaver	P_INV013_25mm	25	Category 5/P	2.64395048	1.523279827	2.853000154	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 5/P	4.217536389	4.062420818	1.67400256	4.7
Peak Shaver	P_INV013_25mm	25	Category 6/P	3.996599137	3.758339868	1.75188076	5
Peak Shaver	P_INV013_25mm	25	Category 6/P	3.065998713	2.279400227	2.440311994	9
Peak Shaver	P_INV013_25mm	25	Category 6/P	2.586390671	1.473177049	2.830981916	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 6/P	4.08086819	3.924456876	1.693228852	4.7
Peak Shaver	P_INV013_25mm	25	Category 7/P	3.860507722	3.310725876	1.82106794	5
Peak Shaver	P_INV013_25mm	25	Category 7/P	2.950510018	1.895255664	2.501665328	9
Peak Shaver	P_INV013_25mm	25	Category 7/P	2.482480388	1.128496866	2.992065307	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 7/P	3.939557281	3.469301674	1.762456195	4.7
Peak Shaver	P_INV013_25mm	25	Category 8/P	4.06057855	3.973437312	1.719186534	5
Peak Shaver	P_INV013_25mm	25	Category 8/P	3.117203278	2.466409248	2.403502582	9
Peak Shaver	P_INV013_25mm	25	Category 8/P	2.614833865	1.637634772	2.770364682	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 8/P	4.14730242	4.143433522	1.662973256	4.7
Peak Shaver	P_INV013_25mm	25	Category 9/P	4.075893597	3.677764511	1.764432402	5
Peak Shaver	P_INV013_25mm	25	Category 9/P	3.105243641	2.174100457	2.446748847	9
Peak Shaver	P_INV013_25mm	25	Category 9/P	2.61565513	1.364289108	2.929125849	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 9/P	4.160517719	3.845196169	1.706828201	4.7
Peak Shaver	P_INV013_25mm	25	Category 10/P	4.128669981	3.889856423	1.73217643	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV013_25mm	25	Category 10/P	3.146332851	2.359657412	2.417205851	9
Peak Shaver	P_INV013_25mm	25	Category 10/P	2.64395048	1.523279827	2.853000154	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 10/P	4.217536389	4.062420818	1.67400256	4.7
Peak Shaver	P_INV013_25mm	25	Category 11/P	4.06057855	3.973437312	1.719186534	5
Peak Shaver	P_INV013_25mm	25	Category 11/P	3.117203278	2.466409248	2.403502582	9
Peak Shaver	P_INV013_25mm	25	Category 11/P	2.614833865	1.637634772	2.770364682	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 11/P	4.14730242	4.143433522	1.662973256	4.7
Peak Shaver	P_INV013_25mm	25	Category 12/P	3.956041071	3.239264858	1.841114924	5
Peak Shaver	P_INV013_25mm	25	Category 12/P	3.049220363	1.804539891	2.514411943	9
Peak Shaver	P_INV013_25mm	25	Category 12/P	2.481707631	1.02901196	3.165449084	12.61710051
Peak Shaver	P_INV013_25mm	25	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV013_25mm	25	Category 12/P	4.037449902	3.39980509	1.775030164	4.7
Peak Shaver	P_INV013_50mm	50	Category 1/P	4.523343775	3.68864642	1.608811126	5
Peak Shaver	P_INV013_50mm	50	Category 1/P	3.59169864	2.117964116	2.297673201	9
Peak Shaver	P_INV013_50mm	50	Category 1/P	3.090724745	1.298044052	2.797157408	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 1/P	4.606270711	3.867520743	1.546504038	4.7
Peak Shaver	P_INV013_50mm	50	Category 2/P	4.630668598	3.601863519	1.622316609	5
Peak Shaver	P_INV013_50mm	50	Category 2/P	3.665541731	2.014268471	2.305710566	9
Peak Shaver	P_INV013_50mm	50	Category 2/P	3.122114529	1.201211059	2.946390323	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 2/P	4.716470056	3.780370768	1.555951349	4.7
Peak Shaver	P_INV013_50mm	50	Category 3/P	4.615034028	4.090478175	1.529303479	5
Peak Shaver	P_INV013_50mm	50	Category 3/P	3.57908109	2.42350067	2.225044147	9
Peak Shaver	P_INV013_50mm	50	Category 3/P	3.069812338	1.532851413	2.686652993	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 3/P	4.706249058	4.276528845	1.470940113	4.7
Peak Shaver	P_INV013_50mm	50	Category 4/P	4.531918188	4.183509541	1.520499184	5
Peak Shaver	P_INV013_50mm	50	Category 4/P	3.540728791	2.542764713	2.222410293	9
Peak Shaver	P_INV013_50mm	50	Category 4/P	3.019697444	1.650069292	2.599933651	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 4/P	4.621563717	4.369405627	1.463159278	4.7
Peak Shaver	P_INV013_50mm	50	Category 5/P	4.582627841	4.307242436	1.491678271	5
Peak Shaver	P_INV013_50mm	50	Category 5/P	3.49691964	2.603723447	2.186161884	9
Peak Shaver	P_INV013_50mm	50	Category 5/P	3.002614345	1.683865528	2.588867084	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 5/P	4.680797242	4.495994155	1.429866334	4.7
Peak Shaver	P_INV013_50mm	50	Category 6/P	4.531918188	4.183509541	1.520499184	5
Peak Shaver	P_INV013_50mm	50	Category 6/P	3.540728791	2.542764713	2.222410293	9
Peak Shaver	P_INV013_50mm	50	Category 6/P	3.019697444	1.650069292	2.599933651	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 6/P	4.621563717	4.369405627	1.463159278	4.7
Peak Shaver	P_INV013_50mm	50	Category 7/P	4.523343775	3.68864642	1.608811126	5
Peak Shaver	P_INV013_50mm	50	Category 7/P	3.59169864	2.117964116	2.297673201	9
Peak Shaver	P_INV013_50mm	50	Category 7/P	3.090724745	1.298044052	2.797157408	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 7/P	4.606270711	3.867520743	1.546504038	4.7
Peak Shaver	P_INV013_50mm	50	Category 8/P	4.517467049	4.40299551	1.478235749	5
Peak Shaver	P_INV013_50mm	50	Category 8/P	3.480811693	2.732958143	2.176705931	9
Peak Shaver	P_INV013_50mm	50	Category 8/P	2.959128125	1.817028271	2.541714053	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 8/P	4.610225967	4.590270552	1.425507735	4.7
Peak Shaver	P_INV013_50mm	50	Category 9/P	4.615034028	4.090478175	1.529303479	5
Peak Shaver	P_INV013_50mm	50	Category 9/P	3.57908109	2.42350067	2.225044147	9
Peak Shaver	P_INV013_50mm	50	Category 9/P	3.069812338	1.532851413	2.686652993	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 9/P	4.706249058	4.276528845	1.470940113	4.7
Peak Shaver	P_INV013_50mm	50	Category 10/P	4.582627841	4.307242436	1.491678271	5
Peak Shaver	P_INV013_50mm	50	Category 10/P	3.49691964	2.603723447	2.186161884	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV013_50mm	50	Category 10/P	3.002614345	1.683865528	2.588867084	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 10/P	4.680797242	4.495994155	1.429866334	4.7
Peak Shaver	P_INV013_50mm	50	Category 11/P	4.517467049	4.40299551	1.478235749	5
Peak Shaver	P_INV013_50mm	50	Category 11/P	3.480811693	2.732958143	2.176705931	9
Peak Shaver	P_INV013_50mm	50	Category 11/P	2.959128125	1.817028271	2.541714053	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 11/P	4.610225967	4.590270552	1.425507735	4.7
Peak Shaver	P_INV013_50mm	50	Category 12/P	4.630668598	3.601863519	1.622316609	5
Peak Shaver	P_INV013_50mm	50	Category 12/P	3.665541731	2.014268471	2.305710566	9
Peak Shaver	P_INV013_50mm	50	Category 12/P	3.122114529	1.201211059	2.946390323	12.61710051
Peak Shaver	P_INV013_50mm	50	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV013_50mm	50	Category 12/P	4.716470056	3.780370768	1.555951349	4.7
Peak Shaver	P_INV013_152mm	152	Category 1/P	7.312318342	2.52590419	0.248750634	5
Peak Shaver	P_INV013_152mm	152	Category 1/P	6.602400721	1.210710414	0.958623964	9
Peak Shaver	P_INV013_152mm	152	Category 1/P	6.126668501	0.543681154	1.432885099	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 1/P	7.376201414	2.696884418	0.183775356	4.7
Peak Shaver	P_INV013_152mm	152	Category 2/P	7.432243297	2.312922114	0.305396486	5
Peak Shaver	P_INV013_152mm	152	Category 2/P	6.740694386	1.062977461	0.998470539	9
Peak Shaver	P_INV013_152mm	152	Category 2/P	6.000840511	0.351740444	1.738030948	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 2/P	7.496883499	2.468719217	0.241401885	4.7
Peak Shaver	P_INV013_152mm	152	Category 3/P	7.432243297	2.312922114	0.305396486	5
Peak Shaver	P_INV013_152mm	152	Category 3/P	6.740694386	1.062977461	0.998470539	9
Peak Shaver	P_INV013_152mm	152	Category 3/P	6.000840511	0.351740444	1.738030948	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 3/P	7.496883499	2.468719217	0.241401885	4.7
Peak Shaver	P_INV013_152mm	152	Category 4/P	7.312318342	2.52590419	0.248750634	5
Peak Shaver	P_INV013_152mm	152	Category 4/P	6.602400721	1.210710414	0.958623964	9
Peak Shaver	P_INV013_152mm	152	Category 4/P	6.126668501	0.543681154	1.432885099	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 4/P	7.376201414	2.696884418	0.183775356	4.7
Peak Shaver	P_INV013_152mm	152	Category 5/P	6.360400858	2.79746428	0.107294135	5
Peak Shaver	P_INV013_152mm	152	Category 5/P	5.625636766	1.435377361	0.840529194	9
Peak Shaver	P_INV013_152mm	152	Category 5/P	5.269860711	0.794713945	1.236076401	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 5/P	6.420021856	2.967673331	0.046412399	4.7
Peak Shaver	P_INV013_152mm	152	Category 6/P	7.312318342	2.52590419	0.248750634	5
Peak Shaver	P_INV013_152mm	152	Category 6/P	6.602400721	1.210710414	0.958623964	9
Peak Shaver	P_INV013_152mm	152	Category 6/P	6.126668501	0.543681154	1.432885099	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 6/P	7.376201414	2.696884418	0.183775356	4.7
Peak Shaver	P_INV013_152mm	152	Category 7/P	7.312318342	2.52590419	0.248750634	5
Peak Shaver	P_INV013_152mm	152	Category 7/P	6.602400721	1.210710414	0.958623964	9
Peak Shaver	P_INV013_152mm	152	Category 7/P	6.126668501	0.543681154	1.432885099	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 7/P	7.376201414	2.696884418	0.183775356	4.7
Peak Shaver	P_INV013_152mm	152	Category 8/P	6.275728316	3.026297923	0.054260646	5
Peak Shaver	P_INV013_152mm	152	Category 8/P	5.490794892	1.595664178	0.840200667	9
Peak Shaver	P_INV013_152mm	152	Category 8/P	5.236045273	0.937000909	1.09262401	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 8/P	6.334890297	3.205167885	-0.00589087	4.7
Peak Shaver	P_INV013_152mm	152	Category 9/P	7.432243297	2.312922114	0.305396486	5
Peak Shaver	P_INV013_152mm	152	Category 9/P	6.740694386	1.062977461	0.998470539	9
Peak Shaver	P_INV013_152mm	152	Category 9/P	6.000840511	0.351740444	1.738030948	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 9/P	7.496883499	2.468719217	0.241401885	4.7
Peak Shaver	P_INV013_152mm	152	Category 10/P	6.360400858	2.79746428	0.107294135	5
Peak Shaver	P_INV013_152mm	152	Category 10/P	5.625636766	1.435377361	0.840529194	9
Peak Shaver	P_INV013_152mm	152	Category 10/P	5.269860711	0.794713945	1.236076401	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV013_152mm	152	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 10/P	6.420021856	2.967673331	0.046412399	4.7
Peak Shaver	P_INV013_152mm	152	Category 11/P	6.275728316	3.026297923	0.054260646	5
Peak Shaver	P_INV013_152mm	152	Category 11/P	5.490794892	1.595664178	0.840200667	9
Peak Shaver	P_INV013_152mm	152	Category 11/P	5.236045273	0.937000909	1.09262401	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 11/P	6.334890297	3.205167885	-0.00589087	4.7
Peak Shaver	P_INV013_152mm	152	Category 12/P	7.432243297	2.312922114	0.305396486	5
Peak Shaver	P_INV013_152mm	152	Category 12/P	6.740694386	1.062977461	0.998470539	9
Peak Shaver	P_INV013_152mm	152	Category 12/P	6.000840511	0.351740444	1.738030948	12.61710051
Peak Shaver	P_INV013_152mm	152	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV013_152mm	152	Category 12/P	7.496883499	2.468719217	0.241401885	4.7
Peak Shaver	P_INV013_10mm	10	Category 1/P	3.855339698	3.304777861	1.820680101	5
Peak Shaver	P_INV013_10mm	10	Category 1/P	2.94620848	1.890641126	2.501151063	9
Peak Shaver	P_INV013_10mm	10	Category 1/P	2.476045206	1.124083243	2.994079883	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 1/P	3.934396162	3.463187529	1.76201794	4.7
Peak Shaver	P_INV013_10mm	10	Category 2/P	3.950719044	3.233419878	1.840843846	5
Peak Shaver	P_INV013_10mm	10	Category 2/P	3.044463819	1.80003308	2.514557406	9
Peak Shaver	P_INV013_10mm	10	Category 2/P	2.4743443	1.024729352	3.169672426	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 2/P	4.034616495	3.394110431	1.774746062	4.7
Peak Shaver	P_INV013_10mm	10	Category 3/P	4.070822473	3.671744818	1.764095922	5
Peak Shaver	P_INV013_10mm	10	Category 3/P	3.099578618	2.16914745	2.446200198	9
Peak Shaver	P_INV013_10mm	10	Category 3/P	2.610195587	1.360118132	2.93083505	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 3/P	4.155355413	3.839015572	1.706608021	4.7
Peak Shaver	P_INV013_10mm	10	Category 4/P	3.991588238	3.752247498	1.751570685	5
Peak Shaver	P_INV013_10mm	10	Category 4/P	3.060824267	2.274467767	2.439585932	9
Peak Shaver	P_INV013_10mm	10	Category 4/P	2.581379444	1.468950088	2.832016073	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 4/P	4.075912298	3.918189826	1.692736171	4.7
Peak Shaver	P_INV013_10mm	10	Category 5/P	4.123707936	3.88396398	1.731760204	5
Peak Shaver	P_INV013_10mm	10	Category 5/P	3.141144468	2.354706652	2.416592469	9
Peak Shaver	P_INV013_10mm	10	Category 5/P	2.641509462	1.518573281	2.849118437	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 5/P	4.21255366	4.056186507	1.673541492	4.7
Peak Shaver	P_INV013_10mm	10	Category 6/P	3.991588238	3.752247498	1.751570685	5
Peak Shaver	P_INV013_10mm	10	Category 6/P	3.060824267	2.274467767	2.439585932	9
Peak Shaver	P_INV013_10mm	10	Category 6/P	2.581379444	1.468950088	2.832016073	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 6/P	4.075912298	3.918189826	1.692736171	4.7
Peak Shaver	P_INV013_10mm	10	Category 7/P	3.855339698	3.304777861	1.820680101	5
Peak Shaver	P_INV013_10mm	10	Category 7/P	2.94620848	1.890641126	2.501151063	9
Peak Shaver	P_INV013_10mm	10	Category 7/P	2.476045206	1.124083243	2.994079883	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 7/P	3.934396162	3.463187529	1.76201794	4.7
Peak Shaver	P_INV013_10mm	10	Category 8/P	4.055727315	3.967281652	1.718668092	5
Peak Shaver	P_INV013_10mm	10	Category 8/P	3.111651132	2.461587085	2.404283993	9
Peak Shaver	P_INV013_10mm	10	Category 8/P	2.610021116	1.633470459	2.77164927	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 8/P	4.14242371	4.137107708	1.662426664	4.7
Peak Shaver	P_INV013_10mm	10	Category 9/P	4.070822473	3.671744818	1.764095922	5
Peak Shaver	P_INV013_10mm	10	Category 9/P	3.099578618	2.16914745	2.446200198	9
Peak Shaver	P_INV013_10mm	10	Category 9/P	2.610195587	1.360118132	2.93083505	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 9/P	4.155355413	3.839015572	1.706608021	4.7
Peak Shaver	P_INV013_10mm	10	Category 10/P	4.123707936	3.88396398	1.731760204	5
Peak Shaver	P_INV013_10mm	10	Category 10/P	3.141144468	2.354706652	2.416592469	9
Peak Shaver	P_INV013_10mm	10	Category 10/P	2.641509462	1.518573281	2.849118437	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 10/P	0	0	0	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV013_10mm	10	Category 10/P	4.21255366	4.056186507	1.673541492	4.7
Peak Shaver	P_INV013_10mm	10	Category 11/P	4.055727315	3.967281652	1.718668092	5
Peak Shaver	P_INV013_10mm	10	Category 11/P	3.111651132	2.461587085	2.404283993	9
Peak Shaver	P_INV013_10mm	10	Category 11/P	2.610021116	1.633470459	2.77164927	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 11/P	4.14242371	4.137107708	1.662426664	4.7
Peak Shaver	P_INV013_10mm	10	Category 12/P	3.950719044	3.233419878	1.840843846	5
Peak Shaver	P_INV013_10mm	10	Category 12/P	3.044463819	1.80003308	2.514557406	9
Peak Shaver	P_INV013_10mm	10	Category 12/P	2.4743443	1.024729352	3.169672426	12.61710051
Peak Shaver	P_INV013_10mm	10	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV013_10mm	10	Category 12/P	4.034616495	3.394110431	1.774746062	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 1/P	13.63839575	13.79788482	-1.238349319	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 1/P	11.90764968	10.21264494	-0.477168277	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 1/P	11.01176934	8.401888912	0.033889642	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 1/P	9.152361394	4.315043394	1.084844476	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 1/P	13.84793764	14.21731707	-1.329893408	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 2/P	13.64599349	13.61881077	-1.205439499	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 2/P	11.94009476	10.07621892	-0.454465891	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 2/P	11.04901128	8.27822603	0.060259522	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 2/P	9.205480081	4.228795031	1.103355761	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 2/P	13.85061891	14.03260081	-1.294920304	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 3/P	14.35354236	13.15460833	-0.830713954	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 3/P	12.57808651	9.597594567	-0.045242853	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 3/P	11.70111869	7.72008492	0.370034711	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 3/P	9.483558532	3.625281574	1.876815459	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 3/P	14.56209709	13.55938472	-0.915164119	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 4/P	14.31317394	13.29523788	-0.859531102	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 4/P	12.51319253	9.71846843	-0.064885824	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 4/P	11.6276703	7.83822947	0.358730075	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 4/P	9.401461218	3.688045861	1.874393265	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 4/P	14.52089072	13.70302779	-0.94067683	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 5/P	15.51363139	12.55233657	-0.627804829	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 5/P	13.61188717	8.713309516	0.255049011	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 5/P	12.75065619	6.596858294	0.507867281	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 5/P	9.846214148	3.471128476	2.432706794	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 5/P	15.72427887	12.9739553	-0.704438864	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 6/P	14.04004419	13.02215983	-0.833178037	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 6/P	12.26123723	9.512403183	-0.022506016	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 6/P	11.40844104	7.665281882	0.361510559	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 6/P	9.185036357	3.602220635	1.924580151	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 6/P	14.24742261	13.42324103	-0.915684523	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 7/P	13.43114376	13.56717959	-1.215973434	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 7/P	11.7200072	10.03662299	-0.455181469	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 7/P	10.8192228	8.255374545	0.085183337	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 7/P	8.990453137	4.233585397	1.115433915	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 7/P	13.63552481	13.98071525	-1.306672833	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 8/P	15.45175739	12.7011339	-0.647639017	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 8/P	13.52906229	8.858071805	0.248015054	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 8/P	12.66278219	6.731681252	0.503219213	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 8/P	9.69582994	3.441060598	2.461845838	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 8/P	15.66386712	13.12336524	-0.723174901	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 9/P	14.08726475	12.88908062	-0.810312622	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 9/P	12.32678811	9.39664795	-0.004146397	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 9/P	11.48280625	7.551512359	0.372266962	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 9/P	9.267564283	3.54349957	1.926630074	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 9/P	14.28990718	13.28551802	-0.888919533	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 10/P	15.23010098	12.30092913	-0.603033431	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 10/P	13.3596762	8.527633645	0.270720607	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 10/P	12.51094257	6.450078715	0.524725448	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 10/P	9.650877037	3.432082687	2.470738789	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 10/P	15.43758303	12.71519822	-0.67967407	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV014_50mm (1m)	50	Category 11/P	15.17736015	12.45427635	-0.621732061	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 11/P	13.28700873	8.675407299	0.261865927	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 11/P	12.43273694	6.585879234	0.518545136	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 11/P	9.509702926	3.403776535	2.497949331	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 11/P	15.38739477	12.86976589	-0.699383933	4.7
Peak Shaver	P_INV014_50mm (1m)	50	Category 12/P	13.45539695	13.41281192	-1.185503187	5
Peak Shaver	P_INV014_50mm (1m)	50	Category 12/P	11.77006301	9.91952005	-0.437225955	9
Peak Shaver	P_INV014_50mm (1m)	50	Category 12/P	10.87256794	8.147889897	0.113017196	12.61710051
Peak Shaver	P_INV014_50mm (1m)	50	Category 12/P	9.056413687	4.15683263	1.13293484	30.003942
Peak Shaver	P_INV014_50mm (1m)	50	Category 12/P	13.65669602	13.82043724	-1.274288572	4.7
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 1/P	99.88286863	118.3438001	-11.60951281	5
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 1/P	86.89528362	90.38381	-7.719962572	9
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 1/P	80.96904169	76.90588886	-6.18509555	12.61710051
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 1/P	69.1027798	47.20639024	-3.129921374	30.003942
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 1/P	101.5030581	121.959457	-12.16371326	4.7
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 2/P	96.84511403	112.160673	-11.0083504	5
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 2/P	84.611034	85.90024629	-7.373282042	9
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 2/P	78.98950615	73.04058967	-5.901796892	12.61710051
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 2/P	67.67659876	44.44043962	-2.959815973	30.003942
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 2/P	98.36567481	115.3396035	-11.52036487	4.7
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 3/P	95.46658903	101.3495089	-8.488832349	5
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 3/P	83.98865195	77.60851685	-5.615499911	9
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 3/P	78.61952033	65.56398655	-4.372657366	12.61710051
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 3/P	67.58211789	37.48900897	-1.837809364	30.003942
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 3/P	96.87671636	104.1323465	-8.882377777	4.7
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 4/P	98.56426387	106.8055076	-8.959901596	5
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 4/P	86.38331269	81.82335166	-5.906530757	9
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 4/P	80.72292163	69.26928265	-4.613748886	12.61710051
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 4/P	69.15784751	40.17655867	-1.983054416	30.003942
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 4/P	100.0685794	109.7547518	-9.387193718	4.7
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 5/P	98.8777536	93.89943045	-9.101469498	5
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 5/P	87.53103736	70.5413054	-6.080128404	9
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 5/P	82.07251061	58.07807536	-4.633775033	12.61710051
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 5/P	70.22964098	29.02440929	-1.570342984	30.003942
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 5/P	100.2385747	96.5474291	-9.465472548	4.7
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 8/P	102.1139652	99.13311364	-9.598780203	5
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 8/P	90.10741281	74.74369507	-6.434228777	9
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 8/P	84.3631418	61.84373576	-4.927573386	12.61710051
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 8/P	72.03963007	31.32445177	-1.747351803	30.003942
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 8/P	103.5575415	101.9197726	-9.980489913	4.7
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 9/P	90.86421862	96.16381229	-7.961587212	5
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 9/P	79.95521466	73.58601591	-5.22085534	9
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 9/P	74.86009759	62.12067431	-4.050669352	12.61710051
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 9/P	64.37354866	35.35539135	-1.659606835	30.003942
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 9/P	92.20574218	98.80910002	-8.339470366	4.7
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 10/P	95.39875022	90.37590038	-8.658305185	5
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 10/P	84.47432937	67.83579346	-5.769063662	9
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 10/P	79.2164646	55.79219081	-4.384583199	12.61710051
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 10/P	67.78800911	27.76300202	-1.446268067	30.003942
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 10/P	96.7086798	92.93008792	-9.00661807	4.7
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 11/P	98.56645016	95.45354199	-9.138398607	5
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 11/P	87.00290538	71.91364929	-6.109502246	9
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 11/P	81.46789564	59.44439852	-4.666212622	12.61710051
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 11/P	69.57446553	29.97302091	-1.616208209	30.003942
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 11/P	99.95682392	98.1401962	-9.503736217	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 1/P	5.950365798	6.950842557	10.25105139	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 1/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 1/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 1/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 1/P	7.872258837	9.536519431	8.151423972	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 2/P	2.827171163	2.779371576	13.56790992	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 2/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 2/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 2/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 2/P	5.919905923	6.892649854	10.30011669	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 3/P	0	0	0	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 3/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 3/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 3/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 3/P	5.157451716	5.657972272	13.8701777	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 4/P	5.174173677	5.693985704	13.83140666	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 4/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 4/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 4/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 4/P	7.424942059	8.646970264	11.33281919	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 5/P	0	0	0	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 5/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 5/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 5/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 5/P	2.871610245	2.311122215	21.01121751	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 6/P	5.174173677	5.693985704	13.83140666	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 6/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 6/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 6/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 6/P	7.424942059	8.646970264	11.33281919	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 7/P	5.950365798	6.950842557	10.25105139	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 7/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 7/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 7/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 7/P	7.872258837	9.536519431	8.151423972	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 8/P	2.817728742	2.24404471	21.04149971	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 8/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 8/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 8/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 8/P	6.422997267	6.887726444	16.95350987	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 9/P	0	0	0	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 9/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 9/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 9/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 9/P	5.157451716	5.657972272	13.8701777	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 10/P	0	0	0	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 10/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 10/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 10/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 10/P	2.871610245	2.311122215	21.01121751	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 11/P	2.817728742	2.24404471	21.04149971	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 11/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 11/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 11/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 11/P	6.422997267	6.887726444	16.95350987	4.7
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 12/P	2.827171163	2.779371576	13.56790992	5
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 12/P	0	0	0	9
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 12/P	0	0	0	12.61710051
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 12/P	0	0	0	30.003942
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 12/P	5.919905923	6.892649854	10.30011669	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 1/P	298.5714414	362.7347319	-78.75833303	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 1/P	251.1691977	275.116042	-49.38930195	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 1/P	229.5676534	233.9108902	-36.88276538	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 1/P	186.1345042	147.846651	-11.7159725	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 1/P	304.4749271	373.8605042	-82.63468622	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 2/P	291.0036926	345.2927256	-73.66320181	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 2/P	246.3291277	262.9475053	-46.32932996	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 2/P	225.799009	223.714039	-34.49583592	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 2/P	183.9975615	140.8144805	-9.999604291	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 2/P	296.5456913	355.2461885	-77.25231649	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 3/P	277.909806	305.1243909	-57.43200829	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 3/P	236.8999324	232.6584993	-34.14503255	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 3/P	217.7848349	197.4821197	-23.74867083	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 3/P	175.7515778	120.6554741	3.363369777	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 3/P	282.960599	313.8134337	-60.45403851	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 4/P	284.0185904	318.6929327	-61.44149778	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 4/P	240.7273013	242.4838817	-36.59592995	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 4/P	220.7227249	205.8734199	-25.70732711	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 4/P	177.1507107	126.7966711	2.251798478	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 4/P	289.3836165	327.8904917	-64.70472484	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 5/P	273.2884435	272.5558193	-47.23880325	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 5/P	235.4432211	206.2373854	-27.04264275	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 5/P	217.3450332	172.7072723	-17.4605765	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 5/P	176.8145847	95.92294693	7.595054995	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 5/P	277.8849579	280.3465547	-49.78405938	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 6/P	293.3348912	329.8374832	-63.37812674	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 6/P	248.6989784	251.0957263	-37.92065599	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 6/P	228.1262919	213.2930137	-26.85513882	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 6/P	183.3805286	131.6795514	1.541446114	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 6/P	298.8723329	339.4271549	-66.73444254	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 7/P	309.7122075	377.3482124	-81.52342738	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 7/P	260.6007624	286.2184508	-51.2524856	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 7/P	238.2578958	243.4515757	-38.42803018	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 7/P	193.5471157	154.1930466	-12.99321264	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 7/P	315.8342992	388.9050157	-85.53189121	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 8/P	278.0242858	283.6848085	-50.25463029	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 8/P	238.3598721	214.7053795	-28.99819354	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 8/P	219.5640851	180.2390313	-19.10263833	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 8/P	177.7251172	101.7102357	6.783908898	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 8/P	282.8594207	291.8466549	-52.94096182	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 9/P	286.9308289	315.6334921	-59.234664	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 9/P	244.6901676	240.8154829	-35.41603157	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 9/P	225.0428	204.5160115	-24.85855796	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 9/P	181.919784	125.2612519	2.632751429	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 9/P	292.1371722	324.6070086	-62.33400412	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 10/P	280.1892154	279.8651418	-48.51393011	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 10/P	241.4801825	211.9042234	-27.98796888	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 10/P	223.006618	177.5599156	-18.31557786	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 10/P	181.6332919	98.9226989	7.06310447	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 10/P	284.8852698	287.8478843	-51.08911096	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 11/P	284.9045037	291.1727547	-51.5667047	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 11/P	244.3347113	220.4987535	-29.94942427	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 11/P	225.1474543	185.2061361	-19.95217002	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 11/P	182.4165152	104.829589	6.333057572	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 11/P	289.8541026	299.5382128	-54.30624989	4.7
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 12/P	203.611037	325.8232634	120.1307656	5
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 12/P	171.4319339	238.407959	120.1307656	9
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 12/P	156.2726025	196.9073409	120.1307656	12.61710051
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 12/P	125.6424199	131.486173	120.1307656	30.003942
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 12/P	207.5006334	336.3709274	120.1307656	4.7
Export	E_INV001_25mm (all)	25	Category 12/E	18.22619291	22.54552318	3.230322613	5
Export	E_INV001_25mm (all)	25	Category 12/E	15.69331753	16.41308695	4.500420954	9
Export	E_INV001_25mm (all)	25	Category 12/E	14.45245078	13.39936383	5.115374526	12.61710051
Export	E_INV001_25mm (all)	25	Category 12/E	11.44753014	6.821948039	6.441475155	30.003942
Export	E_INV001_25mm (all)	25	Category 12/E	18.53025658	23.27144709	3.074130541	4.7
Export	E_INV001_25mm (all)	25	Category 11/E	18.15736824	23.03070405	3.162101374	5
Export	E_INV001_25mm (all)	25	Category 11/E	15.56678502	16.82040787	4.492971133	9
Export	E_INV001_25mm (all)	25	Category 11/E	14.30729495	13.78940662	5.130683479	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV001_25mm (all)	25	Category 11/E	9.722290996	7.373060899	9.811492638	30.003942
Export	E_INV001_25mm (all)	25	Category 11/E	18.46636113	23.76878025	3.003149626	4.7
Export	E_INV001_25mm (all)	25	Category 10/E	18.13544174	23.2795265	2.706804907	5
Export	E_INV001_25mm (all)	25	Category 10/E	14.9444947	17.19497778	4.352851666	9
Export	E_INV001_25mm (all)	25	Category 10/E	13.45251063	14.21539812	4.986627509	12.61710051
Export	E_INV001_25mm (all)	25	Category 10/E	9.641206888	7.513101299	6.330862794	30.003942
Export	E_INV001_25mm (all)	25	Category 10/E	18.56940777	24.01839914	2.40125076	4.7
Export	E_INV001_25mm (all)	25	Category 9/E	18.09305942	22.72716381	3.146920189	5
Export	E_INV001_25mm (all)	25	Category 9/E	15.31779931	16.68286752	4.420359795	9
Export	E_INV001_25mm (all)	25	Category 9/E	13.95158296	13.68784443	5.031464559	12.61710051
Export	E_INV001_25mm (all)	25	Category 9/E	10.48506205	7.007844562	6.350947989	30.003942
Export	E_INV001_25mm (all)	25	Category 9/E	18.4208432	23.44258726	2.994050702	4.7
Export	E_INV001_25mm (all)	25	Category 8/E	18.01209424	22.78451424	2.947720017	5
Export	E_INV001_25mm (all)	25	Category 8/E	14.96978102	16.8031447	4.363350788	9
Export	E_INV001_25mm (all)	25	Category 8/E	13.49428501	13.83412828	4.972261591	12.61710051
Export	E_INV001_25mm (all)	25	Category 8/E	9.858344725	7.121628626	6.280277567	30.003942
Export	E_INV001_25mm (all)	25	Category 8/E	18.4151027	23.50844174	2.693475331	4.7
Export	E_INV001_25mm (all)	25	Category 7/E	18.07986386	23.20298355	3.078730887	5
Export	E_INV001_25mm (all)	25	Category 7/E	15.24583076	17.08157473	4.410451387	9
Export	E_INV001_25mm (all)	25	Category 7/E	13.85994481	14.07576246	5.045728552	12.61710051
Export	E_INV001_25mm (all)	25	Category 7/E	10.38071608	7.408955315	6.403587118	30.003942
Export	E_INV001_25mm (all)	25	Category 7/E	18.41750142	23.93038855	2.919286127	4.7
Export	E_INV001_25mm (all)	25	Category 6/E	18.07986386	23.20298355	3.078730887	5
Export	E_INV001_25mm (all)	25	Category 6/E	15.24583076	17.08157473	4.410451387	9
Export	E_INV001_25mm (all)	25	Category 6/E	13.85994481	14.07576246	5.045728552	12.61710051
Export	E_INV001_25mm (all)	25	Category 6/E	10.38071608	7.408955315	6.403587118	30.003942
Export	E_INV001_25mm (all)	25	Category 6/E	18.41750142	23.93038855	2.919286127	4.7
Export	E_INV001_25mm (all)	25	Category 5/E	18.15736824	23.03070405	3.162101374	5
Export	E_INV001_25mm (all)	25	Category 5/E	15.56678502	16.82040787	4.492971133	9
Export	E_INV001_25mm (all)	25	Category 5/E	14.30729495	13.78940662	5.130683479	12.61710051
Export	E_INV001_25mm (all)	25	Category 5/E	9.722290996	7.373060899	9.811492638	30.003942
Export	E_INV001_25mm (all)	25	Category 5/E	18.46636113	23.76878025	3.003149626	4.7
Export	E_INV001_25mm (all)	25	Category 4/E	18.01209424	22.78451424	2.947720017	5
Export	E_INV001_25mm (all)	25	Category 4/E	14.96978102	16.8031447	4.363350788	9
Export	E_INV001_25mm (all)	25	Category 4/E	13.49428501	13.83412828	4.972261591	12.61710051
Export	E_INV001_25mm (all)	25	Category 4/E	9.858344725	7.121628626	6.280277567	30.003942
Export	E_INV001_25mm (all)	25	Category 4/E	18.4151027	23.50844174	2.693475331	4.7
Export	E_INV001_25mm (all)	25	Category 3/E	18.22619291	22.54552318	3.230322613	5
Export	E_INV001_25mm (all)	25	Category 3/E	15.69331753	16.41308695	4.500420954	9
Export	E_INV001_25mm (all)	25	Category 3/E	14.45245078	13.39936383	5.115374526	12.61710051
Export	E_INV001_25mm (all)	25	Category 3/E	11.44753014	6.821948039	6.441475155	30.003942
Export	E_INV001_25mm (all)	25	Category 3/E	18.53025658	23.27144709	3.074130541	4.7
Export	E_INV001_25mm (all)	25	Category 2/E	18.09305942	22.72716381	3.146920189	5
Export	E_INV001_25mm (all)	25	Category 2/E	15.31779931	16.68286752	4.420359795	9
Export	E_INV001_25mm (all)	25	Category 2/E	13.95158296	13.68784443	5.031464559	12.61710051
Export	E_INV001_25mm (all)	25	Category 2/E	10.48506205	7.007844562	6.350947989	30.003942
Export	E_INV001_25mm (all)	25	Category 2/E	18.4208432	23.44258726	2.994050702	4.7
Export	E_INV001_25mm (all)	25	Category 1/E	18.13544174	23.2795265	2.706804907	5
Export	E_INV001_25mm (all)	25	Category 1/E	14.9444947	17.19497778	4.352851666	9
Export	E_INV001_25mm (all)	25	Category 1/E	13.45251063	14.21539812	4.986627509	12.61710051
Export	E_INV001_25mm (all)	25	Category 1/E	9.641206888	7.513101299	6.330862794	30.003942
Export	E_INV001_25mm (all)	25	Category 1/E	18.56940777	24.01839914	2.40125076	4.7
Export	E_INV001_50mm (all)	50	Category 12/E	37.79361222	48.24024746	2.007928823	5
Export	E_INV001_50mm (all)	50	Category 12/E	31.53600009	35.75698035	6.136170758	9
Export	E_INV001_50mm (all)	50	Category 12/E	28.75393683	29.74676658	7.65684368	12.61710051
Export	E_INV001_50mm (all)	50	Category 12/E	22.75603666	16.88197434	10.69776452	30.003942
Export	E_INV001_50mm (all)	50	Category 12/E	38.59966815	49.74558198	1.401837692	4.7
Export	E_INV001_50mm (all)	50	Category 11/E	38.21841355	49.64880092	1.307084193	5
Export	E_INV001_50mm (all)	50	Category 11/E	31.59608403	36.82940362	5.950683159	9
Export	E_INV001_50mm (all)	50	Category 11/E	28.72973016	30.71625723	7.560983598	12.61710051
Export	E_INV001_50mm (all)	50	Category 11/E	22.6652981	17.75249895	10.75165328	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV001_50mm (all)	50	Category 11/E	39.07060888	51.20170815	0.637372264	4.7
Export	E_INV001_50mm (all)	50	Category 10/E	40.81921754	49.6862396	-4.566918185	5
Export	E_INV001_50mm (all)	50	Category 10/E	31.58835317	36.84624276	3.31378368	9
Export	E_INV001_50mm (all)	50	Category 10/E	27.47019278	30.76680047	6.39496591	12.61710051
Export	E_INV001_50mm (all)	50	Category 10/E	19.10230798	17.80511059	10.68889284	30.003942
Export	E_INV001_50mm (all)	50	Category 10/E	41.97142578	51.24194433	-5.609522351	4.7
Export	E_INV001_50mm (all)	50	Category 9/E	38.75646388	48.2405972	-0.449742303	5
Export	E_INV001_50mm (all)	50	Category 9/E	31.09059893	35.78083144	5.431254651	9
Export	E_INV001_50mm (all)	50	Category 9/E	27.73084668	29.82892942	7.548975941	12.61710051
Export	E_INV001_50mm (all)	50	Category 9/E	20.67480119	16.96945267	10.6434618	30.003942
Export	E_INV001_50mm (all)	50	Category 9/E	39.72612684	49.74640856	-1.262045259	4.7
Export	E_INV001_50mm (all)	50	Category 8/E	39.85371211	48.25992422	-3.268226331	5
Export	E_INV001_50mm (all)	50	Category 8/E	31.04912827	35.76627817	4.014614983	9
Export	E_INV001_50mm (all)	50	Category 8/E	27.1080221	29.80425811	6.814072099	12.61710051
Export	E_INV001_50mm (all)	50	Category 8/E	19.10471377	16.89673167	10.6274098	30.003942
Export	E_INV001_50mm (all)	50	Category 8/E	40.9556652	49.77034841	-4.24430444	4.7
Export	E_INV001_50mm (all)	50	Category 7/E	39.48200255	49.65692393	-1.489672053	5
Export	E_INV001_50mm (all)	50	Category 7/E	31.41802832	36.84912325	4.948811255	9
Export	E_INV001_50mm (all)	50	Category 7/E	27.88074741	30.78270652	7.344089925	12.61710051
Export	E_INV001_50mm (all)	50	Category 7/E	20.84988501	17.88002938	10.69980687	30.003942
Export	E_INV001_50mm (all)	50	Category 7/E	40.50190593	51.21508327	-2.367091674	4.7
Export	E_INV001_50mm (all)	50	Category 6/E	39.48200255	49.65692393	-1.489672053	5
Export	E_INV001_50mm (all)	50	Category 6/E	31.41802832	36.84912325	4.948811255	9
Export	E_INV001_50mm (all)	50	Category 6/E	27.88074741	30.78270652	7.344089925	12.61710051
Export	E_INV001_50mm (all)	50	Category 6/E	20.84988501	17.88002938	10.69980687	30.003942
Export	E_INV001_50mm (all)	50	Category 6/E	40.50190593	51.21508327	-2.367091674	4.7
Export	E_INV001_50mm (all)	50	Category 5/E	38.21841355	49.64880092	1.307084193	5
Export	E_INV001_50mm (all)	50	Category 5/E	31.59608403	36.82940362	5.950683159	9
Export	E_INV001_50mm (all)	50	Category 5/E	28.72973016	30.71625723	7.560983598	12.61710051
Export	E_INV001_50mm (all)	50	Category 5/E	22.6652981	17.75249895	10.75165328	30.003942
Export	E_INV001_50mm (all)	50	Category 5/E	39.07060888	51.20170815	0.637372264	4.7
Export	E_INV001_50mm (all)	50	Category 4/E	39.85371211	48.25992422	-3.268226331	5
Export	E_INV001_50mm (all)	50	Category 4/E	31.04912827	35.76627817	4.014614983	9
Export	E_INV001_50mm (all)	50	Category 4/E	27.1080221	29.80425811	6.814072099	12.61710051
Export	E_INV001_50mm (all)	50	Category 4/E	19.10471377	16.89673167	10.6274098	30.003942
Export	E_INV001_50mm (all)	50	Category 4/E	40.9556652	49.77034841	-4.24430444	4.7
Export	E_INV001_50mm (all)	50	Category 3/E	37.79361222	48.24024746	2.007928823	5
Export	E_INV001_50mm (all)	50	Category 3/E	31.53600009	35.75698035	6.136170758	9
Export	E_INV001_50mm (all)	50	Category 3/E	28.75393683	29.74676658	7.65684368	12.61710051
Export	E_INV001_50mm (all)	50	Category 3/E	22.75603666	16.88197434	10.69776452	30.003942
Export	E_INV001_50mm (all)	50	Category 3/E	38.59966815	49.74558198	1.401837692	4.7
Export	E_INV001_50mm (all)	50	Category 2/E	38.75646388	48.2405972	-0.449742303	5
Export	E_INV001_50mm (all)	50	Category 2/E	31.09059893	35.78083144	5.431254651	9
Export	E_INV001_50mm (all)	50	Category 2/E	27.73084668	29.82892942	7.548975941	12.61710051
Export	E_INV001_50mm (all)	50	Category 2/E	20.67480119	16.96945267	10.6434618	30.003942
Export	E_INV001_50mm (all)	50	Category 2/E	39.72612684	49.74640856	-1.262045259	4.7
Export	E_INV001_50mm (all)	50	Category 1/E	40.81921754	49.6862396	-4.566918185	5
Export	E_INV001_50mm (all)	50	Category 1/E	31.58835317	36.84624276	3.31378368	9
Export	E_INV001_50mm (all)	50	Category 1/E	27.47019278	30.76680047	6.39496591	12.61710051
Export	E_INV001_50mm (all)	50	Category 1/E	19.10230798	17.80511059	10.68889284	30.003942
Export	E_INV001_50mm (all)	50	Category 1/E	41.97142578	51.24194433	-5.609522351	4.7
Export	E_INV001_406mm (all)	406	Category 12/E	323.6878184	345.6560174	-132.4077149	5
Export	E_INV001_406mm (all)	406	Category 12/E	247.01628	262.8418767	-57.74824829	9
Export	E_INV001_406mm (all)	406	Category 12/E	211.2360768	223.692973	-23.62324498	12.61710051
Export	E_INV001_406mm (all)	406	Category 12/E	139.4270883	144.0230953	40.97294003	30.003942
Export	E_INV001_406mm (all)	406	Category 12/E	333.0012363	355.6435598	-141.5602415	4.7
Export	E_INV001_406mm (all)	406	Category 11/E	340.3531616	359.4056008	-150.2822407	5
Export	E_INV001_406mm (all)	406	Category 11/E	258.4955914	272.9707509	-70.05028495	9
Export	E_INV001_406mm (all)	406	Category 11/E	220.4072411	232.3166255	-33.32441743	12.61710051
Export	E_INV001_406mm (all)	406	Category 11/E	144.6704135	150.2289741	36.43271529	30.003942
Export	E_INV001_406mm (all)	406	Category 11/E	350.3126106	369.860744	-160.1140196	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV001_406mm (all)	406	Category 10/E	351.3247206	355.5027952	-181.5726734	5
Export	E_INV001_406mm (all)	406	Category 10/E	260.2586778	266.1073891	-92.5063812	9
Export	E_INV001_406mm (all)	406	Category 10/E	219.110802	223.6103907	-51.14759183	12.61710051
Export	E_INV001_406mm (all)	406	Category 10/E	140.7013214	136.713523	28.18281635	30.003942
Export	E_INV001_406mm (all)	406	Category 10/E	362.2788888	366.2312836	-192.3878956	4.7
Export	E_INV001_406mm (all)	406	Category 9/E	333.0735815	343.3675945	-152.4153049	5
Export	E_INV001_406mm (all)	406	Category 9/E	250.5215315	259.236506	-72.1535146	9
Export	E_INV001_406mm (all)	406	Category 9/E	211.4952652	219.1741025	-35.2336965	12.61710051
Export	E_INV001_406mm (all)	406	Category 9/E	137.145406	137.5925972	35.07355329	30.003942
Export	E_INV001_406mm (all)	406	Category 9/E	343.0367161	353.4778386	-162.2069355	4.7
Export	E_INV001_406mm (all)	406	Category 8/E	334.1832448	340.8080792	-163.0595079	5
Export	E_INV001_406mm (all)	406	Category 8/E	247.5670715	255.1540565	-78.99018844	9
Export	E_INV001_406mm (all)	406	Category 8/E	208.9819733	214.2505748	-40.02688543	12.61710051
Export	E_INV001_406mm (all)	406	Category 8/E	134.4544387	129.9669394	34.13663442	30.003942
Export	E_INV001_406mm (all)	406	Category 8/E	344.5640875	351.046759	-173.2621624	4.7
Export	E_INV001_406mm (all)	406	Category 7/E	350.0291937	357.5102279	-170.5700961	5
Export	E_INV001_406mm (all)	406	Category 7/E	262.5685813	269.7170888	-84.92966979	9
Export	E_INV001_406mm (all)	406	Category 7/E	221.4063213	228.1379442	-45.45812144	12.61710051
Export	E_INV001_406mm (all)	406	Category 7/E	142.1890546	143.8068926	30.00840052	30.003942
Export	E_INV001_406mm (all)	406	Category 7/E	360.6105274	368.0954785	-181.0168981	4.7
Export	E_INV001_406mm (all)	406	Category 6/E	350.0291937	357.5102279	-170.5700961	5
Export	E_INV001_406mm (all)	406	Category 6/E	262.5685813	269.7170888	-84.92966979	9
Export	E_INV001_406mm (all)	406	Category 6/E	221.4063213	228.1379442	-45.45812144	12.61710051
Export	E_INV001_406mm (all)	406	Category 6/E	142.1890546	143.8068926	30.00840052	30.003942
Export	E_INV001_406mm (all)	406	Category 6/E	360.6105274	368.0954785	-181.0168981	4.7
Export	E_INV001_406mm (all)	406	Category 5/E	340.3531616	359.4056008	-150.2822407	5
Export	E_INV001_406mm (all)	406	Category 5/E	258.4955914	272.9707509	-70.05028495	9
Export	E_INV001_406mm (all)	406	Category 5/E	220.4072411	232.3166255	-33.32441743	12.61710051
Export	E_INV001_406mm (all)	406	Category 5/E	144.6704135	150.2289741	36.43271529	30.003942
Export	E_INV001_406mm (all)	406	Category 5/E	350.3126106	369.860744	-160.1140196	4.7
Export	E_INV001_406mm (all)	406	Category 4/E	334.1832448	340.8080792	-163.0595079	5
Export	E_INV001_406mm (all)	406	Category 4/E	247.5670715	255.1540565	-78.99018844	9
Export	E_INV001_406mm (all)	406	Category 4/E	208.9819733	214.2505748	-40.02688543	12.61710051
Export	E_INV001_406mm (all)	406	Category 4/E	134.4544387	129.9669394	34.13663442	30.003942
Export	E_INV001_406mm (all)	406	Category 4/E	344.5640875	351.046759	-173.2621624	4.7
Export	E_INV001_406mm (all)	406	Category 3/E	323.6878184	345.6560174	-132.4077149	5
Export	E_INV001_406mm (all)	406	Category 3/E	247.01628	262.8418767	-57.74824829	9
Export	E_INV001_406mm (all)	406	Category 3/E	211.2360768	223.692973	-23.62324498	12.61710051
Export	E_INV001_406mm (all)	406	Category 3/E	139.4270883	144.0230953	40.97294003	30.003942
Export	E_INV001_406mm (all)	406	Category 3/E	333.0012363	355.6435598	-141.5602415	4.7
Export	E_INV001_406mm (all)	406	Category 2/E	333.0735815	343.3675945	-152.4153049	5
Export	E_INV001_406mm (all)	406	Category 2/E	250.5215315	259.236506	-72.1535146	9
Export	E_INV001_406mm (all)	406	Category 2/E	211.4952652	219.1741025	-35.2336965	12.61710051
Export	E_INV001_406mm (all)	406	Category 2/E	137.145406	137.5925972	35.07355329	30.003942
Export	E_INV001_406mm (all)	406	Category 2/E	343.0367161	353.4778386	-162.2069355	4.7
Export	E_INV001_406mm (all)	406	Category 1/E	351.3247206	355.5027952	-181.5726734	5
Export	E_INV001_406mm (all)	406	Category 1/E	260.2586778	266.1073891	-92.5063812	9
Export	E_INV001_406mm (all)	406	Category 1/E	219.110802	223.6103907	-51.14759183	12.61710051
Export	E_INV001_406mm (all)	406	Category 1/E	140.7013214	136.713523	28.18281635	30.003942
Export	E_INV001_406mm (all)	406	Category 1/E	362.2788888	366.2312836	-192.3878956	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 12/E	926.3573135	905.7241337	-434.5437979	5
Export	E_INV001_1219mm (1hr)	1219	Category 12/E	703.9274727	696.7456845	-214.5954486	9
Export	E_INV001_1219mm (1hr)	1219	Category 12/E	598.439528	597.1307023	-111.4288478	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 12/E	380.8471402	392.070754	92.66891455	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 12/E	953.1012288	930.7889507	-461.1021515	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 11/E	984.4429801	949.2128873	-496.2035212	5
Export	E_INV001_1219mm (1hr)	1219	Category 11/E	745.126002	728.2650546	-258.6195281	9
Export	E_INV001_1219mm (1hr)	1219	Category 11/E	632.224385	623.6081898	-147.3929677	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 11/E	402.2865477	410.1031621	72.31930861	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 11/E	1013.307933	975.823441	-524.9365511	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 10/E	966.4592623	951.6226699	-518.301207	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV001_1219mm (1hr)	1219	Category 10/E	731.4487179	714.4608009	-273.8337917	9
Export	E_INV001_1219mm (1hr)	1219	Category 10/E	619.0776501	600.1373245	-158.0911406	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 10/E	388.6618115	362.6205552	70.75823094	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 10/E	994.6019164	979.9133048	-547.6764839	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 9/E	916.6918039	904.0858451	-453.1783853	5
Export	E_INV001_1219mm (1hr)	1219	Category 9/E	687.6361809	686.5506631	-228.3143708	9
Export	E_INV001_1219mm (1hr)	1219	Category 9/E	586.9548845	582.8888453	-122.4030482	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 9/E	385.8471303	369.1402173	85.97538181	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 9/E	944.0434198	904.0858451	-480.2483264	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 8/E	911.8290004	900.5392955	-461.2927888	5
Export	E_INV001_1219mm (1hr)	1219	Category 8/E	691.7569276	676.4685236	-232.4655587	9
Export	E_INV001_1219mm (1hr)	1219	Category 8/E	586.0206893	567.8085517	-124.1351424	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 8/E	368.5745468	341.8379108	87.79605519	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 8/E	938.0866237	927.1491539	-488.7383404	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 7/E	971.2291169	951.5690839	-511.4870964	5
Export	E_INV001_1219mm (1hr)	1219	Category 7/E	727.0638196	721.4872442	-270.3403509	9
Export	E_INV001_1219mm (1hr)	1219	Category 7/E	619.5270263	612.4141722	-156.8846462	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 7/E	405.8513763	388.6635809	66.932667	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 7/E	1000.511616	979.1076264	-540.571295	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 6/E	971.2291169	951.5690839	-511.4870964	5
Export	E_INV001_1219mm (1hr)	1219	Category 6/E	727.0638196	721.4872442	-270.3403509	9
Export	E_INV001_1219mm (1hr)	1219	Category 6/E	619.5270263	612.4141722	-156.8846462	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 6/E	405.8513763	388.6635809	66.932667	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 6/E	1000.511616	979.1076264	-540.571295	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 5/E	984.4429801	949.2128873	-496.2035212	5
Export	E_INV001_1219mm (1hr)	1219	Category 5/E	745.126002	728.2650546	-258.6195281	9
Export	E_INV001_1219mm (1hr)	1219	Category 5/E	632.224385	623.6081898	-147.3929677	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 5/E	402.2865477	410.1031621	72.31930861	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 5/E	1013.307933	975.823441	-524.9365511	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 4/E	911.8290004	900.5392955	-461.2927888	5
Export	E_INV001_1219mm (1hr)	1219	Category 4/E	691.7569276	676.4685236	-232.4655587	9
Export	E_INV001_1219mm (1hr)	1219	Category 4/E	586.0206893	567.8085517	-124.1351424	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 4/E	368.5745468	341.8379108	87.79605519	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 4/E	938.0866237	927.1491539	-488.7383404	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 3/E	926.3573135	905.7241337	-434.5437979	5
Export	E_INV001_1219mm (1hr)	1219	Category 3/E	703.9274727	696.7456845	-214.5954486	9
Export	E_INV001_1219mm (1hr)	1219	Category 3/E	598.439528	597.1307023	-111.4288478	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 3/E	380.8471402	392.070754	92.66891455	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 3/E	953.1012288	930.7889507	-461.1021515	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 2/E	916.6918039	904.0858451	-453.1783853	5
Export	E_INV001_1219mm (1hr)	1219	Category 2/E	687.6361809	686.5506631	-228.3143708	9
Export	E_INV001_1219mm (1hr)	1219	Category 2/E	586.9548845	582.8888453	-122.4030482	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 2/E	385.8471303	369.1402173	85.97538181	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 2/E	944.0434198	904.0858451	-480.2483264	4.7
Export	E_INV001_1219mm (1hr)	1219	Category 1/E	966.4592623	951.6226699	-518.301207	5
Export	E_INV001_1219mm (1hr)	1219	Category 1/E	731.4487179	714.4608009	-273.8337917	9
Export	E_INV001_1219mm (1hr)	1219	Category 1/E	619.0776501	600.1373245	-158.0911406	12.61710051
Export	E_INV001_1219mm (1hr)	1219	Category 1/E	388.6618115	362.6205552	70.75823094	30.003942
Export	E_INV001_1219mm (1hr)	1219	Category 1/E	994.6019164	979.9133048	-547.6764839	4.7
Export	E_INV001_10mm	10	Category 12/E	6.476243716	6.380368599	2.064729022	5
Export	E_INV001_10mm	10	Category 12/E	5.54169324	4.206890873	2.60621353	9
Export	E_INV001_10mm	10	Category 12/E	4.895919642	3.083054289	2.993304868	12.61710051
Export	E_INV001_10mm	10	Category 12/E	0.681544363	0.123749702	8.087882567	30.003942
Export	E_INV001_10mm	10	Category 12/E	6.579341725	6.626477673	2.008868904	4.7
Export	E_INV001_10mm	10	Category 11/E	6.381303895	6.481024233	2.077448868	5
Export	E_INV001_10mm	10	Category 11/E	5.454159737	4.319062647	2.617374353	9
Export	E_INV001_10mm	10	Category 11/E	4.867960062	3.204880586	2.975701923	12.61710051
Export	E_INV001_10mm	10	Category 11/E	0.900901881	0.296577556	5.791098299	30.003942
Export	E_INV001_10mm	10	Category 11/E	6.484654959	6.731953244	2.020800047	4.7
Export	E_INV001_10mm	10	Category 10/E	6.412038141	7.081619897	2.037413155	5
Export	E_INV001_10mm	10	Category 10/E	5.349073487	4.854459869	2.562129846	9

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV001_10mm	10	Category 10/E	4.699133235	3.686788358	2.893423231	12.61710051
Export	E_INV001_10mm	10	Category 10/E	2.60297835	0.779604134	4.608628606	30.003942
Export	E_INV001_10mm	10	Category 10/E	6.529699452	7.338089978	1.980815687	4.7
Export	E_INV001_10mm	10	Category 9/E	6.483610422	6.736097025	2.040422512	5
Export	E_INV001_10mm	10	Category 9/E	5.47514839	4.524012856	2.572331093	9
Export	E_INV001_10mm	10	Category 9/E	4.821892379	3.364143294	2.936840268	12.61710051
Export	E_INV001_10mm	10	Category 9/E	1.786108165	0.416809396	6.135213022	30.003942
Export	E_INV001_10mm	10	Category 9/E	6.593770058	6.991990869	1.983866807	4.7
Export	E_INV001_10mm	10	Category 8/E	6.473616931	6.976362391	2.026188131	5
Export	E_INV001_10mm	10	Category 8/E	5.405404495	4.737704676	2.547496053	9
Export	E_INV001_10mm	10	Category 8/E	4.717881038	3.552206681	2.897177445	12.61710051
Export	E_INV001_10mm	10	Category 8/E	2.021587402	0.513971661	5.44367777	30.003942
Export	E_INV001_10mm	10	Category 8/E	6.591449418	7.228457121	1.969166124	4.7
Export	E_INV001_10mm	10	Category 7/E	6.406412346	6.845225735	2.052343531	5
Export	E_INV001_10mm	10	Category 7/E	5.404746584	4.638440458	2.584263047	9
Export	E_INV001_10mm	10	Category 7/E	4.776135922	3.490279086	2.925248658	12.61710051
Export	E_INV001_10mm	10	Category 7/E	2.567742898	0.677564497	4.931366275	30.003942
Export	E_INV001_10mm	10	Category 7/E	6.516195189	7.100026036	1.995137986	4.7
Export	E_INV001_10mm	10	Category 6/E	6.406412346	6.845225735	2.052343531	5
Export	E_INV001_10mm	10	Category 6/E	5.404746584	4.638440458	2.584263047	9
Export	E_INV001_10mm	10	Category 6/E	4.776135922	3.490279086	2.925248658	12.61710051
Export	E_INV001_10mm	10	Category 6/E	2.567742898	0.677564497	4.931366275	30.003942
Export	E_INV001_10mm	10	Category 6/E	6.516195189	7.100026036	1.995137986	4.7
Export	E_INV001_10mm	10	Category 5/E	6.381303895	6.481024233	2.077448868	5
Export	E_INV001_10mm	10	Category 5/E	5.454159737	4.319062647	2.617374353	9
Export	E_INV001_10mm	10	Category 5/E	4.867960062	3.204880586	2.975701923	12.61710051
Export	E_INV001_10mm	10	Category 5/E	0.900901881	0.296577556	5.791098299	30.003942
Export	E_INV001_10mm	10	Category 5/E	6.484654959	6.731953244	2.020800047	4.7
Export	E_INV001_10mm	10	Category 4/E	6.473616931	6.976362391	2.026188131	5
Export	E_INV001_10mm	10	Category 4/E	5.405404495	4.737704676	2.547496053	9
Export	E_INV001_10mm	10	Category 4/E	4.717881038	3.552206681	2.897177445	12.61710051
Export	E_INV001_10mm	10	Category 4/E	2.021587402	0.513971661	5.44367777	30.003942
Export	E_INV001_10mm	10	Category 4/E	6.591449418	7.228457121	1.969166124	4.7
Export	E_INV001_10mm	10	Category 3/E	6.476243716	6.380368599	2.064729022	5
Export	E_INV001_10mm	10	Category 3/E	5.54169324	4.206890873	2.60621353	9
Export	E_INV001_10mm	10	Category 3/E	4.895919642	3.083054289	2.993304868	12.61710051
Export	E_INV001_10mm	10	Category 3/E	0.681544363	0.123749702	8.087882567	30.003942
Export	E_INV001_10mm	10	Category 3/E	6.579341725	6.626477673	2.008868904	4.7
Export	E_INV001_10mm	10	Category 2/E	6.483610422	6.736097025	2.040422512	5
Export	E_INV001_10mm	10	Category 2/E	5.47514839	4.524012856	2.572331093	9
Export	E_INV001_10mm	10	Category 2/E	4.821892379	3.364143294	2.936840268	12.61710051
Export	E_INV001_10mm	10	Category 2/E	1.786108165	0.416809396	6.135213022	30.003942
Export	E_INV001_10mm	10	Category 2/E	6.593770058	6.991990869	1.983866807	4.7
Export	E_INV001_10mm	10	Category 1/E	6.412038141	7.081619897	2.037413155	5
Export	E_INV001_10mm	10	Category 1/E	5.349073487	4.854459869	2.562129846	9
Export	E_INV001_10mm	10	Category 1/E	4.699133235	3.686788358	2.893423231	12.61710051
Export	E_INV001_10mm	10	Category 1/E	2.60297835	0.779604134	4.608628606	30.003942
Export	E_INV001_10mm	10	Category 1/E	6.529699452	7.338089978	1.980815687	4.7
Export	E_INV001_1219mm (2min)	1219	Category 12/E	926.3573135	905.7241337	-434.5437979	5
Export	E_INV001_1219mm (2min)	1219	Category 12/E	703.9274727	696.7456845	-214.5954486	9
Export	E_INV001_1219mm (2min)	1219	Category 12/E	598.439528	597.1307023	-111.4288478	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 12/E	380.8471402	392.070754	92.66891455	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 12/E	953.1012288	930.7889507	-461.1021515	4.7
Export	E_INV001_1219mm (2min)	1219	Category 11/E	984.4429801	949.2128873	-496.2035212	5
Export	E_INV001_1219mm (2min)	1219	Category 11/E	745.126002	728.2650546	-258.6195281	9
Export	E_INV001_1219mm (2min)	1219	Category 11/E	632.224385	623.6081898	-147.3929677	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 11/E	402.2865477	410.1031621	72.31930861	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 11/E	1013.307933	975.823441	-524.9365511	4.7
Export	E_INV001_1219mm (2min)	1219	Category 10/E	966.4592623	951.6226699	-518.301207	5
Export	E_INV001_1219mm (2min)	1219	Category 10/E	731.4487179	714.4608009	-273.8337917	9
Export	E_INV001_1219mm (2min)	1219	Category 10/E	619.0776501	600.1373245	-158.0911406	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV001_1219mm (2min)	1219	Category 10/E	388.6618115	362.6205552	70.75823094	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 10/E	994.6019164	979.9133048	-547.6764839	4.7
Export	E_INV001_1219mm (2min)	1219	Category 9/E	916.6918039	904.0858451	-453.1783853	5
Export	E_INV001_1219mm (2min)	1219	Category 9/E	687.6361809	686.5506631	-228.3143708	9
Export	E_INV001_1219mm (2min)	1219	Category 9/E	586.9548845	582.8888453	-122.4030482	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 9/E	385.8471303	369.1402173	85.97538181	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 9/E	944.0434198	904.0858451	-480.2483264	4.7
Export	E_INV001_1219mm (2min)	1219	Category 8/E	911.8290004	900.5392955	-461.2927888	5
Export	E_INV001_1219mm (2min)	1219	Category 8/E	691.7569276	676.4685236	-232.4655587	9
Export	E_INV001_1219mm (2min)	1219	Category 8/E	586.0206893	567.8085517	-124.1351424	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 8/E	368.5745468	341.8379108	87.79605519	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 8/E	938.0866237	927.1491539	-488.7383404	4.7
Export	E_INV001_1219mm (2min)	1219	Category 7/E	971.2291169	951.5690839	-511.4870964	5
Export	E_INV001_1219mm (2min)	1219	Category 7/E	727.0638196	721.4872442	-270.3403509	9
Export	E_INV001_1219mm (2min)	1219	Category 7/E	619.5270263	612.4141722	-156.8846462	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 7/E	405.8513763	388.6635809	66.932667	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 7/E	1000.511616	979.1076264	-540.571295	4.7
Export	E_INV001_1219mm (2min)	1219	Category 6/E	971.2291169	951.5690839	-511.4870964	5
Export	E_INV001_1219mm (2min)	1219	Category 6/E	727.0638196	721.4872442	-270.3403509	9
Export	E_INV001_1219mm (2min)	1219	Category 6/E	619.5270263	612.4141722	-156.8846462	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 6/E	405.8513763	388.6635809	66.932667	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 6/E	1000.511616	979.1076264	-540.571295	4.7
Export	E_INV001_1219mm (2min)	1219	Category 5/E	984.4429801	949.2128873	-496.2035212	5
Export	E_INV001_1219mm (2min)	1219	Category 5/E	745.126002	728.2650546	-258.6195281	9
Export	E_INV001_1219mm (2min)	1219	Category 5/E	632.224385	623.6081898	-147.3929677	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 5/E	402.2865477	410.1031621	72.31930861	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 5/E	1013.307933	975.823441	-524.9365511	4.7
Export	E_INV001_1219mm (2min)	1219	Category 4/E	911.8290004	900.5392955	-461.2927888	5
Export	E_INV001_1219mm (2min)	1219	Category 4/E	691.7569276	676.4685236	-232.4655587	9
Export	E_INV001_1219mm (2min)	1219	Category 4/E	586.0206893	567.8085517	-124.1351424	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 4/E	368.5745468	341.8379108	87.79605519	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 4/E	938.0866237	927.1491539	-488.7383404	4.7
Export	E_INV001_1219mm (2min)	1219	Category 3/E	926.3573135	905.7241337	-434.5437979	5
Export	E_INV001_1219mm (2min)	1219	Category 3/E	703.9274727	696.7456845	-214.5954486	9
Export	E_INV001_1219mm (2min)	1219	Category 3/E	598.439528	597.1307023	-111.4288478	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 3/E	380.8471402	392.070754	92.66891455	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 3/E	953.1012288	930.7889507	-461.1021515	4.7
Export	E_INV001_1219mm (2min)	1219	Category 2/E	916.6918039	904.0858451	-453.1783853	5
Export	E_INV001_1219mm (2min)	1219	Category 2/E	687.6361809	686.5506631	-228.3143708	9
Export	E_INV001_1219mm (2min)	1219	Category 2/E	586.9548845	582.8888453	-122.4030482	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 2/E	385.8471303	369.1402173	85.97538181	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 2/E	944.0434198	904.0858451	-480.2483264	4.7
Export	E_INV001_1219mm (2min)	1219	Category 1/E	966.4592623	951.6226699	-518.301207	5
Export	E_INV001_1219mm (2min)	1219	Category 1/E	731.4487179	714.4608009	-273.8337917	9
Export	E_INV001_1219mm (2min)	1219	Category 1/E	619.0776501	600.1373245	-158.0911406	12.61710051
Export	E_INV001_1219mm (2min)	1219	Category 1/E	388.6618115	362.6205552	70.75823094	30.003942
Export	E_INV001_1219mm (2min)	1219	Category 1/E	994.6019164	979.9133048	-547.6764839	4.7
Export	E_INV002_25mm	25	Category 12/E	17.15579241	21.09020624	3.205077174	5
Export	E_INV002_25mm	25	Category 12/E	14.78631943	15.31603425	4.390785681	9
Export	E_INV002_25mm	25	Category 12/E	13.62314358	12.47357058	4.962838309	12.61710051
Export	E_INV002_25mm	25	Category 12/E	10.70682061	6.254806938	6.231139629	30.003942
Export	E_INV002_25mm	25	Category 12/E	17.4377013	21.7727196	3.063484323	4.7
Export	E_INV002_25mm	25	Category 11/E	17.07555349	21.53204637	3.152726947	5
Export	E_INV002_25mm	25	Category 11/E	14.65777764	15.69046445	4.388603948	9
Export	E_INV002_25mm	25	Category 11/E	13.47596564	12.83446249	4.98569812	12.61710051
Export	E_INV002_25mm	25	Category 11/E	10.67320852	6.622983592	6.286477063	30.003942
Export	E_INV002_25mm	25	Category 11/E	17.36389492	22.22567437	3.004736873	4.7
Export	E_INV002_25mm	25	Category 10/E	16.96105237	21.80021446	2.912977193	5
Export	E_INV002_25mm	25	Category 10/E	14.07911335	16.0932665	4.247019667	9
Export	E_INV002_25mm	25	Category 10/E	12.68108311	13.27889294	4.838308506	12.61710051
Export	E_INV002_25mm	25	Category 10/E	9.262889036	6.962238671	6.121499884	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV002_25mm	25	Category 10/E	17.34514548	22.48901114	2.670209607	4.7
Export	E_INV002_25mm	25	Category 9/E	17.03168414	21.29577968	3.125953541	5
Export	E_INV002_25mm	25	Category 9/E	14.43720556	15.59097613	4.309857674	9
Export	E_INV002_25mm	25	Category 9/E	13.15210153	12.76958161	4.883206332	12.61710051
Export	E_INV002_25mm	25	Category 9/E	9.89443579	6.455230857	6.152957947	30.003942
Export	E_INV002_25mm	25	Category 9/E	17.33738795	21.96947769	2.984369495	4.7
Export	E_INV002_25mm	25	Category 8/E	16.89522216	21.35743916	3.059941788	5
Export	E_INV002_25mm	25	Category 8/E	14.11366754	15.73197158	4.251469408	9
Export	E_INV002_25mm	25	Category 8/E	12.72843697	12.92481777	4.821741319	12.61710051
Export	E_INV002_25mm	25	Category 8/E	9.320440552	6.571807967	6.074131631	30.003942
Export	E_INV002_25mm	25	Category 8/E	17.24887862	22.03300088	2.868629513	4.7
Export	E_INV002_25mm	25	Category 7/E	17.0052822	21.73036324	3.06958474	5
Export	E_INV002_25mm	25	Category 7/E	14.3592394	15.96577636	4.305573237	9
Export	E_INV002_25mm	25	Category 7/E	13.06010637	13.12923305	4.899826303	12.61710051
Export	E_INV002_25mm	25	Category 7/E	9.760463837	6.823380873	6.198467256	30.003942
Export	E_INV002_25mm	25	Category 7/E	17.32011691	22.41476863	2.92175587	4.7
Export	E_INV002_25mm	25	Category 6/E	17.0052822	21.73036324	3.06958474	5
Export	E_INV002_25mm	25	Category 6/E	14.3592394	15.96577636	4.305573237	9
Export	E_INV002_25mm	25	Category 6/E	13.06010637	13.12923305	4.899826303	12.61710051
Export	E_INV002_25mm	25	Category 6/E	9.760463837	6.823380873	6.198467256	30.003942
Export	E_INV002_25mm	25	Category 6/E	17.32011691	22.41476863	2.92175587	4.7
Export	E_INV002_25mm	25	Category 5/E	17.07555349	21.53204637	3.152726947	5
Export	E_INV002_25mm	25	Category 5/E	14.65777764	15.69046445	4.388603948	9
Export	E_INV002_25mm	25	Category 5/E	13.47596564	12.83446249	4.98569812	12.61710051
Export	E_INV002_25mm	25	Category 5/E	10.67320852	6.622983592	6.286477063	30.003942
Export	E_INV002_25mm	25	Category 5/E	17.36389492	22.22567437	3.004736873	4.7
Export	E_INV002_25mm	25	Category 4/E	16.89522216	21.35743916	3.059941788	5
Export	E_INV002_25mm	25	Category 4/E	14.11366754	15.73197158	4.251469408	9
Export	E_INV002_25mm	25	Category 4/E	12.72843697	12.92481777	4.821741319	12.61710051
Export	E_INV002_25mm	25	Category 4/E	9.320440552	6.571807967	6.074131631	30.003942
Export	E_INV002_25mm	25	Category 4/E	17.24887862	22.03300088	2.868629513	4.7
Export	E_INV002_25mm	25	Category 3/E	17.15579241	21.09020624	3.205077174	5
Export	E_INV002_25mm	25	Category 3/E	14.78631943	15.31603425	4.390785681	9
Export	E_INV002_25mm	25	Category 3/E	13.62314358	12.47357058	4.962838309	12.61710051
Export	E_INV002_25mm	25	Category 3/E	10.70682061	6.254806938	6.231139629	30.003942
Export	E_INV002_25mm	25	Category 3/E	17.4377013	21.7727196	3.063484323	4.7
Export	E_INV002_25mm	25	Category 2/E	17.03168414	21.29577968	3.125953541	5
Export	E_INV002_25mm	25	Category 2/E	14.43720556	15.59097613	4.309857674	9
Export	E_INV002_25mm	25	Category 2/E	13.15210153	12.76958161	4.883206332	12.61710051
Export	E_INV002_25mm	25	Category 2/E	9.89443579	6.455230857	6.152957947	30.003942
Export	E_INV002_25mm	25	Category 2/E	17.33738795	21.96947769	2.984369495	4.7
Export	E_INV002_25mm	25	Category 1/E	16.96105237	21.80021446	2.912977193	5
Export	E_INV002_25mm	25	Category 1/E	14.07911335	16.0932665	4.247019667	9
Export	E_INV002_25mm	25	Category 1/E	12.68108311	13.27889294	4.838308506	12.61710051
Export	E_INV002_25mm	25	Category 1/E	9.262889036	6.962238671	6.121499884	30.003942
Export	E_INV002_25mm	25	Category 1/E	17.34514548	22.48901114	2.670209607	4.7
Export	E_INV002_50mm	50	Category 12/E	35.69550687	45.58748702	2.37731272	5
Export	E_INV002_50mm	50	Category 12/E	29.93152201	33.76700069	6.015139702	9
Export	E_INV002_50mm	50	Category 12/E	27.32313916	28.05855672	7.423259367	12.61710051
Export	E_INV002_50mm	50	Category 12/E	21.67815907	15.82310955	10.25146306	30.003942
Export	E_INV002_50mm	50	Category 12/E	36.44294223	47.01246366	1.828013814	4.7
Export	E_INV002_50mm	50	Category 11/E	36.05080841	46.89405356	1.760212525	5
Export	E_INV002_50mm	50	Category 11/E	29.95944511	34.76742763	5.856115509	9
Export	E_INV002_50mm	50	Category 11/E	27.27652589	28.96642913	7.344257828	12.61710051
Export	E_INV002_50mm	50	Category 11/E	21.57528507	16.64458721	10.31129153	30.003942
Export	E_INV002_50mm	50	Category 11/E	36.83848881	48.36245789	1.15689017	4.7
Export	E_INV002_50mm	50	Category 10/E	38.38776195	46.96490309	-3.614752432	5
Export	E_INV002_50mm	50	Category 10/E	29.79095661	34.80964631	3.638255833	9
Export	E_INV002_50mm	50	Category 10/E	25.96916828	29.05301717	6.433133793	12.61710051
Export	E_INV002_50mm	50	Category 10/E	18.19080245	16.73964247	10.22649148	30.003942
Export	E_INV002_50mm	50	Category 10/E	39.46612569	48.437306	-4.581956174	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV002_50mm	50	Category 9/E	36.52695775	45.60459438	0.175023385	5
Export	E_INV002_50mm	50	Category 9/E	29.41180483	33.80673445	5.515208204	9
Export	E_INV002_50mm	50	Category 9/E	26.31901397	28.16449191	7.367772113	12.61710051
Export	E_INV002_50mm	50	Category 9/E	19.69972881	15.93043492	10.19010588	30.003942
Export	E_INV002_50mm	50	Category 9/E	37.42682119	47.03001541	-0.566415648	4.7
Export	E_INV002_50mm	50	Category 8/E	37.52035003	45.63737832	-2.425395336	5
Export	E_INV002_50mm	50	Category 8/E	29.32125873	33.80483618	4.261547481	9
Export	E_INV002_50mm	50	Category 8/E	25.66364646	28.15523927	6.793406959	12.61710051
Export	E_INV002_50mm	50	Category 8/E	18.20467217	15.8821219	10.16803608	30.003942
Export	E_INV002_50mm	50	Category 8/E	38.54951547	47.06804816	-3.327935082	4.7
Export	E_INV002_50mm	50	Category 7/E	37.16595719	46.92531877	-0.763951574	5
Export	E_INV002_50mm	50	Category 7/E	29.67958008	34.80008964	5.102322851	9
Export	E_INV002_50mm	50	Category 7/E	26.42403204	29.05544723	7.212028548	12.61710051
Export	E_INV002_50mm	50	Category 7/E	19.85259571	16.79242458	10.24880003	30.003942
Export	E_INV002_50mm	50	Category 7/E	38.11479338	48.39524002	-1.569963691	4.7
Export	E_INV002_50mm	50	Category 6/E	37.16595719	46.92531877	-0.763951574	5
Export	E_INV002_50mm	50	Category 6/E	29.67958008	34.80008964	5.102322851	9
Export	E_INV002_50mm	50	Category 6/E	26.42403204	29.05544723	7.212028548	12.61710051
Export	E_INV002_50mm	50	Category 6/E	19.85259571	16.79242458	10.24880003	30.003942
Export	E_INV002_50mm	50	Category 6/E	38.11479338	48.39524002	-1.569963691	4.7
Export	E_INV002_50mm	50	Category 5/E	36.05080841	46.89405356	1.760212525	5
Export	E_INV002_50mm	50	Category 5/E	29.95944511	34.76742763	5.856115509	9
Export	E_INV002_50mm	50	Category 5/E	27.27652589	28.96642913	7.344257828	12.61710051
Export	E_INV002_50mm	50	Category 5/E	21.57528507	16.64458721	10.31129153	30.003942
Export	E_INV002_50mm	50	Category 5/E	36.83848881	48.36245789	1.15689017	4.7
Export	E_INV002_50mm	50	Category 4/E	37.52035003	45.63737832	-2.425395336	5
Export	E_INV002_50mm	50	Category 4/E	29.32125873	33.80483618	4.261547481	9
Export	E_INV002_50mm	50	Category 4/E	25.66364646	28.15523927	6.793406959	12.61710051
Export	E_INV002_50mm	50	Category 4/E	18.20467217	15.8821219	10.16803608	30.003942
Export	E_INV002_50mm	50	Category 4/E	38.54951547	47.06804816	-3.327935082	4.7
Export	E_INV002_50mm	50	Category 3/E	35.69550687	45.58748702	2.37731272	5
Export	E_INV002_50mm	50	Category 3/E	29.93152201	33.76700069	6.015139702	9
Export	E_INV002_50mm	50	Category 3/E	27.32313916	28.05855672	7.423259367	12.61710051
Export	E_INV002_50mm	50	Category 3/E	21.67815907	15.82310955	10.25146306	30.003942
Export	E_INV002_50mm	50	Category 3/E	36.44294223	47.01246366	1.828013814	4.7
Export	E_INV002_50mm	50	Category 2/E	36.52695775	45.60459438	0.175023385	5
Export	E_INV002_50mm	50	Category 2/E	29.41180483	33.80673445	5.515208204	9
Export	E_INV002_50mm	50	Category 2/E	26.31901397	28.16449191	7.367772113	12.61710051
Export	E_INV002_50mm	50	Category 2/E	19.69972881	15.93043492	10.19010588	30.003942
Export	E_INV002_50mm	50	Category 2/E	37.42682119	47.03001541	-0.566415648	4.7
Export	E_INV002_50mm	50	Category 1/E	38.38776195	46.96490309	-3.614752432	5
Export	E_INV002_50mm	50	Category 1/E	29.79095661	34.80964631	3.638255833	9
Export	E_INV002_50mm	50	Category 1/E	25.96916828	29.05301717	6.433133793	12.61710051
Export	E_INV002_50mm	50	Category 1/E	18.19080245	16.73964247	10.22649148	30.003942
Export	E_INV002_50mm	50	Category 1/E	39.46612569	48.437306	-4.581956174	4.7
Export	E_INV002_237mm	237	Category 12/E	115.8589231	138.2104444	-28.59553865	5
Export	E_INV002_237mm	237	Category 12/E	90.28014458	103.9443775	-4.920461164	9
Export	E_INV002_237mm	237	Category 12/E	78.61408682	87.75553556	5.342570206	12.61710051
Export	E_INV002_237mm	237	Category 12/E	55.68598516	54.62942292	23.28538906	30.003942
Export	E_INV002_237mm	237	Category 12/E	119.0092056	142.3511748	-31.58417739	4.7
Export	E_INV002_237mm	237	Category 11/E	119.8796989	143.1637763	-33.41535307	5
Export	E_INV002_237mm	237	Category 11/E	92.83554007	107.6336297	-8.012977174	9
Export	E_INV002_237mm	237	Category 11/E	80.52931952	90.94115322	3.05094365	12.61710051
Export	E_INV002_237mm	237	Category 11/E	56.5692667	57.04842382	22.58150521	30.003942
Export	E_INV002_237mm	237	Category 11/E	123.2097856	147.4735402	-36.60835612	4.7
Export	E_INV002_237mm	237	Category 10/E	130.7655334	141.4620297	-53.19343901	5
Export	E_INV002_237mm	237	Category 10/E	97.55828083	105.8477876	-21.29471005	9
Export	E_INV002_237mm	237	Category 10/E	82.02384318	88.9495169	-6.958512611	12.61710051
Export	E_INV002_237mm	237	Category 10/E	52.30277526	54.06133519	19.01719372	30.003942
Export	E_INV002_237mm	237	Category 10/E	134.8002371	145.7576586	-57.13294065	4.7
Export	E_INV002_237mm	237	Category 9/E	121.8498528	137.3549608	-38.95372028	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV002_237mm	237	Category 9/E	92.68253639	103.1241966	-11.48714055	9
Export	E_INV002_237mm	237	Category 9/E	79.18052434	86.894589	0.593452529	12.61710051
Export	E_INV002_237mm	237	Category 9/E	51.54497921	53.26892676	22.07838333	30.003942
Export	E_INV002_237mm	237	Category 9/E	125.4124769	141.4841573	-42.3804509	4.7
Export	E_INV002_237mm	237	Category 8/E	125.5379032	136.5470597	-47.25464164	5
Export	E_INV002_237mm	237	Category 8/E	93.82447736	102.1363847	-17.12551735	9
Export	E_INV002_237mm	237	Category 8/E	78.94120375	85.71245351	-3.669186861	12.61710051
Export	E_INV002_237mm	237	Category 8/E	50.95945864	51.53054808	20.45071077	30.003942
Export	E_INV002_237mm	237	Category 8/E	129.3845825	140.6870675	-50.98503347	4.7
Export	E_INV002_237mm	237	Category 7/E	126.616254	142.2662847	-44.47971415	5
Export	E_INV002_237mm	237	Category 7/E	95.93984456	106.8003799	-15.23900518	9
Export	E_INV002_237mm	237	Category 7/E	81.7705024	90.0737646	-2.285583893	12.61710051
Export	E_INV002_237mm	237	Category 7/E	53.19353762	55.77783387	20.93679361	30.003942
Export	E_INV002_237mm	237	Category 7/E	130.3662925	146.5562218	-48.11684054	4.7
Export	E_INV002_237mm	237	Category 6/E	126.616254	142.2662847	-44.47971415	5
Export	E_INV002_237mm	237	Category 6/E	95.93984456	106.8003799	-15.23900518	9
Export	E_INV002_237mm	237	Category 6/E	81.7705024	90.0737646	-2.285583893	12.61710051
Export	E_INV002_237mm	237	Category 6/E	53.19353762	55.77783387	20.93679361	30.003942
Export	E_INV002_237mm	237	Category 6/E	130.3662925	146.5562218	-48.11684054	4.7
Export	E_INV002_237mm	237	Category 5/E	119.8796989	143.1637763	-33.41535307	5
Export	E_INV002_237mm	237	Category 5/E	92.83554007	107.6336297	-8.012977174	9
Export	E_INV002_237mm	237	Category 5/E	80.52931952	90.94115322	3.05094365	12.61710051
Export	E_INV002_237mm	237	Category 5/E	56.5692667	57.04842382	22.58150521	30.003942
Export	E_INV002_237mm	237	Category 5/E	123.2097856	147.4735402	-36.60835612	4.7
Export	E_INV002_237mm	237	Category 4/E	125.5379032	136.5470597	-47.25464164	5
Export	E_INV002_237mm	237	Category 4/E	93.82447736	102.1363847	-17.12551735	9
Export	E_INV002_237mm	237	Category 4/E	78.94120375	85.71245351	-3.669186861	12.61710051
Export	E_INV002_237mm	237	Category 4/E	50.95945864	51.53054808	20.45071077	30.003942
Export	E_INV002_237mm	237	Category 4/E	129.3845825	140.6870675	-50.98503347	4.7
Export	E_INV002_237mm	237	Category 3/E	115.8589231	138.2104444	-28.59553865	5
Export	E_INV002_237mm	237	Category 3/E	90.28014458	103.9443775	-4.920461164	9
Export	E_INV002_237mm	237	Category 3/E	78.61408682	87.75553556	5.342570206	12.61710051
Export	E_INV002_237mm	237	Category 3/E	55.68598516	54.62942292	23.28538906	30.003942
Export	E_INV002_237mm	237	Category 3/E	119.0092056	142.3511748	-31.58417739	4.7
Export	E_INV002_237mm	237	Category 2/E	121.8498528	137.3549608	-38.95372028	5
Export	E_INV002_237mm	237	Category 2/E	92.68253639	103.1241966	-11.48714055	9
Export	E_INV002_237mm	237	Category 2/E	79.18052434	86.894589	0.593452529	12.61710051
Export	E_INV002_237mm	237	Category 2/E	51.54497921	53.26892676	22.07838333	30.003942
Export	E_INV002_237mm	237	Category 2/E	125.4124769	141.4841573	-42.3804509	4.7
Export	E_INV002_237mm	237	Category 1/E	130.7655334	141.4620297	-53.19343901	5
Export	E_INV002_237mm	237	Category 1/E	97.55828083	105.8477876	-21.29471005	9
Export	E_INV002_237mm	237	Category 1/E	82.02384318	88.9495169	-6.958512611	12.61710051
Export	E_INV002_237mm	237	Category 1/E	52.30277526	54.06133519	19.01719372	30.003942
Export	E_INV002_237mm	237	Category 1/E	134.8002371	145.7576586	-57.13294065	4.7
Export	E_INV002_711mm	711	Category 12/E	115.7719563	138.1171106	-28.55291139	5
Export	E_INV002_711mm	711	Category 12/E	90.2148441	103.87322	-4.899805009	9
Export	E_INV002_711mm	711	Category 12/E	78.5589234	87.69482129	5.353071742	12.61710051
Export	E_INV002_711mm	711	Category 12/E	55.6518794	54.58952786	23.27490975	30.003942
Export	E_INV002_711mm	711	Category 12/E	118.9196018	142.2551608	-31.53886388	4.7
Export	E_INV002_711mm	711	Category 11/E	119.7883666	143.0667179	-33.36815682	5
Export	E_INV002_711mm	711	Category 11/E	92.76691118	107.5597064	-7.988513108	9
Export	E_INV002_711mm	711	Category 11/E	80.47147669	90.87809365	3.064505246	12.61710051
Export	E_INV002_711mm	711	Category 11/E	56.53294352	57.00692522	22.57390186	30.003942
Export	E_INV002_711mm	711	Category 11/E	123.1152817	147.3736448	-36.55755807	4.7
Export	E_INV002_711mm	711	Category 10/E	130.6681538	141.3670737	-53.13570616	5
Export	E_INV002_711mm	711	Category 10/E	97.48672909	105.7764316	-21.26270791	9
Export	E_INV002_711mm	711	Category 10/E	81.96470839	88.88942983	-6.938681321	12.61710051
Export	E_INV002_711mm	711	Category 10/E	52.26524114	54.02402242	19.01310226	30.003942
Export	E_INV002_711mm	711	Category 10/E	134.6997412	145.659868	-57.07207498	4.7
Export	E_INV002_711mm	711	Category 9/E	121.7584262	137.2627544	-38.904599	5
Export	E_INV002_711mm	711	Category 9/E	92.61475818	103.0542672	-11.46174108	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV002_711mm	711	Category 9/E	79.12397588	86.83524939	0.607757277	12.61710051
Export	E_INV002_711mm	711	Category 9/E	51.51049824	53.23111314	22.07127076	30.003942
Export	E_INV002_711mm	711	Category 9/E	125.3182653	141.389276	-42.32858287	4.7
Export	E_INV002_711mm	711	Category 8/E	125.4454768	136.4559495	-47.20220858	5
Export	E_INV002_711mm	711	Category 8/E	93.75667289	102.0678759	-17.09751986	9
Export	E_INV002_711mm	711	Category 8/E	78.88527168	85.65481985	-3.652748516	12.61710051
Export	E_INV002_711mm	711	Category 8/E	50.92389071	51.49496715	20.44470652	30.003942
Export	E_INV002_711mm	711	Category 8/E	129.2891599	140.5932203	-50.92955302	4.7
Export	E_INV002_711mm	711	Category 7/E	126.5199157	142.1703344	-44.42529249	5
Export	E_INV002_711mm	711	Category 7/E	95.86841782	106.7276815	-15.20959153	9
Export	E_INV002_711mm	711	Category 7/E	81.71089254	90.01206023	-2.267930712	12.61710051
Export	E_INV002_711mm	711	Category 7/E	53.15824536	55.73842914	20.93148347	30.003942
Export	E_INV002_711mm	711	Category 7/E	130.2669938	146.457469	-48.05948483	4.7
Export	E_INV002_711mm	711	Category 6/E	126.5199157	142.1703344	-44.42529249	5
Export	E_INV002_711mm	711	Category 6/E	95.86841782	106.7276815	-15.20959153	9
Export	E_INV002_711mm	711	Category 6/E	81.71089254	90.01206023	-2.267930712	12.61710051
Export	E_INV002_711mm	711	Category 6/E	53.15824536	55.73842914	20.93148347	30.003942
Export	E_INV002_711mm	711	Category 6/E	130.2669938	146.457469	-48.05948483	4.7
Export	E_INV002_711mm	711	Category 5/E	119.7883666	143.0667179	-33.36815682	5
Export	E_INV002_711mm	711	Category 5/E	92.76691118	107.5597064	-7.988513108	9
Export	E_INV002_711mm	711	Category 5/E	80.47147669	90.87809365	3.064505246	12.61710051
Export	E_INV002_711mm	711	Category 5/E	56.53294352	57.00692522	22.57390186	30.003942
Export	E_INV002_711mm	711	Category 5/E	123.1152817	147.3736448	-36.55755807	4.7
Export	E_INV002_711mm	711	Category 4/E	125.4454768	136.4559495	-47.20220858	5
Export	E_INV002_711mm	711	Category 4/E	93.75667289	102.0678759	-17.09751986	9
Export	E_INV002_711mm	711	Category 4/E	78.88527168	85.65481985	-3.652748516	12.61710051
Export	E_INV002_711mm	711	Category 4/E	50.92389071	51.49496715	20.44470652	30.003942
Export	E_INV002_711mm	711	Category 4/E	129.2891599	140.5932203	-50.92955302	4.7
Export	E_INV002_711mm	711	Category 3/E	115.7719563	138.1171106	-28.55291139	5
Export	E_INV002_711mm	711	Category 3/E	90.2148441	103.87322	-4.899805009	9
Export	E_INV002_711mm	711	Category 3/E	78.5589234	87.69482129	5.353071742	12.61710051
Export	E_INV002_711mm	711	Category 3/E	55.6518794	54.58952786	23.27490975	30.003942
Export	E_INV002_711mm	711	Category 3/E	118.9196018	142.2551608	-31.53886388	4.7
Export	E_INV002_711mm	711	Category 2/E	121.7584262	137.2627544	-38.904599	5
Export	E_INV002_711mm	711	Category 2/E	92.61475818	103.0542672	-11.46174108	9
Export	E_INV002_711mm	711	Category 2/E	79.12397588	86.83524939	0.607757277	12.61710051
Export	E_INV002_711mm	711	Category 2/E	51.51049824	53.23111314	22.07127076	30.003942
Export	E_INV002_711mm	711	Category 2/E	125.3182653	141.389276	-42.32858287	4.7
Export	E_INV002_711mm	711	Category 1/E	130.6681538	141.3670737	-53.13570616	5
Export	E_INV002_711mm	711	Category 1/E	97.48672909	105.7764316	-21.26270791	9
Export	E_INV002_711mm	711	Category 1/E	81.96470839	88.88942983	-6.938681321	12.61710051
Export	E_INV002_711mm	711	Category 1/E	52.26524114	54.02402242	19.01310226	30.003942
Export	E_INV002_711mm	711	Category 1/E	134.6997412	145.659868	-57.07207498	4.7
Export	E_INV002_10mm	10	Category 12/E	6.053505289	5.834872771	2.012171924	5
Export	E_INV002_10mm	10	Category 12/E	5.146675236	3.797139029	2.557133037	9
Export	E_INV002_10mm	10	Category 12/E	4.458439021	2.739379464	3.03526285	12.61710051
Export	E_INV002_10mm	10	Category 12/E	0	0	0	30.003942
Export	E_INV002_10mm	10	Category 12/E	6.152140673	6.069740077	1.956891117	4.7
Export	E_INV002_10mm	10	Category 11/E	5.964954637	5.9318597	2.022994112	5
Export	E_INV002_10mm	10	Category 11/E	5.06501332	3.899433928	2.565171351	9
Export	E_INV002_10mm	10	Category 11/E	4.421639374	2.847420949	2.991554708	12.61710051
Export	E_INV002_10mm	10	Category 11/E	0	0	0	30.003942
Export	E_INV002_10mm	10	Category 11/E	6.060436552	6.161590214	1.967179863	4.7
Export	E_INV002_10mm	10	Category 10/E	6.013040549	6.526139846	1.974164658	5
Export	E_INV002_10mm	10	Category 10/E	4.992000755	4.426929765	2.499650558	9
Export	E_INV002_10mm	10	Category 10/E	4.32082681	3.318783031	2.874749463	12.61710051
Export	E_INV002_10mm	10	Category 10/E	1.34819125	0.371908423	5.963009331	30.003942
Export	E_INV002_10mm	10	Category 10/E	6.125383961	6.767627139	1.917139457	4.7
Export	E_INV002_10mm	10	Category 9/E	6.073330252	6.188672168	1.980075673	5
Export	E_INV002_10mm	10	Category 9/E	5.098972529	4.104778089	2.5181281	9
Export	E_INV002_10mm	10	Category 9/E	4.395359979	3.008044895	2.959286645	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV002_10mm	10	Category 9/E	0	0	0	30.003942
Export	E_INV002_10mm	10	Category 9/E	6.177451351	6.427299442	1.925114665	4.7
Export	E_INV002_10mm	10	Category 8/E	6.073375659	6.428683416	1.963351881	5
Export	E_INV002_10mm	10	Category 8/E	5.041637958	4.315252208	2.492625998	9
Export	E_INV002_10mm	10	Category 8/E	4.321370359	3.189713973	2.892633383	12.61710051
Export	E_INV002_10mm	10	Category 8/E	0	0	0	30.003942
Export	E_INV002_10mm	10	Category 8/E	6.184529983	6.670641451	1.908597029	4.7
Export	E_INV002_10mm	10	Category 7/E	6.001202751	6.288354498	1.99072084	5
Export	E_INV002_10mm	10	Category 7/E	5.035690269	4.213777234	2.52397583	9
Export	E_INV002_10mm	10	Category 7/E	4.388068922	3.128896513	2.919549627	12.61710051
Export	E_INV002_10mm	10	Category 7/E	0.678353055	0.150636848	7.105469599	30.003942
Export	E_INV002_10mm	10	Category 7/E	6.105795845	6.527520058	1.93462219	4.7
Export	E_INV002_10mm	10	Category 6/E	6.001202751	6.288354498	1.99072084	5
Export	E_INV002_10mm	10	Category 6/E	5.035690269	4.213777234	2.52397583	9
Export	E_INV002_10mm	10	Category 6/E	4.388068922	3.128896513	2.919549627	12.61710051
Export	E_INV002_10mm	10	Category 6/E	0.678353055	0.150636848	7.105469599	30.003942
Export	E_INV002_10mm	10	Category 6/E	6.105795845	6.527520058	1.93462219	4.7
Export	E_INV002_10mm	10	Category 5/E	5.964954637	5.9318597	2.022994112	5
Export	E_INV002_10mm	10	Category 5/E	5.06501332	3.899433928	2.565171351	9
Export	E_INV002_10mm	10	Category 5/E	4.421639374	2.847420949	2.991554708	12.61710051
Export	E_INV002_10mm	10	Category 5/E	0	0	0	30.003942
Export	E_INV002_10mm	10	Category 5/E	6.060436552	6.161590214	1.967179863	4.7
Export	E_INV002_10mm	10	Category 4/E	6.073375659	6.428683416	1.963351881	5
Export	E_INV002_10mm	10	Category 4/E	5.041637958	4.315252208	2.492625998	9
Export	E_INV002_10mm	10	Category 4/E	4.321370359	3.189713973	2.892633383	12.61710051
Export	E_INV002_10mm	10	Category 4/E	0	0	0	30.003942
Export	E_INV002_10mm	10	Category 4/E	6.184529983	6.670641451	1.908597029	4.7
Export	E_INV002_10mm	10	Category 3/E	6.053505289	5.834872771	2.012171924	5
Export	E_INV002_10mm	10	Category 3/E	5.146675236	3.797139029	2.557133037	9
Export	E_INV002_10mm	10	Category 3/E	4.458439021	2.739379464	3.03526285	12.61710051
Export	E_INV002_10mm	10	Category 3/E	0	0	0	30.003942
Export	E_INV002_10mm	10	Category 3/E	6.152140673	6.069740077	1.956891117	4.7
Export	E_INV002_10mm	10	Category 2/E	6.073330252	6.188672168	1.980075673	5
Export	E_INV002_10mm	10	Category 2/E	5.098972529	4.104778089	2.5181281	9
Export	E_INV002_10mm	10	Category 2/E	4.395359979	3.008044895	2.959286645	12.61710051
Export	E_INV002_10mm	10	Category 2/E	0	0	0	30.003942
Export	E_INV002_10mm	10	Category 2/E	6.177451351	6.427299442	1.925114665	4.7
Export	E_INV002_10mm	10	Category 1/E	6.013040549	6.526139846	1.974164658	5
Export	E_INV002_10mm	10	Category 1/E	4.992000755	4.426929765	2.499650558	9
Export	E_INV002_10mm	10	Category 1/E	4.32082681	3.318783031	2.874749463	12.61710051
Export	E_INV002_10mm	10	Category 1/E	1.34819125	0.371908423	5.963009331	30.003942
Export	E_INV002_10mm	10	Category 1/E	6.125383961	6.767627139	1.917139457	4.7
Export	E_INV004_25mm	25	Category 12/E	16.66218406	20.42001492	3.194562383	5
Export	E_INV004_25mm	25	Category 12/E	14.36818221	14.81100052	4.340397339	9
Export	E_INV004_25mm	25	Category 12/E	13.23877264	12.04748332	4.896052874	12.61710051
Export	E_INV004_25mm	25	Category 12/E	10.35823959	5.990268951	6.116678118	30.003942
Export	E_INV004_25mm	25	Category 12/E	16.93286534	21.08233046	3.061869646	4.7
Export	E_INV004_25mm	25	Category 11/E	16.57823707	20.84251308	3.146932245	5
Export	E_INV004_25mm	25	Category 11/E	14.23900508	15.17059691	4.340389255	9
Export	E_INV004_25mm	25	Category 11/E	13.09223715	12.3951281	4.919578237	12.61710051
Export	E_INV004_25mm	25	Category 11/E	10.34700851	6.350958103	6.179957165	30.003942
Export	E_INV004_25mm	25	Category 11/E	16.85630138	21.51551716	3.005635293	4.7
Export	E_INV004_25mm	25	Category 10/E	16.43718864	21.12356816	2.974999035	5
Export	E_INV004_25mm	25	Category 10/E	13.68044405	15.58590572	4.198394317	9
Export	E_INV004_25mm	25	Category 10/E	12.32491639	12.84754466	4.770824526	12.61710051
Export	E_INV004_25mm	25	Category 10/E	9.008896999	6.695627794	6.025229719	30.003942
Export	E_INV004_25mm	25	Category 10/E	16.79536116	21.78851102	2.767185861	4.7
Export	E_INV004_25mm	25	Category 9/E	16.54352791	20.63647932	3.115233056	5
Export	E_INV004_25mm	25	Category 9/E	14.03129018	15.09152396	4.25894734	9
Export	E_INV004_25mm	25	Category 9/E	12.78388583	12.34655752	4.815888447	12.61710051
Export	E_INV004_25mm	25	Category 9/E	9.620579144	6.200783431	6.062616043	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV004_25mm	25	Category 9/E	16.83920824	21.29096813	2.97864517	4.7
Export	E_INV004_25mm	25	Category 8/E	16.40736602	20.70683024	3.059100284	5
Export	E_INV004_25mm	25	Category 8/E	13.71899428	15.2383985	4.200147323	9
Export	E_INV004_25mm	25	Category 8/E	12.37432979	12.5057442	4.75394824	12.61710051
Export	E_INV004_25mm	25	Category 8/E	9.069263712	6.319294568	5.987603631	30.003942
Export	E_INV004_25mm	25	Category 8/E	16.72964051	21.3580177	2.914195743	4.7
Export	E_INV004_25mm	25	Category 7/E	16.51153959	21.05248626	3.063831373	5
Export	E_INV004_25mm	25	Category 7/E	13.95083091	15.45211187	4.257137967	9
Export	E_INV004_25mm	25	Category 7/E	12.69087303	12.69347028	4.833383701	12.61710051
Export	E_INV004_25mm	25	Category 7/E	9.479363835	6.555119635	6.10608413	30.003942
Export	E_INV004_25mm	25	Category 7/E	16.81582015	21.71705281	2.921583199	4.7
Export	E_INV004_25mm	25	Category 6/E	16.51153959	21.05248626	3.063831373	5
Export	E_INV004_25mm	25	Category 6/E	13.95083091	15.45211187	4.257137967	9
Export	E_INV004_25mm	25	Category 6/E	12.69087303	12.69347028	4.833383701	12.61710051
Export	E_INV004_25mm	25	Category 6/E	9.479363835	6.555119635	6.10608413	30.003942
Export	E_INV004_25mm	25	Category 6/E	16.81582015	21.71705281	2.921583199	4.7
Export	E_INV004_25mm	25	Category 5/E	16.57823707	20.84251308	3.146932245	5
Export	E_INV004_25mm	25	Category 5/E	14.23900508	15.17059691	4.340389255	9
Export	E_INV004_25mm	25	Category 5/E	13.09223715	12.3951281	4.919578237	12.61710051
Export	E_INV004_25mm	25	Category 5/E	10.34700851	6.350958103	6.179957165	30.003942
Export	E_INV004_25mm	25	Category 5/E	16.85630138	21.51551716	3.005635293	4.7
Export	E_INV004_25mm	25	Category 4/E	16.40736602	20.70683024	3.059100284	5
Export	E_INV004_25mm	25	Category 4/E	13.71899428	15.2383985	4.200147323	9
Export	E_INV004_25mm	25	Category 4/E	12.37432979	12.5057442	4.75394824	12.61710051
Export	E_INV004_25mm	25	Category 4/E	9.069263712	6.319294568	5.987603631	30.003942
Export	E_INV004_25mm	25	Category 4/E	16.72964051	21.3580177	2.914195743	4.7
Export	E_INV004_25mm	25	Category 3/E	16.66218406	20.42001492	3.194562383	5
Export	E_INV004_25mm	25	Category 3/E	14.36818221	14.81100052	4.340397339	9
Export	E_INV004_25mm	25	Category 3/E	13.23877264	12.04748332	4.896052874	12.61710051
Export	E_INV004_25mm	25	Category 3/E	10.35823959	5.990268951	6.116678118	30.003942
Export	E_INV004_25mm	25	Category 3/E	16.93286534	21.08233046	3.061869646	4.7
Export	E_INV004_25mm	25	Category 2/E	16.54352791	20.63647932	3.115233056	5
Export	E_INV004_25mm	25	Category 2/E	14.03129018	15.09152396	4.25894734	9
Export	E_INV004_25mm	25	Category 2/E	12.78388583	12.34655752	4.815888447	12.61710051
Export	E_INV004_25mm	25	Category 2/E	9.620579144	6.200783431	6.062616043	30.003942
Export	E_INV004_25mm	25	Category 2/E	16.83920824	21.29096813	2.97864517	4.7
Export	E_INV004_25mm	25	Category 1/E	16.43718864	21.12356816	2.974999035	5
Export	E_INV004_25mm	25	Category 1/E	13.68044405	15.58590572	4.198394317	9
Export	E_INV004_25mm	25	Category 1/E	12.32491639	12.84754466	4.770824526	12.61710051
Export	E_INV004_25mm	25	Category 1/E	9.008896999	6.695627794	6.025229719	30.003942
Export	E_INV004_25mm	25	Category 1/E	16.79536116	21.78851102	2.767185861	4.7
Export	E_INV004_50mm	50	Category 12/E	34.73221766	44.36292012	2.529496489	5
Export	E_INV004_50mm	50	Category 12/E	29.18756864	32.84844552	5.952214978	9
Export	E_INV004_50mm	50	Category 12/E	26.65879935	27.27939193	7.313027027	12.61710051
Export	E_INV004_50mm	50	Category 12/E	21.17507736	15.33623813	10.04436935	30.003942
Export	E_INV004_50mm	50	Category 12/E	35.4511256	45.75033754	2.009634946	4.7
Export	E_INV004_50mm	50	Category 11/E	35.05478222	45.62221051	1.953357526	5
Export	E_INV004_50mm	50	Category 11/E	29.20156231	33.81509878	5.809088756	9
Export	E_INV004_50mm	50	Category 11/E	26.60263547	28.15885918	7.240776949	12.61710051
Export	E_INV004_50mm	50	Category 11/E	21.06777687	16.13489247	10.10518159	30.003942
Export	E_INV004_50mm	50	Category 11/E	35.81381186	47.05168799	1.378666188	4.7
Export	E_INV004_50mm	50	Category 10/E	37.27242999	45.70760989	-3.190453422	5
Export	E_INV004_50mm	50	Category 10/E	28.96495661	33.86965318	3.775040953	9
Export	E_INV004_50mm	50	Category 10/E	25.27834788	28.26217246	6.439991627	12.61710051
Export	E_INV004_50mm	50	Category 10/E	17.76683171	16.24859086	10.01297826	30.003942
Export	E_INV004_50mm	50	Category 10/E	38.31570279	47.14190501	-4.122799269	4.7
Export	E_INV004_50mm	50	Category 9/E	35.49984295	44.3877583	0.448784172	5
Export	E_INV004_50mm	50	Category 9/E	28.64096558	32.89596418	5.538199898	9
Export	E_INV004_50mm	50	Category 9/E	25.6713053	27.39647393	7.270704589	12.61710051
Export	E_INV004_50mm	50	Category 9/E	19.24481647	15.45006525	9.98011754	30.003942
Export	E_INV004_50mm	50	Category 9/E	36.37147505	45.77576999	-0.262721928	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV004_50mm	50	Category 8/E	36.44889982	44.42617993	-2.05187429	5
Export	E_INV004_50mm	50	Category 8/E	28.52669582	32.89945632	4.363047551	9
Export	E_INV004_50mm	50	Category 8/E	24.998621	27.39423853	6.772728316	12.61710051
Export	E_INV004_50mm	50	Category 8/E	17.78732458	15.41447432	9.953533849	30.003942
Export	E_INV004_50mm	50	Category 8/E	37.44450479	45.81984874	-2.920124059	4.7
Export	E_INV004_50mm	50	Category 7/E	36.10109492	45.66138991	-0.442016215	5
Export	E_INV004_50mm	50	Category 7/E	28.88080416	33.85467174	5.158986459	9
Export	E_INV004_50mm	50	Category 7/E	25.75368912	28.25856808	7.139665407	12.61710051
Export	E_INV004_50mm	50	Category 7/E	19.38783891	16.28809269	10.04042364	30.003942
Export	E_INV004_50mm	50	Category 7/E	37.01892777	47.09310761	-1.218367555	4.7
Export	E_INV004_50mm	50	Category 6/E	36.10109492	45.66138991	-0.442016215	5
Export	E_INV004_50mm	50	Category 6/E	28.88080416	33.85467174	5.158986459	9
Export	E_INV004_50mm	50	Category 6/E	25.75368912	28.25856808	7.139665407	12.61710051
Export	E_INV004_50mm	50	Category 6/E	19.38783891	16.28809269	10.04042364	30.003942
Export	E_INV004_50mm	50	Category 6/E	37.01892777	47.09310761	-1.218367555	4.7
Export	E_INV004_50mm	50	Category 5/E	35.05478222	45.62221051	1.953357526	5
Export	E_INV004_50mm	50	Category 5/E	29.20156231	33.81509878	5.809088756	9
Export	E_INV004_50mm	50	Category 5/E	26.60263547	28.15885918	7.240776949	12.61710051
Export	E_INV004_50mm	50	Category 5/E	21.06777687	16.13489247	10.10518159	30.003942
Export	E_INV004_50mm	50	Category 5/E	35.81381186	47.05168799	1.378666188	4.7
Export	E_INV004_50mm	50	Category 4/E	36.44889982	44.42617993	-2.05187429	5
Export	E_INV004_50mm	50	Category 4/E	28.52669582	32.89945632	4.363047551	9
Export	E_INV004_50mm	50	Category 4/E	24.998621	27.39423853	6.772728316	12.61710051
Export	E_INV004_50mm	50	Category 4/E	17.78732458	15.41447432	9.953533849	30.003942
Export	E_INV004_50mm	50	Category 4/E	37.44450479	45.81984874	-2.920124059	4.7
Export	E_INV004_50mm	50	Category 3/E	34.73221766	44.36292012	2.529496489	5
Export	E_INV004_50mm	50	Category 3/E	29.18756864	32.84844552	5.952214978	9
Export	E_INV004_50mm	50	Category 3/E	26.65879935	27.27939193	7.313027027	12.61710051
Export	E_INV004_50mm	50	Category 3/E	21.17507736	15.33623813	10.04436935	30.003942
Export	E_INV004_50mm	50	Category 3/E	35.4511256	45.75033754	2.009634946	4.7
Export	E_INV004_50mm	50	Category 2/E	35.49984295	44.3877583	0.448784172	5
Export	E_INV004_50mm	50	Category 2/E	28.64096558	32.89596418	5.538199898	9
Export	E_INV004_50mm	50	Category 2/E	25.6713053	27.39647393	7.270704589	12.61710051
Export	E_INV004_50mm	50	Category 2/E	19.24481647	15.45006525	9.98011754	30.003942
Export	E_INV004_50mm	50	Category 2/E	36.37147505	45.77576999	-0.262721928	4.7
Export	E_INV004_50mm	50	Category 1/E	37.27242999	45.70760989	-3.190453422	5
Export	E_INV004_50mm	50	Category 1/E	28.96495661	33.86965318	3.775040953	9
Export	E_INV004_50mm	50	Category 1/E	25.27834788	28.26217246	6.439991627	12.61710051
Export	E_INV004_50mm	50	Category 1/E	17.76683171	16.24859086	10.01297826	30.003942
Export	E_INV004_50mm	50	Category 1/E	38.31570279	47.14190501	-4.122799269	4.7
Export	E_INV004_237mm	237	Category 12/E	109.7309524	131.6098564	-25.60760255	5
Export	E_INV004_237mm	237	Category 12/E	85.67928125	98.91310417	-3.481563258	9
Export	E_INV004_237mm	237	Category 12/E	74.72982055	83.46331561	6.061166287	12.61710051
Export	E_INV004_237mm	237	Category 12/E	53.2772173	51.80944156	22.54192437	30.003942
Export	E_INV004_237mm	237	Category 12/E	112.6972101	135.5611118	-28.41055372	4.7
Export	E_INV004_237mm	237	Category 11/E	113.4168277	136.2975324	-30.04786199	5
Export	E_INV004_237mm	237	Category 11/E	88.00695256	102.4072011	-6.315126888	9
Export	E_INV004_237mm	237	Category 11/E	76.46055732	86.48339085	3.978478258	12.61710051
Export	E_INV004_237mm	237	Category 11/E	54.01386846	54.11483898	22.02251395	30.003942
Export	E_INV004_237mm	237	Category 11/E	116.5603423	140.4099905	-33.06094089	4.7
Export	E_INV004_237mm	237	Category 10/E	123.8881562	134.747588	-49.12064875	5
Export	E_INV004_237mm	237	Category 10/E	92.50639907	100.8008677	-19.04168733	9
Export	E_INV004_237mm	237	Category 10/E	77.83435843	84.69895552	-5.564233318	12.61710051
Export	E_INV004_237mm	237	Category 10/E	49.65915181	51.42073342	18.71963699	30.003942
Export	E_INV004_237mm	237	Category 10/E	127.7027738	138.8428683	-52.83894374	4.7
Export	E_INV004_237mm	237	Category 9/E	115.4045501	130.834062	-35.50659535	5
Export	E_INV004_237mm	237	Category 9/E	87.90351968	98.17868722	-9.708991458	9
Export	E_INV004_237mm	237	Category 9/E	75.19415388	82.69789058	1.588073091	12.61710051
Export	E_INV004_237mm	237	Category 9/E	49.11838803	50.59366276	21.56057158	30.003942
Export	E_INV004_237mm	237	Category 9/E	118.766351	134.7737382	-38.73092604	4.7
Export	E_INV004_237mm	237	Category 8/E	119.0114394	130.1028697	-43.55947041	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV004_237mm	237	Category 8/E	89.03708453	97.29030143	-15.15645847	9
Export	E_INV004_237mm	237	Category 8/E	74.9921088	81.63483585	-2.515921469	12.61710051
Export	E_INV004_237mm	237	Category 8/E	48.45553884	49.01187831	20.01479957	30.003942
Export	E_INV004_237mm	237	Category 8/E	122.6485687	134.0497751	-47.07883507	4.7
Export	E_INV004_237mm	237	Category 7/E	119.8224281	135.4812203	-40.65272868	5
Export	E_INV004_237mm	237	Category 7/E	90.90436495	101.6594891	-13.17818064	9
Export	E_INV004_237mm	237	Category 7/E	77.56930929	85.71034445	-1.060672034	12.61710051
Export	E_INV004_237mm	237	Category 7/E	50.70763771	52.98975934	20.54717822	30.003942
Export	E_INV004_237mm	237	Category 7/E	123.3604844	139.5727693	-44.0766332	4.7
Export	E_INV004_237mm	237	Category 6/E	119.8224281	135.4812203	-40.65272868	5
Export	E_INV004_237mm	237	Category 6/E	90.90436495	101.6594891	-13.17818064	9
Export	E_INV004_237mm	237	Category 6/E	77.56930929	85.71034445	-1.060672034	12.61710051
Export	E_INV004_237mm	237	Category 6/E	50.70763771	52.98975934	20.54717822	30.003942
Export	E_INV004_237mm	237	Category 6/E	123.3604844	139.5727693	-44.0766332	4.7
Export	E_INV004_237mm	237	Category 5/E	113.4168277	136.2975324	-30.04786199	5
Export	E_INV004_237mm	237	Category 5/E	88.00695256	102.4072011	-6.315126888	9
Export	E_INV004_237mm	237	Category 5/E	76.46055732	86.48339085	3.978478258	12.61710051
Export	E_INV004_237mm	237	Category 5/E	54.01386846	54.11483898	22.02251395	30.003942
Export	E_INV004_237mm	237	Category 5/E	116.5603423	140.4099905	-33.06094089	4.7
Export	E_INV004_237mm	237	Category 4/E	119.0114394	130.1028697	-43.55947041	5
Export	E_INV004_237mm	237	Category 4/E	89.03708453	97.29030143	-15.15645847	9
Export	E_INV004_237mm	237	Category 4/E	74.9921088	81.63483585	-2.515921469	12.61710051
Export	E_INV004_237mm	237	Category 4/E	48.45553884	49.01187831	20.01479957	30.003942
Export	E_INV004_237mm	237	Category 4/E	122.6485687	134.0497751	-47.07883507	4.7
Export	E_INV004_237mm	237	Category 3/E	109.7309524	131.6098564	-25.60760255	5
Export	E_INV004_237mm	237	Category 3/E	85.67928125	98.91310417	-3.481563258	9
Export	E_INV004_237mm	237	Category 3/E	74.72982055	83.46331561	6.061166287	12.61710051
Export	E_INV004_237mm	237	Category 3/E	53.2772173	51.80944156	22.54192437	30.003942
Export	E_INV004_237mm	237	Category 3/E	112.6972101	135.5611118	-28.41055372	4.7
Export	E_INV004_237mm	237	Category 2/E	115.4045501	130.834062	-35.50659535	5
Export	E_INV004_237mm	237	Category 2/E	87.90351968	98.17868722	-9.708991458	9
Export	E_INV004_237mm	237	Category 2/E	75.19415388	82.69789058	1.588073091	12.61710051
Export	E_INV004_237mm	237	Category 2/E	49.11838803	50.59366276	21.56057158	30.003942
Export	E_INV004_237mm	237	Category 2/E	118.766351	134.7737382	-38.73092604	4.7
Export	E_INV004_237mm	237	Category 1/E	123.8881562	134.747588	-49.12064875	5
Export	E_INV004_237mm	237	Category 1/E	92.50639907	100.8008677	-19.04168733	9
Export	E_INV004_237mm	237	Category 1/E	77.83435843	84.69895552	-5.564233318	12.61710051
Export	E_INV004_237mm	237	Category 1/E	49.65915181	51.42073342	18.71963699	30.003942
Export	E_INV004_237mm	237	Category 1/E	127.7027738	138.8428683	-52.83894374	4.7
Export	E_INV004_711mm	711	Category 12/E	109.6688937	131.542757	-25.57751421	5
Export	E_INV004_711mm	711	Category 12/E	85.63272631	98.86197194	-3.467240266	9
Export	E_INV004_711mm	711	Category 12/E	74.69051351	83.41969913	6.068210417	12.61710051
Export	E_INV004_711mm	711	Category 12/E	53.25287689	51.78078715	22.53411033	30.003942
Export	E_INV004_711mm	711	Category 12/E	112.6333114	135.4920876	-28.37863245	4.7
Export	E_INV004_711mm	711	Category 11/E	113.3515006	136.2277466	-30.01414644	5
Export	E_INV004_711mm	711	Category 11/E	87.9580573	102.3540837	-6.298103871	9
Export	E_INV004_711mm	711	Category 11/E	76.41937548	86.4380915	3.987669972	12.61710051
Export	E_INV004_711mm	711	Category 11/E	53.98802904	54.08503103	22.01660778	30.003942
Export	E_INV004_711mm	711	Category 11/E	116.4929507	140.3381815	-33.02505176	4.7
Export	E_INV004_711mm	711	Category 10/E	123.8183366	134.679339	-49.07934331	5
Export	E_INV004_711mm	711	Category 10/E	92.45513418	100.7495539	-19.01890037	9
Export	E_INV004_711mm	711	Category 10/E	77.79197219	84.65573547	-5.550181095	12.61710051
Export	E_INV004_711mm	711	Category 10/E	49.63239409	51.39387056	18.71651931	30.003942
Export	E_INV004_711mm	711	Category 10/E	127.6307301	138.7725842	-52.79541337	4.7
Export	E_INV004_711mm	711	Category 9/E	115.3392125	130.7677695	-35.47177265	5
Export	E_INV004_711mm	711	Category 9/E	87.85509238	98.12841222	-9.691117463	9
Export	E_INV004_711mm	711	Category 9/E	75.15376667	82.65522688	1.597996098	12.61710051
Export	E_INV004_711mm	711	Category 9/E	49.09384468	50.56645634	21.55514997	30.003942
Export	E_INV004_711mm	711	Category 9/E	118.6989649	134.7055177	-38.69402722	4.7
Export	E_INV004_711mm	711	Category 8/E	118.9451492	130.037348	-43.52194505	5
Export	E_INV004_711mm	711	Category 8/E	88.98849848	97.24102561	-15.13656006	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV004_711mm	711	Category 8/E	74.95203442	81.59336552	-2.504303723	12.61710051
Export	E_INV004_711mm	711	Category 8/E	48.4301759	48.9862522	20.01030711	30.003942
Export	E_INV004_711mm	711	Category 8/E	122.5801855	133.982298	-47.03923673	4.7
Export	E_INV004_711mm	711	Category 7/E	119.7535659	135.4122506	-40.61405247	5
Export	E_INV004_711mm	711	Category 7/E	90.85334631	101.6072324	-13.15744417	9
Export	E_INV004_711mm	711	Category 7/E	77.52675661	85.66598761	-1.0483739	12.61710051
Export	E_INV004_711mm	711	Category 7/E	50.68246223	52.96140238	20.54306333	30.003942
Export	E_INV004_711mm	711	Category 7/E	123.289478	139.5017834	-44.03580541	4.7
Export	E_INV004_711mm	711	Category 6/E	119.7535659	135.4122506	-40.61405247	5
Export	E_INV004_711mm	711	Category 6/E	90.85334631	101.6072324	-13.15744417	9
Export	E_INV004_711mm	711	Category 6/E	77.52675661	85.66598761	-1.0483739	12.61710051
Export	E_INV004_711mm	711	Category 6/E	50.68246223	52.96140238	20.54306333	30.003942
Export	E_INV004_711mm	711	Category 6/E	123.289478	139.5017834	-44.03580541	4.7
Export	E_INV004_711mm	711	Category 5/E	113.3515006	136.2277466	-30.01414644	5
Export	E_INV004_711mm	711	Category 5/E	87.9580573	102.3540837	-6.298103871	9
Export	E_INV004_711mm	711	Category 5/E	76.41937548	86.4380915	3.987669972	12.61710051
Export	E_INV004_711mm	711	Category 5/E	53.98802904	54.08503103	22.01660778	30.003942
Export	E_INV004_711mm	711	Category 5/E	116.4929507	140.3381815	-33.02505176	4.7
Export	E_INV004_711mm	711	Category 4/E	118.9451492	130.037348	-43.52194505	5
Export	E_INV004_711mm	711	Category 4/E	88.98849848	97.24102561	-15.13656006	9
Export	E_INV004_711mm	711	Category 4/E	74.95203442	81.59336552	-2.504303723	12.61710051
Export	E_INV004_711mm	711	Category 4/E	48.4301759	48.9862522	20.01030711	30.003942
Export	E_INV004_711mm	711	Category 4/E	122.5801855	133.982298	-47.03923673	4.7
Export	E_INV004_711mm	711	Category 3/E	109.6688937	131.542757	-25.57751421	5
Export	E_INV004_711mm	711	Category 3/E	85.63272631	98.86197194	-3.467240266	9
Export	E_INV004_711mm	711	Category 3/E	74.69051351	83.41969913	6.068210417	12.61710051
Export	E_INV004_711mm	711	Category 3/E	53.25287689	51.78078715	22.53411033	30.003942
Export	E_INV004_711mm	711	Category 3/E	112.6333114	135.4920876	-28.37863245	4.7
Export	E_INV004_711mm	711	Category 2/E	115.3392125	130.7677695	-35.47177265	5
Export	E_INV004_711mm	711	Category 2/E	87.85509238	98.12841222	-9.691117463	9
Export	E_INV004_711mm	711	Category 2/E	75.15376667	82.65522688	1.597996098	12.61710051
Export	E_INV004_711mm	711	Category 2/E	49.09384468	50.56645634	21.55514997	30.003942
Export	E_INV004_711mm	711	Category 2/E	118.6989649	134.7055177	-38.69402722	4.7
Export	E_INV004_711mm	711	Category 1/E	123.8183366	134.679339	-49.07934331	5
Export	E_INV004_711mm	711	Category 1/E	92.45513418	100.7495539	-19.01890037	9
Export	E_INV004_711mm	711	Category 1/E	77.79197219	84.65573547	-5.550181095	12.61710051
Export	E_INV004_711mm	711	Category 1/E	49.63239409	51.39387056	18.71651931	30.003942
Export	E_INV004_711mm	711	Category 1/E	127.6307301	138.7725842	-52.79541337	4.7
Export	E_INV005_25mm	25	Category 12/E	32.53373875	37.74171203	-3.103600234	5
Export	E_INV005_25mm	25	Category 12/E	27.91801138	28.77734832	-1.440943323	9
Export	E_INV005_25mm	25	Category 12/E	25.86040989	24.69761003	-0.865220451	12.61710051
Export	E_INV005_25mm	25	Category 12/E	21.6495454	15.6828381	0.454073233	30.003942
Export	E_INV005_25mm	25	Category 12/E	33.12306527	38.86636045	-3.36444263	4.7
Export	E_INV005_25mm	25	Category 11/E	32.9911376	38.7024353	-3.265602621	5
Export	E_INV005_25mm	25	Category 11/E	28.22090333	29.40985357	-1.506261813	9
Export	E_INV005_25mm	25	Category 11/E	26.10588892	25.24409315	-0.911047926	12.61710051
Export	E_INV005_25mm	25	Category 11/E	21.7924136	16.0876747	0.452232171	30.003942
Export	E_INV005_25mm	25	Category 11/E	33.57176609	39.85151457	-3.478426455	4.7
Export	E_INV005_25mm	25	Category 10/E	38.57833385	39.93302359	-0.416894512	5
Export	E_INV005_25mm	25	Category 10/E	34.45992473	29.72156244	0.548390973	9
Export	E_INV005_25mm	25	Category 10/E	32.58995448	24.49818442	0.857415657	12.61710051
Export	E_INV005_25mm	25	Category 10/E	28.48212184	8.800865472	2.020438696	30.003942
Export	E_INV005_25mm	25	Category 10/E	39.06335203	41.11581582	-0.504777237	4.7
Export	E_INV005_25mm	25	Category 9/E	33.93533983	38.11428893	-1.836347968	5
Export	E_INV005_25mm	25	Category 9/E	29.69562443	29.20360477	-0.685783651	9
Export	E_INV005_25mm	25	Category 9/E	27.73861723	24.78874111	-0.208103665	12.61710051
Export	E_INV005_25mm	25	Category 9/E	23.74910171	14.80272105	0.833531347	30.003942
Export	E_INV005_25mm	25	Category 9/E	34.45146118	39.19165674	-1.981998517	4.7
Export	E_INV005_25mm	25	Category 8/E	38.21063088	38.93647603	-0.364346031	5
Export	E_INV005_25mm	25	Category 8/E	34.1770541	28.9366706	0.620588647	9
Export	E_INV005_25mm	25	Category 8/E	32.37226523	23.8001704	0.879499934	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV005_25mm	25	Category 8/E	28.32201676	12.27338507	2.067707634	30.003942
Export	E_INV005_25mm	25	Category 8/E	38.68610862	40.08949372	-0.462313057	4.7
Export	E_INV005_25mm	25	Category 7/E	34.33278562	39.0272199	-1.910578404	5
Export	E_INV005_25mm	25	Category 7/E	29.97893381	29.88731931	-0.734540252	9
Export	E_INV005_25mm	25	Category 7/E	27.97428622	25.38241049	-0.248090531	12.61710051
Export	E_INV005_25mm	25	Category 7/E	23.89710003	15.24900818	0.810628118	30.003942
Export	E_INV005_25mm	25	Category 7/E	34.8795491	40.21753238	-2.086453342	4.7
Export	E_INV005_25mm	25	Category 6/E	34.33278562	39.0272199	-1.910578404	5
Export	E_INV005_25mm	25	Category 6/E	29.97893381	29.88731931	-0.734540252	9
Export	E_INV005_25mm	25	Category 6/E	27.97428622	25.38241049	-0.248090531	12.61710051
Export	E_INV005_25mm	25	Category 6/E	23.89710003	15.24900818	0.810628118	30.003942
Export	E_INV005_25mm	25	Category 6/E	34.8795491	40.21753238	-2.086453342	4.7
Export	E_INV005_25mm	25	Category 5/E	32.9911376	38.7024353	-3.265602621	5
Export	E_INV005_25mm	25	Category 5/E	28.22090333	29.40985357	-1.506261813	9
Export	E_INV005_25mm	25	Category 5/E	26.10588892	25.24409315	-0.911047926	12.61710051
Export	E_INV005_25mm	25	Category 5/E	21.7924136	16.0876747	0.452232171	30.003942
Export	E_INV005_25mm	25	Category 5/E	33.57176609	39.85151457	-3.478426455	4.7
Export	E_INV005_25mm	25	Category 4/E	38.21063088	38.93647603	-0.364346031	5
Export	E_INV005_25mm	25	Category 4/E	34.1770541	28.9366706	0.620588647	9
Export	E_INV005_25mm	25	Category 4/E	32.37226523	23.8001704	0.879499934	12.61710051
Export	E_INV005_25mm	25	Category 4/E	28.32201676	12.27338507	2.067707634	30.003942
Export	E_INV005_25mm	25	Category 4/E	38.68610862	40.08949372	-0.462313057	4.7
Export	E_INV005_25mm	25	Category 3/E	32.53373875	37.74171203	-3.103600234	5
Export	E_INV005_25mm	25	Category 3/E	27.91801138	28.77734832	-1.440943323	9
Export	E_INV005_25mm	25	Category 3/E	25.86040989	24.69761003	-0.865220451	12.61710051
Export	E_INV005_25mm	25	Category 3/E	21.6495454	15.6828381	0.454073233	30.003942
Export	E_INV005_25mm	25	Category 3/E	33.12306527	38.86636045	-3.36444263	4.7
Export	E_INV005_25mm	25	Category 2/E	33.93533983	38.11428893	-1.836347968	5
Export	E_INV005_25mm	25	Category 2/E	29.69562443	29.20360477	-0.685783651	9
Export	E_INV005_25mm	25	Category 2/E	27.73861723	24.78874111	-0.208103665	12.61710051
Export	E_INV005_25mm	25	Category 2/E	23.74910171	14.80272105	0.833531347	30.003942
Export	E_INV005_25mm	25	Category 2/E	34.45146118	39.19165674	-1.981998517	4.7
Export	E_INV005_25mm	25	Category 1/E	38.57833385	39.93302359	-0.416894512	5
Export	E_INV005_25mm	25	Category 1/E	34.45992473	29.72156244	0.548390973	9
Export	E_INV005_25mm	25	Category 1/E	32.58995448	24.49818442	0.857415657	12.61710051
Export	E_INV005_25mm	25	Category 1/E	28.48212184	8.800865472	2.020438696	30.003942
Export	E_INV005_25mm	25	Category 1/E	39.06335203	41.11581582	-0.504777237	4.7
Export	E_INV005_68mm	68	Category 12/E	80.13847364	96.7866378	-7.15120413	5
Export	E_INV005_68mm	68	Category 12/E	68.52375421	73.60702364	-3.145723064	9
Export	E_INV005_68mm	68	Category 12/E	63.49812897	63.59372886	-2.082622301	12.61710051
Export	E_INV005_68mm	68	Category 12/E	53.69475911	41.69846435	-0.433037182	30.003942
Export	E_INV005_68mm	68	Category 12/E	81.86264178	99.7174765	-8.265662955	4.7
Export	E_INV005_68mm	68	Category 11/E	81.72345895	99.90633181	-7.8886266	5
Export	E_INV005_68mm	68	Category 11/E	69.46815898	75.64758661	-3.292826962	9
Export	E_INV005_68mm	68	Category 11/E	64.2667811	65.28171447	-2.177322482	12.61710051
Export	E_INV005_68mm	68	Category 11/E	54.16887104	42.94665883	-0.475822596	30.003942
Export	E_INV005_68mm	68	Category 11/E	83.71357495	103.0439692	-9.447802017	4.7
Export	E_INV005_68mm	68	Category 10/E	94.61507062	103.1699478	-0.82127782	5
Export	E_INV005_68mm	68	Category 10/E	84.77782208	78.00327301	0.265664242	9
Export	E_INV005_68mm	68	Category 10/E	80.1814526	65.1968098	0.717347658	12.61710051
Export	E_INV005_68mm	68	Category 10/E	70.7402856	35.92799955	1.834892693	30.003942
Export	E_INV005_68mm	68	Category 10/E	95.81781379	106.1024163	-0.975094046	4.7
Export	E_INV005_68mm	68	Category 9/E	83.15920238	75.15016866	-3.692016076	5
Export	E_INV005_68mm	68	Category 9/E	72.79152691	75.15016866	-1.573949633	9
Export	E_INV005_68mm	68	Category 9/E	68.07286081	64.35049602	-0.861807775	12.61710051
Export	E_INV005_68mm	68	Category 9/E	58.69809044	40.10301687	0.377159215	30.003942
Export	E_INV005_68mm	68	Category 9/E	84.46620476	100.6727195	-4.049658762	4.7
Export	E_INV005_68mm	68	Category 8/E	93.46189424	100.0431519	-0.728703121	5
Export	E_INV005_68mm	68	Category 8/E	83.95228369	75.56978457	0.320111762	9
Export	E_INV005_68mm	68	Category 8/E	79.49480508	63.03842417	0.760282498	12.61710051
Export	E_INV005_68mm	68	Category 8/E	70.29599743	34.81021127	1.855870267	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV005_68mm	68	Category 8/E	94.62103295	102.8836044	-0.873920732	4.7
Export	E_INV005_68mm	68	Category 7/E	84.44223568	100.9361072	-3.929159567	5
Export	E_INV005_68mm	68	Category 7/E	73.67354368	77.28211841	-1.666435742	9
Export	E_INV005_68mm	68	Category 7/E	68.79878901	66.20158504	-0.925641336	12.61710051
Export	E_INV005_68mm	68	Category 7/E	59.15090875	41.49680738	0.346776883	30.003942
Export	E_INV005_68mm	68	Category 7/E	85.81017531	103.9235503	-4.322109632	4.7
Export	E_INV005_68mm	68	Category 6/E	84.44223568	100.9361072	-3.929159567	5
Export	E_INV005_68mm	68	Category 6/E	73.67354368	77.28211841	-1.666435742	9
Export	E_INV005_68mm	68	Category 6/E	68.79878901	66.20158504	-0.925641336	12.61710051
Export	E_INV005_68mm	68	Category 6/E	59.15090875	41.49680738	0.346776883	30.003942
Export	E_INV005_68mm	68	Category 6/E	85.81017531	103.9235503	-4.322109632	4.7
Export	E_INV005_68mm	68	Category 5/E	81.72345895	99.90633181	-7.8886266	5
Export	E_INV005_68mm	68	Category 5/E	69.46815898	75.64758661	-3.292826962	9
Export	E_INV005_68mm	68	Category 5/E	64.2667811	65.28171447	-2.177322482	12.61710051
Export	E_INV005_68mm	68	Category 5/E	54.16887104	42.94665883	-0.475822596	30.003942
Export	E_INV005_68mm	68	Category 5/E	83.71357495	103.0439692	-9.447802017	4.7
Export	E_INV005_68mm	68	Category 4/E	93.46189424	100.0431519	-0.728703121	5
Export	E_INV005_68mm	68	Category 4/E	83.95228369	75.56978457	0.320111762	9
Export	E_INV005_68mm	68	Category 4/E	79.49480508	63.03842417	0.760282498	12.61710051
Export	E_INV005_68mm	68	Category 4/E	70.29599743	34.81021127	1.855870267	30.003942
Export	E_INV005_68mm	68	Category 4/E	94.62103295	102.8836044	-0.873920732	4.7
Export	E_INV005_68mm	68	Category 3/E	80.13847364	96.7866378	-7.15120413	5
Export	E_INV005_68mm	68	Category 3/E	68.52375421	73.60702364	-3.145723064	9
Export	E_INV005_68mm	68	Category 3/E	63.49812897	63.59372886	-2.082622301	12.61710051
Export	E_INV005_68mm	68	Category 3/E	53.69475911	41.69846435	-0.433037182	30.003942
Export	E_INV005_68mm	68	Category 3/E	81.86264178	99.7174765	-8.265662955	4.7
Export	E_INV005_68mm	68	Category 2/E	83.15920238	75.15016866	-3.692016076	5
Export	E_INV005_68mm	68	Category 2/E	72.79152691	75.15016866	-1.573949633	9
Export	E_INV005_68mm	68	Category 2/E	68.07286081	64.35049602	-0.861807775	12.61710051
Export	E_INV005_68mm	68	Category 2/E	58.69809044	40.10301687	0.377159215	30.003942
Export	E_INV005_68mm	68	Category 2/E	84.46620476	100.6727195	-4.049658762	4.7
Export	E_INV005_68mm	68	Category 1/E	94.61507062	103.1699478	-0.82127782	5
Export	E_INV005_68mm	68	Category 1/E	84.77782208	78.00327301	0.265664242	9
Export	E_INV005_68mm	68	Category 1/E	80.1814526	65.1968098	0.717347658	12.61710051
Export	E_INV005_68mm	68	Category 1/E	70.7402856	35.92799955	1.834892693	30.003942
Export	E_INV005_68mm	68	Category 1/E	95.81781379	106.1024163	-0.975094046	4.7
Export	E_INV005_203mm	203	Category 12/E	220.7694007	270.5806289	-34.01583183	5
Export	E_INV005_203mm	203	Category 12/E	181.9382368	204.458899	-8.801862202	9
Export	E_INV005_203mm	203	Category 12/E	168.3163129	176.204777	-6.1252865	12.61710051
Export	E_INV005_203mm	203	Category 12/E	141.9062707	118.6925998	-2.343285725	30.003942
Export	E_INV005_203mm	203	Category 12/E	225.6076281	278.6168425	-37.33777012	4.7
Export	E_INV005_203mm	203	Category 11/E	227.9855069	282.4267043	-39.800071	5
Export	E_INV005_203mm	203	Category 11/E	185.2870662	212.2119959	-9.304205373	9
Export	E_INV005_203mm	203	Category 11/E	171.0202088	182.0728269	-6.406996899	12.61710051
Export	E_INV005_203mm	203	Category 11/E	143.5742256	122.910262	-2.47278014	30.003942
Export	E_INV005_203mm	203	Category 11/E	234.2940717	291.4059302	-45.74970314	4.7
Export	E_INV005_203mm	203	Category 10/E	250.2804683	286.915657	-1.768316538	5
Export	E_INV005_203mm	203	Category 10/E	223.5320695	219.8417039	0.470925548	9
Export	E_INV005_203mm	203	Category 10/E	211.0636041	186.1183934	1.322916161	12.61710051
Export	E_INV005_203mm	203	Category 10/E	185.9843892	109.446025	2.866680731	30.003942
Export	E_INV005_203mm	203	Category 10/E	253.5538402	294.7771728	-2.10751458	4.7
Export	E_INV005_203mm	203	Category 9/E	220.801295	270.6597812	-10.23946275	5
Export	E_INV005_203mm	203	Category 9/E	192.3925849	207.9459588	-4.256681439	9
Export	E_INV005_203mm	203	Category 9/E	179.6598538	179.3343006	-2.640859878	12.61710051
Export	E_INV005_203mm	203	Category 9/E	154.457985	116.1830656	-0.021972616	30.003942
Export	E_INV005_203mm	203	Category 9/E	225.0401327	278.6640859	-12.561063	4.7
Export	E_INV005_203mm	203	Category 8/E	246.2201881	276.0402803	-1.528444456	5
Export	E_INV005_203mm	203	Category 8/E	220.630484	211.4816525	0.598030699	9
Export	E_INV005_203mm	203	Category 8/E	208.6551069	178.7759676	1.417054938	12.61710051
Export	E_INV005_203mm	203	Category 8/E	184.4354099	104.0291103	2.924126928	30.003942
Export	E_INV005_203mm	203	Category 8/E	249.3415478	283.5703337	-1.844484962	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV005_203mm	203	Category 7/E	225.7934698	281.9153177	-11.92955796	5
Export	E_INV005_203mm	203	Category 7/E	195.4986975	215.3565684	-4.519607114	9
Export	E_INV005_203mm	203	Category 7/E	182.2143015	185.7068046	-2.819240322	12.61710051
Export	E_INV005_203mm	203	Category 7/E	156.0547553	120.8744549	-0.11298435	30.003942
Export	E_INV005_203mm	203	Category 7/E	230.982087	290.6343706	-15.85524389	4.7
Export	E_INV005_203mm	203	Category 6/E	225.7934698	281.9153177	-11.92955796	5
Export	E_INV005_203mm	203	Category 6/E	195.4986975	215.3565684	-4.519607114	9
Export	E_INV005_203mm	203	Category 6/E	182.2143015	185.7068046	-2.819240322	12.61710051
Export	E_INV005_203mm	203	Category 6/E	156.0547553	120.8744549	-0.11298435	30.003942
Export	E_INV005_203mm	203	Category 6/E	230.982087	290.6343706	-15.85524389	4.7
Export	E_INV005_203mm	203	Category 5/E	227.9855069	282.4267043	-39.800071	5
Export	E_INV005_203mm	203	Category 5/E	185.2870662	212.2119959	-9.304205373	9
Export	E_INV005_203mm	203	Category 5/E	171.0202088	182.0728269	-6.406996899	12.61710051
Export	E_INV005_203mm	203	Category 5/E	143.5742256	122.910262	-2.47278014	30.003942
Export	E_INV005_203mm	203	Category 5/E	234.2940717	291.4059302	-45.74970314	4.7
Export	E_INV005_203mm	203	Category 4/E	246.2201881	276.0402803	-1.528444456	5
Export	E_INV005_203mm	203	Category 4/E	220.630484	211.4816525	0.598030699	9
Export	E_INV005_203mm	203	Category 4/E	208.6551069	178.7759676	1.417054938	12.61710051
Export	E_INV005_203mm	203	Category 4/E	184.4354099	104.0291103	2.924126928	30.003942
Export	E_INV005_203mm	203	Category 4/E	249.3415478	283.5703337	-1.844484962	4.7
Export	E_INV005_203mm	203	Category 3/E	220.7694007	270.5806289	-34.01583183	5
Export	E_INV005_203mm	203	Category 3/E	181.9382368	204.458899	-8.801862202	9
Export	E_INV005_203mm	203	Category 3/E	168.3163129	176.204777	-6.1252865	12.61710051
Export	E_INV005_203mm	203	Category 3/E	141.9062707	118.6925998	-2.343285725	30.003942
Export	E_INV005_203mm	203	Category 3/E	225.6076281	278.6168425	-37.33777012	4.7
Export	E_INV005_203mm	203	Category 2/E	220.801295	270.6597812	-10.23946275	5
Export	E_INV005_203mm	203	Category 2/E	192.3925849	207.9459588	-4.256681439	9
Export	E_INV005_203mm	203	Category 2/E	179.6598538	179.3343006	-2.640859878	12.61710051
Export	E_INV005_203mm	203	Category 2/E	154.457985	116.1830656	-0.021972616	30.003942
Export	E_INV005_203mm	203	Category 2/E	225.0401327	278.6640859	-12.561063	4.7
Export	E_INV005_203mm	203	Category 1/E	250.2804683	286.915657	-1.768316538	5
Export	E_INV005_203mm	203	Category 1/E	223.5320695	219.8417039	0.470925548	9
Export	E_INV005_203mm	203	Category 1/E	211.0636041	186.1183934	1.322916161	12.61710051
Export	E_INV005_203mm	203	Category 1/E	185.9843892	109.446025	2.866680731	30.003942
Export	E_INV005_203mm	203	Category 1/E	253.5538402	294.7771728	-2.10751458	4.7
Export	E_INV006_25mm (all)	25	Category 12/E	43.47932065	47.15627031	-3.592472061	5
Export	E_INV006_25mm (all)	25	Category 12/E	37.62199417	36.31499426	-1.857260117	9
Export	E_INV006_25mm (all)	25	Category 12/E	34.95429795	31.16179454	-1.222107604	12.61710051
Export	E_INV006_25mm (all)	25	Category 12/E	29.58722175	19.14908012	-0.057241538	30.003942
Export	E_INV006_25mm (all)	25	Category 12/E	44.21773761	48.54979236	-3.860582578	4.7
Export	E_INV006_25mm (all)	25	Category 11/E	44.08862952	48.4029809	-3.749992587	5
Export	E_INV006_25mm (all)	25	Category 11/E	38.03867902	37.14058028	-1.927393808	9
Export	E_INV006_25mm (all)	25	Category 11/E	35.29667179	31.89250454	-1.271934355	12.61710051
Export	E_INV006_25mm (all)	25	Category 11/E	29.80616376	19.73396916	-0.083033866	30.003942
Export	E_INV006_25mm (all)	25	Category 11/E	44.85726822	49.83564329	-4.040616215	4.7
Export	E_INV006_25mm (all)	25	Category 10/E	51.98721612	50.39898844	-0.460182973	5
Export	E_INV006_25mm (all)	25	Category 10/E	46.84765061	37.08732429	0.331057221	9
Export	E_INV006_25mm (all)	25	Category 10/E	44.31112859	30.11139886	0.88766428	12.61710051
Export	E_INV006_25mm (all)	25	Category 10/E	39.05720109	14.62278085	1.912029129	30.003942
Export	E_INV006_25mm (all)	25	Category 10/E	52.60904265	51.91733974	-0.558997462	4.7
Export	E_INV006_25mm (all)	25	Category 9/E	45.61186766	47.94966469	-2.145909158	5
Export	E_INV006_25mm (all)	25	Category 9/E	40.17839834	36.78178916	-0.952942971	9
Export	E_INV006_25mm (all)	25	Category 9/E	37.65054423	31.07349353	-0.470062076	12.61710051
Export	E_INV006_25mm (all)	25	Category 9/E	32.34136597	17.64787549	0.749788732	30.003942
Export	E_INV006_25mm (all)	25	Category 9/E	46.28265588	49.25482285	-2.317545402	4.7
Export	E_INV006_25mm (all)	25	Category 8/E	51.48712376	49.04402549	-0.408519416	5
Export	E_INV006_25mm (all)	25	Category 8/E	46.4814737	35.99552556	0.371435241	9
Export	E_INV006_25mm (all)	25	Category 8/E	44.00122021	29.13533644	0.926311401	12.61710051
Export	E_INV006_25mm (all)	25	Category 8/E	38.82747466	14.07001445	1.966083964	30.003942
Export	E_INV006_25mm (all)	25	Category 8/E	52.089635	50.52921871	-0.502060764	4.7
Export	E_INV006_25mm (all)	25	Category 7/E	46.16851261	49.12629374	-2.242914784	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV006_25mm (all)	25	Category 7/E	40.56895777	37.6960368	-1.003410251	9
Export	E_INV006_25mm (all)	25	Category 7/E	37.9747244	31.89010223	-0.508465826	12.61710051
Export	E_INV006_25mm (all)	25	Category 7/E	32.5520263	18.27381555	0.730818976	30.003942
Export	E_INV006_25mm (all)	25	Category 7/E	46.86026899	50.46927644	-2.42051343	4.7
Export	E_INV006_25mm (all)	25	Category 6/E	46.16851261	49.12629374	-2.242914784	5
Export	E_INV006_25mm (all)	25	Category 6/E	40.56895777	37.6960368	-1.003410251	9
Export	E_INV006_25mm (all)	25	Category 6/E	37.9747244	31.89010223	-0.508465826	12.61710051
Export	E_INV006_25mm (all)	25	Category 6/E	32.5520263	18.27381555	0.730818976	30.003942
Export	E_INV006_25mm (all)	25	Category 6/E	46.86026899	50.46927644	-2.42051343	4.7
Export	E_INV006_25mm (all)	25	Category 5/E	44.08862952	48.4029809	-3.749992587	5
Export	E_INV006_25mm (all)	25	Category 5/E	38.03867902	37.14058028	-1.927393808	9
Export	E_INV006_25mm (all)	25	Category 5/E	35.29667179	31.89250454	-1.271934355	12.61710051
Export	E_INV006_25mm (all)	25	Category 5/E	29.80616376	19.73396916	-0.083033866	30.003942
Export	E_INV006_25mm (all)	25	Category 5/E	44.85726822	49.83564329	-4.040616215	4.7
Export	E_INV006_25mm (all)	25	Category 4/E	51.48712376	49.04402549	-0.408519416	5
Export	E_INV006_25mm (all)	25	Category 4/E	46.4814737	35.99552556	0.371435241	9
Export	E_INV006_25mm (all)	25	Category 4/E	44.00122021	29.13533644	0.926311401	12.61710051
Export	E_INV006_25mm (all)	25	Category 4/E	38.82747466	14.07001445	1.966083964	30.003942
Export	E_INV006_25mm (all)	25	Category 4/E	52.089635	50.52921871	-0.502060764	4.7
Export	E_INV006_25mm (all)	25	Category 3/E	43.47932065	47.15627031	-3.592472061	5
Export	E_INV006_25mm (all)	25	Category 3/E	37.62199417	36.31499426	-1.857260117	9
Export	E_INV006_25mm (all)	25	Category 3/E	34.95429795	31.16179454	-1.222107604	12.61710051
Export	E_INV006_25mm (all)	25	Category 3/E	29.58722175	19.14908012	-0.057241538	30.003942
Export	E_INV006_25mm (all)	25	Category 3/E	44.21773761	48.54979236	-3.860582578	4.7
Export	E_INV006_25mm (all)	25	Category 2/E	45.61186766	47.94966469	-2.145909158	5
Export	E_INV006_25mm (all)	25	Category 2/E	40.17839834	36.78178916	-0.952942971	9
Export	E_INV006_25mm (all)	25	Category 2/E	37.65054423	31.07349353	-0.470062076	12.61710051
Export	E_INV006_25mm (all)	25	Category 2/E	32.34136597	17.64787549	0.749788732	30.003942
Export	E_INV006_25mm (all)	25	Category 2/E	46.28265588	49.25482285	-2.317545402	4.7
Export	E_INV006_25mm (all)	25	Category 1/E	51.98721612	50.39898844	-0.460182973	5
Export	E_INV006_25mm (all)	25	Category 1/E	46.84765061	37.08732429	0.331057221	9
Export	E_INV006_25mm (all)	25	Category 1/E	44.31112859	30.11139886	0.88766428	12.61710051
Export	E_INV006_25mm (all)	25	Category 1/E	39.05720109	14.62278085	1.912029129	30.003942
Export	E_INV006_25mm (all)	25	Category 1/E	52.60904265	51.91733974	-0.558997462	4.7
Export	E_INV006_35mm (all)	35	Category 12/E	58.77064618	64.76616483	-4.805049256	5
Export	E_INV006_35mm (all)	35	Category 12/E	50.81140037	49.83086147	-2.528153179	9
Export	E_INV006_35mm (all)	35	Category 12/E	47.20083293	42.88879983	-1.723740292	12.61710051
Export	E_INV006_35mm (all)	35	Category 12/E	39.97155659	26.82859505	-0.29466866	30.003942
Export	E_INV006_35mm (all)	35	Category 12/E	59.78232083	66.65737145	-5.176425307	4.7
Export	E_INV006_35mm (all)	35	Category 11/E	59.67316909	66.59852999	-5.038944196	5
Export	E_INV006_35mm (all)	35	Category 11/E	51.42359113	51.04271637	-2.62246926	9
Export	E_INV006_35mm (all)	35	Category 11/E	47.70602885	43.95000701	-1.792977826	12.61710051
Export	E_INV006_35mm (all)	35	Category 11/E	40.29375118	27.67660573	-0.329227063	30.003942
Export	E_INV006_35mm (all)	35	Category 11/E	60.73111112	68.55775029	-5.446715732	4.7
Export	E_INV006_35mm (all)	35	Category 10/E	70.1258533	69.44556369	-0.639249648	5
Export	E_INV006_35mm (all)	35	Category 10/E	63.1940795	51.49223279	0.229965651	9
Export	E_INV006_35mm (all)	35	Category 10/E	59.90571883	42.09770809	0.639578618	12.61710051
Export	E_INV006_35mm (all)	35	Category 10/E	52.94461136	20.92782481	1.689279283	30.003942
Export	E_INV006_35mm (all)	35	Category 10/E	70.96567198	71.49943429	-0.754206731	4.7
Export	E_INV006_35mm (all)	35	Category 9/E	61.566297	65.69603714	-2.825684732	5
Export	E_INV006_35mm (all)	35	Category 9/E	54.20696083	50.60994013	-1.331707783	9
Export	E_INV006_35mm (all)	35	Category 9/E	50.7965275	42.9377569	-0.748358708	12.61710051
Export	E_INV006_35mm (all)	35	Category 9/E	43.84455028	24.90304257	0.37019632	30.003942
Export	E_INV006_35mm (all)	35	Category 9/E	62.47539225	67.46568785	-3.044737401	4.7
Export	E_INV006_35mm (all)	35	Category 8/E	69.39150752	67.4661899	-0.576065394	5
Export	E_INV006_35mm (all)	35	Category 8/E	62.66320947	49.8999578	0.272212091	9
Export	E_INV006_35mm (all)	35	Category 8/E	59.45780107	40.66519113	0.677815255	12.61710051
Export	E_INV006_35mm (all)	35	Category 8/E	52.64092075	20.0721524	1.710214947	30.003942
Export	E_INV006_35mm (all)	35	Category 8/E	70.20606281	69.46724791	-0.685519153	4.7
Export	E_INV006_35mm (all)	35	Category 7/E	62.38435294	67.42409625	-2.956617246	5
Export	E_INV006_35mm (all)	35	Category 7/E	54.78357205	51.94894014	-1.398904885	9

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV006_35mm (all)	35	Category 7/E	51.27281342	44.12807975	-0.797050786	12.61710051
Export	E_INV006_35mm (all)	35	Category 7/E	44.15894971	25.82846036	0.341127996	30.003942
Export	E_INV006_35mm (all)	35	Category 7/E	63.326309	69.3497121	-3.187916921	4.7
Export	E_INV006_35mm (all)	35	Category 6/E	62.38435294	67.42409625	-2.956617246	5
Export	E_INV006_35mm (all)	35	Category 6/E	54.78357205	51.94894014	-1.398904885	9
Export	E_INV006_35mm (all)	35	Category 6/E	51.27281342	44.12807975	-0.797050786	12.61710051
Export	E_INV006_35mm (all)	35	Category 6/E	44.15894971	25.82846036	0.341127996	30.003942
Export	E_INV006_35mm (all)	35	Category 6/E	63.326309	69.3497121	-3.187916921	4.7
Export	E_INV006_35mm (all)	35	Category 5/E	59.67316909	66.59852999	-5.038944196	5
Export	E_INV006_35mm (all)	35	Category 5/E	51.42359113	51.04271637	-2.62246926	9
Export	E_INV006_35mm (all)	35	Category 5/E	47.70602885	43.95000701	-1.792977826	12.61710051
Export	E_INV006_35mm (all)	35	Category 5/E	40.29375118	27.67660573	-0.329227063	30.003942
Export	E_INV006_35mm (all)	35	Category 5/E	60.73111112	68.55775029	-5.446715732	4.7
Export	E_INV006_35mm (all)	35	Category 4/E	69.39150752	67.4661899	-0.576065394	5
Export	E_INV006_35mm (all)	35	Category 4/E	62.66320947	49.8999578	0.272212091	9
Export	E_INV006_35mm (all)	35	Category 4/E	59.45780107	40.66519113	0.677815255	12.61710051
Export	E_INV006_35mm (all)	35	Category 4/E	52.64092075	20.0721524	1.710214947	30.003942
Export	E_INV006_35mm (all)	35	Category 4/E	70.20606281	69.46724791	-0.685519153	4.7
Export	E_INV006_35mm (all)	35	Category 3/E	58.77064618	64.76616483	-4.805049256	5
Export	E_INV006_35mm (all)	35	Category 3/E	50.81140037	49.83086147	-2.528153179	9
Export	E_INV006_35mm (all)	35	Category 3/E	47.20083293	42.88879983	-1.723740292	12.61710051
Export	E_INV006_35mm (all)	35	Category 3/E	39.97155659	26.82859505	-0.29466866	30.003942
Export	E_INV006_35mm (all)	35	Category 3/E	59.78232083	66.65737145	-5.176425307	4.7
Export	E_INV006_35mm (all)	35	Category 2/E	61.566297	65.69603714	-2.825684732	5
Export	E_INV006_35mm (all)	35	Category 2/E	54.20696083	50.60994013	-1.331707783	9
Export	E_INV006_35mm (all)	35	Category 2/E	50.7965275	42.9377569	-0.748358708	12.61710051
Export	E_INV006_35mm (all)	35	Category 2/E	43.84455028	24.90304257	0.37019632	30.003942
Export	E_INV006_35mm (all)	35	Category 2/E	62.47539225	67.46568785	-3.044737401	4.7
Export	E_INV006_35mm (all)	35	Category 1/E	70.1258533	69.44556369	-0.639249648	5
Export	E_INV006_35mm (all)	35	Category 1/E	63.1940795	51.49223279	0.229965651	9
Export	E_INV006_35mm (all)	35	Category 1/E	59.90571883	42.09770809	0.639578618	12.61710051
Export	E_INV006_35mm (all)	35	Category 1/E	52.94461136	20.92782481	1.689279283	30.003942
Export	E_INV006_35mm (all)	35	Category 1/E	70.96567198	71.49943429	-0.754206731	4.7
Export	E_INV006_50mm (all)	50	Category 12/E	80.89856305	90.54766191	-6.698877209	5
Export	E_INV006_50mm (all)	50	Category 12/E	69.84736545	69.59512347	-3.567402023	9
Export	E_INV006_50mm (all)	50	Category 12/E	64.85668423	60.0592379	-2.506775981	12.61710051
Export	E_INV006_50mm (all)	50	Category 12/E	54.90325849	38.20557502	-0.661965293	30.003942
Export	E_INV006_50mm (all)	50	Category 12/E	82.32556585	93.17915564	-7.255667033	4.7
Export	E_INV006_50mm (all)	50	Category 11/E	82.27277802	93.32000261	-7.068627614	5
Export	E_INV006_50mm (all)	50	Category 11/E	70.76936278	71.4063442	-3.699557744	9
Export	E_INV006_50mm (all)	50	Category 11/E	65.61696064	61.64610472	-2.604904302	12.61710051
Export	E_INV006_50mm (all)	50	Category 11/E	55.38495591	39.46088874	-0.711433812	30.003942
Export	E_INV006_50mm (all)	50	Category 11/E	83.77891088	96.05584972	-7.697209836	4.7
Export	E_INV006_50mm (all)	50	Category 10/E	96.22368447	97.37488666	-0.878234452	5
Export	E_INV006_50mm (all)	50	Category 10/E	86.63938823	72.73177017	0.174696617	9
Export	E_INV006_50mm (all)	50	Category 10/E	82.12209723	59.89799693	0.628348683	12.61710051
Export	E_INV006_50mm (all)	50	Category 10/E	72.61617586	30.63107879	1.839575067	30.003942
Export	E_INV006_50mm (all)	50	Category 10/E	97.38856601	100.2052903	-1.020883223	4.7
Export	E_INV006_50mm (all)	50	Category 9/E	84.57474021	91.60837394	-3.851680677	5
Export	E_INV006_50mm (all)	50	Category 9/E	74.39962064	70.85342913	-1.894060969	9
Export	E_INV006_50mm (all)	50	Category 9/E	69.68789431	60.36294453	-1.143574649	12.61710051
Export	E_INV006_50mm (all)	50	Category 9/E	60.14296133	35.81676025	0.250189498	30.003942
Export	E_INV006_50mm (all)	50	Category 9/E	85.83341912	94.25796855	-4.144758463	4.7
Export	E_INV006_50mm (all)	50	Category 8/E	95.11854114	94.41281913	-0.793665226	5
Export	E_INV006_50mm (all)	50	Category 8/E	85.84364325	70.36376667	0.221885825	9
Export	E_INV006_50mm (all)	50	Category 8/E	81.45350424	57.76990786	0.66996535	12.61710051
Export	E_INV006_50mm (all)	50	Category 8/E	72.16744887	29.2797339	1.856285983	30.003942
Export	E_INV006_50mm (all)	50	Category 8/E	96.24179858	97.16132286	-0.929697392	4.7
Export	E_INV006_50mm (all)	50	Category 7/E	85.80797981	94.43549908	-4.038577165	5
Export	E_INV006_50mm (all)	50	Category 7/E	75.26627674	72.84993682	-1.983760312	9
Export	E_INV006_50mm (all)	50	Category 7/E	70.40615307	62.13271644	-1.210465916	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV006_50mm (all)	50	Category 7/E	60.60659342	37.20335789	0.21514856	30.003942
Export	E_INV006_50mm (all)	50	Category 7/E	87.11705271	97.24872661	-4.351526914	4.7
Export	E_INV006_50mm (all)	50	Category 6/E	85.80797981	94.43549908	-4.038577165	5
Export	E_INV006_50mm (all)	50	Category 6/E	75.26627674	72.84993682	-1.983760312	9
Export	E_INV006_50mm (all)	50	Category 6/E	70.40615307	62.13271644	-1.210465916	12.61710051
Export	E_INV006_50mm (all)	50	Category 6/E	60.60659342	37.20335789	0.21514856	30.003942
Export	E_INV006_50mm (all)	50	Category 6/E	87.11705271	97.24872661	-4.351526914	4.7
Export	E_INV006_50mm (all)	50	Category 5/E	82.27277802	93.32000261	-7.068627614	5
Export	E_INV006_50mm (all)	50	Category 5/E	70.76936278	71.4063442	-3.699557744	9
Export	E_INV006_50mm (all)	50	Category 5/E	65.61696064	61.64610472	-2.604904302	12.61710051
Export	E_INV006_50mm (all)	50	Category 5/E	55.38495591	39.46088874	-0.711433812	30.003942
Export	E_INV006_50mm (all)	50	Category 5/E	83.77891088	96.05584972	-7.697209836	4.7
Export	E_INV006_50mm (all)	50	Category 4/E	95.11854114	94.41281913	-0.793665226	5
Export	E_INV006_50mm (all)	50	Category 4/E	85.84364325	70.36376667	0.221885825	9
Export	E_INV006_50mm (all)	50	Category 4/E	81.45350424	57.76990786	0.66996535	12.61710051
Export	E_INV006_50mm (all)	50	Category 4/E	72.16744887	29.2797339	1.856285983	30.003942
Export	E_INV006_50mm (all)	50	Category 4/E	96.24179858	97.16132286	-0.929697392	4.7
Export	E_INV006_50mm (all)	50	Category 3/E	80.89856305	90.54766191	-6.698877209	5
Export	E_INV006_50mm (all)	50	Category 3/E	69.84736545	69.59512347	-3.567402023	9
Export	E_INV006_50mm (all)	50	Category 3/E	64.85668423	60.0592379	-2.506775981	12.61710051
Export	E_INV006_50mm (all)	50	Category 3/E	54.90325849	38.20557502	-0.661965293	30.003942
Export	E_INV006_50mm (all)	50	Category 3/E	82.32556585	93.17915564	-7.255667033	4.7
Export	E_INV006_50mm (all)	50	Category 2/E	84.57474021	91.60837394	-3.851680677	5
Export	E_INV006_50mm (all)	50	Category 2/E	74.39962064	70.85342913	-1.894060969	9
Export	E_INV006_50mm (all)	50	Category 2/E	69.68789431	60.36294453	-1.143574649	12.61710051
Export	E_INV006_50mm (all)	50	Category 2/E	60.14296133	35.81676025	0.250189498	30.003942
Export	E_INV006_50mm (all)	50	Category 2/E	85.83341912	94.25796855	-4.144758463	4.7
Export	E_INV006_50mm (all)	50	Category 1/E	96.22368447	97.37488666	-0.878234452	5
Export	E_INV006_50mm (all)	50	Category 1/E	86.63938823	72.73177017	0.174696617	9
Export	E_INV006_50mm (all)	50	Category 1/E	82.12209723	59.89799693	0.628348683	12.61710051
Export	E_INV006_50mm (all)	50	Category 1/E	72.61617586	30.63107879	1.839575067	30.003942
Export	E_INV006_50mm (all)	50	Category 1/E	97.38856601	100.2052903	-1.020883223	4.7
Export	E_INV006_119mm (1hr)	119	Category 12/E	131.9544564	144.4458974	-16.20647649	5
Export	E_INV006_119mm (1hr)	119	Category 12/E	113.5031948	111.331152	-10.38627122	9
Export	E_INV006_119mm (1hr)	119	Category 12/E	105.1596412	96.39631412	-8.368565362	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 12/E	88.17150998	61.85015159	-4.304872719	30.003942
Export	E_INV006_119mm (1hr)	119	Category 12/E	134.3482028	148.6047229	-17.23832524	4.7
Export	E_INV006_119mm (1hr)	119	Category 11/E	134.5540836	149.3475927	-16.98644935	5
Export	E_INV006_119mm (1hr)	119	Category 11/E	115.2417582	114.4905291	-10.67435145	9
Export	E_INV006_119mm (1hr)	119	Category 11/E	106.6037797	99.178793	-8.598332623	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 11/E	89.108252	64.08414088	-4.449692496	30.003942
Export	E_INV006_119mm (1hr)	119	Category 11/E	137.1154984	153.7048636	-18.19697356	4.7
Export	E_INV006_119mm (1hr)	119	Category 10/E	155.4818915	155.3797396	-4.065798982	5
Export	E_INV006_119mm (1hr)	119	Category 10/E	139.1499908	117.3924905	-1.936533672	9
Export	E_INV006_119mm (1hr)	119	Category 10/E	131.4321179	97.41962596	-1.037979671	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 10/E	115.2861188	50.63683472	0.783397952	30.003942
Export	E_INV006_119mm (1hr)	119	Category 10/E	157.4613674	159.7214166	-4.349457274	4.7
Export	E_INV006_119mm (1hr)	119	Category 9/E	138.5271681	145.2382559	-11.23393665	5
Export	E_INV006_119mm (1hr)	119	Category 9/E	121.0896807	113.0381998	-7.283733136	9
Export	E_INV006_119mm (1hr)	119	Category 9/E	112.9559641	96.89431168	-5.68217328	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 9/E	96.17893009	58.23554949	-2.428067172	30.003942
Export	E_INV006_119mm (1hr)	119	Category 9/E	140.6884963	149.454452	-11.82820469	4.7
Export	E_INV006_119mm (1hr)	119	Category 8/E	153.3549477	150.3012978	-3.876913428	5
Export	E_INV006_119mm (1hr)	119	Category 8/E	137.6084647	113.2827624	-1.817306253	9
Export	E_INV006_119mm (1hr)	119	Category 8/E	130.1363333	93.6908949	-0.937937682	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 8/E	114.3936776	48.17584586	0.84480705	30.003942
Export	E_INV006_119mm (1hr)	119	Category 8/E	155.2601997	154.5098909	-4.149508748	4.7
Export	E_INV006_119mm (1hr)	119	Category 7/E	140.9245477	150.2434816	-11.66359201	5
Export	E_INV006_119mm (1hr)	119	Category 7/E	122.7777283	116.4351642	-7.497705981	9
Export	E_INV006_119mm (1hr)	119	Category 7/E	114.368367	99.93854451	-5.860940434	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 7/E	97.11579202	60.71782493	-2.541571682	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV006_119mm (1hr)	119	Category 7/E	143.1860566	150.2434816	-12.30563767	4.7
Export	E_INV006_119mm (1hr)	119	Category 6/E	140.9245477	150.2434816	-11.66359201	5
Export	E_INV006_119mm (1hr)	119	Category 6/E	122.7777283	116.4351642	-7.497705981	9
Export	E_INV006_119mm (1hr)	119	Category 6/E	114.368367	99.93854451	-5.860940434	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 6/E	97.11579202	60.71782493	-2.541571682	30.003942
Export	E_INV006_119mm (1hr)	119	Category 6/E	143.1860566	150.2434816	-12.30563767	4.7
Export	E_INV006_119mm (1hr)	119	Category 5/E	134.5540836	149.3475927	-16.98644935	5
Export	E_INV006_119mm (1hr)	119	Category 5/E	115.2417582	114.4905291	-10.67435145	9
Export	E_INV006_119mm (1hr)	119	Category 5/E	106.6037797	99.178793	-8.598332623	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 5/E	89.108252	64.08414088	-4.449692496	30.003942
Export	E_INV006_119mm (1hr)	119	Category 5/E	137.1154984	153.7048636	-18.19697356	4.7
Export	E_INV006_119mm (1hr)	119	Category 4/E	153.3549477	150.3012978	-3.876913428	5
Export	E_INV006_119mm (1hr)	119	Category 4/E	137.6084647	113.2827624	-1.817306253	9
Export	E_INV006_119mm (1hr)	119	Category 4/E	130.1363333	93.6908949	-0.937937682	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 4/E	114.3936776	48.17584586	0.84480705	30.003942
Export	E_INV006_119mm (1hr)	119	Category 4/E	155.2601997	154.5098909	-4.149508748	4.7
Export	E_INV006_119mm (1hr)	119	Category 3/E	131.9544564	144.4458974	-16.20647649	5
Export	E_INV006_119mm (1hr)	119	Category 3/E	113.5031948	111.331152	-10.38627122	9
Export	E_INV006_119mm (1hr)	119	Category 3/E	105.1596412	96.39631412	-8.368565362	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 3/E	88.17150998	61.85015159	-4.304872719	30.003942
Export	E_INV006_119mm (1hr)	119	Category 3/E	134.3482028	148.6047229	-17.23832524	4.7
Export	E_INV006_119mm (1hr)	119	Category 2/E	138.5271681	145.2382559	-11.23393665	5
Export	E_INV006_119mm (1hr)	119	Category 2/E	121.0896807	113.0381998	-7.283733136	9
Export	E_INV006_119mm (1hr)	119	Category 2/E	112.9559641	96.89431168	-5.68217328	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 2/E	96.17893009	58.23554949	-2.428067172	30.003942
Export	E_INV006_119mm (1hr)	119	Category 2/E	140.6884963	149.454452	-11.82820469	4.7
Export	E_INV006_119mm (1hr)	119	Category 1/E	155.4818915	155.3797396	-4.065798982	5
Export	E_INV006_119mm (1hr)	119	Category 1/E	139.1499908	117.3924905	-1.936533672	9
Export	E_INV006_119mm (1hr)	119	Category 1/E	131.4321179	97.41962596	-1.037979671	12.61710051
Export	E_INV006_119mm (1hr)	119	Category 1/E	115.2861188	50.63683472	0.783397952	30.003942
Export	E_INV006_119mm (1hr)	119	Category 1/E	157.4613674	159.7214166	-4.349457274	4.7
Export	E_INV006_356mm (1hr)	356	Category 12/E	61.74857116	66.68590797	-5.52363136	5
Export	E_INV006_356mm (1hr)	356	Category 12/E	54.21308083	50.99811141	-3.405801023	9
Export	E_INV006_356mm (1hr)	356	Category 12/E	50.71659605	43.12060537	-2.520338389	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 12/E	43.61509213	24.97777926	-0.823822058	30.003942
Export	E_INV006_356mm (1hr)	356	Category 12/E	62.6760543	68.53357748	-5.811961991	4.7
Export	E_INV006_356mm (1hr)	356	Category 11/E	62.16041815	68.02045266	-5.646934908	5
Export	E_INV006_356mm (1hr)	356	Category 11/E	54.43471542	52.0144557	-3.468896811	9
Export	E_INV006_356mm (1hr)	356	Category 11/E	50.86335987	44.02412421	-2.567164828	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 11/E	43.64434602	25.70204463	-0.846363674	30.003942
Export	E_INV006_356mm (1hr)	356	Category 11/E	63.11526345	69.9161917	-5.948781091	4.7
Export	E_INV006_356mm (1hr)	356	Category 10/E	70.17941257	58.36621581	-6.414818891	5
Export	E_INV006_356mm (1hr)	356	Category 10/E	62.29251945	41.42066184	-4.022333719	9
Export	E_INV006_356mm (1hr)	356	Category 10/E	58.33877083	32.3929379	-2.837139339	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 10/E	48.05259145	14.03563363	0.028832288	30.003942
Export	E_INV006_356mm (1hr)	356	Category 10/E	71.11009396	60.21297279	-6.700370834	4.7
Export	E_INV006_356mm (1hr)	356	Category 9/E	62.44979626	61.17255073	-4.736938903	5
Export	E_INV006_356mm (1hr)	356	Category 9/E	55.22050713	46.32764896	-2.906354094	9
Export	E_INV006_356mm (1hr)	356	Category 9/E	51.80284809	38.51276238	-2.111361963	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 9/E	44.5671592	19.99536891	-0.503101997	30.003942
Export	E_INV006_356mm (1hr)	356	Category 9/E	63.32829501	62.87375364	-4.976070166	4.7
Export	E_INV006_356mm (1hr)	356	Category 8/E	69.23006622	56.54333727	-6.226686895	5
Export	E_INV006_356mm (1hr)	356	Category 8/E	61.54941438	39.85871008	-3.8835278	9
Export	E_INV006_356mm (1hr)	356	Category 8/E	57.67640468	30.68480091	-2.719212661	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 8/E	47.37856398	13.70184681	0.125932924	30.003942
Export	E_INV006_356mm (1hr)	356	Category 8/E	70.13201287	58.35603306	-6.503547684	4.7
Export	E_INV006_356mm (1hr)	356	Category 7/E	63.03917825	62.59718262	-4.85154347	5
Export	E_INV006_356mm (1hr)	356	Category 7/E	55.61527053	47.47951801	-2.973283919	9
Export	E_INV006_356mm (1hr)	356	Category 7/E	52.12155374	39.57164117	-2.166722862	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 7/E	44.76551313	20.73971861	-0.536250635	30.003942
Export	E_INV006_356mm (1hr)	356	Category 7/E	63.94326192	64.33789768	-5.097500159	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV006_356mm (1hr)	356	Category 6/E	65.89649556	65.63578059	-5.136960542	5
Export	E_INV006_356mm (1hr)	356	Category 6/E	58.12776971	49.8298124	-3.18311322	9
Export	E_INV006_356mm (1hr)	356	Category 6/E	54.47213859	41.57334296	-2.347200345	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 6/E	46.78167033	21.90429908	-0.637091301	30.003942
Export	E_INV006_356mm (1hr)	356	Category 6/E	66.84340108	67.45739098	-5.394222409	4.7
Export	E_INV006_356mm (1hr)	356	Category 5/E	65.75680334	72.22519616	-6.038509113	5
Export	E_INV006_356mm (1hr)	356	Category 5/E	57.56970874	55.26840198	-3.742815776	9
Export	E_INV006_356mm (1hr)	356	Category 5/E	53.78269441	46.81427288	-2.789608354	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 5/E	46.14935105	27.45846744	-0.998044258	30.003942
Export	E_INV006_356mm (1hr)	356	Category 5/E	66.76886277	74.23066833	-6.356897087	4.7
Export	E_INV006_356mm (1hr)	356	Category 4/E	67.33631445	54.86513582	-5.983976809	5
Export	E_INV006_356mm (1hr)	356	Category 4/E	59.87360258	38.61564948	-3.717794262	9
Export	E_INV006_356mm (1hr)	356	Category 4/E	56.10699514	29.68523248	-2.590733602	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 4/E	46.03373595	13.25628083	0.168677274	30.003942
Export	E_INV006_356mm (1hr)	356	Category 4/E	68.21295746	56.62921558	-6.251415023	4.7
Export	E_INV006_356mm (1hr)	356	Category 3/E	65.43096077	70.9259088	-5.919834204	5
Export	E_INV006_356mm (1hr)	356	Category 3/E	57.43046667	54.28258917	-3.680224796	9
Export	E_INV006_356mm (1hr)	356	Category 3/E	53.71945447	45.93515221	-2.74594105	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 3/E	46.20621682	26.73831562	-0.982485044	30.003942
Export	E_INV006_356mm (1hr)	356	Category 3/E	66.41558716	72.88773824	-6.224583136	4.7
Export	E_INV006_356mm (1hr)	356	Category 2/E	65.43123547	64.29478415	-5.032797231	5
Export	E_INV006_356mm (1hr)	356	Category 2/E	57.848482	48.74113711	-3.122134614	9
Export	E_INV006_356mm (1hr)	356	Category 2/E	54.27018389	40.56503197	-2.302968131	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 2/E	46.68474844	21.17445816	-0.606822563	30.003942
Export	E_INV006_356mm (1hr)	356	Category 2/E	66.35282164	66.07863757	-5.282544077	4.7
Export	E_INV006_356mm (1hr)	356	Category 1/E	68.48791372	56.83785602	-6.194470307	5
Export	E_INV006_356mm (1hr)	356	Category 1/E	60.79826842	40.28292999	-3.871069322	9
Export	E_INV006_356mm (1hr)	356	Category 1/E	56.94096797	31.4866127	-2.719861993	12.61710051
Export	E_INV006_356mm (1hr)	356	Category 1/E	46.85373367	13.61227147	0.070812093	30.003942
Export	E_INV006_356mm (1hr)	356	Category 1/E	69.39318486	58.64067996	-6.469526285	4.7
Export	E_INV006_10mm (all)	10	Category 12/E	19.10103513	19.7741379	-1.722702435	5
Export	E_INV006_10mm (all)	10	Category 12/E	16.48349506	15.2077351	-0.739016783	9
Export	E_INV006_10mm (all)	10	Category 12/E	15.24924992	12.90729789	-0.277943382	12.61710051
Export	E_INV006_10mm (all)	10	Category 12/E	12.67659186	7.534906412	0.729230977	30.003942
Export	E_INV006_10mm (all)	10	Category 12/E	19.42648411	20.35113224	-1.858943238	4.7
Export	E_INV006_10mm (all)	10	Category 11/E	19.31768105	20.1802453	-1.79381393	5
Export	E_INV006_10mm (all)	10	Category 11/E	16.63409127	15.50016975	-0.778027845	9
Export	E_INV006_10mm (all)	10	Category 11/E	15.37084703	13.1717503	-0.304358349	12.61710051
Export	E_INV006_10mm (all)	10	Category 11/E	12.7592118	7.736926166	0.706494382	30.003942
Export	E_INV006_10mm (all)	10	Category 11/E	19.65155223	20.79919248	-1.9336611	4.7
Export	E_INV006_10mm (all)	10	Category 10/E	22.77744368	20.85265982	0.1012783	5
Export	E_INV006_10mm (all)	10	Category 10/E	20.44825655	14.99891016	0.730896162	9
Export	E_INV006_10mm (all)	10	Category 10/E	19.29264247	11.92218551	1.112696529	12.61710051
Export	E_INV006_10mm (all)	10	Category 10/E	16.27917088	5.562920014	2.984448421	30.003942
Export	E_INV006_10mm (all)	10	Category 10/E	23.07491815	21.52028201	-0.010225066	4.7
Export	E_INV006_10mm (all)	10	Category 9/E	20.06304983	20.19601177	-1.008544184	5
Export	E_INV006_10mm (all)	10	Category 9/E	17.57756587	15.25962779	-0.155580936	9
Export	E_INV006_10mm (all)	10	Category 9/E	16.35365753	12.72087614	0.334011273	12.61710051
Export	E_INV006_10mm (all)	10	Category 9/E	13.79115863	6.815088366	1.381637562	30.003942
Export	E_INV006_10mm (all)	10	Category 9/E	20.36535572	20.76970321	-1.11345598	4.7
Export	E_INV006_10mm (all)	10	Category 8/E	22.58836005	20.37610182	0.155189918	5
Export	E_INV006_10mm (all)	10	Category 8/E	20.31874212	14.61442272	0.754245682	9
Export	E_INV006_10mm (all)	10	Category 8/E	19.17790668	11.58295606	1.144191462	12.61710051
Export	E_INV006_10mm (all)	10	Category 8/E	16.17426726	5.404835394	3.052531777	30.003942
Export	E_INV006_10mm (all)	10	Category 8/E	22.88417371	21.03085562	0.037883637	4.7
Export	E_INV006_10mm (all)	10	Category 7/E	20.26331121	20.61073585	-1.060470023	5
Export	E_INV006_10mm (all)	10	Category 7/E	17.72182106	15.58294699	-0.194965695	9
Export	E_INV006_10mm (all)	10	Category 7/E	16.46697281	13.00768838	0.316564625	12.61710051
Export	E_INV006_10mm (all)	10	Category 7/E	13.88059428	7.018115241	1.341760399	30.003942
Export	E_INV006_10mm (all)	10	Category 7/E	20.57078581	21.19679683	-1.165628724	4.7
Export	E_INV006_10mm (all)	10	Category 6/E	20.26331121	20.61073585	-1.060470023	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV006_10mm (all)	10	Category 6/E	17.72182106	15.58294699	-0.194965695	9
Export	E_INV006_10mm (all)	10	Category 6/E	16.46697281	13.00768838	0.316564625	12.61710051
Export	E_INV006_10mm (all)	10	Category 6/E	13.88059428	7.018115241	1.341760399	30.003942
Export	E_INV006_10mm (all)	10	Category 6/E	20.57078581	21.19679683	-1.165628724	4.7
Export	E_INV006_10mm (all)	10	Category 5/E	19.31768105	20.1802453	-1.79381393	5
Export	E_INV006_10mm (all)	10	Category 5/E	16.63409127	15.50016975	-0.778027845	9
Export	E_INV006_10mm (all)	10	Category 5/E	15.37084703	13.1717503	-0.304358349	12.61710051
Export	E_INV006_10mm (all)	10	Category 5/E	12.7592118	7.736926166	0.706494382	30.003942
Export	E_INV006_10mm (all)	10	Category 5/E	19.65155223	20.79919248	-1.9336611	4.7
Export	E_INV006_10mm (all)	10	Category 4/E	22.58836005	20.37610182	0.155189918	5
Export	E_INV006_10mm (all)	10	Category 4/E	20.31874212	14.61442272	0.754245682	9
Export	E_INV006_10mm (all)	10	Category 4/E	19.17790668	11.58295606	1.144191462	12.61710051
Export	E_INV006_10mm (all)	10	Category 4/E	16.17426726	5.404835394	3.052531777	30.003942
Export	E_INV006_10mm (all)	10	Category 4/E	22.88417371	21.03085562	0.037883637	4.7
Export	E_INV006_10mm (all)	10	Category 3/E	19.10103513	19.7741379	-1.722702435	5
Export	E_INV006_10mm (all)	10	Category 3/E	16.48349506	15.2077351	-0.739016783	9
Export	E_INV006_10mm (all)	10	Category 3/E	15.24924992	12.90729789	-0.277943382	12.61710051
Export	E_INV006_10mm (all)	10	Category 3/E	12.67659186	7.534906412	0.729230977	30.003942
Export	E_INV006_10mm (all)	10	Category 3/E	19.42648411	20.35113224	-1.858943238	4.7
Export	E_INV006_10mm (all)	10	Category 2/E	20.06304983	20.19601177	-1.008544184	5
Export	E_INV006_10mm (all)	10	Category 2/E	17.57756587	15.25962779	-0.155580936	9
Export	E_INV006_10mm (all)	10	Category 2/E	16.35365753	12.72087614	0.334011273	12.61710051
Export	E_INV006_10mm (all)	10	Category 2/E	13.79115863	6.815088366	1.381637562	30.003942
Export	E_INV006_10mm (all)	10	Category 2/E	20.36535572	20.76970321	-1.11345598	4.7
Export	E_INV006_10mm (all)	10	Category 1/E	22.77744368	20.85265982	0.1012783	5
Export	E_INV006_10mm (all)	10	Category 1/E	20.44825655	14.99891016	0.730896162	9
Export	E_INV006_10mm (all)	10	Category 1/E	19.29264247	11.92218551	1.112696529	12.61710051
Export	E_INV006_10mm (all)	10	Category 1/E	16.27917088	5.562920014	2.984448421	30.003942
Export	E_INV006_10mm (all)	10	Category 1/E	23.07491815	21.52028201	-0.010225066	4.7
Export	E_INV006_119mm (2min)	119	Category 12/E	131.9544564	144.4458974	-16.20647649	5
Export	E_INV006_119mm (2min)	119	Category 12/E	113.5031948	111.331152	-10.38627122	9
Export	E_INV006_119mm (2min)	119	Category 12/E	105.1596412	96.39631412	-8.368565362	12.61710051
Export	E_INV006_119mm (2min)	119	Category 12/E	88.17150998	61.85015159	-4.304872719	30.003942
Export	E_INV006_119mm (2min)	119	Category 12/E	134.3482028	148.6047229	-17.23832524	4.7
Export	E_INV006_119mm (2min)	119	Category 11/E	134.5540836	149.3475927	-16.98644935	5
Export	E_INV006_119mm (2min)	119	Category 11/E	115.2417582	114.4905291	-10.67435145	9
Export	E_INV006_119mm (2min)	119	Category 11/E	106.6037797	99.178793	-8.598332623	12.61710051
Export	E_INV006_119mm (2min)	119	Category 11/E	89.108252	64.08414088	-4.449692496	30.003942
Export	E_INV006_119mm (2min)	119	Category 11/E	137.1154984	153.7048636	-18.19697356	4.7
Export	E_INV006_119mm (2min)	119	Category 10/E	155.4818915	155.3797396	-4.065798982	5
Export	E_INV006_119mm (2min)	119	Category 10/E	139.1499908	117.3924905	-1.936533672	9
Export	E_INV006_119mm (2min)	119	Category 10/E	131.4321179	97.41962596	-1.037979671	12.61710051
Export	E_INV006_119mm (2min)	119	Category 10/E	115.2861188	50.63683472	0.783397952	30.003942
Export	E_INV006_119mm (2min)	119	Category 10/E	157.4613674	159.7214166	-4.349457274	4.7
Export	E_INV006_119mm (2min)	119	Category 9/E	138.5271681	145.2382559	-11.23393665	5
Export	E_INV006_119mm (2min)	119	Category 9/E	121.0896807	113.0381998	-7.283733136	9
Export	E_INV006_119mm (2min)	119	Category 9/E	112.9559641	96.89431168	-5.68217328	12.61710051
Export	E_INV006_119mm (2min)	119	Category 9/E	96.17893009	58.23554949	-2.428067172	30.003942
Export	E_INV006_119mm (2min)	119	Category 9/E	140.6884963	149.454452	-11.82820469	4.7
Export	E_INV006_119mm (2min)	119	Category 8/E	153.3549477	150.3012978	-3.876913428	5
Export	E_INV006_119mm (2min)	119	Category 8/E	137.6084647	113.2827624	-1.817306253	9
Export	E_INV006_119mm (2min)	119	Category 8/E	130.1363333	93.6908949	-0.937937682	12.61710051
Export	E_INV006_119mm (2min)	119	Category 8/E	114.3936776	48.17584586	0.84480705	30.003942
Export	E_INV006_119mm (2min)	119	Category 8/E	155.2601997	154.5098909	-4.149508748	4.7
Export	E_INV006_119mm (2min)	119	Category 7/E	140.9245477	150.2434816	-11.66359201	5
Export	E_INV006_119mm (2min)	119	Category 7/E	122.7777283	116.4351642	-7.497705981	9
Export	E_INV006_119mm (2min)	119	Category 7/E	114.368367	99.93854451	-5.860940434	12.61710051
Export	E_INV006_119mm (2min)	119	Category 7/E	97.11579202	60.71782493	-2.541571682	30.003942
Export	E_INV006_119mm (2min)	119	Category 7/E	143.1860566	150.2434816	-12.30563767	4.7
Export	E_INV006_119mm (2min)	119	Category 6/E	140.9245477	150.2434816	-11.66359201	5
Export	E_INV006_119mm (2min)	119	Category 6/E	122.7777283	116.4351642	-7.497705981	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV006_119mm (2min)	119	Category 6/E	114.368367	99.93854451	-5.860940434	12.61710051
Export	E_INV006_119mm (2min)	119	Category 6/E	97.11579202	60.71782493	-2.541571682	30.003942
Export	E_INV006_119mm (2min)	119	Category 6/E	143.1860566	150.2434816	-12.30563767	4.7
Export	E_INV006_119mm (2min)	119	Category 5/E	134.5540836	149.3475927	-16.98644935	5
Export	E_INV006_119mm (2min)	119	Category 5/E	115.2417582	114.4905291	-10.67435145	9
Export	E_INV006_119mm (2min)	119	Category 5/E	106.6037797	99.178793	-8.598332623	12.61710051
Export	E_INV006_119mm (2min)	119	Category 5/E	89.108252	64.08414088	-4.449692496	30.003942
Export	E_INV006_119mm (2min)	119	Category 5/E	137.1154984	153.7048636	-18.19697356	4.7
Export	E_INV006_119mm (2min)	119	Category 4/E	153.3549477	150.3012978	-3.876913428	5
Export	E_INV006_119mm (2min)	119	Category 4/E	137.6084647	113.2827624	-1.817306253	9
Export	E_INV006_119mm (2min)	119	Category 4/E	130.1363333	93.6908949	-0.937937682	12.61710051
Export	E_INV006_119mm (2min)	119	Category 4/E	114.3936776	48.17584586	0.84480705	30.003942
Export	E_INV006_119mm (2min)	119	Category 4/E	155.2601997	154.5098909	-4.149508748	4.7
Export	E_INV006_119mm (2min)	119	Category 3/E	131.9544564	144.4458974	-16.20647649	5
Export	E_INV006_119mm (2min)	119	Category 3/E	113.5031948	111.331152	-10.38627122	9
Export	E_INV006_119mm (2min)	119	Category 3/E	105.1596412	96.39631412	-8.368565362	12.61710051
Export	E_INV006_119mm (2min)	119	Category 3/E	88.17150998	61.85015159	-4.304872719	30.003942
Export	E_INV006_119mm (2min)	119	Category 3/E	134.3482028	148.6047229	-17.23832524	4.7
Export	E_INV006_119mm (2min)	119	Category 2/E	138.5271681	145.2382559	-11.23393665	5
Export	E_INV006_119mm (2min)	119	Category 2/E	121.0896807	113.0381998	-7.283733136	9
Export	E_INV006_119mm (2min)	119	Category 2/E	112.9559641	96.89431168	-5.68217328	12.61710051
Export	E_INV006_119mm (2min)	119	Category 2/E	96.17893009	58.23554949	-2.428067172	30.003942
Export	E_INV006_119mm (2min)	119	Category 2/E	140.6884963	149.454452	-11.82820469	4.7
Export	E_INV006_119mm (2min)	119	Category 1/E	155.4818915	155.3797396	-4.065798982	5
Export	E_INV006_119mm (2min)	119	Category 1/E	139.1499908	117.3924905	-1.936533672	9
Export	E_INV006_119mm (2min)	119	Category 1/E	131.4321179	97.41962596	-1.037979671	12.61710051
Export	E_INV006_119mm (2min)	119	Category 1/E	115.2861188	50.63683472	0.783397952	30.003942
Export	E_INV006_119mm (2min)	119	Category 1/E	157.4613674	159.7214166	-4.349457274	4.7
Export	E_INV006_356mm (2min)	356	Category 12/E	61.74857116	66.68590797	-5.52363136	5
Export	E_INV006_356mm (2min)	356	Category 12/E	54.21308083	50.99811141	-3.405801023	9
Export	E_INV006_356mm (2min)	356	Category 12/E	50.71659605	43.12060537	-2.520338389	12.61710051
Export	E_INV006_356mm (2min)	356	Category 12/E	43.61509213	24.97777926	-0.823822058	30.003942
Export	E_INV006_356mm (2min)	356	Category 12/E	62.6760543	68.53357748	-5.811961991	4.7
Export	E_INV006_356mm (2min)	356	Category 11/E	62.16041815	68.02045266	-5.646934908	5
Export	E_INV006_356mm (2min)	356	Category 11/E	54.43471542	52.0144557	-3.468896811	9
Export	E_INV006_356mm (2min)	356	Category 11/E	50.86335987	44.02412421	-2.567164828	12.61710051
Export	E_INV006_356mm (2min)	356	Category 11/E	43.64434602	25.70204463	-0.846363674	30.003942
Export	E_INV006_356mm (2min)	356	Category 11/E	63.11526345	69.9161917	-5.948781091	4.7
Export	E_INV006_356mm (2min)	356	Category 10/E	70.17941257	58.36621581	-6.414818891	5
Export	E_INV006_356mm (2min)	356	Category 10/E	62.29251945	41.42066184	-4.022333719	9
Export	E_INV006_356mm (2min)	356	Category 10/E	58.33877083	32.3929379	-2.837139339	12.61710051
Export	E_INV006_356mm (2min)	356	Category 10/E	48.05259145	14.03563363	0.028832288	30.003942
Export	E_INV006_356mm (2min)	356	Category 10/E	71.11009396	60.21297279	-6.700370834	4.7
Export	E_INV006_356mm (2min)	356	Category 9/E	62.44979626	61.17255073	-4.736938903	5
Export	E_INV006_356mm (2min)	356	Category 9/E	55.22050713	46.32764896	-2.906354094	9
Export	E_INV006_356mm (2min)	356	Category 9/E	51.80284809	38.51276238	-2.111361963	12.61710051
Export	E_INV006_356mm (2min)	356	Category 9/E	44.5671592	19.99536891	-0.503101997	30.003942
Export	E_INV006_356mm (2min)	356	Category 9/E	63.32829501	62.87375364	-4.976070166	4.7
Export	E_INV006_356mm (2min)	356	Category 8/E	69.23006622	56.54333727	-6.226686895	5
Export	E_INV006_356mm (2min)	356	Category 8/E	61.54941438	39.85871008	-3.8835278	9
Export	E_INV006_356mm (2min)	356	Category 8/E	57.67640468	30.68480091	-2.719212661	12.61710051
Export	E_INV006_356mm (2min)	356	Category 8/E	47.37856398	13.70184681	0.125932924	30.003942
Export	E_INV006_356mm (2min)	356	Category 8/E	70.13201287	58.35603306	-6.503547684	4.7
Export	E_INV006_356mm (2min)	356	Category 7/E	63.03917825	62.59718262	-4.85154347	5
Export	E_INV006_356mm (2min)	356	Category 7/E	55.61527053	47.47951801	-2.973283919	9
Export	E_INV006_356mm (2min)	356	Category 7/E	52.12155374	39.57164117	-2.166722862	12.61710051
Export	E_INV006_356mm (2min)	356	Category 7/E	44.76551313	20.73971861	-0.536250635	30.003942
Export	E_INV006_356mm (2min)	356	Category 7/E	63.94326192	64.33789768	-5.097500159	4.7
Export	E_INV006_356mm (2min)	356	Category 6/E	65.89649556	65.63578059	-5.136960542	5
Export	E_INV006_356mm (2min)	356	Category 6/E	58.12776971	49.8298124	-3.18311322	9
Export	E_INV006_356mm (2min)	356	Category 6/E	54.47213859	41.57334296	-2.347200345	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV006_356mm (2min)	356	Category 6/E	46.78167033	21.90429908	-0.637091301	30.003942
Export	E_INV006_356mm (2min)	356	Category 6/E	66.84340108	67.45739098	-5.394222409	4.7
Export	E_INV006_356mm (2min)	356	Category 5/E	65.75680334	72.22519616	-6.038509113	5
Export	E_INV006_356mm (2min)	356	Category 5/E	57.56970874	55.26840198	-3.742815776	9
Export	E_INV006_356mm (2min)	356	Category 5/E	53.78269441	46.81427288	-2.789608354	12.61710051
Export	E_INV006_356mm (2min)	356	Category 5/E	46.14935105	27.45846744	-0.998044258	30.003942
Export	E_INV006_356mm (2min)	356	Category 5/E	66.76886277	74.23066833	-6.356897087	4.7
Export	E_INV006_356mm (2min)	356	Category 4/E	67.33631445	54.86513582	-5.983976809	5
Export	E_INV006_356mm (2min)	356	Category 4/E	59.87360258	38.61564948	-3.717794262	9
Export	E_INV006_356mm (2min)	356	Category 4/E	56.10699514	29.68523248	-2.590733602	12.61710051
Export	E_INV006_356mm (2min)	356	Category 4/E	46.03373595	13.25628083	0.168677274	30.003942
Export	E_INV006_356mm (2min)	356	Category 4/E	68.21295746	56.62921558	-6.251415023	4.7
Export	E_INV006_356mm (2min)	356	Category 3/E	65.43096077	70.9259088	-5.919834204	5
Export	E_INV006_356mm (2min)	356	Category 3/E	57.43046667	54.28258917	-3.680224796	9
Export	E_INV006_356mm (2min)	356	Category 3/E	53.71945447	45.93515221	-2.74594105	12.61710051
Export	E_INV006_356mm (2min)	356	Category 3/E	46.20621682	26.73831562	-0.982485044	30.003942
Export	E_INV006_356mm (2min)	356	Category 3/E	66.41558716	72.88773824	-6.224583136	4.7
Export	E_INV006_356mm (2min)	356	Category 2/E	65.43123547	64.29478415	-5.032797231	5
Export	E_INV006_356mm (2min)	356	Category 2/E	57.848482	48.74113711	-3.122134614	9
Export	E_INV006_356mm (2min)	356	Category 2/E	54.27018389	40.56503197	-2.302968131	12.61710051
Export	E_INV006_356mm (2min)	356	Category 2/E	46.68474844	21.17445816	-0.606822563	30.003942
Export	E_INV006_356mm (2min)	356	Category 2/E	66.35282164	66.07863757	-5.282544077	4.7
Export	E_INV006_356mm (2min)	356	Category 1/E	68.48791372	56.83785602	-6.194470307	5
Export	E_INV006_356mm (2min)	356	Category 1/E	60.79826842	40.28292999	-3.871069322	9
Export	E_INV006_356mm (2min)	356	Category 1/E	56.94096797	31.4866127	-2.719861993	12.61710051
Export	E_INV006_356mm (2min)	356	Category 1/E	46.85373367	13.61227147	0.070812093	30.003942
Export	E_INV006_356mm (2min)	356	Category 1/E	69.39318486	58.64067996	-6.469526285	4.7
Export	E_INV007_25mm (all)	25	Category 12/E	35.34299394	36.41085667	-3.472575653	5
Export	E_INV007_25mm (all)	25	Category 12/E	30.53217244	28.18052254	-1.91673167	9
Export	E_INV007_25mm (all)	25	Category 12/E	28.31507461	24.11334543	-1.299673912	12.61710051
Export	E_INV007_25mm (all)	25	Category 12/E	23.77563493	14.3101583	-0.124971981	30.003942
Export	E_INV007_25mm (all)	25	Category 12/E	35.94223175	37.49331876	-3.700094005	4.7
Export	E_INV007_25mm (all)	25	Category 11/E	35.80857959	37.31085768	-3.59929981	5
Export	E_INV007_25mm (all)	25	Category 11/E	30.85562574	28.77981342	-1.978606709	9
Export	E_INV007_25mm (all)	25	Category 11/E	28.58181183	24.65169503	-1.345272786	12.61710051
Export	E_INV007_25mm (all)	25	Category 11/E	23.95052571	14.75847306	-0.149675689	30.003942
Export	E_INV007_25mm (all)	25	Category 11/E	36.43056347	38.42195535	-3.83859633	4.7
Export	E_INV007_25mm (all)	25	Category 10/E	42.26185906	38.89591024	-0.66236211	5
Export	E_INV007_25mm (all)	25	Category 10/E	38.00151765	28.36067143	0.104405789	9
Export	E_INV007_25mm (all)	25	Category 10/E	35.89285399	22.73065378	0.600097258	12.61710051
Export	E_INV007_25mm (all)	25	Category 10/E	31.28875788	10.53019031	1.737528455	30.003942
Export	E_INV007_25mm (all)	25	Category 10/E	42.77334554	40.08167328	-0.753983498	4.7
Export	E_INV007_25mm (all)	25	Category 9/E	37.28098363	37.03940816	-2.287899265	5
Export	E_INV007_25mm (all)	25	Category 9/E	32.72229266	28.41523353	-1.133428269	9
Export	E_INV007_25mm (all)	25	Category 9/E	30.58248984	23.89061193	-0.645933666	12.61710051
Export	E_INV007_25mm (all)	25	Category 9/E	25.96645018	12.93233699	0.601909732	30.003942
Export	E_INV007_25mm (all)	25	Category 9/E	37.83857613	38.03620444	-2.444667403	4.7
Export	E_INV007_25mm (all)	25	Category 8/E	41.87049315	37.90612414	-0.611795261	5
Export	E_INV007_25mm (all)	25	Category 8/E	37.71803715	27.54263411	0.13561787	9
Export	E_INV007_25mm (all)	25	Category 8/E	35.62345764	22.00267398	0.686163683	12.61710051
Export	E_INV007_25mm (all)	25	Category 8/E	31.0947178	10.17816318	1.792719768	30.003942
Export	E_INV007_25mm (all)	25	Category 8/E	42.37097186	39.07029413	-0.705468943	4.7
Export	E_INV007_25mm (all)	25	Category 7/E	37.71733587	37.87216132	-2.371632038	5
Export	E_INV007_25mm (all)	25	Category 7/E	33.03344653	29.07843635	-1.179554297	9
Export	E_INV007_25mm (all)	25	Category 7/E	30.84161021	24.49617168	-0.681876616	12.61710051
Export	E_INV007_25mm (all)	25	Category 7/E	26.1412835	13.39225776	0.582371319	30.003942
Export	E_INV007_25mm (all)	25	Category 7/E	38.29411866	38.89116172	-2.538017413	4.7
Export	E_INV007_25mm (all)	25	Category 6/E	37.71733587	37.87216132	-2.371632038	5
Export	E_INV007_25mm (all)	25	Category 6/E	33.03344653	29.07843635	-1.179554297	9
Export	E_INV007_25mm (all)	25	Category 6/E	30.84161021	24.49617168	-0.681876616	12.61710051
Export	E_INV007_25mm (all)	25	Category 6/E	26.1412835	13.39225776	0.582371319	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV007_25mm (all)	25	Category 6/E	38.29411866	38.89116172	-2.538017413	4.7
Export	E_INV007_25mm (all)	25	Category 5/E	35.80857959	37.31085768	-3.59929981	5
Export	E_INV007_25mm (all)	25	Category 5/E	30.85562574	28.77981342	-1.978606709	9
Export	E_INV007_25mm (all)	25	Category 5/E	28.58181183	24.65169503	-1.345272786	12.61710051
Export	E_INV007_25mm (all)	25	Category 5/E	23.95052571	14.75847306	-0.149675689	30.003942
Export	E_INV007_25mm (all)	25	Category 5/E	36.43056347	38.42195535	-3.83859633	4.7
Export	E_INV007_25mm (all)	25	Category 4/E	41.87049315	37.90612414	-0.611795261	5
Export	E_INV007_25mm (all)	25	Category 4/E	37.71803715	27.54263411	0.13561787	9
Export	E_INV007_25mm (all)	25	Category 4/E	35.62345764	22.00267398	0.686163683	12.61710051
Export	E_INV007_25mm (all)	25	Category 4/E	31.0947178	10.17816318	1.792719768	30.003942
Export	E_INV007_25mm (all)	25	Category 4/E	42.37097186	39.07029413	-0.705468943	4.7
Export	E_INV007_25mm (all)	25	Category 3/E	35.34299394	36.41085667	-3.472575653	5
Export	E_INV007_25mm (all)	25	Category 3/E	30.53217244	28.18052254	-1.91673167	9
Export	E_INV007_25mm (all)	25	Category 3/E	28.31507461	24.11334543	-1.299673912	12.61710051
Export	E_INV007_25mm (all)	25	Category 3/E	23.77563493	14.3101583	-0.124971981	30.003942
Export	E_INV007_25mm (all)	25	Category 3/E	35.94223175	37.49331876	-3.700094005	4.7
Export	E_INV007_25mm (all)	25	Category 2/E	37.28098363	37.03940816	-2.287899265	5
Export	E_INV007_25mm (all)	25	Category 2/E	32.72229266	28.41523353	-1.133428269	9
Export	E_INV007_25mm (all)	25	Category 2/E	30.58248984	23.89061193	-0.645933666	12.61710051
Export	E_INV007_25mm (all)	25	Category 2/E	25.96645018	12.93233699	0.601909732	30.003942
Export	E_INV007_25mm (all)	25	Category 2/E	37.83857613	38.03620444	-2.444667403	4.7
Export	E_INV007_25mm (all)	25	Category 1/E	42.26185906	38.89591024	-0.66236211	5
Export	E_INV007_25mm (all)	25	Category 1/E	38.00151765	28.36067143	0.104405789	9
Export	E_INV007_25mm (all)	25	Category 1/E	35.89285399	22.73065378	0.600097258	12.61710051
Export	E_INV007_25mm (all)	25	Category 1/E	31.28875788	10.53019031	1.737528455	30.003942
Export	E_INV007_25mm (all)	25	Category 1/E	42.77334554	40.08167328	-0.753983498	4.7
Export	E_INV007_35mm (all)	35	Category 12/E	47.75200696	50.07136468	-4.730946657	5
Export	E_INV007_35mm (all)	35	Category 12/E	41.22072345	38.71188457	-2.68153655	9
Export	E_INV007_35mm (all)	35	Category 12/E	38.22285733	33.24825048	-1.890706573	12.61710051
Export	E_INV007_35mm (all)	35	Category 12/E	32.10282357	20.21733152	-0.372302961	30.003942
Export	E_INV007_35mm (all)	35	Category 12/E	48.57138627	51.54199022	-5.038818506	4.7
Export	E_INV007_35mm (all)	35	Category 11/E	48.44165581	39.58622424	-4.9141464	5
Export	E_INV007_35mm (all)	35	Category 11/E	41.69545563	39.58622424	-2.76696413	9
Export	E_INV007_35mm (all)	35	Category 11/E	38.61453351	34.03032499	-1.953475721	12.61710051
Export	E_INV007_35mm (all)	35	Category 11/E	32.35905651	20.8647545	-0.408706773	30.003942
Export	E_INV007_35mm (all)	35	Category 11/E	49.29101713	52.91138715	-5.239747615	4.7
Export	E_INV007_35mm (all)	35	Category 10/E	56.94429648	53.66237903	-0.957437222	5
Export	E_INV007_35mm (all)	35	Category 10/E	51.20952113	39.50718822	-0.090092756	9
Export	E_INV007_35mm (all)	35	Category 10/E	48.46895421	31.95344576	0.317091196	12.61710051
Export	E_INV007_35mm (all)	35	Category 10/E	42.51274623	15.1632587	1.356957877	30.003942
Export	E_INV007_35mm (all)	35	Category 10/E	57.6371371	55.26254763	-1.068844355	4.7
Export	E_INV007_35mm (all)	35	Category 9/E	50.30000906	50.77081761	-3.111426718	5
Export	E_INV007_35mm (all)	35	Category 9/E	44.12823892	39.15133479	-1.63603833	9
Export	E_INV007_35mm (all)	35	Category 9/E	41.23996568	33.10329239	-1.026751563	12.61710051
Export	E_INV007_35mm (all)	35	Category 9/E	35.2339217	18.41669939	0.179068059	30.003942
Export	E_INV007_35mm (all)	35	Category 9/E	51.05820843	52.11680944	-3.316627099	4.7
Export	E_INV007_35mm (all)	35	Category 8/E	56.37363478	52.22058554	-0.898682262	5
Export	E_INV007_35mm (all)	35	Category 8/E	50.7946839	38.32290412	-0.052058828	9
Export	E_INV007_35mm (all)	35	Category 8/E	48.11792142	30.87937262	0.350225675	12.61710051
Export	E_INV007_35mm (all)	35	Category 8/E	42.25755247	14.58864191	1.385849779	30.003942
Export	E_INV007_35mm (all)	35	Category 8/E	57.04656636	53.78537664	-1.006679343	4.7
Export	E_INV007_35mm (all)	35	Category 7/E	50.94301503	51.98715658	-3.227542595	5
Export	E_INV007_35mm (all)	35	Category 7/E	44.58383446	40.11737769	-1.699643551	9
Export	E_INV007_35mm (all)	35	Category 7/E	41.6192151	33.98000809	-1.073699033	12.61710051
Export	E_INV007_35mm (all)	35	Category 7/E	35.4881717	19.10581761	0.154011885	30.003942
Export	E_INV007_35mm (all)	35	Category 7/E	51.72413568	53.37024621	-3.441687427	4.7
Export	E_INV007_35mm (all)	35	Category 6/E	50.94301503	51.98715658	-3.227542595	5
Export	E_INV007_35mm (all)	35	Category 6/E	44.58383446	40.11737769	-1.699643551	9
Export	E_INV007_35mm (all)	35	Category 6/E	41.6192151	33.98000809	-1.073699033	12.61710051
Export	E_INV007_35mm (all)	35	Category 6/E	35.4881717	19.10581761	0.154011885	30.003942
Export	E_INV007_35mm (all)	35	Category 6/E	51.72413568	53.37024621	-3.441687427	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV007_35mm (all)	35	Category 5/E	48.44165581	39.58622424	-4.9141464	5
Export	E_INV007_35mm (all)	35	Category 5/E	41.69545563	39.58622424	-2.76696413	9
Export	E_INV007_35mm (all)	35	Category 5/E	38.61453351	34.03032499	-1.953475721	12.61710051
Export	E_INV007_35mm (all)	35	Category 5/E	32.35905651	20.8647545	-0.408706773	30.003942
Export	E_INV007_35mm (all)	35	Category 5/E	49.29101713	52.91138715	-5.239747615	4.7
Export	E_INV007_35mm (all)	35	Category 4/E	56.37363478	52.22058554	-0.898682262	5
Export	E_INV007_35mm (all)	35	Category 4/E	50.7946839	38.32290412	-0.052058828	9
Export	E_INV007_35mm (all)	35	Category 4/E	48.11792142	30.87937262	0.350225675	12.61710051
Export	E_INV007_35mm (all)	35	Category 4/E	42.25755247	14.58864191	1.385849779	30.003942
Export	E_INV007_35mm (all)	35	Category 4/E	57.04656636	53.78537664	-1.006679343	4.7
Export	E_INV007_35mm (all)	35	Category 3/E	47.75200696	50.07136468	-4.730946657	5
Export	E_INV007_35mm (all)	35	Category 3/E	41.22072345	38.71188457	-2.68153655	9
Export	E_INV007_35mm (all)	35	Category 3/E	38.22285733	33.24825048	-1.890706573	12.61710051
Export	E_INV007_35mm (all)	35	Category 3/E	32.10282357	20.21733152	-0.372302961	30.003942
Export	E_INV007_35mm (all)	35	Category 3/E	48.57138627	51.54199022	-5.038818506	4.7
Export	E_INV007_35mm (all)	35	Category 2/E	50.30000906	50.77081761	-3.111426718	5
Export	E_INV007_35mm (all)	35	Category 2/E	44.12823892	39.15133479	-1.63603833	9
Export	E_INV007_35mm (all)	35	Category 2/E	41.23996568	33.10329239	-1.026751563	12.61710051
Export	E_INV007_35mm (all)	35	Category 2/E	35.2339217	18.41669939	0.179068059	30.003942
Export	E_INV007_35mm (all)	35	Category 2/E	51.05820843	52.11680944	-3.316627099	4.7
Export	E_INV007_35mm (all)	35	Category 1/E	56.94429648	53.66237903	-0.957437222	5
Export	E_INV007_35mm (all)	35	Category 1/E	51.20952113	39.50718822	-0.090092756	9
Export	E_INV007_35mm (all)	35	Category 1/E	48.46895421	31.95344576	0.317091196	12.61710051
Export	E_INV007_35mm (all)	35	Category 1/E	42.51274623	15.1632587	1.356957877	30.003942
Export	E_INV007_35mm (all)	35	Category 1/E	57.6371371	55.26254763	-1.068844355	4.7
Export	E_INV007_119mm (1hr)	119	Category 12/E	132.3810463	144.8682384	-16.33972456	5
Export	E_INV007_119mm (1hr)	119	Category 12/E	113.8786944	111.6656821	-10.50548083	9
Export	E_INV007_119mm (1hr)	119	Category 12/E	105.5040225	96.68002774	-8.46785803	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 12/E	88.45046168	62.01580257	-4.36287105	30.003942
Export	E_INV007_119mm (1hr)	119	Category 12/E	134.7798096	149.0387699	-17.37105391	4.7
Export	E_INV007_119mm (1hr)	119	Category 11/E	134.9887467	149.7877654	-17.1201459	5
Export	E_INV007_119mm (1hr)	119	Category 11/E	115.6230147	114.8380344	-10.79361358	9
Export	E_INV007_119mm (1hr)	119	Category 11/E	106.9543784	99.47400929	-8.700322713	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 11/E	89.39138203	64.25863168	-4.509462322	30.003942
Export	E_INV007_119mm (1hr)	119	Category 11/E	137.5545677	154.156923	-18.32838678	4.7
Export	E_INV007_119mm (1hr)	119	Category 10/E	156.0253142	155.8012199	-4.152133953	5
Export	E_INV007_119mm (1hr)	119	Category 10/E	139.6230978	117.7194372	-2.003175383	9
Export	E_INV007_119mm (1hr)	119	Category 10/E	131.8712608	97.68981637	-1.09691756	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 10/E	115.6429826	50.75829149	0.750476184	30.003942
Export	E_INV007_119mm (1hr)	119	Category 10/E	158.0127232	160.1526207	-4.437338167	4.7
Export	E_INV007_119mm (1hr)	119	Category 9/E	139.0194459	145.6405973	-11.38286928	5
Export	E_INV007_119mm (1hr)	119	Category 9/E	121.5146545	113.3589504	-7.40681781	9
Export	E_INV007_119mm (1hr)	119	Category 9/E	113.3425293	97.16798784	-5.781787851	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 9/E	96.48481055	58.3817525	-2.485397017	30.003942
Export	E_INV007_119mm (1hr)	119	Category 9/E	141.1893905	149.8633661	-11.98147327	4.7
Export	E_INV007_119mm (1hr)	119	Category 8/E	153.8876551	150.7081373	-3.96125222	5
Export	E_INV007_119mm (1hr)	119	Category 8/E	138.0735138	113.5978586	-1.882689561	9
Export	E_INV007_119mm (1hr)	119	Category 8/E	130.570582	93.94758566	-0.999976941	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 8/E	114.7450601	48.2899287	0.81279199	30.003942
Export	E_INV007_119mm (1hr)	119	Category 8/E	155.8009155	154.9267887	-4.236324774	4.7
Export	E_INV007_119mm (1hr)	119	Category 7/E	141.4285362	150.6573381	-11.81699824	5
Export	E_INV007_119mm (1hr)	119	Category 7/E	123.2117004	116.7682183	-7.624895025	9
Export	E_INV007_119mm (1hr)	119	Category 7/E	114.7635809	100.2236489	-5.965871238	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 7/E	97.42628742	60.8737835	-2.599278312	30.003942
Export	E_INV007_119mm (1hr)	119	Category 7/E	143.6982375	150.6573381	-12.46188453	4.7
Export	E_INV007_119mm (1hr)	119	Category 6/E	141.4285362	150.6573381	-11.81699824	5
Export	E_INV007_119mm (1hr)	119	Category 6/E	123.2117004	116.7682183	-7.624895025	9
Export	E_INV007_119mm (1hr)	119	Category 6/E	114.7635809	100.2236489	-5.965871238	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 6/E	97.42628742	60.8737835	-2.599278312	30.003942
Export	E_INV007_119mm (1hr)	119	Category 6/E	143.6982375	150.6573381	-12.46188453	4.7
Export	E_INV007_119mm (1hr)	119	Category 5/E	134.9887467	149.7877654	-17.1201459	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV007_119mm (1hr)	119	Category 5/E	115.6230147	114.8380344	-10.79361358	9
Export	E_INV007_119mm (1hr)	119	Category 5/E	106.9543784	99.47400929	-8.700322713	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 5/E	89.39138203	64.25863168	-4.509462322	30.003942
Export	E_INV007_119mm (1hr)	119	Category 5/E	137.5545677	154.156923	-18.32838678	4.7
Export	E_INV007_119mm (1hr)	119	Category 4/E	153.8876551	150.7081373	-3.96125222	5
Export	E_INV007_119mm (1hr)	119	Category 4/E	138.0735138	113.5978586	-1.882689561	9
Export	E_INV007_119mm (1hr)	119	Category 4/E	130.570582	93.94758566	-0.999976941	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 4/E	114.7450601	48.2899287	0.81279199	30.003942
Export	E_INV007_119mm (1hr)	119	Category 4/E	155.8009155	154.9267887	-4.236324774	4.7
Export	E_INV007_119mm (1hr)	119	Category 3/E	132.3810463	144.8682384	-16.33972456	5
Export	E_INV007_119mm (1hr)	119	Category 3/E	113.8786944	111.6656821	-10.50548083	9
Export	E_INV007_119mm (1hr)	119	Category 3/E	105.5040225	96.68002774	-8.46785803	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 3/E	88.45046168	62.01580257	-4.36287105	30.003942
Export	E_INV007_119mm (1hr)	119	Category 3/E	134.7798096	149.0387699	-17.37105391	4.7
Export	E_INV007_119mm (1hr)	119	Category 2/E	139.0194459	145.6405973	-11.38286928	5
Export	E_INV007_119mm (1hr)	119	Category 2/E	121.5146545	113.3589504	-7.40681781	9
Export	E_INV007_119mm (1hr)	119	Category 2/E	113.3425293	97.16798784	-5.781787851	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 2/E	96.48481055	58.3817525	-2.485397017	30.003942
Export	E_INV007_119mm (1hr)	119	Category 2/E	141.1893905	149.8633661	-11.98147327	4.7
Export	E_INV007_119mm (1hr)	119	Category 1/E	156.0253142	155.8012199	-4.152133953	5
Export	E_INV007_119mm (1hr)	119	Category 1/E	139.6230978	117.7194372	-2.003175383	9
Export	E_INV007_119mm (1hr)	119	Category 1/E	131.8712608	97.68981637	-1.09691756	12.61710051
Export	E_INV007_119mm (1hr)	119	Category 1/E	115.6429826	50.75829149	0.750476184	30.003942
Export	E_INV007_119mm (1hr)	119	Category 1/E	158.0127232	160.1526207	-4.437338167	4.7
Export	E_INV007_356mm (1hr)	356	Category 12/E	56.36746684	60.51776285	-4.961509732	5
Export	E_INV007_356mm (1hr)	356	Category 12/E	49.50969996	46.22148337	-3.018125456	9
Export	E_INV007_356mm (1hr)	356	Category 12/E	46.32355409	39.02612473	-2.201808606	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 12/E	39.8327752	22.42783324	-0.601780609	30.003942
Export	E_INV007_356mm (1hr)	356	Category 12/E	57.2105236	62.1991253	-5.224177552	4.7
Export	E_INV007_356mm (1hr)	356	Category 11/E	56.87316769	61.86819162	-5.08732514	5
Export	E_INV007_356mm (1hr)	356	Category 11/E	49.82892428	47.25294575	-3.086281006	9
Export	E_INV007_356mm (1hr)	356	Category 11/E	46.56983711	39.94072561	-2.252810939	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 11/E	39.95740744	23.1401753	-0.63046625	30.003942
Export	E_INV007_356mm (1hr)	356	Category 11/E	57.74204914	63.59483628	-5.361134262	4.7
Export	E_INV007_356mm (1hr)	356	Category 10/E	62.19924038	51.17771899	-5.391501806	5
Export	E_INV007_356mm (1hr)	356	Category 10/E	55.24440301	36.07434929	-3.323118176	9
Export	E_INV007_356mm (1hr)	356	Category 10/E	51.74341719	27.7232603	-2.293731512	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 10/E	42.38726732	12.06115559	0.211332786	30.003942
Export	E_INV007_356mm (1hr)	356	Category 10/E	63.01812363	52.81786802	-5.637018665	4.7
Export	E_INV007_356mm (1hr)	356	Category 9/E	56.17681926	54.63354663	-4.128320523	5
Export	E_INV007_356mm (1hr)	356	Category 9/E	49.68972713	41.26903387	-2.465094701	9
Export	E_INV007_356mm (1hr)	356	Category 9/E	46.6143866	34.21851673	-1.729788505	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 9/E	40.09988819	17.54908303	-0.275857188	30.003942
Export	E_INV007_356mm (1hr)	356	Category 9/E	56.9638563	56.15967496	-4.344349211	4.7
Export	E_INV007_356mm (1hr)	356	Category 8/E	61.29177821	49.52638737	-5.223804286	5
Export	E_INV007_356mm (1hr)	356	Category 8/E	54.52131292	34.66916231	-3.196199177	9
Export	E_INV007_356mm (1hr)	356	Category 8/E	51.09297374	26.51746133	-2.189836593	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 8/E	41.78281627	11.76401643	0.206919804	30.003942
Export	E_INV007_356mm (1hr)	356	Category 8/E	62.08619276	51.13584959	-5.46260337	4.7
Export	E_INV007_356mm (1hr)	356	Category 7/E	56.85095095	56.04709119	-4.244373825	5
Export	E_INV007_356mm (1hr)	356	Category 7/E	50.175671	42.41530265	-2.535169708	9
Export	E_INV007_356mm (1hr)	356	Category 7/E	47.02344783	35.26113235	-1.785532765	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 7/E	40.38633022	18.24704328	-0.309982736	30.003942
Export	E_INV007_356mm (1hr)	356	Category 7/E	57.66354221	57.61331368	-4.468114302	4.7
Export	E_INV007_356mm (1hr)	356	Category 6/E	59.96261767	59.33781633	-4.544925517	5
Export	E_INV007_356mm (1hr)	356	Category 6/E	52.91301551	44.95833619	-2.753355303	9
Export	E_INV007_356mm (1hr)	356	Category 6/E	49.58666257	37.42456825	-1.969395159	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 6/E	42.59112645	19.4937591	-0.423022913	30.003942
Export	E_INV007_356mm (1hr)	356	Category 6/E	60.82114919	60.99213268	-4.779850373	4.7
Export	E_INV007_356mm (1hr)	356	Category 5/E	60.92957513	66.59062202	-5.518296072	5
Export	E_INV007_356mm (1hr)	356	Category 5/E	53.36494793	50.90522624	-3.381465915	9

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV007_356mm (1hr)	356	Category 5/E	49.86573403	43.07171415	-2.495228542	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 5/E	42.78870017	25.1014683	-0.796022428	30.003942
Export	E_INV007_356mm (1hr)	356	Category 5/E	61.86227096	68.44649119	-5.809677179	4.7
Export	E_INV007_356mm (1hr)	356	Category 4/E	59.86061799	48.2681681	-5.04721944	5
Export	E_INV007_356mm (1hr)	356	Category 4/E	53.25379383	33.73916579	-3.076139123	9
Export	E_INV007_356mm (1hr)	356	Category 4/E	49.90511609	25.77533068	-2.096484821	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 4/E	40.79210363	11.34363592	0.180800819	30.003942
Export	E_INV007_356mm (1hr)	356	Category 4/E	60.63525231	49.84097271	-5.278487381	4.7
Export	E_INV007_356mm (1hr)	356	Category 3/E	60.56801214	65.334734	-5.401975915	5
Export	E_INV007_356mm (1hr)	356	Category 3/E	53.1825924	49.94890549	-3.322378037	9
Export	E_INV007_356mm (1hr)	356	Category 3/E	49.75518725	42.21996285	-2.451677996	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 3/E	42.78824884	24.41398983	-0.775408063	30.003942
Export	E_INV007_356mm (1hr)	356	Category 3/E	61.47682649	67.14626918	-5.684681419	4.7
Export	E_INV007_356mm (1hr)	356	Category 2/E	59.39492819	57.98710334	-4.435653877	5
Export	E_INV007_356mm (1hr)	356	Category 2/E	52.52805795	43.86386114	-2.684565137	9
Export	E_INV007_356mm (1hr)	356	Category 2/E	49.27828116	36.41823357	-1.92039424	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 2/E	42.39709701	18.79853433	-0.392286245	30.003942
Export	E_INV007_356mm (1hr)	356	Category 2/E	60.23052268	59.60281951	-4.664202872	4.7
Export	E_INV007_356mm (1hr)	356	Category 1/E	60.78812434	49.91383526	-5.214237679	5
Export	E_INV007_356mm (1hr)	356	Category 1/E	53.99496567	35.13727438	-3.197436025	9
Export	E_INV007_356mm (1hr)	356	Category 1/E	50.57602968	26.96863586	-2.199742837	12.61710051
Export	E_INV007_356mm (1hr)	356	Category 1/E	41.41101984	11.78971623	0.185952188	30.003942
Export	E_INV007_356mm (1hr)	356	Category 1/E	61.58719677	51.51745818	-5.452448057	4.7
Export	E_INV007_119mm (2min)	119	Category 12/E	132.3810463	144.8682384	-16.33972456	5
Export	E_INV007_119mm (2min)	119	Category 12/E	113.8786944	111.6656821	-10.50548083	9
Export	E_INV007_119mm (2min)	119	Category 12/E	105.5040225	96.68002774	-8.46785803	12.61710051
Export	E_INV007_119mm (2min)	119	Category 12/E	88.45046168	62.01580257	-4.36287105	30.003942
Export	E_INV007_119mm (2min)	119	Category 12/E	134.7798096	149.0387699	-17.37105391	4.7
Export	E_INV007_119mm (2min)	119	Category 11/E	134.9887467	149.7877654	-17.1201459	5
Export	E_INV007_119mm (2min)	119	Category 11/E	115.6230147	114.8380344	-10.79361358	9
Export	E_INV007_119mm (2min)	119	Category 11/E	106.9543784	99.47400929	-8.700322713	12.61710051
Export	E_INV007_119mm (2min)	119	Category 11/E	89.39138203	64.25863168	-4.509462322	30.003942
Export	E_INV007_119mm (2min)	119	Category 11/E	137.5545677	154.156923	-18.32838678	4.7
Export	E_INV007_119mm (2min)	119	Category 10/E	156.0253142	155.8012199	-4.152133953	5
Export	E_INV007_119mm (2min)	119	Category 10/E	139.6230978	117.7194372	-2.003175383	9
Export	E_INV007_119mm (2min)	119	Category 10/E	131.8712608	97.68981637	-1.09691756	12.61710051
Export	E_INV007_119mm (2min)	119	Category 10/E	115.6429826	50.75829149	0.750476184	30.003942
Export	E_INV007_119mm (2min)	119	Category 10/E	158.0127232	160.1526207	-4.437338167	4.7
Export	E_INV007_119mm (2min)	119	Category 9/E	139.0194459	145.6405973	-11.38286928	5
Export	E_INV007_119mm (2min)	119	Category 9/E	121.5146545	113.3589504	-7.40681781	9
Export	E_INV007_119mm (2min)	119	Category 9/E	113.3425293	97.16798784	-5.781787851	12.61710051
Export	E_INV007_119mm (2min)	119	Category 9/E	96.48481055	58.3817525	-2.485397017	30.003942
Export	E_INV007_119mm (2min)	119	Category 9/E	141.1893905	149.8633661	-11.98147327	4.7
Export	E_INV007_119mm (2min)	119	Category 8/E	153.8876551	150.7081373	-3.96125222	5
Export	E_INV007_119mm (2min)	119	Category 8/E	138.0735138	113.5978586	-1.882689561	9
Export	E_INV007_119mm (2min)	119	Category 8/E	130.570582	93.94758566	-0.999976941	12.61710051
Export	E_INV007_119mm (2min)	119	Category 8/E	114.7450601	48.2899287	0.81279199	30.003942
Export	E_INV007_119mm (2min)	119	Category 8/E	155.8009155	154.9267887	-4.236324774	4.7
Export	E_INV007_119mm (2min)	119	Category 7/E	141.4285362	150.6573381	-11.81699824	5
Export	E_INV007_119mm (2min)	119	Category 7/E	123.2117004	116.7682183	-7.624895025	9
Export	E_INV007_119mm (2min)	119	Category 7/E	114.7635809	100.2236489	-5.965871238	12.61710051
Export	E_INV007_119mm (2min)	119	Category 7/E	97.42628742	60.8737835	-2.599278312	30.003942
Export	E_INV007_119mm (2min)	119	Category 7/E	143.6982375	150.6573381	-12.46188453	4.7
Export	E_INV007_119mm (2min)	119	Category 6/E	141.4285362	150.6573381	-11.81699824	5
Export	E_INV007_119mm (2min)	119	Category 6/E	123.2117004	116.7682183	-7.624895025	9
Export	E_INV007_119mm (2min)	119	Category 6/E	114.7635809	100.2236489	-5.965871238	12.61710051
Export	E_INV007_119mm (2min)	119	Category 6/E	97.42628742	60.8737835	-2.599278312	30.003942
Export	E_INV007_119mm (2min)	119	Category 6/E	143.6982375	150.6573381	-12.46188453	4.7
Export	E_INV007_119mm (2min)	119	Category 5/E	134.9887467	149.7877654	-17.1201459	5
Export	E_INV007_119mm (2min)	119	Category 5/E	115.6230147	114.8380344	-10.79361358	9
Export	E_INV007_119mm (2min)	119	Category 5/E	106.9543784	99.47400929	-8.700322713	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV007_119mm (2min)	119	Category 5/E	89.39138203	64.25863168	-4.509462322	30.003942
Export	E_INV007_119mm (2min)	119	Category 5/E	137.5545677	154.156923	-18.32838678	4.7
Export	E_INV007_119mm (2min)	119	Category 4/E	153.8876551	150.7081373	-3.96125222	5
Export	E_INV007_119mm (2min)	119	Category 4/E	138.0735138	113.5978586	-1.882689561	9
Export	E_INV007_119mm (2min)	119	Category 4/E	130.570582	93.94758566	-0.999976941	12.61710051
Export	E_INV007_119mm (2min)	119	Category 4/E	114.7450601	48.2899287	0.81279199	30.003942
Export	E_INV007_119mm (2min)	119	Category 4/E	155.8009155	154.9267887	-4.236324774	4.7
Export	E_INV007_119mm (2min)	119	Category 3/E	132.3810463	144.8682384	-16.33972456	5
Export	E_INV007_119mm (2min)	119	Category 3/E	113.8786944	111.6656821	-10.50548083	9
Export	E_INV007_119mm (2min)	119	Category 3/E	105.5040225	96.68002774	-8.46785803	12.61710051
Export	E_INV007_119mm (2min)	119	Category 3/E	88.45046168	62.01580257	-4.36287105	30.003942
Export	E_INV007_119mm (2min)	119	Category 3/E	134.7798096	149.0387699	-17.37105391	4.7
Export	E_INV007_119mm (2min)	119	Category 2/E	139.0194459	145.6405973	-11.38286928	5
Export	E_INV007_119mm (2min)	119	Category 2/E	121.5146545	113.3589504	-7.40681781	9
Export	E_INV007_119mm (2min)	119	Category 2/E	113.3425293	97.16798784	-5.781787851	12.61710051
Export	E_INV007_119mm (2min)	119	Category 2/E	96.48481055	58.3817525	-2.485397017	30.003942
Export	E_INV007_119mm (2min)	119	Category 2/E	141.1893905	149.8633661	-11.98147327	4.7
Export	E_INV007_119mm (2min)	119	Category 1/E	156.0253142	155.8012199	-4.152133953	5
Export	E_INV007_119mm (2min)	119	Category 1/E	139.6230978	117.7194372	-2.003175383	9
Export	E_INV007_119mm (2min)	119	Category 1/E	131.8712608	97.68981637	-1.09691756	12.61710051
Export	E_INV007_119mm (2min)	119	Category 1/E	115.6429826	50.75829149	0.750476184	30.003942
Export	E_INV007_119mm (2min)	119	Category 1/E	158.0127232	160.1526207	-4.437338167	4.7
Export	E_INV007_356mm (2min)	356	Category 12/E	56.36746684	60.51776285	-4.961509732	5
Export	E_INV007_356mm (2min)	356	Category 12/E	49.50969996	46.22148337	-3.018125456	9
Export	E_INV007_356mm (2min)	356	Category 12/E	46.32355409	39.02612473	-2.201808606	12.61710051
Export	E_INV007_356mm (2min)	356	Category 12/E	39.8327752	22.42783324	-0.601780609	30.003942
Export	E_INV007_356mm (2min)	356	Category 12/E	57.2105236	62.1991253	-5.224177552	4.7
Export	E_INV007_356mm (2min)	356	Category 11/E	56.87316769	61.86819162	-5.08732514	5
Export	E_INV007_356mm (2min)	356	Category 11/E	49.82892428	47.25294575	-3.086281006	9
Export	E_INV007_356mm (2min)	356	Category 11/E	46.56983711	39.94072561	-2.252810939	12.61710051
Export	E_INV007_356mm (2min)	356	Category 11/E	39.95740744	23.1401753	-0.63046625	30.003942
Export	E_INV007_356mm (2min)	356	Category 11/E	57.74204914	63.59483628	-5.361134262	4.7
Export	E_INV007_356mm (2min)	356	Category 10/E	62.19924038	51.17771899	-5.391501806	5
Export	E_INV007_356mm (2min)	356	Category 10/E	55.24440301	36.07434929	-3.323118176	9
Export	E_INV007_356mm (2min)	356	Category 10/E	51.74341719	27.7232603	-2.293731512	12.61710051
Export	E_INV007_356mm (2min)	356	Category 10/E	42.38726732	12.06115559	0.211332786	30.003942
Export	E_INV007_356mm (2min)	356	Category 10/E	63.01812363	52.81786802	-5.637018665	4.7
Export	E_INV007_356mm (2min)	356	Category 9/E	56.17681926	54.63354663	-4.128320523	5
Export	E_INV007_356mm (2min)	356	Category 9/E	49.68972713	41.26903387	-2.465094701	9
Export	E_INV007_356mm (2min)	356	Category 9/E	46.6143866	34.21851673	-1.729788505	12.61710051
Export	E_INV007_356mm (2min)	356	Category 9/E	40.09988819	17.54908303	-0.275857188	30.003942
Export	E_INV007_356mm (2min)	356	Category 9/E	56.9638563	56.15967496	-4.344349211	4.7
Export	E_INV007_356mm (2min)	356	Category 8/E	61.29177821	49.52638737	-5.223804286	5
Export	E_INV007_356mm (2min)	356	Category 8/E	54.52131292	34.66916231	-3.196199177	9
Export	E_INV007_356mm (2min)	356	Category 8/E	51.09297374	26.51746133	-2.189836593	12.61710051
Export	E_INV007_356mm (2min)	356	Category 8/E	41.78281627	11.76401643	0.206919804	30.003942
Export	E_INV007_356mm (2min)	356	Category 8/E	62.08619276	51.13584959	-5.46260337	4.7
Export	E_INV007_356mm (2min)	356	Category 7/E	56.85095095	56.04709119	-4.244373825	5
Export	E_INV007_356mm (2min)	356	Category 7/E	50.175671	42.41530265	-2.535169708	9
Export	E_INV007_356mm (2min)	356	Category 7/E	47.02344783	35.26113235	-1.785532765	12.61710051
Export	E_INV007_356mm (2min)	356	Category 7/E	40.38633022	18.24704328	-0.309982736	30.003942
Export	E_INV007_356mm (2min)	356	Category 7/E	57.66354221	57.61331368	-4.468114302	4.7
Export	E_INV007_356mm (2min)	356	Category 6/E	59.96261767	59.33781633	-4.544925517	5
Export	E_INV007_356mm (2min)	356	Category 6/E	52.91301551	44.95833619	-2.753355303	9
Export	E_INV007_356mm (2min)	356	Category 6/E	49.58666257	37.42456825	-1.969395159	12.61710051
Export	E_INV007_356mm (2min)	356	Category 6/E	42.59112645	19.4937591	-0.423022913	30.003942
Export	E_INV007_356mm (2min)	356	Category 6/E	60.82114919	60.99213268	-4.779850373	4.7
Export	E_INV007_356mm (2min)	356	Category 5/E	60.92957513	66.59062202	-5.518296072	5
Export	E_INV007_356mm (2min)	356	Category 5/E	53.36494793	50.90522624	-3.381465915	9
Export	E_INV007_356mm (2min)	356	Category 5/E	49.86573403	43.07171415	-2.495228542	12.61710051
Export	E_INV007_356mm (2min)	356	Category 5/E	42.78870017	25.1014683	-0.796022428	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV007_356mm (2min)	356	Category 5/E	61.86227096	68.44649119	-5.809677179	4.7
Export	E_INV007_356mm (2min)	356	Category 4/E	59.86061799	48.2681681	-5.04721944	5
Export	E_INV007_356mm (2min)	356	Category 4/E	53.25379383	33.73916579	-3.076139123	9
Export	E_INV007_356mm (2min)	356	Category 4/E	49.90511609	25.77533068	-2.096484821	12.61710051
Export	E_INV007_356mm (2min)	356	Category 4/E	40.79210363	11.34363592	0.180800819	30.003942
Export	E_INV007_356mm (2min)	356	Category 4/E	60.63525231	49.84097271	-5.278487381	4.7
Export	E_INV007_356mm (2min)	356	Category 3/E	60.56801214	65.334734	-5.401975915	5
Export	E_INV007_356mm (2min)	356	Category 3/E	53.1825924	49.94890549	-3.322378037	9
Export	E_INV007_356mm (2min)	356	Category 3/E	49.75518725	42.21996285	-2.451677996	12.61710051
Export	E_INV007_356mm (2min)	356	Category 3/E	42.78824884	24.41398983	-0.775408063	30.003942
Export	E_INV007_356mm (2min)	356	Category 3/E	61.47682649	67.14626918	-5.684681419	4.7
Export	E_INV007_356mm (2min)	356	Category 2/E	59.39492819	57.98710334	-4.435653877	5
Export	E_INV007_356mm (2min)	356	Category 2/E	52.52805795	43.86386114	-2.684565137	9
Export	E_INV007_356mm (2min)	356	Category 2/E	49.27828116	36.41823357	-1.92039424	12.61710051
Export	E_INV007_356mm (2min)	356	Category 2/E	42.39709701	18.79853433	-0.392286245	30.003942
Export	E_INV007_356mm (2min)	356	Category 2/E	60.23052268	59.60281951	-4.664202872	4.7
Export	E_INV007_356mm (2min)	356	Category 1/E	60.78812434	49.91383526	-5.214237679	5
Export	E_INV007_356mm (2min)	356	Category 1/E	53.99496567	35.13727438	-3.197436025	9
Export	E_INV007_356mm (2min)	356	Category 1/E	50.57602968	26.96863586	-2.199742837	12.61710051
Export	E_INV007_356mm (2min)	356	Category 1/E	41.41101984	11.78971623	0.185952188	30.003942
Export	E_INV007_356mm (2min)	356	Category 1/E	61.58719677	51.51745818	-5.452448057	4.7
Export	E_INV009_25mm (all)	25	Category 12/E	32.52639335	33.0011479	-3.326286968	5
Export	E_INV009_25mm (all)	25	Category 12/E	28.10998656	25.5815343	-1.858569449	9
Export	E_INV009_25mm (all)	25	Category 12/E	26.06416356	21.8277493	-1.261236401	12.61710051
Export	E_INV009_25mm (all)	25	Category 12/E	21.84859382	12.72283658	-0.105921336	30.003942
Export	E_INV009_25mm (all)	25	Category 12/E	33.07568523	33.99185926	-3.535954852	4.7
Export	E_INV009_25mm (all)	25	Category 11/E	32.94324006	33.80414825	-3.440243638	5
Export	E_INV009_25mm (all)	25	Category 11/E	28.39929693	26.11919772	-1.916588797	9
Export	E_INV009_25mm (all)	25	Category 11/E	26.30392053	22.31618435	-1.304699045	12.61710051
Export	E_INV009_25mm (all)	25	Category 11/E	22.00700167	13.1223969	-0.129442231	30.003942
Export	E_INV009_25mm (all)	25	Category 11/E	33.51076736	34.81585366	-3.659647762	4.7
Export	E_INV009_25mm (all)	25	Category 10/E	39.07937185	35.16722875	-0.72096955	5
Export	E_INV009_25mm (all)	25	Category 10/E	35.10363805	25.50656895	0.035394433	9
Export	E_INV009_25mm (all)	25	Category 10/E	33.12418885	20.30123443	0.521318349	12.61710051
Export	E_INV009_25mm (all)	25	Category 10/E	28.70397678	9.225125932	1.694583483	30.003942
Export	E_INV009_25mm (all)	25	Category 10/E	39.55514444	36.24533645	-0.812003082	4.7
Export	E_INV009_25mm (all)	25	Category 9/E	34.45351266	33.58087215	-2.286371893	5
Export	E_INV009_25mm (all)	25	Category 9/E	30.21285898	25.7166081	-1.157233544	9
Export	E_INV009_25mm (all)	25	Category 9/E	28.21123825	21.54741887	-0.668658833	12.61710051
Export	E_INV009_25mm (all)	25	Category 9/E	23.84490811	11.38374198	0.571304708	30.003942
Export	E_INV009_25mm (all)	25	Category 9/E	34.97269659	34.48577262	-2.441125278	4.7
Export	E_INV009_25mm (all)	25	Category 8/E	38.72484802	34.292208	-0.6768584	5
Export	E_INV009_25mm (all)	25	Category 8/E	34.84549338	24.77581084	0.067766651	9
Export	E_INV009_25mm (all)	25	Category 8/E	32.88102414	19.65232708	0.595067908	12.61710051
Export	E_INV009_25mm (all)	25	Category 8/E	28.51953645	8.932367016	1.747827602	30.003942
Export	E_INV009_25mm (all)	25	Category 8/E	39.1898955	35.3521169	-0.765439743	4.7
Export	E_INV009_25mm (all)	25	Category 7/E	34.85038936	34.31469635	-2.368538905	5
Export	E_INV009_25mm (all)	25	Category 7/E	30.4949962	26.3081875	-1.202995914	9
Export	E_INV009_25mm (all)	25	Category 7/E	28.44769288	22.09184632	-0.703273026	12.61710051
Export	E_INV009_25mm (all)	25	Category 7/E	24.00414779	11.78579082	0.558036262	30.003942
Export	E_INV009_25mm (all)	25	Category 7/E	35.38318667	35.2344053	-2.52521785	4.7
Export	E_INV009_25mm (all)	25	Category 6/E	34.85038936	34.31469635	-2.368538905	5
Export	E_INV009_25mm (all)	25	Category 6/E	30.4949962	26.3081875	-1.202995914	9
Export	E_INV009_25mm (all)	25	Category 6/E	28.44769288	22.09184632	-0.703273026	12.61710051
Export	E_INV009_25mm (all)	25	Category 6/E	24.00414779	11.78579082	0.558036262	30.003942
Export	E_INV009_25mm (all)	25	Category 6/E	35.38318667	35.2344053	-2.52521785	4.7
Export	E_INV009_25mm (all)	25	Category 5/E	32.94324006	33.80414825	-3.440243638	5
Export	E_INV009_25mm (all)	25	Category 5/E	28.39929693	26.11919772	-1.916588797	9
Export	E_INV009_25mm (all)	25	Category 5/E	26.30392053	22.31618435	-1.304699045	12.61710051
Export	E_INV009_25mm (all)	25	Category 5/E	22.00700167	13.1223969	-0.129442231	30.003942
Export	E_INV009_25mm (all)	25	Category 5/E	33.51076736	34.81585366	-3.659647762	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV009_25mm (all)	25	Category 4/E	38.72484802	34.292208	-0.6768584	5
Export	E_INV009_25mm (all)	25	Category 4/E	34.84549338	24.77581084	0.067766651	9
Export	E_INV009_25mm (all)	25	Category 4/E	32.88102414	19.65232708	0.595067908	12.61710051
Export	E_INV009_25mm (all)	25	Category 4/E	28.51953645	8.932367016	1.747827602	30.003942
Export	E_INV009_25mm (all)	25	Category 4/E	39.1898955	35.3521169	-0.765439743	4.7
Export	E_INV009_25mm (all)	25	Category 3/E	32.52639335	33.0011479	-3.326286968	5
Export	E_INV009_25mm (all)	25	Category 3/E	28.10998656	25.5815343	-1.858569449	9
Export	E_INV009_25mm (all)	25	Category 3/E	26.06416356	21.8277493	-1.261236401	12.61710051
Export	E_INV009_25mm (all)	25	Category 3/E	21.84859382	12.72283658	-0.105921336	30.003942
Export	E_INV009_25mm (all)	25	Category 3/E	33.07568523	33.99185926	-3.535954852	4.7
Export	E_INV009_25mm (all)	25	Category 2/E	34.45351266	33.58087215	-2.286371893	5
Export	E_INV009_25mm (all)	25	Category 2/E	30.21285898	25.7166081	-1.157233544	9
Export	E_INV009_25mm (all)	25	Category 2/E	28.21123825	21.54741887	-0.668658833	12.61710051
Export	E_INV009_25mm (all)	25	Category 2/E	23.84490811	11.38374198	0.571304708	30.003942
Export	E_INV009_25mm (all)	25	Category 2/E	34.97269659	34.48577262	-2.441125278	4.7
Export	E_INV009_25mm (all)	25	Category 1/E	39.07937185	35.16722875	-0.72096955	5
Export	E_INV009_25mm (all)	25	Category 1/E	35.10363805	25.50656895	0.035394433	9
Export	E_INV009_25mm (all)	25	Category 1/E	33.12418885	20.30123443	0.521318349	12.61710051
Export	E_INV009_25mm (all)	25	Category 1/E	28.70397678	9.225125932	1.694583483	30.003942
Export	E_INV009_25mm (all)	25	Category 1/E	39.55514444	36.24533645	-0.812003082	4.7
Export	E_INV009_50mm (all)	50	Category 12/E	60.45921203	63.62866813	-6.486468234	5
Export	E_INV009_50mm (all)	50	Category 12/E	52.17287791	49.21034945	-3.887220123	9
Export	E_INV009_50mm (all)	50	Category 12/E	48.37042138	42.32463117	-2.8913539	12.61710051
Export	E_INV009_50mm (all)	50	Category 12/E	40.65607401	25.92715576	-1.072791437	30.003942
Export	E_INV009_50mm (all)	50	Category 12/E	61.49985267	65.4886885	-6.879526698	4.7
Export	E_INV009_50mm (all)	50	Category 11/E	61.3863591	65.40635651	-6.728253247	5
Export	E_INV009_50mm (all)	50	Category 11/E	52.81171361	50.38626372	-4.001208583	9
Export	E_INV009_50mm (all)	50	Category 11/E	48.89844105	43.37046819	-2.975345954	12.61710051
Export	E_INV009_50mm (all)	50	Category 11/E	41.00125341	26.79365726	-1.118401043	30.003942
Export	E_INV009_50mm (all)	50	Category 11/E	62.46878224	67.32691739	-7.148101742	4.7
Export	E_INV009_50mm (all)	50	Category 10/E	72.14114992	68.18295069	-1.542917418	5
Export	E_INV009_50mm (all)	50	Category 10/E	64.75155163	50.50708246	-0.442812651	9
Export	E_INV009_50mm (all)	50	Category 10/E	61.22622898	41.03881389	0.053828075	12.61710051
Export	E_INV009_50mm (all)	50	Category 10/E	53.66663101	19.65233264	1.091471231	30.003942
Export	E_INV009_50mm (all)	50	Category 10/E	73.03374185	70.1786345	-1.684562641	4.7
Export	E_INV009_50mm (all)	50	Category 9/E	63.84915169	64.26486021	-4.488899364	5
Export	E_INV009_50mm (all)	50	Category 9/E	55.9230188	49.75454531	-2.570825301	9
Export	E_INV009_50mm (all)	50	Category 9/E	52.20902931	42.19040234	-1.775587932	12.61710051
Export	E_INV009_50mm (all)	50	Category 9/E	44.49006811	23.71226934	-0.241560048	30.003942
Export	E_INV009_50mm (all)	50	Category 9/E	64.82253089	65.94462065	-4.756096963	4.7
Export	E_INV009_50mm (all)	50	Category 8/E	71.36027251	66.28109421	-1.466014474	5
Export	E_INV009_50mm (all)	50	Category 8/E	64.18324201	48.93347056	-0.394096717	9
Export	E_INV009_50mm (all)	50	Category 8/E	60.74657971	39.60614717	0.092753042	12.61710051
Export	E_INV009_50mm (all)	50	Category 8/E	53.31588199	18.86481667	1.125944098	30.003942
Export	E_INV009_50mm (all)	50	Category 8/E	72.22385368	68.22943393	-1.600391469	4.7
Export	E_INV009_50mm (all)	50	Category 7/E	64.72580318	65.86875255	-4.646183503	5
Export	E_INV009_50mm (all)	50	Category 7/E	56.54488972	51.03186114	-2.656616062	9
Export	E_INV009_50mm (all)	50	Category 7/E	52.72897878	43.35302143	-1.842034403	12.61710051
Export	E_INV009_50mm (all)	50	Category 7/E	44.84080293	10.77896308	-0.278237765	30.003942
Export	E_INV009_50mm (all)	50	Category 7/E	65.73250887	67.65934804	-4.928115173	4.7
Export	E_INV009_50mm (all)	50	Category 6/E	64.72580318	65.86875255	-4.646183503	5
Export	E_INV009_50mm (all)	50	Category 6/E	56.54488972	51.03186114	-2.656616062	9
Export	E_INV009_50mm (all)	50	Category 6/E	52.72897878	43.35302143	-1.842034403	12.61710051
Export	E_INV009_50mm (all)	50	Category 6/E	44.84080293	10.77896308	-0.278237765	30.003942
Export	E_INV009_50mm (all)	50	Category 6/E	65.73250887	67.65934804	-4.928115173	4.7
Export	E_INV009_50mm (all)	50	Category 5/E	61.3863591	65.40635651	-6.728253247	5
Export	E_INV009_50mm (all)	50	Category 5/E	52.81171361	50.38626372	-4.001208583	9
Export	E_INV009_50mm (all)	50	Category 5/E	48.89844105	43.37046819	-2.975345954	12.61710051
Export	E_INV009_50mm (all)	50	Category 5/E	41.00125341	26.79365726	-1.118401043	30.003942
Export	E_INV009_50mm (all)	50	Category 5/E	62.46878224	67.32691739	-7.148101742	4.7
Export	E_INV009_50mm (all)	50	Category 4/E	71.36027251	66.28109421	-1.466014474	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV009_50mm (all)	50	Category 4/E	64.18324201	48.93347056	-0.394096717	9
Export	E_INV009_50mm (all)	50	Category 4/E	60.74657971	39.60614717	0.092753042	12.61710051
Export	E_INV009_50mm (all)	50	Category 4/E	53.31588199	18.86481667	1.125944098	30.003942
Export	E_INV009_50mm (all)	50	Category 4/E	72.22385368	68.22943393	-1.600391469	4.7
Export	E_INV009_50mm (all)	50	Category 3/E	60.45921203	63.62866813	-6.486468234	5
Export	E_INV009_50mm (all)	50	Category 3/E	52.17287791	49.21034945	-3.887220123	9
Export	E_INV009_50mm (all)	50	Category 3/E	48.37042138	42.32463117	-2.8913539	12.61710051
Export	E_INV009_50mm (all)	50	Category 3/E	40.65607401	25.92715576	-1.072791437	30.003942
Export	E_INV009_50mm (all)	50	Category 3/E	61.49985267	65.4886885	-6.879526698	4.7
Export	E_INV009_50mm (all)	50	Category 2/E	63.84915169	64.26486021	-4.488899364	5
Export	E_INV009_50mm (all)	50	Category 2/E	55.9230188	49.75454531	-2.570825301	9
Export	E_INV009_50mm (all)	50	Category 2/E	52.20902931	42.19040234	-1.775587932	12.61710051
Export	E_INV009_50mm (all)	50	Category 2/E	44.49006811	23.71226934	-0.241560048	30.003942
Export	E_INV009_50mm (all)	50	Category 2/E	64.82253089	65.94462065	-4.756096963	4.7
Export	E_INV009_50mm (all)	50	Category 1/E	72.14114992	68.18295069	-1.542917418	5
Export	E_INV009_50mm (all)	50	Category 1/E	64.75155163	50.50708246	-0.442812651	9
Export	E_INV009_50mm (all)	50	Category 1/E	61.22622898	41.03881389	0.053828075	12.61710051
Export	E_INV009_50mm (all)	50	Category 1/E	53.66663101	19.65233264	1.091471231	30.003942
Export	E_INV009_50mm (all)	50	Category 1/E	73.03374185	70.1786345	-1.684562641	4.7
Export	E_INV009_610mm (1hr)	610	Category 12/E	74.47892309	81.2988555	-6.862788297	5
Export	E_INV009_610mm (1hr)	610	Category 12/E	65.31289137	62.36362554	-4.330746757	9
Export	E_INV009_610mm (1hr)	610	Category 12/E	61.06586686	52.89172541	-3.284268585	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 12/E	52.48832463	31.14958363	-1.324642901	30.003942
Export	E_INV009_610mm (1hr)	610	Category 12/E	75.60965787	83.53509029	-7.213039989	4.7
Export	E_INV009_610mm (1hr)	610	Category 11/E	75.8707913	84.00382016	-7.115275372	5
Export	E_INV009_610mm (1hr)	610	Category 11/E	66.34847795	64.42915459	-4.474832149	9
Export	E_INV009_610mm (1hr)	610	Category 11/E	61.9541223	54.70655166	-3.397274959	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 11/E	53.11966636	32.49129342	-1.391334846	30.003942
Export	E_INV009_610mm (1hr)	610	Category 11/E	77.04891786	86.32506749	-7.48382502	4.7
Export	E_INV009_610mm (1hr)	610	Category 10/E	86.66483902	73.43759397	-8.601041065	5
Export	E_INV009_610mm (1hr)	610	Category 10/E	76.83194666	52.71350584	-5.522928636	9
Export	E_INV009_610mm (1hr)	610	Category 10/E	71.9249091	41.24725497	-4.005868163	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 10/E	59.73142827	18.46326109	-0.456009984	30.003942
Export	E_INV009_610mm (1hr)	610	Category 10/E	87.82765666	75.71864144	-8.967178051	4.7
Export	E_INV009_610mm (1hr)	610	Category 9/E	76.0405487	75.40302515	-6.186018253	5
Export	E_INV009_610mm (1hr)	610	Category 9/E	67.18543341	57.36227535	-3.996096907	9
Export	E_INV009_610mm (1hr)	610	Category 9/E	62.99423956	47.91545436	-3.023245882	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 9/E	54.13594949	25.45198096	-0.996536448	30.003942
Export	E_INV009_610mm (1hr)	610	Category 9/E	77.11891732	77.47720893	-6.476113724	4.7
Export	E_INV009_610mm (1hr)	610	Category 8/E	84.95362278	70.65069708	-8.277080387	5
Export	E_INV009_610mm (1hr)	610	Category 8/E	75.4455102	50.37947578	-5.288651676	9
Export	E_INV009_610mm (1hr)	610	Category 8/E	70.68139908	39.43135591	-3.81096078	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 8/E	58.51826601	17.72047137	-0.274361921	30.003942
Export	E_INV009_610mm (1hr)	610	Category 8/E	86.07398728	72.86464309	-8.632419943	4.7
Export	E_INV009_610mm (1hr)	610	Category 7/E	77.53187008	78.0107971	-6.407490502	5
Export	E_INV009_610mm (1hr)	610	Category 7/E	68.33783169	59.44354191	-4.139219131	9
Export	E_INV009_610mm (1hr)	610	Category 7/E	64.00080846	49.77651916	-3.140568048	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 7/E	54.8991464	25.8222216	-1.069520581	30.003942
Export	E_INV009_610mm (1hr)	610	Category 7/E	78.65683792	80.15831904	-6.713968837	4.7
Export	E_INV009_610mm (1hr)	610	Category 6/E	80.41740603	81.10762605	-6.722852644	5
Export	E_INV009_610mm (1hr)	610	Category 6/E	70.87169348	61.84399023	-4.37642136	9
Export	E_INV009_610mm (1hr)	610	Category 6/E	66.36706814	51.82539254	-3.336771001	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 6/E	56.91829702	27.95737208	-1.173873732	30.003942
Export	E_INV009_610mm (1hr)	610	Category 6/E	81.58552999	83.33701947	-7.039943489	4.7
Export	E_INV009_610mm (1hr)	610	Category 5/E	79.95173032	88.81677857	-7.582622258	5
Export	E_INV009_610mm (1hr)	610	Category 5/E	69.8973223	68.15848594	-4.802250279	9
Export	E_INV009_610mm (1hr)	610	Category 5/E	65.25991395	57.90981716	-3.671513471	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 5/E	55.93959288	34.53282356	-1.561818027	30.003942
Export	E_INV009_610mm (1hr)	610	Category 5/E	81.19732445	91.29078409	-7.973996767	4.7
Export	E_INV009_610mm (1hr)	610	Category 4/E	83.41437066	69.26789628	-8.067155946	5
Export	E_INV009_610mm (1hr)	610	Category 4/E	74.08583149	49.34844989	-5.144905886	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV009_610mm (1hr)	610	Category 4/E	69.40945807	38.7630638	-3.699641507	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 4/E	57.43099677	17.32175113	-0.232658649	30.003942
Export	E_INV009_610mm (1hr)	610	Category 4/E	84.51350966	71.44233601	-8.414825656	4.7
Export	E_INV009_610mm (1hr)	610	Category 3/E	78.19742438	85.61097193	-7.284873973	5
Export	E_INV009_610mm (1hr)	610	Category 3/E	68.55702613	65.70894916	-4.626085662	9
Export	E_INV009_610mm (1hr)	610	Category 3/E	64.09349911	55.76447578	-3.533684367	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 3/E	55.07941916	32.96683	-1.478676111	30.003942
Export	E_INV009_610mm (1hr)	610	Category 3/E	79.38506706	87.9628486	-7.649381568	4.7
Export	E_INV009_610mm (1hr)	610	Category 2/E	78.92428947	78.44753951	-6.496769736	5
Export	E_INV009_610mm (1hr)	610	Category 2/E	69.72619073	59.72175919	-4.230844598	9
Export	E_INV009_610mm (1hr)	610	Category 2/E	65.36810416	49.92650784	-3.21282857	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 2/E	56.16867385	26.63647489	-1.098149028	30.003942
Export	E_INV009_610mm (1hr)	610	Category 2/E	80.04519737	80.60277496	-6.798263655	4.7
Export	E_INV009_610mm (1hr)	610	Category 1/E	85.11872223	72.02095647	-8.386742871	5
Export	E_INV009_610mm (1hr)	610	Category 1/E	75.46949176	51.65244245	-5.375760048	9
Export	E_INV009_610mm (1hr)	610	Category 1/E	70.65350935	40.38066599	-3.891276257	12.61710051
Export	E_INV009_610mm (1hr)	610	Category 1/E	58.64710324	18.05234216	-0.411126402	30.003942
Export	E_INV009_610mm (1hr)	610	Category 1/E	86.25967252	74.2621413	-8.744964306	4.7
Export	E_INV009_610mm (2min)	610	Category 10/E	86.66483902	73.43759397	-8.601041065	5
Export	E_INV009_610mm (2min)	610	Category 10/E	76.83194666	52.71350584	-5.522928636	9
Export	E_INV009_610mm (2min)	610	Category 10/E	71.9249091	41.24725497	-4.005868163	12.61710051
Export	E_INV009_610mm (2min)	610	Category 10/E	59.73142827	18.46326109	-0.456009984	30.003942
Export	E_INV009_610mm (2min)	610	Category 10/E	87.82765666	75.71864144	-8.967178051	4.7
Export	E_INV009_610mm (2min)	610	Category 8/E	84.95362278	70.65069708	-8.277080387	5
Export	E_INV009_610mm (2min)	610	Category 8/E	75.4455102	50.37947578	-5.288651676	9
Export	E_INV009_610mm (2min)	610	Category 8/E	70.68139908	39.43135591	-3.81096078	12.61710051
Export	E_INV009_610mm (2min)	610	Category 8/E	58.51826601	17.72047137	-0.274361921	30.003942
Export	E_INV009_610mm (2min)	610	Category 8/E	86.07398728	72.86464309	-8.632419943	4.7
Export	E_INV009_610mm (2min)	610	Category 7/E	77.53187008	78.0107971	-6.407490502	5
Export	E_INV009_610mm (2min)	610	Category 7/E	68.33783169	59.44354191	-4.139219131	9
Export	E_INV009_610mm (2min)	610	Category 7/E	64.00080846	49.77651916	-3.140568048	12.61710051
Export	E_INV009_610mm (2min)	610	Category 7/E	54.8991464	25.8222216	-1.069520581	30.003942
Export	E_INV009_610mm (2min)	610	Category 7/E	78.65683792	80.15831904	-6.713968837	4.7
Export	E_INV009_610mm (2min)	610	Category 6/E	80.41740603	81.10762605	-6.722852644	5
Export	E_INV009_610mm (2min)	610	Category 6/E	70.87169348	61.84399023	-4.37642136	9
Export	E_INV009_610mm (2min)	610	Category 6/E	66.36706814	51.82539254	-3.336771001	12.61710051
Export	E_INV009_610mm (2min)	610	Category 6/E	56.91829702	27.95737208	-1.173873732	30.003942
Export	E_INV009_610mm (2min)	610	Category 6/E	81.58552999	83.33701947	-7.039943489	4.7
Export	E_INV009_610mm (2min)	610	Category 5/E	79.95173032	88.81677857	-7.582622258	5
Export	E_INV009_610mm (2min)	610	Category 5/E	69.8973223	68.15848594	-4.802250279	9
Export	E_INV009_610mm (2min)	610	Category 5/E	65.25991395	57.90981716	-3.671513471	12.61710051
Export	E_INV009_610mm (2min)	610	Category 5/E	55.93959288	34.53282356	-1.561818027	30.003942
Export	E_INV009_610mm (2min)	610	Category 5/E	81.19732445	91.29078409	-7.973996767	4.7
Export	E_INV009_610mm (2min)	610	Category 4/E	83.41437066	69.26789628	-8.067155946	5
Export	E_INV009_610mm (2min)	610	Category 4/E	74.08583149	49.34844989	-5.144905886	9
Export	E_INV009_610mm (2min)	610	Category 4/E	69.40945807	38.7630638	-3.699641507	12.61710051
Export	E_INV009_610mm (2min)	610	Category 4/E	57.43099677	17.32175113	-0.232658649	30.003942
Export	E_INV009_610mm (2min)	610	Category 4/E	84.51350966	71.44233601	-8.414825656	4.7
Export	E_INV009_610mm (2min)	610	Category 3/E	78.19742438	85.61097193	-7.284873973	5
Export	E_INV009_610mm (2min)	610	Category 3/E	68.55702613	65.70894916	-4.626085662	9
Export	E_INV009_610mm (2min)	610	Category 3/E	64.09349911	55.76447578	-3.533684367	12.61710051
Export	E_INV009_610mm (2min)	610	Category 3/E	55.07941916	32.96683	-1.478676111	30.003942
Export	E_INV009_610mm (2min)	610	Category 3/E	79.38506706	87.9628486	-7.649381568	4.7
Export	E_INV009_610mm (2min)	610	Category 2/E	78.92428947	78.44753951	-6.496769736	5
Export	E_INV009_610mm (2min)	610	Category 2/E	69.72619073	59.72175919	-4.230844598	9
Export	E_INV009_610mm (2min)	610	Category 2/E	65.36810416	49.92650784	-3.21282857	12.61710051
Export	E_INV009_610mm (2min)	610	Category 2/E	56.16867385	26.63647489	-1.098149028	30.003942
Export	E_INV009_610mm (2min)	610	Category 2/E	80.04519737	80.60277496	-6.798263655	4.7
Export	E_INV009_610mm (2min)	610	Category 1/E	85.11872223	72.02095647	-8.386742871	5
Export	E_INV009_610mm (2min)	610	Category 1/E	75.46949176	51.65244245	-5.375760048	9
Export	E_INV009_610mm (2min)	610	Category 1/E	70.65350935	40.38066599	-3.891276257	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV009_610mm (2min)	610	Category 1/E	58.64710324	18.05234216	-0.411126402	30.003942
Export	E_INV009_610mm (2min)	610	Category 1/E	86.25967252	74.2621413	-8.744964306	4.7
Export	E_INV009_203mm (1hr)	203	Category 12/E	212.1456703	236.4999302	-29.69871832	5
Export	E_INV009_203mm (1hr)	203	Category 12/E	182.0474919	182.0030177	-19.6776587	9
Export	E_INV009_203mm (1hr)	203	Category 12/E	168.3901143	157.9267822	-16.04307981	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 12/E	140.6779162	103.3129844	-8.757035324	30.003942
Export	E_INV009_203mm (1hr)	203	Category 12/E	216.3742295	243.3983166	-32.0959882	4.7
Export	E_INV009_203mm (1hr)	203	Category 11/E	217.2304155	245.7043048	-31.75300335	5
Export	E_INV009_203mm (1hr)	203	Category 11/E	185.2606444	187.8177558	-20.25532107	9
Export	E_INV009_203mm (1hr)	203	Category 11/E	171.0652315	163.0055627	-16.52336012	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 11/E	142.4014043	107.2758542	-9.058958351	30.003942
Export	E_INV009_203mm (1hr)	203	Category 11/E	222.6578299	253.4097872	-36.26134436	4.7
Export	E_INV009_203mm (1hr)	203	Category 10/E	248.0983007	254.4282748	-8.188121381	5
Export	E_INV009_203mm (1hr)	203	Category 10/E	221.5555268	194.0261844	-4.792460268	9
Export	E_INV009_203mm (1hr)	203	Category 10/E	208.9605445	162.5263276	-3.210896085	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 10/E	182.8098354	88.38839978	0.011858068	30.003942
Export	E_INV009_203mm (1hr)	203	Category 10/E	251.3180386	261.371997	-8.641051022	4.7
Export	E_INV009_203mm (1hr)	203	Category 9/E	221.957072	237.6313229	-20.84981534	5
Export	E_INV009_203mm (1hr)	203	Category 9/E	193.6792965	184.8434856	-14.28876395	9
Export	E_INV009_203mm (1hr)	203	Category 9/E	180.3796094	159.1461826	-11.38760937	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 9/E	153.085962	98.62067916	-5.52588124	30.003942
Export	E_INV009_203mm (1hr)	203	Category 9/E	225.4867507	244.414227	-21.88357647	4.7
Export	E_INV009_203mm (1hr)	203	Category 8/E	244.1765885	245.2158901	-7.837647872	5
Export	E_INV009_203mm (1hr)	203	Category 8/E	218.7112214	186.6271529	-4.555589368	9
Export	E_INV009_203mm (1hr)	203	Category 8/E	206.5723158	155.8747402	-3.01414714	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 8/E	181.1929911	80.470344	0.136332692	30.003942
Export	E_INV009_203mm (1hr)	203	Category 8/E	247.2553091	251.910195	-8.269190212	4.7
Export	E_INV009_203mm (1hr)	203	Category 7/E	226.3991606	246.8158441	-21.70096487	5
Export	E_INV009_203mm (1hr)	203	Category 7/E	196.8113075	191.0280395	-14.74151096	9
Export	E_INV009_203mm (1hr)	203	Category 7/E	182.9964066	164.6325971	-11.76351248	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 7/E	154.814415	103.0489578	-5.764518288	30.003942
Export	E_INV009_203mm (1hr)	203	Category 7/E	230.1296185	253.9049623	-22.85346092	4.7
Export	E_INV009_203mm (1hr)	203	Category 6/E	226.3991606	246.8158441	-21.70096487	5
Export	E_INV009_203mm (1hr)	203	Category 6/E	196.8113075	191.0280395	-14.74151096	9
Export	E_INV009_203mm (1hr)	203	Category 6/E	182.9964066	164.6325971	-11.76351248	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 6/E	154.814415	103.0489578	-5.764518288	30.003942
Export	E_INV009_203mm (1hr)	203	Category 6/E	230.1296185	253.9049623	-22.85346092	4.7
Export	E_INV009_203mm (1hr)	203	Category 5/E	217.2304155	245.7043048	-31.75300335	5
Export	E_INV009_203mm (1hr)	203	Category 5/E	185.2606444	187.8177558	-20.25532107	9
Export	E_INV009_203mm (1hr)	203	Category 5/E	171.0652315	163.0055627	-16.52336012	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 5/E	142.4014043	107.2758542	-9.058958351	30.003942
Export	E_INV009_203mm (1hr)	203	Category 5/E	222.6578299	253.4097872	-36.26134436	4.7
Export	E_INV009_203mm (1hr)	203	Category 4/E	244.1765885	245.2158901	-7.837647872	5
Export	E_INV009_203mm (1hr)	203	Category 4/E	218.7112214	186.6271529	-4.555589368	9
Export	E_INV009_203mm (1hr)	203	Category 4/E	206.5723158	155.8747402	-3.01414714	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 4/E	181.1929911	80.470344	0.136332692	30.003942
Export	E_INV009_203mm (1hr)	203	Category 4/E	247.2553091	251.910195	-8.269190212	4.7
Export	E_INV009_203mm (1hr)	203	Category 3/E	212.1456703	236.4999302	-29.69871832	5
Export	E_INV009_203mm (1hr)	203	Category 3/E	182.0474919	182.0030177	-19.6776587	9
Export	E_INV009_203mm (1hr)	203	Category 3/E	168.3901143	157.9267822	-16.04307981	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 3/E	140.6779162	103.3129844	-8.757035324	30.003942
Export	E_INV009_203mm (1hr)	203	Category 3/E	216.3742295	243.3983166	-32.0959882	4.7
Export	E_INV009_203mm (1hr)	203	Category 2/E	221.957072	237.6313229	-20.84981534	5
Export	E_INV009_203mm (1hr)	203	Category 2/E	193.6792965	184.8434856	-14.28876395	9
Export	E_INV009_203mm (1hr)	203	Category 2/E	180.3796094	159.1461826	-11.38760937	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 2/E	153.085962	98.62067916	-5.52588124	30.003942
Export	E_INV009_203mm (1hr)	203	Category 2/E	225.4867507	244.414227	-21.88357647	4.7
Export	E_INV009_203mm (1hr)	203	Category 1/E	248.0983007	254.4282748	-8.188121381	5
Export	E_INV009_203mm (1hr)	203	Category 1/E	221.5555268	194.0261844	-4.792460268	9
Export	E_INV009_203mm (1hr)	203	Category 1/E	208.9605445	162.5263276	-3.210896085	12.61710051
Export	E_INV009_203mm (1hr)	203	Category 1/E	182.8098354	88.38839978	0.011858068	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV009_203mm (1hr)	203	Category 1/E	251.3180386	261.371997	-8.641051022	4.7
Export	E_INV009_203mm (2min)	203	Category 12/E	212.1456703	236.4999302	-29.69871832	5
Export	E_INV009_203mm (2min)	203	Category 12/E	182.0474919	182.0030177	-19.6776587	9
Export	E_INV009_203mm (2min)	203	Category 12/E	168.3901143	157.9267822	-16.04307981	12.61710051
Export	E_INV009_203mm (2min)	203	Category 12/E	140.6779162	103.3129844	-8.757035324	30.003942
Export	E_INV009_203mm (2min)	203	Category 12/E	216.3742295	243.3983166	-32.0959882	4.7
Export	E_INV009_203mm (2min)	203	Category 11/E	217.2304155	245.7043048	-31.75300335	5
Export	E_INV009_203mm (2min)	203	Category 11/E	185.2606444	187.8177558	-20.25532107	9
Export	E_INV009_203mm (2min)	203	Category 11/E	171.0652315	163.0055627	-16.52336012	12.61710051
Export	E_INV009_203mm (2min)	203	Category 11/E	142.4014043	107.2758542	-9.058958351	30.003942
Export	E_INV009_203mm (2min)	203	Category 11/E	222.6578299	253.4097872	-36.26134436	4.7
Export	E_INV009_203mm (2min)	203	Category 10/E	248.0983007	254.4282748	-8.188121381	5
Export	E_INV009_203mm (2min)	203	Category 10/E	221.5555268	194.0261844	-4.792460268	9
Export	E_INV009_203mm (2min)	203	Category 10/E	208.9605445	162.5263276	-3.210896085	12.61710051
Export	E_INV009_203mm (2min)	203	Category 10/E	182.8098354	88.38839978	0.011858068	30.003942
Export	E_INV009_203mm (2min)	203	Category 10/E	251.3180386	261.371997	-8.641051022	4.7
Export	E_INV009_203mm (2min)	203	Category 9/E	221.957072	237.6313229	-20.84981534	5
Export	E_INV009_203mm (2min)	203	Category 9/E	193.6792965	184.8434856	-14.28876395	9
Export	E_INV009_203mm (2min)	203	Category 9/E	180.3796094	159.1461826	-11.38760937	12.61710051
Export	E_INV009_203mm (2min)	203	Category 9/E	153.085962	98.62067916	-5.52588124	30.003942
Export	E_INV009_203mm (2min)	203	Category 9/E	225.4867507	244.414227	-21.88357647	4.7
Export	E_INV009_203mm (2min)	203	Category 8/E	244.1765885	245.2158901	-7.837647872	5
Export	E_INV009_203mm (2min)	203	Category 8/E	218.7112214	186.6271529	-4.555589368	9
Export	E_INV009_203mm (2min)	203	Category 8/E	206.5723158	155.8747402	-3.01414714	12.61710051
Export	E_INV009_203mm (2min)	203	Category 8/E	181.1929911	80.470344	0.136332692	30.003942
Export	E_INV009_203mm (2min)	203	Category 8/E	247.2553091	251.910195	-8.269190212	4.7
Export	E_INV009_203mm (2min)	203	Category 7/E	226.3991606	246.8158441	-21.70096487	5
Export	E_INV009_203mm (2min)	203	Category 7/E	196.8113075	191.0280395	-14.74151096	9
Export	E_INV009_203mm (2min)	203	Category 7/E	182.9964066	164.6325971	-11.76351248	12.61710051
Export	E_INV009_203mm (2min)	203	Category 7/E	154.814415	103.0489578	-5.764518288	30.003942
Export	E_INV009_203mm (2min)	203	Category 7/E	230.1296185	253.9049623	-22.85346092	4.7
Export	E_INV009_203mm (2min)	203	Category 6/E	226.3991606	246.8158441	-21.70096487	5
Export	E_INV009_203mm (2min)	203	Category 6/E	196.8113075	191.0280395	-14.74151096	9
Export	E_INV009_203mm (2min)	203	Category 6/E	182.9964066	164.6325971	-11.76351248	12.61710051
Export	E_INV009_203mm (2min)	203	Category 6/E	154.814415	103.0489578	-5.764518288	30.003942
Export	E_INV009_203mm (2min)	203	Category 6/E	230.1296185	253.9049623	-22.85346092	4.7
Export	E_INV009_203mm (2min)	203	Category 5/E	217.2304155	245.7043048	-31.75300335	5
Export	E_INV009_203mm (2min)	203	Category 5/E	185.2606444	187.8177558	-20.25532107	9
Export	E_INV009_203mm (2min)	203	Category 5/E	171.0652315	163.0055627	-16.52336012	12.61710051
Export	E_INV009_203mm (2min)	203	Category 5/E	142.4014043	107.2758542	-9.058958351	30.003942
Export	E_INV009_203mm (2min)	203	Category 5/E	222.6578299	253.4097872	-36.26134436	4.7
Export	E_INV009_203mm (2min)	203	Category 4/E	244.1765885	245.2158901	-7.837647872	5
Export	E_INV009_203mm (2min)	203	Category 4/E	218.7112214	186.6271529	-4.555589368	9
Export	E_INV009_203mm (2min)	203	Category 4/E	206.5723158	155.8747402	-3.01414714	12.61710051
Export	E_INV009_203mm (2min)	203	Category 4/E	181.1929911	80.470344	0.136332692	30.003942
Export	E_INV009_203mm (2min)	203	Category 4/E	247.2553091	251.910195	-8.269190212	4.7
Export	E_INV009_203mm (2min)	203	Category 3/E	212.1456703	236.4999302	-29.69871832	5
Export	E_INV009_203mm (2min)	203	Category 3/E	182.0474919	182.0030177	-19.6776587	9
Export	E_INV009_203mm (2min)	203	Category 3/E	168.3901143	157.9267822	-16.04307981	12.61710051
Export	E_INV009_203mm (2min)	203	Category 3/E	140.6779162	103.3129844	-8.757035324	30.003942
Export	E_INV009_203mm (2min)	203	Category 3/E	216.3742295	243.3983166	-32.0959882	4.7
Export	E_INV009_203mm (2min)	203	Category 2/E	221.957072	237.6313229	-20.84981534	5
Export	E_INV009_203mm (2min)	203	Category 2/E	193.6792965	184.8434856	-14.28876395	9
Export	E_INV009_203mm (2min)	203	Category 2/E	180.3796094	159.1461826	-11.38760937	12.61710051
Export	E_INV009_203mm (2min)	203	Category 2/E	153.085962	98.62067916	-5.52588124	30.003942
Export	E_INV009_203mm (2min)	203	Category 2/E	225.4867507	244.414227	-21.88357647	4.7
Export	E_INV009_203mm (2min)	203	Category 1/E	248.0983007	254.4282748	-8.188121381	5
Export	E_INV009_203mm (2min)	203	Category 1/E	221.5555268	194.0261844	-4.792460268	9
Export	E_INV009_203mm (2min)	203	Category 1/E	208.9605445	162.5263276	-3.210896085	12.61710051
Export	E_INV009_203mm (2min)	203	Category 1/E	182.8098354	88.38839978	0.011858068	30.003942
Export	E_INV009_203mm (2min)	203	Category 1/E	251.3180386	261.371997	-8.641051022	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV010_25mm (all)	25	Category 12/E	27.35187033	27.25587104	-2.878281502	5
Export	E_INV010_25mm (all)	25	Category 12/E	23.68701703	21.02505498	-1.609177317	9
Export	E_INV010_25mm (all)	25	Category 12/E	21.9754363	17.81405804	-1.069842054	12.61710051
Export	E_INV010_25mm (all)	25	Category 12/E	18.4024537	9.977180035	0.007967673	30.003942
Export	E_INV010_25mm (all)	25	Category 12/E	27.80371014	27.98192654	-3.051658069	4.7
Export	E_INV010_25mm (all)	25	Category 11/E	27.67878866	27.81084028	-2.969466112	5
Export	E_INV010_25mm (all)	25	Category 11/E	23.9168379	21.46442479	-1.658327533	9
Export	E_INV010_25mm (all)	25	Category 11/E	22.16565968	18.20944269	-1.107727394	12.61710051
Export	E_INV010_25mm (all)	25	Category 11/E	18.53145501	10.29448218	-0.012088129	30.003942
Export	E_INV010_25mm (all)	25	Category 11/E	28.14340115	28.57123196	-3.149106363	4.7
Export	E_INV010_25mm (all)	25	Category 10/E	33.37398955	28.64485361	-0.813323035	5
Export	E_INV010_25mm (all)	25	Category 10/E	29.89933803	20.48602638	-0.072380281	9
Export	E_INV010_25mm (all)	25	Category 10/E	28.14087787	16.01453161	0.400844587	12.61710051
Export	E_INV010_25mm (all)	25	Category 10/E	23.93608979	6.977171215	1.699015771	30.003942
Export	E_INV010_25mm (all)	25	Category 10/E	33.78831999	29.55019792	-0.904589243	4.7
Export	E_INV010_25mm (all)	25	Category 9/E	29.26311389	27.61141998	-2.194902401	5
Export	E_INV010_25mm (all)	25	Category 9/E	24.63662929	20.84941512	0.86763654	9
Export	E_INV010_25mm (all)	25	Category 9/E	23.14625457	17.45414604	0.86763654	12.61710051
Export	E_INV010_25mm (all)	25	Category 9/E	19.88072846	8.772962786	0.86763654	30.003942
Export	E_INV010_25mm (all)	25	Category 9/E	29.70258329	28.36115427	-2.332024572	4.7
Export	E_INV010_25mm (all)	25	Category 8/E	33.08076013	27.955668	-0.773616208	5
Export	E_INV010_25mm (all)	25	Category 8/E	29.68128132	19.89599351	-0.040432729	9
Export	E_INV010_25mm (all)	25	Category 8/E	27.93701615	15.49249911	0.455547121	12.61710051
Export	E_INV010_25mm (all)	25	Category 8/E	23.76210495	6.77851498	1.745433095	30.003942
Export	E_INV010_25mm (all)	25	Category 8/E	33.48735585	28.84461578	-0.864159844	4.7
Export	E_INV010_25mm (all)	25	Category 7/E	29.58202167	28.18541909	-2.26308902	5
Export	E_INV010_25mm (all)	25	Category 7/E	25.86216972	21.46403185	-1.165873185	9
Export	E_INV010_25mm (all)	25	Category 7/E	24.09589075	17.86004131	-0.679013952	12.61710051
Export	E_INV010_25mm (all)	25	Category 7/E	20.18193861	9.019614721	0.525263255	30.003942
Export	E_INV010_25mm (all)	25	Category 7/E	30.03418386	28.95215972	-2.405470853	4.7
Export	E_INV010_25mm (all)	25	Category 6/E	29.58202167	28.18541909	-2.26308902	5
Export	E_INV010_25mm (all)	25	Category 6/E	25.86216972	21.46403185	-1.165873185	9
Export	E_INV010_25mm (all)	25	Category 6/E	24.09589075	17.86004131	-0.679013952	12.61710051
Export	E_INV010_25mm (all)	25	Category 6/E	20.18193861	9.019614721	0.525263255	30.003942
Export	E_INV010_25mm (all)	25	Category 6/E	30.03418386	28.95215972	-2.405470853	4.7
Export	E_INV010_25mm (all)	25	Category 5/E	27.67878866	27.81084028	-2.969466112	5
Export	E_INV010_25mm (all)	25	Category 5/E	23.9168379	21.46442479	-1.658327533	9
Export	E_INV010_25mm (all)	25	Category 5/E	22.16565968	18.20944269	-1.107727394	12.61710051
Export	E_INV010_25mm (all)	25	Category 5/E	18.53145501	10.29448218	-0.012088129	30.003942
Export	E_INV010_25mm (all)	25	Category 5/E	28.14340115	28.57123196	-3.149106363	4.7
Export	E_INV010_25mm (all)	25	Category 4/E	33.08076013	27.955668	-0.773616208	5
Export	E_INV010_25mm (all)	25	Category 4/E	29.68128132	19.89599351	-0.040432729	9
Export	E_INV010_25mm (all)	25	Category 4/E	27.93701615	15.49249911	0.455547121	12.61710051
Export	E_INV010_25mm (all)	25	Category 4/E	23.76210495	6.77851498	1.745433095	30.003942
Export	E_INV010_25mm (all)	25	Category 4/E	33.48735585	28.84461578	-0.864159844	4.7
Export	E_INV010_25mm (all)	25	Category 3/E	27.35187033	27.25587104	-2.878281502	5
Export	E_INV010_25mm (all)	25	Category 3/E	23.68701703	21.02505498	-1.609177317	9
Export	E_INV010_25mm (all)	25	Category 3/E	21.9754363	17.81405804	-1.069842054	12.61710051
Export	E_INV010_25mm (all)	25	Category 3/E	18.4024537	9.977180035	0.007967673	30.003942
Export	E_INV010_25mm (all)	25	Category 3/E	27.80371014	27.98192654	-3.051658069	4.7
Export	E_INV010_25mm (all)	25	Category 2/E	29.26311389	27.61141998	-2.194902401	5
Export	E_INV010_25mm (all)	25	Category 2/E	24.63662929	20.84941512	0.86763654	9
Export	E_INV010_25mm (all)	25	Category 2/E	23.14625457	17.45414604	0.86763654	12.61710051
Export	E_INV010_25mm (all)	25	Category 2/E	19.88072846	8.772962786	0.86763654	30.003942
Export	E_INV010_25mm (all)	25	Category 2/E	29.70258329	28.36115427	-2.332024572	4.7
Export	E_INV010_25mm (all)	25	Category 1/E	33.37398955	28.64485361	-0.813323035	5
Export	E_INV010_25mm (all)	25	Category 1/E	29.89933803	20.48602638	-0.072380281	9
Export	E_INV010_25mm (all)	25	Category 1/E	28.14087787	16.01453161	0.400844587	12.61710051
Export	E_INV010_25mm (all)	25	Category 1/E	23.93608979	6.977171215	1.699015771	30.003942
Export	E_INV010_25mm (all)	25	Category 1/E	33.78831999	29.55019792	-0.904589243	4.7
Export	E_INV010_50mm (all)	50	Category 12/E	50.77203033	52.37336685	-5.651560692	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV010_50mm (all)	50	Category 12/E	43.92572606	40.59255686	-3.446487141	9
Export	E_INV010_50mm (all)	50	Category 12/E	40.75861091	34.72295586	-2.558112865	12.61710051
Export	E_INV010_50mm (all)	50	Category 12/E	34.2752516	20.62064751	-0.889253712	30.003942
Export	E_INV010_50mm (all)	50	Category 12/E	51.62228528	53.92872257	-5.962762613	4.7
Export	E_INV010_50mm (all)	50	Category 11/E	51.49498929	53.78970269	-5.835749352	5
Export	E_INV010_50mm (all)	50	Category 11/E	44.42951537	41.54076103	-3.541904157	9
Export	E_INV010_50mm (all)	50	Category 11/E	41.17590796	35.573994	-2.629827815	12.61710051
Export	E_INV010_50mm (all)	50	Category 11/E	34.55028397	21.3224818	-0.928783113	30.003942
Export	E_INV010_50mm (all)	50	Category 11/E	52.37632317	55.39184176	-6.167104545	4.7
Export	E_INV010_50mm (all)	50	Category 10/E	61.58742461	55.70519712	-1.8298235	5
Export	E_INV010_50mm (all)	50	Category 10/E	55.13615326	40.90050575	-0.682743438	9
Export	E_INV010_50mm (all)	50	Category 10/E	52.01571149	32.80860628	-0.139505666	12.61710051
Export	E_INV010_50mm (all)	50	Category 10/E	45.36108963	14.96382424	0.507756631	30.003942
Export	E_INV010_50mm (all)	50	Category 10/E	62.36094326	57.35396356	-1.972687314	4.7
Export	E_INV010_50mm (all)	50	Category 9/E	54.23872025	52.96208118	-4.475336101	5
Export	E_INV010_50mm (all)	50	Category 9/E	47.4811677	40.80002522	-2.66904022	9
Export	E_INV010_50mm (all)	50	Category 9/E	44.29155349	34.35613894	-1.89553774	12.61710051
Export	E_INV010_50mm (all)	50	Category 9/E	37.55569105	18.44128077	-0.403196584	30.003942
Export	E_INV010_50mm (all)	50	Category 9/E	55.06336022	54.35842353	-4.719080361	4.7
Export	E_INV010_50mm (all)	50	Category 8/E	60.94009054	54.21671849	-1.755026885	5
Export	E_INV010_50mm (all)	50	Category 8/E	54.66082353	39.64004393	-0.634220202	9
Export	E_INV010_50mm (all)	50	Category 8/E	51.61144079	31.65302506	-0.100299189	12.61710051
Export	E_INV010_50mm (all)	50	Category 8/E	45.05607132	14.41562475	0.527639759	30.003942
Export	E_INV010_50mm (all)	50	Category 8/E	61.69328828	55.83255073	-1.895292184	4.7
Export	E_INV010_50mm (all)	50	Category 7/E	54.9446924	54.22505498	-4.613081194	5
Export	E_INV010_50mm (all)	50	Category 7/E	47.98576098	41.82325882	-2.747189183	9
Export	E_INV010_50mm (all)	50	Category 7/E	44.71588296	35.29571145	-1.957935698	12.61710051
Export	E_INV010_50mm (all)	50	Category 7/E	37.85058638	19.16341025	-0.43914816	30.003942
Export	E_INV010_50mm (all)	50	Category 7/E	55.79662291	55.65352868	-4.865952531	4.7
Export	E_INV010_50mm (all)	50	Category 6/E	54.9446924	54.22505498	-4.613081194	5
Export	E_INV010_50mm (all)	50	Category 6/E	47.98576098	41.82325882	-2.747189183	9
Export	E_INV010_50mm (all)	50	Category 6/E	44.71588296	35.29571145	-1.957935698	12.61710051
Export	E_INV010_50mm (all)	50	Category 6/E	37.85058638	19.16341025	-0.43914816	30.003942
Export	E_INV010_50mm (all)	50	Category 6/E	55.79662291	55.65352868	-4.865952531	4.7
Export	E_INV010_50mm (all)	50	Category 5/E	51.49498929	53.78970269	-5.835749352	5
Export	E_INV010_50mm (all)	50	Category 5/E	44.42951537	41.54076103	-3.541904157	9
Export	E_INV010_50mm (all)	50	Category 5/E	41.17590796	35.573994	-2.629827815	12.61710051
Export	E_INV010_50mm (all)	50	Category 5/E	34.55028397	21.3224818	-0.928783113	30.003942
Export	E_INV010_50mm (all)	50	Category 5/E	52.37632317	55.39184176	-6.167104545	4.7
Export	E_INV010_50mm (all)	50	Category 4/E	60.94009054	54.21671849	-1.755026885	5
Export	E_INV010_50mm (all)	50	Category 4/E	54.66082353	39.64004393	-0.634220202	9
Export	E_INV010_50mm (all)	50	Category 4/E	51.61144079	31.65302506	-0.100299189	12.61710051
Export	E_INV010_50mm (all)	50	Category 4/E	45.05607132	14.41562475	0.527639759	30.003942
Export	E_INV010_50mm (all)	50	Category 4/E	61.69328828	55.83255073	-1.895292184	4.7
Export	E_INV010_50mm (all)	50	Category 3/E	50.77203033	52.37336685	-5.651560692	5
Export	E_INV010_50mm (all)	50	Category 3/E	43.92572606	40.59255686	-3.446487141	9
Export	E_INV010_50mm (all)	50	Category 3/E	40.75861091	34.72295586	-2.558112865	12.61710051
Export	E_INV010_50mm (all)	50	Category 3/E	34.2752516	20.62064751	-0.889253712	30.003942
Export	E_INV010_50mm (all)	50	Category 3/E	51.62228528	53.92872257	-5.962762613	4.7
Export	E_INV010_50mm (all)	50	Category 2/E	54.23872025	52.96208118	-4.475336101	5
Export	E_INV010_50mm (all)	50	Category 2/E	47.4811677	40.80002522	-2.66904022	9
Export	E_INV010_50mm (all)	50	Category 2/E	44.29155349	34.35613894	-1.89553774	12.61710051
Export	E_INV010_50mm (all)	50	Category 2/E	37.55569105	18.44128077	-0.403196584	30.003942
Export	E_INV010_50mm (all)	50	Category 2/E	55.06336022	54.35842353	-4.719080361	4.7
Export	E_INV010_50mm (all)	50	Category 1/E	61.58742461	55.70519712	-1.8298235	5
Export	E_INV010_50mm (all)	50	Category 1/E	55.13615326	40.90050575	-0.682743438	9
Export	E_INV010_50mm (all)	50	Category 1/E	52.01571149	32.80860628	-0.139505666	12.61710051
Export	E_INV010_50mm (all)	50	Category 1/E	45.36108963	14.96382424	0.507756631	30.003942
Export	E_INV010_50mm (all)	50	Category 1/E	62.36094326	57.35396356	-1.972687314	4.7
Export	E_INV010_914mm (1hr)	914	Category 10/E	128.4844252	112.8891866	-14.10475698	5
Export	E_INV010_914mm (1hr)	914	Category 10/E	113.6129786	82.74192796	-9.337225601	9

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV010_914mm (1hr)	914	Category 10/E	106.2835951	66.14895585	-7.015349359	12.61710051
Export	E_INV010_914mm (1hr)	914	Category 10/E	89.01718785	30.66745503	-1.757606188	30.003942
Export	E_INV010_914mm (1hr)	914	Category 10/E	130.2505287	116.2326743	-14.67603874	4.7
Export	E_INV010_914mm (1hr)	914	Category 8/E	125.6042747	108.286427	-13.53190741	5
Export	E_INV010_914mm (1hr)	914	Category 8/E	111.3033354	78.91492748	-8.92161685	9
Export	E_INV010_914mm (1hr)	914	Category 8/E	104.2112793	62.72607677	-6.665638688	12.61710051
Export	E_INV010_914mm (1hr)	914	Category 8/E	87.22446249	28.95695092	-1.522906316	30.003942
Export	E_INV010_914mm (1hr)	914	Category 8/E	127.2971763	111.5244239	-14.08131003	4.7
Export	E_INV010_914mm (1hr)	914	Category 7/E	113.6267661	116.4043897	-11.48050413	5
Export	E_INV010_914mm (1hr)	914	Category 7/E	99.75832891	89.39005403	-7.896359751	9
Export	E_INV010_914mm (1hr)	914	Category 7/E	93.1744854	75.46443706	-6.205021157	12.61710051
Export	E_INV010_914mm (1hr)	914	Category 7/E	79.45463135	42.82875541	-2.719402789	30.003942
Export	E_INV010_914mm (1hr)	914	Category 7/E	115.306752	119.5342982	-11.92623088	4.7
Export	E_INV010_914mm (1hr)	914	Category 6/E	115.1320116	118.034436	-11.68706746	5
Export	E_INV010_914mm (1hr)	914	Category 6/E	101.0673075	90.65558899	-8.040481046	9
Export	E_INV010_914mm (1hr)	914	Category 6/E	94.39356486	76.54982817	-6.324929244	12.61710051
Export	E_INV010_914mm (1hr)	914	Category 6/E	80.48775386	43.48715268	-2.784052282	30.003942
Export	E_INV010_914mm (1hr)	914	Category 6/E	116.8331554	121.2063521	-12.13556248	4.7
Export	E_INV010_914mm (1hr)	914	Category 5/E	109.8392004	123.7814586	-10.85587639	5
Export	E_INV010_914mm (1hr)	914	Category 5/E	95.65869309	95.20074883	-7.017873447	9
Export	E_INV010_914mm (1hr)	914	Category 5/E	89.16289435	81.36760574	-5.545132975	12.61710051
Export	E_INV010_914mm (1hr)	914	Category 5/E	76.04009462	49.95132942	-2.627695112	30.003942
Export	E_INV010_914mm (1hr)	914	Category 5/E	111.6075809	127.4764543	-11.42102741	4.7
Export	E_INV010_914mm (1hr)	914	Category 4/E	124.6413525	107.3978626	-13.39036072	5
Export	E_INV010_914mm (1hr)	914	Category 4/E	110.4549347	78.24402032	-8.823384353	9
Export	E_INV010_914mm (1hr)	914	Category 4/E	103.4183528	62.17243306	-6.588083817	12.61710051
Export	E_INV010_914mm (1hr)	914	Category 4/E	86.55061538	28.83189313	-1.490640117	30.003942
Export	E_INV010_914mm (1hr)	914	Category 4/E	126.3205916	110.6111695	-13.93456912	4.7
Export	E_INV010_914mm (1hr)	914	Category 3/E	107.4075709	118.918707	-10.41511844	5
Export	E_INV010_914mm (1hr)	914	Category 3/E	93.84132219	91.81308629	-6.77485618	9
Export	E_INV010_914mm (1hr)	914	Category 3/E	87.59641209	78.41089838	-5.35527271	12.61710051
Export	E_INV010_914mm (1hr)	914	Category 3/E	74.91797695	47.74164574	-2.511925127	30.003942
Export	E_INV010_914mm (1hr)	914	Category 3/E	109.0930368	122.4589072	-10.94466797	4.7
Export	E_INV010_914mm (1hr)	914	Category 2/E	112.5733378	113.6829097	-11.27936729	5
Export	E_INV010_914mm (1hr)	914	Category 2/E	99.08107587	87.21824126	-7.750798959	9
Export	E_INV010_914mm (1hr)	914	Category 2/E	92.65161978	73.48508631	-6.078437471	12.61710051
Export	E_INV010_914mm (1hr)	914	Category 2/E	79.18288316	40.78821753	-2.634132098	30.003942
Export	E_INV010_914mm (1hr)	914	Category 2/E	114.1954287	116.7385462	-11.70488263	4.7
Export	E_INV010_914mm (1hr)	914	Category 1/E	127.5184507	111.9795121	-13.96018895	5
Export	E_INV010_914mm (1hr)	914	Category 1/E	112.7643447	82.05267191	-9.236671163	9
Export	E_INV010_914mm (1hr)	914	Category 1/E	105.491607	65.57728423	-6.935965576	12.61710051
Export	E_INV010_914mm (1hr)	914	Category 1/E	88.34552145	30.37680742	-1.723472371	30.003942
Export	E_INV010_914mm (1hr)	914	Category 1/E	129.2706922	115.2979242	-14.52640309	4.7
Export	E_INV010_305mm (1hr)	305	Category 12/E	230.0511356	255.9724689	-35.61175835	5
Export	E_INV010_305mm (1hr)	305	Category 12/E	197.9850931	197.4224593	-25.06288466	9
Export	E_INV010_305mm (1hr)	305	Category 12/E	183.0642499	170.8564861	-20.52723299	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 12/E	152.7495912	110.8989302	-11.41720367	30.003942
Export	E_INV010_305mm (1hr)	305	Category 12/E	234.2248796	263.3106826	-37.4905272	4.7
Export	E_INV010_305mm (1hr)	305	Category 11/E	227.0127412	256.3115252	-35.62824202	5
Export	E_INV010_305mm (1hr)	305	Category 11/E	194.4977601	196.5420149	-24.64453779	9
Export	E_INV010_305mm (1hr)	305	Category 11/E	179.547945	170.1027397	-20.17890853	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 11/E	149.3224978	110.9387423	-11.23664142	30.003942
Export	E_INV010_305mm (1hr)	305	Category 11/E	231.3799583	263.7888227	-37.82284389	4.7
Export	E_INV010_305mm (1hr)	305	Category 10/E	263.6512867	262.7518632	-14.31567604	5
Export	E_INV010_305mm (1hr)	305	Category 10/E	234.5101545	200.4963451	-9.246524099	9
Export	E_INV010_305mm (1hr)	305	Category 10/E	220.6108007	167.7409912	-6.853623317	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 10/E	191.3810876	89.06716711	-1.930431916	30.003942
Export	E_INV010_305mm (1hr)	305	Category 10/E	267.1541172	269.8623968	-14.92691368	4.7
Export	E_INV010_305mm (1hr)	305	Category 9/E	240.747898	252.3063621	-29.75128232	5
Export	E_INV010_305mm (1hr)	305	Category 9/E	209.610736	196.6424064	-21.07944665	9
Export	E_INV010_305mm (1hr)	305	Category 9/E	194.8330538	168.9828421	-17.00233902	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV010_305mm (1hr)	305	Category 9/E	164.3136914	103.6046926	-8.713603201	30.003942
Export	E_INV010_305mm (1hr)	305	Category 9/E	244.4985357	259.5234946	-30.80068505	4.7
Export	E_INV010_305mm (1hr)	305	Category 8/E	268.2146157	262.433005	-14.48284518	5
Export	E_INV010_305mm (1hr)	305	Category 8/E	239.2360347	199.9190779	-9.339096559	9
Export	E_INV010_305mm (1hr)	305	Category 8/E	225.356439	166.794679	-6.911082883	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 8/E	195.9514716	88.50920981	-1.891102521	30.003942
Export	E_INV010_305mm (1hr)	305	Category 8/E	271.6895739	269.528824	-15.10114604	4.7
Export	E_INV010_305mm (1hr)	305	Category 7/E	237.0856262	252.7026148	-29.30987221	5
Export	E_INV010_305mm (1hr)	305	Category 7/E	205.7876904	196.0100716	-20.75516014	9
Export	E_INV010_305mm (1hr)	305	Category 7/E	190.9903199	168.5874694	-16.74200619	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 7/E	160.6051057	104.2441706	-8.609805122	30.003942
Export	E_INV010_305mm (1hr)	305	Category 7/E	240.8987926	259.9676099	-30.41658021	4.7
Export	E_INV010_305mm (1hr)	305	Category 6/E	242.816081	259.1158119	-30.22968157	5
Export	E_INV010_305mm (1hr)	305	Category 6/E	210.728441	200.9650664	-21.42232767	9
Export	E_INV010_305mm (1hr)	305	Category 6/E	195.558007	172.8815544	-17.29006223	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 6/E	164.4169897	107.0615694	-8.91909005	30.003942
Export	E_INV010_305mm (1hr)	305	Category 6/E	246.7230675	259.1158119	-31.36395754	4.7
Export	E_INV010_305mm (1hr)	305	Category 5/E	232.1702283	262.3844014	-36.66139109	5
Export	E_INV010_305mm (1hr)	305	Category 5/E	198.8822597	201.1777027	-25.37176098	9
Export	E_INV010_305mm (1hr)	305	Category 5/E	183.5786653	174.1292161	-20.78135398	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 5/E	152.6432589	113.6589988	-11.59322811	30.003942
Export	E_INV010_305mm (1hr)	305	Category 5/E	236.6580583	270.0443968	-38.94725241	4.7
Export	E_INV010_305mm (1hr)	305	Category 4/E	262.1484573	256.1906662	-14.0229957	5
Export	E_INV010_305mm (1hr)	305	Category 4/E	233.8545762	195.0769988	-9.025723877	9
Export	E_INV010_305mm (1hr)	305	Category 4/E	220.3000714	162.6746474	-6.664038294	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 4/E	191.5696384	86.12651651	-1.781392845	30.003942
Export	E_INV010_305mm (1hr)	305	Category 4/E	265.5410816	263.1248524	-14.62350097	4.7
Export	E_INV010_305mm (1hr)	305	Category 3/E	234.9159209	261.6027452	-36.56436683	5
Export	E_INV010_305mm (1hr)	305	Category 3/E	202.1484933	201.7542829	-25.75147854	9
Export	E_INV010_305mm (1hr)	305	Category 3/E	186.8990718	174.6191605	-21.09851	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 3/E	155.9243957	113.4350282	-11.75511312	30.003942
Export	E_INV010_305mm (1hr)	305	Category 3/E	239.1883255	269.102123	-38.50317819	4.7
Export	E_INV010_305mm (1hr)	305	Category 2/E	246.2570565	258.347487	-30.63577449	5
Export	E_INV010_305mm (1hr)	305	Category 2/E	214.3794856	201.3396466	-21.72093154	9
Export	E_INV010_305mm (1hr)	305	Category 2/E	199.2508311	173.0532794	-17.52925587	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 2/E	168.0155549	106.2579462	-9.010055864	30.003942
Export	E_INV010_305mm (1hr)	305	Category 2/E	250.0971702	265.7315716	-31.71522139	4.7
Export	E_INV010_305mm (1hr)	305	Category 1/E	257.4519479	256.2324765	-13.84316419	5
Export	E_INV010_305mm (1hr)	305	Category 1/E	229.0309029	195.4373015	-8.923792199	9
Export	E_INV010_305mm (1hr)	305	Category 1/E	215.4719471	163.4280006	-6.599314453	12.61710051
Export	E_INV010_305mm (1hr)	305	Category 1/E	186.9428857	87.32023438	-1.814643067	30.003942
Export	E_INV010_305mm (1hr)	305	Category 1/E	260.8681724	263.1745075	-14.43689689	4.7
Export	E_INV010_305mm (2min)	305	Category 12/E	230.0511356	255.9724689	-35.61175835	5
Export	E_INV010_305mm (2min)	305	Category 12/E	197.9850931	197.4224593	-25.06288466	9
Export	E_INV010_305mm (2min)	305	Category 12/E	183.0642499	170.8564861	-20.52723299	12.61710051
Export	E_INV010_305mm (2min)	305	Category 12/E	152.7495912	110.8989302	-11.41720367	30.003942
Export	E_INV010_305mm (2min)	305	Category 12/E	234.2248796	263.3106826	-37.4905272	4.7
Export	E_INV010_305mm (2min)	305	Category 11/E	227.0127412	256.3115252	-35.62824202	5
Export	E_INV010_305mm (2min)	305	Category 11/E	194.4977601	196.5420149	-24.64453779	9
Export	E_INV010_305mm (2min)	305	Category 11/E	179.547945	170.1027397	-20.17890853	12.61710051
Export	E_INV010_305mm (2min)	305	Category 11/E	149.3224978	110.9387423	-11.23664142	30.003942
Export	E_INV010_305mm (2min)	305	Category 11/E	231.3799583	263.7888227	-37.82284389	4.7
Export	E_INV010_305mm (2min)	305	Category 10/E	263.6512867	262.7518632	-14.31567604	5
Export	E_INV010_305mm (2min)	305	Category 10/E	234.5101545	200.4963451	-9.246524099	9
Export	E_INV010_305mm (2min)	305	Category 10/E	220.6108007	167.7409912	-6.853623317	12.61710051
Export	E_INV010_305mm (2min)	305	Category 10/E	191.3810876	89.06716711	-1.930431916	30.003942
Export	E_INV010_305mm (2min)	305	Category 10/E	267.1541172	269.8623968	-14.92691368	4.7
Export	E_INV010_305mm (2min)	305	Category 9/E	240.747898	252.3063621	-29.75128232	5
Export	E_INV010_305mm (2min)	305	Category 9/E	209.610736	196.6424064	-21.07944665	9
Export	E_INV010_305mm (2min)	305	Category 9/E	194.8330538	168.9828421	-17.00233902	12.61710051
Export	E_INV010_305mm (2min)	305	Category 9/E	164.3136914	103.6046926	-8.713603201	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV010_305mm (2min)	305	Category 9/E	244.4985357	259.5234946	-30.80068505	4.7
Export	E_INV010_305mm (2min)	305	Category 8/E	268.2146157	262.433005	-14.48284518	5
Export	E_INV010_305mm (2min)	305	Category 8/E	239.2360347	199.9190779	-9.339096559	9
Export	E_INV010_305mm (2min)	305	Category 8/E	225.356439	166.794679	-6.911082883	12.61710051
Export	E_INV010_305mm (2min)	305	Category 8/E	195.9514716	88.50920981	-1.891102521	30.003942
Export	E_INV010_305mm (2min)	305	Category 8/E	271.6895739	269.528824	-15.10114604	4.7
Export	E_INV010_305mm (2min)	305	Category 7/E	237.0856262	252.7026148	-29.30987221	5
Export	E_INV010_305mm (2min)	305	Category 7/E	205.7876904	196.0100716	-20.75516014	9
Export	E_INV010_305mm (2min)	305	Category 7/E	190.9903199	168.5874694	-16.74200619	12.61710051
Export	E_INV010_305mm (2min)	305	Category 7/E	160.6051057	104.2441706	-8.609805122	30.003942
Export	E_INV010_305mm (2min)	305	Category 7/E	240.8987926	259.9676099	-30.41658021	4.7
Export	E_INV010_305mm (2min)	305	Category 6/E	242.816081	259.1158119	-30.22968157	5
Export	E_INV010_305mm (2min)	305	Category 6/E	210.728441	200.9650664	-21.42232767	9
Export	E_INV010_305mm (2min)	305	Category 6/E	195.558007	172.8815544	-17.29006223	12.61710051
Export	E_INV010_305mm (2min)	305	Category 6/E	164.4169897	107.0615694	-8.91909005	30.003942
Export	E_INV010_305mm (2min)	305	Category 6/E	246.7230675	259.1158119	-31.36395754	4.7
Export	E_INV010_305mm (2min)	305	Category 5/E	232.1702283	262.3844014	-36.66139109	5
Export	E_INV010_305mm (2min)	305	Category 5/E	198.8822597	201.1777027	-25.37176098	9
Export	E_INV010_305mm (2min)	305	Category 5/E	183.5786653	174.1292161	-20.78135398	12.61710051
Export	E_INV010_305mm (2min)	305	Category 5/E	152.6432589	113.6589988	-11.59322811	30.003942
Export	E_INV010_305mm (2min)	305	Category 5/E	236.6580583	270.0443968	-38.94725241	4.7
Export	E_INV010_305mm (2min)	305	Category 4/E	262.1484573	256.1906662	-14.0229957	5
Export	E_INV010_305mm (2min)	305	Category 4/E	233.8545762	195.0769988	-9.025723877	9
Export	E_INV010_305mm (2min)	305	Category 4/E	220.3000714	162.6746474	-6.664038294	12.61710051
Export	E_INV010_305mm (2min)	305	Category 4/E	191.5696384	86.12651651	-1.781392845	30.003942
Export	E_INV010_305mm (2min)	305	Category 4/E	265.5410816	263.1248524	-14.62350097	4.7
Export	E_INV010_305mm (2min)	305	Category 3/E	234.9159209	261.6027452	-36.56436683	5
Export	E_INV010_305mm (2min)	305	Category 3/E	202.1484933	201.7542829	-25.75147854	9
Export	E_INV010_305mm (2min)	305	Category 3/E	186.8990718	174.6191605	-21.09851	12.61710051
Export	E_INV010_305mm (2min)	305	Category 3/E	155.9243957	113.4350282	-11.75511312	30.003942
Export	E_INV010_305mm (2min)	305	Category 3/E	239.1883255	269.102123	-38.50317819	4.7
Export	E_INV010_305mm (2min)	305	Category 2/E	246.2570565	258.347487	-30.63577449	5
Export	E_INV010_305mm (2min)	305	Category 2/E	214.3794856	201.3396466	-21.72093154	9
Export	E_INV010_305mm (2min)	305	Category 2/E	199.2508311	173.0532794	-17.52925587	12.61710051
Export	E_INV010_305mm (2min)	305	Category 2/E	168.0155549	106.2579462	-9.010055864	30.003942
Export	E_INV010_305mm (2min)	305	Category 2/E	250.0971702	265.7315716	-31.71522139	4.7
Export	E_INV010_305mm (2min)	305	Category 1/E	257.4519479	256.2324765	-13.84316419	5
Export	E_INV010_305mm (2min)	305	Category 1/E	229.0309029	195.4373015	-8.923792199	9
Export	E_INV010_305mm (2min)	305	Category 1/E	215.4719471	163.4280006	-6.599314453	12.61710051
Export	E_INV010_305mm (2min)	305	Category 1/E	186.9428857	87.32023438	-1.814643067	30.003942
Export	E_INV010_305mm (2min)	305	Category 1/E	260.8681724	263.1745075	-14.43689689	4.7
Export	E_INV010_914mm (2min)	914	Category 12/E	105.6185328	116.8099216	-10.20040809	5
Export	E_INV010_914mm (2min)	914	Category 12/E	92.28437238	90.18722662	-6.619309471	9
Export	E_INV010_914mm (2min)	914	Category 12/E	86.14740014	77.00890798	-5.22440795	12.61710051
Export	E_INV010_914mm (2min)	914	Category 12/E	73.68826642	46.83480968	-2.43704854	30.003942
Export	E_INV010_914mm (2min)	914	Category 12/E	107.2740314	120.289257	-10.71904454	4.7
Export	E_INV010_914mm (2min)	914	Category 11/E	108.0574231	121.6392257	-10.63714264	5
Export	E_INV010_914mm (2min)	914	Category 11/E	94.11297011	93.5571261	-6.858080923	9
Export	E_INV010_914mm (2min)	914	Category 11/E	87.72712798	79.95071367	-5.413168694	12.61710051
Export	E_INV010_914mm (2min)	914	Category 11/E	74.82800127	49.02917951	-2.552894698	30.003942
Export	E_INV010_914mm (2min)	914	Category 11/E	109.7952419	125.2723642	-11.19127052	4.7
Export	E_INV010_914mm (2min)	914	Category 10/E	128.4844252	112.8891866	-14.10475698	5
Export	E_INV010_914mm (2min)	914	Category 10/E	113.6129786	82.74192796	-9.337225601	9
Export	E_INV010_914mm (2min)	914	Category 10/E	106.2835951	66.14895585	-7.015349359	12.61710051
Export	E_INV010_914mm (2min)	914	Category 10/E	89.01718785	30.66745503	-1.757606188	30.003942
Export	E_INV010_914mm (2min)	914	Category 10/E	130.2505287	116.2326743	-14.67603874	4.7
Export	E_INV010_914mm (2min)	914	Category 8/E	125.6042747	108.286427	-13.53190741	5
Export	E_INV010_914mm (2min)	914	Category 8/E	111.3033354	78.91492748	-8.92161685	9
Export	E_INV010_914mm (2min)	914	Category 8/E	104.2112793	62.72607677	-6.665638688	12.61710051
Export	E_INV010_914mm (2min)	914	Category 8/E	87.22446249	28.95695092	-1.522906316	30.003942
Export	E_INV010_914mm (2min)	914	Category 8/E	127.2971763	111.5244239	-14.08131003	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV010_914mm (2min)	914	Category 7/E	113.6267661	116.4043897	-11.48050413	5
Export	E_INV010_914mm (2min)	914	Category 7/E	99.75832891	89.39005403	-7.896359751	9
Export	E_INV010_914mm (2min)	914	Category 7/E	93.1744854	75.46443706	-6.205021157	12.61710051
Export	E_INV010_914mm (2min)	914	Category 7/E	79.45463135	42.82875541	-2.719402789	30.003942
Export	E_INV010_914mm (2min)	914	Category 7/E	115.306752	119.5342982	-11.92623088	4.7
Export	E_INV010_914mm (2min)	914	Category 6/E	115.1320116	118.034436	-11.68706746	5
Export	E_INV010_914mm (2min)	914	Category 6/E	101.0673075	90.65558899	-8.040481046	9
Export	E_INV010_914mm (2min)	914	Category 6/E	94.39356486	76.54982817	-6.324929244	12.61710051
Export	E_INV010_914mm (2min)	914	Category 6/E	80.48775386	43.48715268	-2.784052282	30.003942
Export	E_INV010_914mm (2min)	914	Category 6/E	116.8331554	121.2063521	-12.13556248	4.7
Export	E_INV010_914mm (2min)	914	Category 5/E	109.8392004	123.7814586	-10.85587639	5
Export	E_INV010_914mm (2min)	914	Category 5/E	95.65869309	95.20074883	-7.017873447	9
Export	E_INV010_914mm (2min)	914	Category 5/E	89.16289435	81.36760574	-5.545132975	12.61710051
Export	E_INV010_914mm (2min)	914	Category 5/E	76.04009462	49.95132942	-2.627695112	30.003942
Export	E_INV010_914mm (2min)	914	Category 5/E	111.6075809	127.4764543	-11.42102741	4.7
Export	E_INV010_914mm (2min)	914	Category 4/E	124.6413525	107.3978626	-13.39036072	5
Export	E_INV010_914mm (2min)	914	Category 4/E	110.4549347	78.24402032	-8.823384353	9
Export	E_INV010_914mm (2min)	914	Category 4/E	103.4183528	62.17243306	-6.588083817	12.61710051
Export	E_INV010_914mm (2min)	914	Category 4/E	86.55061538	28.83189313	-1.490640117	30.003942
Export	E_INV010_914mm (2min)	914	Category 4/E	126.3205916	110.6111695	-13.93456912	4.7
Export	E_INV010_914mm (2min)	914	Category 3/E	107.4075709	118.918707	-10.41511844	5
Export	E_INV010_914mm (2min)	914	Category 3/E	93.84132219	91.81308629	-6.77485618	9
Export	E_INV010_914mm (2min)	914	Category 3/E	87.59641209	78.41089838	-5.35527271	12.61710051
Export	E_INV010_914mm (2min)	914	Category 3/E	74.91797695	47.74164574	-2.511925127	30.003942
Export	E_INV010_914mm (2min)	914	Category 3/E	109.0930368	122.4589072	-10.94466797	4.7
Export	E_INV010_914mm (2min)	914	Category 2/E	112.5733378	113.6829097	-11.27936729	5
Export	E_INV010_914mm (2min)	914	Category 2/E	99.08107587	87.21824126	-7.750798959	9
Export	E_INV010_914mm (2min)	914	Category 2/E	92.65161978	73.48508631	-6.078437471	12.61710051
Export	E_INV010_914mm (2min)	914	Category 2/E	79.18288316	40.78821753	-2.634132098	30.003942
Export	E_INV010_914mm (2min)	914	Category 2/E	114.1954287	116.7385462	-11.70488263	4.7
Export	E_INV010_914mm (2min)	914	Category 1/E	127.5184507	111.9795121	-13.96018895	5
Export	E_INV010_914mm (2min)	914	Category 1/E	112.7643447	82.05267191	-9.236671163	9
Export	E_INV010_914mm (2min)	914	Category 1/E	105.491607	65.57728423	-6.935965576	12.61710051
Export	E_INV010_914mm (2min)	914	Category 1/E	88.34552145	30.37680742	-1.723472371	30.003942
Export	E_INV010_914mm (2min)	914	Category 1/E	129.2706922	115.2979242	-14.52640309	4.7
Export	E_INV011_25mm	25	Category 12/E	2.99343651	0.259554905	0	5
Export	E_INV011_25mm	25	Category 12/E	0	0	0	9
Export	E_INV011_25mm	25	Category 12/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 12/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 12/E	3.037390999	0.509003541	0	4.7
Export	E_INV011_25mm	25	Category 11/E	2.945884888	0.370480702	0	5
Export	E_INV011_25mm	25	Category 11/E	0	0	0	9
Export	E_INV011_25mm	25	Category 11/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 11/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 11/E	2.985734632	0.578011019	0	4.7
Export	E_INV011_25mm	25	Category 10/E	2.556794108	0.99973668	0	5
Export	E_INV011_25mm	25	Category 10/E	0	0	0	9
Export	E_INV011_25mm	25	Category 10/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 10/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 10/E	2.556794108	1.444120437	1.497448591	4.7
Export	E_INV011_25mm	25	Category 9/E	2.774746744	0.728629994	0	5
Export	E_INV011_25mm	25	Category 9/E	0	0	0	9
Export	E_INV011_25mm	25	Category 9/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 9/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 9/E	2.820664293	0.906741301	0	4.7
Export	E_INV011_25mm	25	Category 8/E	1.716580601	1.249731902	1.722293731	5
Export	E_INV011_25mm	25	Category 8/E	0	0	0	9
Export	E_INV011_25mm	25	Category 8/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 8/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 8/E	1.836310882	1.387356914	1.583085461	4.7
Export	E_INV011_25mm	25	Category 7/E	2.741246038	0.806937354	0	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV011_25mm	25	Category 7/E	0	0	0	9
Export	E_INV011_25mm	25	Category 7/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 7/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 7/E	2.78309495	0.976473064	0	4.7
Export	E_INV011_25mm	25	Category 6/E	2.741246038	0.806937354	0	5
Export	E_INV011_25mm	25	Category 6/E	0	0	0	9
Export	E_INV011_25mm	25	Category 6/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 6/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 6/E	2.78309495	0.976473064	0	4.7
Export	E_INV011_25mm	25	Category 5/E	2.945884888	0.370480702	0	5
Export	E_INV011_25mm	25	Category 5/E	0	0	0	9
Export	E_INV011_25mm	25	Category 5/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 5/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 5/E	2.985734632	0.578011019	0	4.7
Export	E_INV011_25mm	25	Category 4/E	1.716580601	1.249731902	1.722293731	5
Export	E_INV011_25mm	25	Category 4/E	0	0	0	9
Export	E_INV011_25mm	25	Category 4/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 4/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 4/E	1.836310882	1.387356914	1.583085461	4.7
Export	E_INV011_25mm	25	Category 3/E	2.99343651	0.259554905	0	5
Export	E_INV011_25mm	25	Category 3/E	0	0	0	9
Export	E_INV011_25mm	25	Category 3/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 3/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 3/E	3.037390999	0.509003541	0	4.7
Export	E_INV011_25mm	25	Category 2/E	2.774746744	0.728629994	0	5
Export	E_INV011_25mm	25	Category 2/E	0	0	0	9
Export	E_INV011_25mm	25	Category 2/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 2/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 2/E	2.820664293	0.906741301	0	4.7
Export	E_INV011_25mm	25	Category 1/E	2.556794108	0.99973668	0	5
Export	E_INV011_25mm	25	Category 1/E	0	0	0	9
Export	E_INV011_25mm	25	Category 1/E	0	0	0	12.61710051
Export	E_INV011_25mm	25	Category 1/E	0	0	0	30.003942
Export	E_INV011_25mm	25	Category 1/E	2.556794108	1.444120437	1.497448591	4.7
Export	E_INV011_50mm	50	Category 12/E	6.391064517	4.681579674	1.05959915	5
Export	E_INV011_50mm	50	Category 12/E	5.49552408	2.767550334	1.780435611	9
Export	E_INV011_50mm	50	Category 12/E	4.83890293	1.794091877	2.213405314	12.61710051
Export	E_INV011_50mm	50	Category 12/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 12/E	6.478833016	4.905220095	0.997195283	4.7
Export	E_INV011_50mm	50	Category 11/E	6.308629175	4.783784711	1.038979067	5
Export	E_INV011_50mm	50	Category 11/E	5.414299863	2.863148303	1.771618425	9
Export	E_INV011_50mm	50	Category 11/E	4.771589914	1.877071453	2.148713279	12.61710051
Export	E_INV011_50mm	50	Category 11/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 11/E	6.395631195	5.007917041	0.977840989	4.7
Export	E_INV011_50mm	50	Category 10/E	5.563706075	5.556048174	0.921269893	5
Export	E_INV011_50mm	50	Category 10/E	4.182576227	3.393395402	1.546534316	9
Export	E_INV011_50mm	50	Category 10/E	3.680199981	2.248531555	1.97890709	12.61710051
Export	E_INV011_50mm	50	Category 10/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 10/E	5.686519518	5.790105435	0.868137707	4.7
Export	E_INV011_50mm	50	Category 9/E	5.989396554	5.222082734	0.974562636	5
Export	E_INV011_50mm	50	Category 9/E	4.796831203	3.140317107	1.705113953	9
Export	E_INV011_50mm	50	Category 9/E	4.229614706	2.037143618	2.075413484	12.61710051
Export	E_INV011_50mm	50	Category 9/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 9/E	6.096210019	5.453869624	0.916795892	4.7
Export	E_INV011_50mm	50	Category 8/E	5.582098115	5.443474222	0.936734389	5
Export	E_INV011_50mm	50	Category 8/E	4.229458203	3.274103125	1.599883643	9
Export	E_INV011_50mm	50	Category 8/E	3.689710768	2.098304849	2.009808808	12.61710051
Export	E_INV011_50mm	50	Category 8/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 8/E	5.706618555	5.679607701	0.883349227	4.7
Export	E_INV011_50mm	50	Category 7/E	5.939854714	5.329466535	0.956100277	5
Export	E_INV011_50mm	50	Category 7/E	4.764548441	3.258629636	1.68261046	9

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV011_50mm	50	Category 7/E	4.189257948	2.153802714	2.031319161	12.61710051
Export	E_INV011_50mm	50	Category 7/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 7/E	6.045786415	5.561867401	0.898772883	4.7
Export	E_INV011_50mm	50	Category 6/E	5.939854714	5.329466535	0.956100277	5
Export	E_INV011_50mm	50	Category 6/E	4.764548441	3.258629636	1.68261046	9
Export	E_INV011_50mm	50	Category 6/E	4.189257948	2.153802714	2.031319161	12.61710051
Export	E_INV011_50mm	50	Category 6/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 6/E	6.045786415	5.561867401	0.898772883	4.7
Export	E_INV011_50mm	50	Category 5/E	6.308629175	4.783784711	1.038979067	5
Export	E_INV011_50mm	50	Category 5/E	5.414299863	2.863148303	1.771618425	9
Export	E_INV011_50mm	50	Category 5/E	4.771589914	1.877071453	2.148713279	12.61710051
Export	E_INV011_50mm	50	Category 5/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 5/E	6.395631195	5.007917041	0.977840989	4.7
Export	E_INV011_50mm	50	Category 4/E	5.582098115	5.443474222	0.936734389	5
Export	E_INV011_50mm	50	Category 4/E	4.229458203	3.274103125	1.599883643	9
Export	E_INV011_50mm	50	Category 4/E	3.689710768	2.098304849	2.009808808	12.61710051
Export	E_INV011_50mm	50	Category 4/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 4/E	5.706618555	5.679607701	0.883349227	4.7
Export	E_INV011_50mm	50	Category 3/E	6.391064517	4.681579674	1.05959915	5
Export	E_INV011_50mm	50	Category 3/E	5.49552408	2.767550334	1.780435611	9
Export	E_INV011_50mm	50	Category 3/E	4.83890293	1.794091877	2.213405314	12.61710051
Export	E_INV011_50mm	50	Category 3/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 3/E	6.478833016	4.905220095	0.997195283	4.7
Export	E_INV011_50mm	50	Category 2/E	5.989396554	5.222082734	0.974562636	5
Export	E_INV011_50mm	50	Category 2/E	4.796831203	3.140317107	1.705113953	9
Export	E_INV011_50mm	50	Category 2/E	4.229614706	2.037143618	2.075413484	12.61710051
Export	E_INV011_50mm	50	Category 2/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 2/E	6.096210019	5.453869624	0.916795892	4.7
Export	E_INV011_50mm	50	Category 1/E	5.563706075	5.556048174	0.921269893	5
Export	E_INV011_50mm	50	Category 1/E	4.182576227	3.393395402	1.546534316	9
Export	E_INV011_50mm	50	Category 1/E	3.680199981	2.248531555	1.97890709	12.61710051
Export	E_INV011_50mm	50	Category 1/E	0	0	0	30.003942
Export	E_INV011_50mm	50	Category 1/E	5.686519518	5.790105435	0.868137707	4.7
Export	E_INV011_610mm	610	Category 12/E	42.95435488	45.91854907	-7.871139806	5
Export	E_INV011_610mm	610	Category 12/E	39.65931206	31.91940407	-4.576096985	9
Export	E_INV011_610mm	610	Category 12/E	38.12106752	25.23646409	-3.037852442	12.61710051
Export	E_INV011_610mm	610	Category 12/E	35.04784812	12.51381449	0.035366958	30.003942
Export	E_INV011_610mm	610	Category 12/E	43.35524947	47.58788939	-8.272034391	4.7
Export	E_INV011_610mm	610	Category 11/E	42.85188527	47.83658665	-8.314814954	5
Export	E_INV011_610mm	610	Category 11/E	39.40920532	33.43999293	-4.872135007	9
Export	E_INV011_610mm	610	Category 11/E	37.80382925	26.56041215	-3.266758934	12.61710051
Export	E_INV011_610mm	610	Category 11/E	34.60848253	13.27683815	-0.07141222	30.003942
Export	E_INV011_610mm	610	Category 11/E	43.2734382	49.55543339	-8.736367891	4.7
Export	E_INV011_610mm	610	Category 10/E	40.50742086	49.55338245	-13.47665034	5
Export	E_INV011_610mm	610	Category 10/E	32.71771456	35.90048402	-7.472163151	9
Export	E_INV011_610mm	610	Category 10/E	28.90533403	29.34788607	-5.067700014	12.61710051
Export	E_INV011_610mm	610	Category 10/E	21.7465741	15.78496256	-1.323729028	30.003942
Export	E_INV011_610mm	610	Category 10/E	41.46317901	51.18987485	-14.2728347	4.7
Export	E_INV011_610mm	610	Category 9/E	38.98846449	47.48497541	-9.074039693	5
Export	E_INV011_610mm	610	Category 9/E	35.41014046	33.92616103	-5.495715662	9
Export	E_INV011_610mm	610	Category 9/E	33.74735586	27.4269185	-3.832931065	12.61710051
Export	E_INV011_610mm	610	Category 9/E	30.43486535	14.44036997	-0.520440555	30.003942
Export	E_INV011_610mm	610	Category 9/E	39.42355908	49.10191045	-9.509134287	4.7
Export	E_INV011_610mm	610	Category 8/E	39.75968444	47.81228374	-12.59598108	5
Export	E_INV011_610mm	610	Category 8/E	32.23374464	34.53559776	-6.96154732	9
Export	E_INV011_610mm	610	Category 8/E	28.57465114	28.12651638	-4.714211414	12.61710051
Export	E_INV011_610mm	610	Category 8/E	21.45152308	14.88463452	-1.182757009	30.003942
Export	E_INV011_610mm	610	Category 8/E	40.67417796	49.4063254	-13.33960952	4.7
Export	E_INV011_610mm	610	Category 7/E	39.06200984	49.27904804	-9.566911274	5
Export	E_INV011_610mm	610	Category 7/E	35.32223264	35.33966437	-5.827134067	9
Export	E_INV011_610mm	610	Category 7/E	33.58568602	28.66603258	-4.090587446	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV011_610mm	610	Category 7/E	30.14026872	15.25562647	-0.645170152	30.003942
Export	E_INV011_610mm	610	Category 7/E	39.51886372	50.95116332	-10.02376515	4.7
Export	E_INV011_610mm	610	Category 6/E	39.06200984	49.27904804	-9.566911274	5
Export	E_INV011_610mm	610	Category 6/E	35.32223264	35.33966437	-5.827134067	9
Export	E_INV011_610mm	610	Category 6/E	33.58568602	28.66603258	-4.090587446	12.61710051
Export	E_INV011_610mm	610	Category 6/E	30.14026872	15.25562647	-0.645170152	30.003942
Export	E_INV011_610mm	610	Category 6/E	39.51886372	50.95116332	-10.02376515	4.7
Export	E_INV011_610mm	610	Category 5/E	42.85188527	47.83658665	-8.314814954	5
Export	E_INV011_610mm	610	Category 5/E	39.40920532	33.43999293	-4.872135007	9
Export	E_INV011_610mm	610	Category 5/E	37.80382925	26.56041215	-3.266758934	12.61710051
Export	E_INV011_610mm	610	Category 5/E	34.60848253	13.27683815	-0.07141222	30.003942
Export	E_INV011_610mm	610	Category 5/E	43.2734382	49.55543339	-8.736367891	4.7
Export	E_INV011_610mm	610	Category 4/E	39.75968444	47.81228374	-12.59598108	5
Export	E_INV011_610mm	610	Category 4/E	32.23374464	34.53559776	-6.96154732	9
Export	E_INV011_610mm	610	Category 4/E	28.57465114	28.12651638	-4.714211414	12.61710051
Export	E_INV011_610mm	610	Category 4/E	21.45152308	14.88463452	-1.182757009	30.003942
Export	E_INV011_610mm	610	Category 4/E	40.67417796	49.4063254	-13.33960952	4.7
Export	E_INV011_610mm	610	Category 3/E	42.95435488	45.91854907	-7.871139806	5
Export	E_INV011_610mm	610	Category 3/E	39.65931206	31.91940407	-4.576096985	9
Export	E_INV011_610mm	610	Category 3/E	38.12106752	25.23646409	-3.037852442	12.61710051
Export	E_INV011_610mm	610	Category 3/E	35.04784812	12.51381449	0.035366958	30.003942
Export	E_INV011_610mm	610	Category 3/E	43.35524947	47.58788939	-8.272034391	4.7
Export	E_INV011_610mm	610	Category 2/E	38.98846449	47.48497541	-9.074039693	5
Export	E_INV011_610mm	610	Category 2/E	35.41014046	33.92616103	-5.495715662	9
Export	E_INV011_610mm	610	Category 2/E	33.74735586	27.4269185	-3.832931065	12.61710051
Export	E_INV011_610mm	610	Category 2/E	30.43486535	14.44036997	-0.520440555	30.003942
Export	E_INV011_610mm	610	Category 2/E	39.42355908	49.10191045	-9.509134287	4.7
Export	E_INV011_610mm	610	Category 1/E	40.50742086	49.55338245	-13.47665034	5
Export	E_INV011_610mm	610	Category 1/E	32.71771456	35.90048402	-7.472163151	9
Export	E_INV011_610mm	610	Category 1/E	28.90533403	29.34788607	-5.067700014	12.61710051
Export	E_INV011_610mm	610	Category 1/E	21.7465741	15.78496256	-1.323729028	30.003942
Export	E_INV011_610mm	610	Category 1/E	41.46317901	51.18987485	-14.2728347	4.7
Export	E_INV011_203mm	203	Category 12/E	24.06856996	30.00919155	-0.81549123	5
Export	E_INV011_203mm	203	Category 12/E	21.13678668	21.77162756	1.108575322	9
Export	E_INV011_203mm	203	Category 12/E	19.73868967	17.78954274	2.014210138	12.61710051
Export	E_INV011_203mm	203	Category 12/E	16.81745368	9.485340004	3.852598608	30.003942
Export	E_INV011_203mm	203	Category 12/E	24.41956449	30.9912842	-1.045777539	4.7
Export	E_INV011_203mm	203	Category 11/E	24.06458209	30.79999793	-1.005766146	5
Export	E_INV011_203mm	203	Category 11/E	21.05193117	22.397313	1.002154347	9
Export	E_INV011_203mm	203	Category 11/E	19.62037835	18.35024832	1.944047145	12.61710051
Export	E_INV011_203mm	203	Category 11/E	16.64358098	9.91754454	3.855771431	30.003942
Export	E_INV011_203mm	203	Category 11/E	24.42749706	31.80271918	-1.249611768	4.7
Export	E_INV011_203mm	203	Category 10/E	26.61551398	31.84142999	-5.114795577	5
Export	E_INV011_203mm	203	Category 10/E	20.24009126	23.28197185	-0.029203113	9
Export	E_INV011_203mm	203	Category 10/E	17.32672325	19.13201973	1.78788824	12.61710051
Export	E_INV011_203mm	203	Category 10/E	12.33924804	9.803894479	3.876841423	30.003942
Export	E_INV011_203mm	203	Category 10/E	27.41182345	32.87247782	-5.812398119	4.7
Export	E_INV011_203mm	203	Category 9/E	24.68483503	30.76743917	-1.115570442	5
Export	E_INV011_203mm	203	Category 9/E	20.56335328	22.63826249	1.154681466	9
Export	E_INV011_203mm	203	Category 9/E	18.64500383	18.65182696	2.025004992	12.61710051
Export	E_INV011_203mm	203	Category 9/E	13.95314687	9.779955292	3.811371275	30.003942
Export	E_INV011_203mm	203	Category 9/E	25.2267843	31.74291059	-1.491752403	4.7
Export	E_INV011_203mm	203	Category 8/E	26.03605098	31.00283295	-4.366643817	5
Export	E_INV011_203mm	203	Category 8/E	19.88549979	22.6141953	0.359026365	9
Export	E_INV011_203mm	203	Category 8/E	17.02798171	18.51359685	2.002737959	12.61710051
Export	E_INV011_203mm	203	Category 8/E	12.26547861	9.186337532	3.880209476	30.003942
Export	E_INV011_203mm	203	Category 8/E	26.80413239	32.00798556	-5.023825349	4.7
Export	E_INV011_203mm	203	Category 7/E	24.93882366	31.55843211	-1.503744108	5
Export	E_INV011_203mm	203	Category 7/E	20.63147376	23.25694913	1.038268053	9
Export	E_INV011_203mm	203	Category 7/E	18.68102815	19.21815457	1.948279064	12.61710051
Export	E_INV011_203mm	203	Category 7/E	13.8884502	10.29849658	3.804799482	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV011_203mm	203	Category 7/E	25.50593782	32.56105426	-1.917040014	4.7
Export	E_INV011_203mm	203	Category 6/E	24.93882366	31.55843211	-1.503744108	5
Export	E_INV011_203mm	203	Category 6/E	20.63147376	23.25694913	1.038268053	9
Export	E_INV011_203mm	203	Category 6/E	18.68102815	19.21815457	1.948279064	12.61710051
Export	E_INV011_203mm	203	Category 6/E	13.8884502	10.29849658	3.804799482	30.003942
Export	E_INV011_203mm	203	Category 6/E	25.50593782	32.56105426	-1.917040014	4.7
Export	E_INV011_203mm	203	Category 5/E	24.06458209	30.79999793	-1.005766146	5
Export	E_INV011_203mm	203	Category 5/E	21.05193117	22.397313	1.002154347	9
Export	E_INV011_203mm	203	Category 5/E	19.62037835	18.35024832	1.944047145	12.61710051
Export	E_INV011_203mm	203	Category 5/E	16.64358098	9.91754454	3.855771431	30.003942
Export	E_INV011_203mm	203	Category 5/E	24.42749706	31.80271918	-1.249611768	4.7
Export	E_INV011_203mm	203	Category 4/E	26.03605098	31.00283295	-4.366643817	5
Export	E_INV011_203mm	203	Category 4/E	19.88549979	22.6141953	0.359026365	9
Export	E_INV011_203mm	203	Category 4/E	17.02798171	18.51359685	2.002737959	12.61710051
Export	E_INV011_203mm	203	Category 4/E	12.26547861	9.186337532	3.880209476	30.003942
Export	E_INV011_203mm	203	Category 4/E	26.80413239	32.00798556	-5.023825349	4.7
Export	E_INV011_203mm	203	Category 3/E	24.06856996	30.00919155	-0.81549123	5
Export	E_INV011_203mm	203	Category 3/E	21.13678668	21.77162756	1.108575322	9
Export	E_INV011_203mm	203	Category 3/E	19.73868967	17.78954274	2.014210138	12.61710051
Export	E_INV011_203mm	203	Category 3/E	16.81745368	9.485340004	3.852598608	30.003942
Export	E_INV011_203mm	203	Category 3/E	24.41956449	30.9912842	-1.045777539	4.7
Export	E_INV011_203mm	203	Category 2/E	24.68483503	30.76743917	-1.115570442	5
Export	E_INV011_203mm	203	Category 2/E	20.56335328	22.63826249	1.154681466	9
Export	E_INV011_203mm	203	Category 2/E	18.64500383	18.65182696	2.025004992	12.61710051
Export	E_INV011_203mm	203	Category 2/E	13.95314687	9.779955292	3.811371275	30.003942
Export	E_INV011_203mm	203	Category 2/E	25.2267843	31.74291059	-1.491752403	4.7
Export	E_INV011_203mm	203	Category 1/E	26.61551398	31.84142999	-5.114795577	5
Export	E_INV011_203mm	203	Category 1/E	20.24009126	23.28197185	-0.029203113	9
Export	E_INV011_203mm	203	Category 1/E	17.32672325	19.13201973	1.78788824	12.61710051
Export	E_INV011_203mm	203	Category 1/E	12.33924804	9.803894479	3.876841423	30.003942
Export	E_INV011_203mm	203	Category 1/E	27.41182345	32.87247782	-5.812398119	4.7
Export	E_INV012_25mm (all)	25	Category 12/E	5.819612694	5.336090782	-0.012879351	5
Export	E_INV012_25mm (all)	25	Category 12/E	4.994291385	3.760700727	0.484996895	9
Export	E_INV012_25mm (all)	25	Category 12/E	4.485877706	2.952171973	0.930541869	12.61710051
Export	E_INV012_25mm (all)	25	Category 12/E	2.947211701	1.378235221	3.175362054	30.003942
Export	E_INV012_25mm (all)	25	Category 12/E	5.954125059	5.523757529	-0.142597449	4.7
Export	E_INV012_25mm (all)	25	Category 11/E	5.757991461	5.329646775	-0.021065776	5
Export	E_INV012_25mm (all)	25	Category 11/E	4.932202539	3.75846823	0.478756716	9
Export	E_INV012_25mm (all)	25	Category 11/E	4.425029674	2.951689718	0.920512699	12.61710051
Export	E_INV012_25mm (all)	25	Category 11/E	2.897834453	1.373771764	3.152788951	30.003942
Export	E_INV012_25mm (all)	25	Category 11/E	5.89507207	5.515838461	-0.155436042	4.7
Export	E_INV012_25mm (all)	25	Category 10/E	7.25309729	4.618158772	0.50834211	5
Export	E_INV012_25mm (all)	25	Category 10/E	5.950567645	2.747173501	1.674825711	9
Export	E_INV012_25mm (all)	25	Category 10/E	4.940153354	2.432972288	2.85455436	12.61710051
Export	E_INV012_25mm (all)	25	Category 10/E	0	0	0	30.003942
Export	E_INV012_25mm (all)	25	Category 10/E	7.372496239	4.837365353	0.436373042	4.7
Export	E_INV012_25mm (all)	25	Category 9/E	6.296098032	5.170798032	0.248669892	5
Export	E_INV012_25mm (all)	25	Category 9/E	5.357107951	3.518837449	0.909364114	9
Export	E_INV012_25mm (all)	25	Category 9/E	4.739484949	2.685158853	1.541691101	12.61710051
Export	E_INV012_25mm (all)	25	Category 9/E	2.987198291	1.88980657	4.295676605	30.003942
Export	E_INV012_25mm (all)	25	Category 9/E	6.393953818	5.355337088	0.196902131	4.7
Export	E_INV012_25mm (all)	25	Category 8/E	7.385773988	4.63782082	0.504703314	5
Export	E_INV012_25mm (all)	25	Category 8/E	6.078602924	2.756003751	1.664483722	9
Export	E_INV012_25mm (all)	25	Category 8/E	5.086156547	2.462248221	2.805799424	12.61710051
Export	E_INV012_25mm (all)	25	Category 8/E	0	0	0	30.003942
Export	E_INV012_25mm (all)	25	Category 8/E	7.500239691	4.860319653	0.442649078	4.7
Export	E_INV012_25mm (all)	25	Category 7/E	6.21068205	5.150297656	0.243211526	5
Export	E_INV012_25mm (all)	25	Category 7/E	5.274159054	3.510768506	0.901438225	9
Export	E_INV012_25mm (all)	25	Category 7/E	4.660459618	2.679551046	1.528424583	12.61710051
Export	E_INV012_25mm (all)	25	Category 7/E	2.901807039	1.867912864	4.306688498	30.003942
Export	E_INV012_25mm (all)	25	Category 7/E	6.307416983	5.333703929	0.193204523	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV012_25mm (all)	25	Category 6/E	6.285091439	5.215490851	0.235684299	5
Export	E_INV012_25mm (all)	25	Category 6/E	5.344802553	3.558276165	0.889010257	9
Export	E_INV012_25mm (all)	25	Category 6/E	4.729453004	2.717412377	1.513691758	12.61710051
Export	E_INV012_25mm (all)	25	Category 6/E	2.95095591	1.880553085	4.300359745	30.003942
Export	E_INV012_25mm (all)	25	Category 6/E	6.383498824	5.400913883	0.183799882	4.7
Export	E_INV012_25mm (all)	25	Category 5/E	5.815686082	5.378723526	-0.043627885	5
Export	E_INV012_25mm (all)	25	Category 5/E	4.978461685	3.794427604	0.471765824	9
Export	E_INV012_25mm (all)	25	Category 5/E	4.470679077	2.981305671	0.910782085	12.61710051
Export	E_INV012_25mm (all)	25	Category 5/E	2.935430325	1.388146757	3.135254222	30.003942
Export	E_INV012_25mm (all)	25	Category 5/E	5.948676419	5.565677571	-0.168773255	4.7
Export	E_INV012_25mm (all)	25	Category 4/E	7.303364635	4.581563928	0.515468023	5
Export	E_INV012_25mm (all)	25	Category 4/E	5.996158987	2.721750543	1.689121819	9
Export	E_INV012_25mm (all)	25	Category 4/E	5.015972165	2.44964873	2.834807151	12.61710051
Export	E_INV012_25mm (all)	25	Category 4/E	0	0	0	30.003942
Export	E_INV012_25mm (all)	25	Category 4/E	7.423924848	4.80048323	0.439629218	4.7
Export	E_INV012_25mm (all)	25	Category 3/E	5.864728597	5.375773945	-0.026630763	5
Export	E_INV012_25mm (all)	25	Category 3/E	5.032470684	3.790064716	0.479201199	9
Export	E_INV012_25mm (all)	25	Category 3/E	4.523549112	2.976403274	0.922464834	12.61710051
Export	E_INV012_25mm (all)	25	Category 3/E	2.978002596	1.38999462	3.161622221	30.003942
Export	E_INV012_25mm (all)	25	Category 3/E	6.000643644	5.564732381	-0.158299134	4.7
Export	E_INV012_25mm (all)	25	Category 2/E	6.355461067	5.221940927	0.241984733	5
Export	E_INV012_25mm (all)	25	Category 2/E	5.413163562	3.555993919	0.899490918	9
Export	E_INV012_25mm (all)	25	Category 2/E	4.794825728	2.714518204	1.528815839	12.61710051
Export	E_INV012_25mm (all)	25	Category 2/E	3.026443061	1.899764181	4.290588635	30.003942
Export	E_INV012_25mm (all)	25	Category 2/E	6.452161934	5.407898544	0.193675187	4.7
Export	E_INV012_25mm (all)	25	Category 1/E	7.150081845	4.547312254	0.522907429	5
Export	E_INV012_25mm (all)	25	Category 1/E	5.850594308	2.701205061	1.700539029	9
Export	E_INV012_25mm (all)	25	Category 1/E	4.857209712	2.416419899	2.882873764	12.61710051
Export	E_INV012_25mm (all)	25	Category 1/E	0	0	0	30.003942
Export	E_INV012_25mm (all)	25	Category 1/E	7.271344153	4.763215301	0.445149754	4.7
Export	E_INV012_50mm (all)	50	Category 12/E	10.96455054	10.35188175	-0.851218562	5
Export	E_INV012_50mm (all)	50	Category 12/E	9.561691899	7.506153423	-0.086749499	9
Export	E_INV012_50mm (all)	50	Category 12/E	8.877756859	6.047750992	0.301880068	12.61710051
Export	E_INV012_50mm (all)	50	Category 12/E	7.095190119	2.924650997	1.780006573	30.003942
Export	E_INV012_50mm (all)	50	Category 12/E	11.12535735	10.67807244	-0.92852368	4.7
Export	E_INV012_50mm (all)	50	Category 11/E	10.80802188	10.30069186	-0.853405023	5
Export	E_INV012_50mm (all)	50	Category 11/E	9.404652623	7.473677256	-0.081108044	9
Export	E_INV012_50mm (all)	50	Category 11/E	8.726367045	6.028133443	0.300869423	12.61710051
Export	E_INV012_50mm (all)	50	Category 11/E	6.948515099	2.913553941	1.785462169	30.003942
Export	E_INV012_50mm (all)	50	Category 11/E	10.97053773	10.62682923	-0.935111845	4.7
Export	E_INV012_50mm (all)	50	Category 10/E	13.13294521	8.895692992	-0.207034463	5
Export	E_INV012_50mm (all)	50	Category 10/E	11.54706105	5.472101276	0.502179384	9
Export	E_INV012_50mm (all)	50	Category 10/E	10.58679771	3.886607592	1.058529717	12.61710051
Export	E_INV012_50mm (all)	50	Category 10/E	0	0	0	30.003942
Export	E_INV012_50mm (all)	50	Category 10/E	13.31206311	9.273412986	-0.285776745	4.7
Export	E_INV012_50mm (all)	50	Category 9/E	11.65753452	9.930730853	-0.416510081	5
Export	E_INV012_50mm (all)	50	Category 9/E	10.2144058	7.006866152	0.329461373	9
Export	E_INV012_50mm (all)	50	Category 9/E	9.521457976	5.449576116	0.66763534	12.61710051
Export	E_INV012_50mm (all)	50	Category 9/E	7.183649523	2.616402306	2.939275574	30.003942
Export	E_INV012_50mm (all)	50	Category 9/E	11.82233636	10.26150474	-0.49283534	4.7
Export	E_INV012_50mm (all)	50	Category 8/E	13.44672628	8.98515724	-0.224157168	5
Export	E_INV012_50mm (all)	50	Category 8/E	11.84094506	5.515436635	0.48500919	9
Export	E_INV012_50mm (all)	50	Category 8/E	10.88782639	3.926423299	0.996838755	12.61710051
Export	E_INV012_50mm (all)	50	Category 8/E	0	0	0	30.003942
Export	E_INV012_50mm (all)	50	Category 8/E	13.62656164	9.369141875	-0.300512637	4.7
Export	E_INV012_50mm (all)	50	Category 7/E	11.42301531	9.827025142	-0.408472286	5
Export	E_INV012_50mm (all)	50	Category 7/E	9.993370783	6.945819682	0.33053406	9
Export	E_INV012_50mm (all)	50	Category 7/E	9.301408205	5.411189165	0.67864167	12.61710051
Export	E_INV012_50mm (all)	50	Category 7/E	6.96766973	2.575731692	2.981654824	30.003942
Export	E_INV012_50mm (all)	50	Category 7/E	11.58935772	10.15638219	-0.491094527	4.7
Export	E_INV012_50mm (all)	50	Category 6/E	11.72198921	10.10512647	-0.440794946	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV012_50mm (all)	50	Category 6/E	10.2572697	7.152605622	0.313607135	9
Export	E_INV012_50mm (all)	50	Category 6/E	9.560704649	5.577721941	0.646102948	12.61710051
Export	E_INV012_50mm (all)	50	Category 6/E	7.217263659	2.616979356	2.910682228	30.003942
Export	E_INV012_50mm (all)	50	Category 6/E	11.89324489	10.44267498	-0.522118793	4.7
Export	E_INV012_50mm (all)	50	Category 5/E	11.00132979	10.49894942	-0.877166994	5
Export	E_INV012_50mm (all)	50	Category 5/E	9.583525589	7.622938552	-0.113765657	9
Export	E_INV012_50mm (all)	50	Category 5/E	8.885979226	6.152826519	0.289705234	12.61710051
Export	E_INV012_50mm (all)	50	Category 5/E	7.108684083	2.976603109	1.738528121	30.003942
Export	E_INV012_50mm (all)	50	Category 5/E	11.1635555	10.83091781	-0.955574493	4.7
Export	E_INV012_50mm (all)	50	Category 4/E	13.11807444	8.738847348	-0.188898364	5
Export	E_INV012_50mm (all)	50	Category 4/E	11.54599253	5.355826713	0.510164809	9
Export	E_INV012_50mm (all)	50	Category 4/E	10.58061092	3.813102086	1.075549387	12.61710051
Export	E_INV012_50mm (all)	50	Category 4/E	0	0	0	30.003942
Export	E_INV012_50mm (all)	50	Category 4/E	13.29569883	9.114315792	-0.267462657	4.7
Export	E_INV012_50mm (all)	50	Category 3/E	11.12088871	10.51164569	-0.869780017	5
Export	E_INV012_50mm (all)	50	Category 3/E	9.597020891	7.627740064	0.107864559	9
Export	E_INV012_50mm (all)	50	Category 3/E	9.008554428	6.147917168	0.291819304	12.61710051
Export	E_INV012_50mm (all)	50	Category 3/E	7.225876649	2.975071939	1.742097444	30.003942
Export	E_INV012_50mm (all)	50	Category 3/E	11.28357335	10.84264634	-0.94733996	4.7
Export	E_INV012_50mm (all)	50	Category 2/E	11.91068386	10.16420401	-0.442630838	5
Export	E_INV012_50mm (all)	50	Category 2/E	10.43830042	7.180133904	0.315942366	9
Export	E_INV012_50mm (all)	50	Category 2/E	9.740060952	5.588806598	0.64266643	12.61710051
Export	E_INV012_50mm (all)	50	Category 2/E	7.396220832	2.651313746	2.878660729	30.003942
Export	E_INV012_50mm (all)	50	Category 2/E	12.07935765	10.50204104	-0.521706749	4.7
Export	E_INV012_50mm (all)	50	Category 1/E	12.18681142	8.722582963	1.063577918	5
Export	E_INV012_50mm (all)	50	Category 1/E	10.98045685	5.390016995	1.071507161	9
Export	E_INV012_50mm (all)	50	Category 1/E	10.2770072	3.770313658	1.143361325	12.61710051
Export	E_INV012_50mm (all)	50	Category 1/E	0	0	0	30.003942
Export	E_INV012_50mm (all)	50	Category 1/E	12.32320747	9.074287922	1.063577918	4.7
Export	E_INV012_203mm (1hr)	203	Category 12/E	32.21806107	33.45660892	-3.033764608	5
Export	E_INV012_203mm (1hr)	203	Category 12/E	28.46733274	25.06026015	-1.790685875	9
Export	E_INV012_203mm (1hr)	203	Category 12/E	26.70990326	20.80302609	-1.235667184	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 12/E	23.08063157	11.1219833	-0.095923292	30.003942
Export	E_INV012_203mm (1hr)	203	Category 12/E	32.67706738	34.43773438	-3.194390433	4.7
Export	E_INV012_203mm (1hr)	203	Category 11/E	31.99137176	33.62588955	-3.055014059	5
Export	E_INV012_203mm (1hr)	203	Category 11/E	28.21211672	25.19530406	-1.800735391	9
Export	E_INV012_203mm (1hr)	203	Category 11/E	26.44455251	20.93985305	-1.242351517	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 11/E	22.81290566	10.82785564	-0.109010237	30.003942
Export	E_INV012_203mm (1hr)	203	Category 11/E	32.45298602	34.6161417	-3.218732254	4.7
Export	E_INV012_203mm (1hr)	203	Category 10/E	36.17959032	27.93888751	-2.188726816	5
Export	E_INV012_203mm (1hr)	203	Category 10/E	32.29059614	13.98974015	-1.104904426	9
Export	E_INV012_203mm (1hr)	203	Category 10/E	30.29790023	13.98974015	-0.570670865	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 10/E	0	0	0	30.003942
Export	E_INV012_203mm (1hr)	203	Category 10/E	36.63526735	28.91990453	-2.322093142	4.7
Export	E_INV012_203mm (1hr)	203	Category 9/E	32.68882225	30.64501741	-2.074042075	5
Export	E_INV012_203mm (1hr)	203	Category 9/E	29.0877539	22.59774025	-1.05871034	9
Export	E_INV012_203mm (1hr)	203	Category 9/E	27.36738267	18.33011141	-0.589646717	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 9/E	23.62177494	8.785698168	0.457219647	30.003942
Export	E_INV012_203mm (1hr)	203	Category 9/E	33.12564414	31.56247911	-2.205204767	4.7
Export	E_INV012_203mm (1hr)	203	Category 8/E	36.05328644	27.35472165	-2.151770433	5
Export	E_INV012_203mm (1hr)	203	Category 8/E	32.21697847	18.32465293	-1.077110352	9
Export	E_INV012_203mm (1hr)	203	Category 8/E	30.23869866	13.58180144	-0.546955701	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 8/E	0	0	0	30.003942
Export	E_INV012_203mm (1hr)	203	Category 8/E	36.50187045	28.32953229	-2.282199723	4.7
Export	E_INV012_203mm (1hr)	203	Category 7/E	32.67188819	31.03545877	-2.11141959	5
Export	E_INV012_203mm (1hr)	203	Category 7/E	29.02145585	22.93243016	-1.083582055	9
Export	E_INV012_203mm (1hr)	203	Category 7/E	27.28076636	18.64793955	-0.607166151	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 7/E	23.43092194	8.994856098	0.616414946	30.003942
Export	E_INV012_203mm (1hr)	203	Category 7/E	33.11294206	31.95799684	-2.240854885	4.7
Export	E_INV012_203mm (1hr)	203	Category 6/E	34.54728518	32.98312275	-2.257102082	5
Export	E_INV012_203mm (1hr)	203	Category 6/E	30.68216282	24.41656253	-1.178041687	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV012_203mm (1hr)	203	Category 6/E	28.84144355	19.89450991	-0.681346994	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 6/E	24.90209461	9.626919697	0.351935138	30.003942
Export	E_INV012_203mm (1hr)	203	Category 6/E	35.01586046	33.96040943	-2.392068346	4.7
Export	E_INV012_203mm (1hr)	203	Category 5/E	33.84981	35.75448062	-3.253368515	5
Export	E_INV012_203mm (1hr)	203	Category 5/E	29.8463468	26.81985582	-1.935841755	9
Export	E_INV012_203mm (1hr)	203	Category 5/E	27.97445194	22.31556774	-1.349962511	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 5/E	24.13143602	12.07234889	-0.159896263	30.003942
Export	E_INV012_203mm (1hr)	203	Category 5/E	34.34269318	36.80548679	-3.427746151	4.7
Export	E_INV012_203mm (1hr)	203	Category 4/E	34.08255275	25.70168165	-1.948239812	5
Export	E_INV012_203mm (1hr)	203	Category 4/E	30.45265738	17.14352462	-0.927575871	9
Export	E_INV012_203mm (1hr)	203	Category 4/E	28.57791487	12.66990774	-0.426589048	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 4/E	0	0	0	30.003942
Export	E_INV012_203mm (1hr)	203	Category 4/E	34.50641551	26.62549828	-2.072050133	4.7
Export	E_INV012_203mm (1hr)	203	Category 3/E	34.23160862	35.72537293	-3.249090768	5
Export	E_INV012_203mm (1hr)	203	Category 3/E	30.23988585	26.79311363	-1.934410113	9
Export	E_INV012_203mm (1hr)	203	Category 3/E	28.37036383	22.27144696	-1.351701326	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 3/E	24.51470002	11.98757988	-0.152977138	30.003942
Export	E_INV012_203mm (1hr)	203	Category 3/E	34.71669078	36.77095771	-3.417188783	4.7
Export	E_INV012_203mm (1hr)	203	Category 2/E	34.75323377	32.75611677	-2.235881875	5
Export	E_INV012_203mm (1hr)	203	Category 2/E	30.91973841	24.20400126	-1.165765322	9
Export	E_INV012_203mm (1hr)	203	Category 2/E	29.08921356	19.6768333	-0.671211597	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 2/E	25.1535299	9.492937865	0.353939553	30.003942
Export	E_INV012_203mm (1hr)	203	Category 2/E	35.2168343	33.73125046	-2.371033468	4.7
Export	E_INV012_203mm (1hr)	203	Category 1/E	34.34077284	26.36688013	-1.999708009	5
Export	E_INV012_203mm (1hr)	203	Category 1/E	30.64580308	17.71090885	-0.963817084	9
Export	E_INV012_203mm (1hr)	203	Category 1/E	28.7506814	13.11222368	-0.456552797	12.61710051
Export	E_INV012_203mm (1hr)	203	Category 1/E	0	0	0	30.003942
Export	E_INV012_203mm (1hr)	203	Category 1/E	34.77417014	27.29987377	-2.124642986	4.7
Export	E_INV012_610mm (1hr)	610	Category 12/E	60.13744047	65.51516139	-6.356618501	5
Export	E_INV012_610mm (1hr)	610	Category 12/E	53.00558394	49.61288573	-4.140086198	9
Export	E_INV012_610mm (1hr)	610	Category 12/E	49.68968661	41.66098711	-3.184233731	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 12/E	42.96733228	23.65363517	-1.335420193	30.003942
Export	E_INV012_610mm (1hr)	610	Category 12/E	61.01116001	67.39072896	-6.6464697	4.7
Export	E_INV012_610mm (1hr)	610	Category 11/E	61.11578563	67.61665003	-6.556241637	5
Export	E_INV012_610mm (1hr)	610	Category 11/E	53.73546468	51.21290558	-4.264653191	9
Export	E_INV012_610mm (1hr)	610	Category 11/E	50.31364709	43.05585933	-3.282388099	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 11/E	43.41035502	24.642849	-1.395860081	30.003942
Export	E_INV012_610mm (1hr)	610	Category 11/E	62.02370906	69.55827727	-6.860901823	4.7
Export	E_INV012_610mm (1hr)	610	Category 10/E	65.9499402	54.12558828	-5.652694359	5
Export	E_INV012_610mm (1hr)	610	Category 10/E	58.73420521	38.00438838	-3.496223966	9
Export	E_INV012_610mm (1hr)	610	Category 10/E	55.11540325	29.1874615	-2.427613435	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 10/E	45.66204121	12.72574184	0.147048593	30.003942
Export	E_INV012_610mm (1hr)	610	Category 10/E	66.80004548	55.88533385	-5.90769841	4.7
Export	E_INV012_610mm (1hr)	610	Category 9/E	59.1140904	58.19417601	-4.379926312	5
Export	E_INV012_610mm (1hr)	610	Category 9/E	52.50762492	43.64995611	-2.669576002	9
Export	E_INV012_610mm (1hr)	610	Category 9/E	49.38498904	36.0550982	-1.912875799	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 9/E	42.81154498	18.49501102	-0.393720489	30.003942
Export	E_INV012_610mm (1hr)	610	Category 9/E	59.91508705	59.86603986	-4.597731422	4.7
Export	E_INV012_610mm (1hr)	610	Category 8/E	64.84992361	52.20325186	-5.458524622	5
Export	E_INV012_610mm (1hr)	610	Category 8/E	57.84767717	36.39732186	-3.356191275	9
Export	E_INV012_610mm (1hr)	610	Category 8/E	54.31407679	27.36301185	-2.30963356	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 8/E	44.84961947	12.41511638	0.286658844	30.003942
Export	E_INV012_610mm (1hr)	610	Category 8/E	65.67310671	53.92440007	-5.707721971	4.7
Export	E_INV012_610mm (1hr)	610	Category 7/E	60.04926335	60.04051095	-4.523402725	5
Export	E_INV012_610mm (1hr)	610	Category 7/E	53.22049126	45.11548337	-2.763293214	9
Export	E_INV012_610mm (1hr)	610	Category 7/E	50.00278799	37.36421567	-1.986231737	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 7/E	43.2776768	19.33955858	-0.440545048	30.003942
Export	E_INV012_610mm (1hr)	610	Category 7/E	60.88006196	61.75921419	-4.750626957	4.7
Export	E_INV012_610mm (1hr)	610	Category 6/E	65.27788687	65.68532394	-5.041725303	5
Export	E_INV012_610mm (1hr)	610	Category 6/E	57.83754829	49.45003755	-3.142842755	9
Export	E_INV012_610mm (1hr)	610	Category 6/E	54.33739914	41.03822387	-2.317316915	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV012_610mm (1hr)	610	Category 6/E	47.01890275	21.44785765	-0.63142036	30.003942
Export	E_INV012_610mm (1hr)	610	Category 6/E	66.18550893	67.56402678	-5.290658615	4.7
Export	E_INV012_610mm (1hr)	610	Category 5/E	68.82489275	76.80095404	-7.593048097	5
Export	E_INV012_610mm (1hr)	610	Category 5/E	60.48019355	58.25948341	-5.026744808	9
Export	E_INV012_610mm (1hr)	610	Category 5/E	56.62355471	49.06126776	-3.947927514	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 5/E	48.81138928	28.36027808	-1.794166314	30.003942
Export	E_INV012_610mm (1hr)	610	Category 5/E	69.85238193	78.99844271	-7.936221511	4.7
Export	E_INV012_610mm (1hr)	610	Category 4/E	62.13424942	49.81499794	-5.126502211	5
Export	E_INV012_610mm (1hr)	610	Category 4/E	55.4344793	34.64278587	-3.12556244	9
Export	E_INV012_610mm (1hr)	610	Category 4/E	52.05161916	26.42358239	-2.134317799	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 4/E	42.95136379	11.73533466	0.23668942	30.003942
Export	E_INV012_610mm (1hr)	610	Category 4/E	62.92089092	51.46559764	-5.362294143	4.7
Export	E_INV012_610mm (1hr)	610	Category 3/E	67.88531652	74.58280039	-7.389042959	5
Export	E_INV012_610mm (1hr)	610	Category 3/E	59.8063488	56.57470718	-4.901689172	9
Export	E_INV012_610mm (1hr)	610	Category 3/E	56.06050365	47.59202038	-3.849536677	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 3/E	48.43733662	27.29660283	-1.73221162	30.003942
Export	E_INV012_610mm (1hr)	610	Category 3/E	68.8770505	76.70928095	-7.718210551	4.7
Export	E_INV012_610mm (1hr)	610	Category 2/E	64.22323042	63.61905219	-4.881874289	5
Export	E_INV012_610mm (1hr)	610	Category 2/E	57.02836249	47.81048001	-3.034560951	9
Export	E_INV012_610mm (1hr)	610	Category 2/E	53.63595383	39.5742563	-2.233817202	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 2/E	46.49525143	20.4947996	-0.579662814	30.003942
Export	E_INV012_610mm (1hr)	610	Category 2/E	65.09700463	65.43414367	-5.119572015	4.7
Export	E_INV012_610mm (1hr)	610	Category 1/E	63.14434217	51.60881782	-5.303398646	5
Export	E_INV012_610mm (1hr)	610	Category 1/E	56.24944615	36.144797	-3.258475612	9
Export	E_INV012_610mm (1hr)	610	Category 1/E	52.78574763	27.69356292	-2.242588807	12.61710051
Export	E_INV012_610mm (1hr)	610	Category 1/E	43.63546521	12.01742884	0.243161742	30.003942
Export	E_INV012_610mm (1hr)	610	Category 1/E	63.95668838	53.29492862	-5.546087284	4.7
Export	E_INV012_10mm (all)	10	Category 12/E	2.205270091	2.009128289	0.4962534	5
Export	E_INV012_10mm (all)	10	Category 12/E	1.499859809	1.220442236	1.255298109	9
Export	E_INV012_10mm (all)	10	Category 12/E	0.9334019	0.778646609	1.926295972	12.61710051
Export	E_INV012_10mm (all)	10	Category 12/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 12/E	2.270376243	2.097334186	0.437470335	4.7
Export	E_INV012_10mm (all)	10	Category 11/E	2.186965422	2.006603515	0.485258862	5
Export	E_INV012_10mm (all)	10	Category 11/E	1.483911943	1.217388277	1.236951086	9
Export	E_INV012_10mm (all)	10	Category 11/E	0.918643709	0.773523175	1.902562935	12.61710051
Export	E_INV012_10mm (all)	10	Category 11/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 11/E	2.254262177	2.09494499	0.422031019	4.7
Export	E_INV012_10mm (all)	10	Category 10/E	2.565972695	1.696186924	1.597812747	5
Export	E_INV012_10mm (all)	10	Category 10/E	1.698258764	1.433055613	3.333240609	9
Export	E_INV012_10mm (all)	10	Category 10/E	0	0	0	12.61710051
Export	E_INV012_10mm (all)	10	Category 10/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 10/E	2.632084529	1.784790714	1.465589079	4.7
Export	E_INV012_10mm (all)	10	Category 9/E	2.29403151	1.924797675	0.832181224	5
Export	E_INV012_10mm (all)	10	Category 9/E	1.457557331	1.115076866	1.813063492	9
Export	E_INV012_10mm (all)	10	Category 9/E	0.857424823	0.679426508	2.683640147	12.61710051
Export	E_INV012_10mm (all)	10	Category 9/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 9/E	2.375724105	2.01591956	0.75226473	4.7
Export	E_INV012_10mm (all)	10	Category 8/E	2.59731549	1.700608337	1.615312001	5
Export	E_INV012_10mm (all)	10	Category 8/E	1.742626759	1.453867894	3.324689463	9
Export	E_INV012_10mm (all)	10	Category 8/E	0	0	0	12.61710051
Export	E_INV012_10mm (all)	10	Category 8/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 8/E	2.663804092	1.788766593	1.482334796	4.7
Export	E_INV012_10mm (all)	10	Category 7/E	2.27165734	1.920891843	0.818176464	5
Export	E_INV012_10mm (all)	10	Category 7/E	1.438092818	1.110060255	1.790415515	9
Export	E_INV012_10mm (all)	10	Category 7/E	0.837263321	0.669810657	2.656905322	12.61710051
Export	E_INV012_10mm (all)	10	Category 7/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 7/E	2.352027283	2.011518519	0.738622346	4.7
Export	E_INV012_10mm (all)	10	Category 6/E	2.281831509	1.929640447	0.815810979	5
Export	E_INV012_10mm (all)	10	Category 6/E	1.448814999	1.117192025	1.787000274	9
Export	E_INV012_10mm (all)	10	Category 6/E	0.846347792	0.677078234	2.651743831	12.61710051
Export	E_INV012_10mm (all)	10	Category 6/E	0	0	0	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV012_10mm (all)	10	Category 6/E	2.363077944	2.020534568	0.736407384	4.7
Export	E_INV012_10mm (all)	10	Category 5/E	2.193227118	2.012286215	0.483780854	5
Export	E_INV012_10mm (all)	10	Category 5/E	1.490425282	1.222067535	1.234934373	9
Export	E_INV012_10mm (all)	10	Category 5/E	0.92495935	0.77806947	1.899723552	12.61710051
Export	E_INV012_10mm (all)	10	Category 5/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 5/E	2.258140145	2.100468699	0.425494049	4.7
Export	E_INV012_10mm (all)	10	Category 4/E	2.585913641	1.692679278	1.61999692	5
Export	E_INV012_10mm (all)	10	Category 4/E	1.732781075	1.449146351	3.326262051	9
Export	E_INV012_10mm (all)	10	Category 4/E	0	0	0	12.61710051
Export	E_INV012_10mm (all)	10	Category 4/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 4/E	2.652498969	1.780082994	1.486826263	4.7
Export	E_INV012_10mm (all)	10	Category 3/E	2.204974554	2.008861043	0.496319484	5
Export	E_INV012_10mm (all)	10	Category 3/E	1.499549731	1.220222624	1.255394652	9
Export	E_INV012_10mm (all)	10	Category 3/E	0.933129001	0.778438917	1.926430272	12.61710051
Export	E_INV012_10mm (all)	10	Category 3/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 3/E	2.270076834	2.097060456	0.43753562	4.7
Export	E_INV012_10mm (all)	10	Category 2/E	2.302455582	1.931262347	0.830451384	5
Export	E_INV012_10mm (all)	10	Category 2/E	1.465487672	1.12031151	1.810590917	9
Export	E_INV012_10mm (all)	10	Category 2/E	0.790731773	0.664977958	2.679907878	12.61710051
Export	E_INV012_10mm (all)	10	Category 2/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 2/E	2.38444938	2.022549707	0.750113076	4.7
Export	E_INV012_10mm (all)	10	Category 1/E	2.551596436	1.686164101	1.603772853	5
Export	E_INV012_10mm (all)	10	Category 1/E	1.682441229	1.428600509	3.342083268	9
Export	E_INV012_10mm (all)	10	Category 1/E	0	0	0	12.61710051
Export	E_INV012_10mm (all)	10	Category 1/E	0	0	0	30.003942
Export	E_INV012_10mm (all)	10	Category 1/E	2.617834908	1.774461036	1.47129591	4.7
Export	E_INV012_203mm (2min)	203	Category 12/E	32.21806107	33.45660892	-3.033764608	5
Export	E_INV012_203mm (2min)	203	Category 12/E	28.46733274	25.06026015	-1.790685875	9
Export	E_INV012_203mm (2min)	203	Category 12/E	26.70990326	20.80302609	-1.235667184	12.61710051
Export	E_INV012_203mm (2min)	203	Category 12/E	23.08063157	11.1219833	-0.095923292	30.003942
Export	E_INV012_203mm (2min)	203	Category 12/E	32.67706738	34.43773438	-3.194390433	4.7
Export	E_INV012_203mm (2min)	203	Category 11/E	31.99137176	33.62588955	-3.055014059	5
Export	E_INV012_203mm (2min)	203	Category 11/E	28.21211672	25.19530406	-1.800735391	9
Export	E_INV012_203mm (2min)	203	Category 11/E	26.44455251	20.93985305	-1.242351517	12.61710051
Export	E_INV012_203mm (2min)	203	Category 11/E	22.81290566	10.82785564	-0.109010237	30.003942
Export	E_INV012_203mm (2min)	203	Category 11/E	32.45298602	34.6161417	-3.218732254	4.7
Export	E_INV012_203mm (2min)	203	Category 10/E	36.17959032	27.93888751	-2.188726816	5
Export	E_INV012_203mm (2min)	203	Category 10/E	32.29059614	13.98974015	-1.104904426	9
Export	E_INV012_203mm (2min)	203	Category 10/E	30.29790023	13.98974015	-0.570670865	12.61710051
Export	E_INV012_203mm (2min)	203	Category 10/E	0	0	0	30.003942
Export	E_INV012_203mm (2min)	203	Category 10/E	36.63526735	28.91990453	-2.322093142	4.7
Export	E_INV012_203mm (2min)	203	Category 9/E	32.68882225	30.64501741	-2.074042075	5
Export	E_INV012_203mm (2min)	203	Category 9/E	29.0877539	22.59774025	-1.05871034	9
Export	E_INV012_203mm (2min)	203	Category 9/E	27.36738267	18.33011141	-0.589646717	12.61710051
Export	E_INV012_203mm (2min)	203	Category 9/E	23.62177494	8.785698168	0.457219647	30.003942
Export	E_INV012_203mm (2min)	203	Category 9/E	33.12564414	31.56247911	-2.205204767	4.7
Export	E_INV012_203mm (2min)	203	Category 8/E	36.05328644	27.35472165	-2.151770433	5
Export	E_INV012_203mm (2min)	203	Category 8/E	32.21697847	18.32465293	-1.077110352	9
Export	E_INV012_203mm (2min)	203	Category 8/E	30.23869866	13.58180144	-0.546955701	12.61710051
Export	E_INV012_203mm (2min)	203	Category 8/E	0	0	0	30.003942
Export	E_INV012_203mm (2min)	203	Category 8/E	36.50187045	28.32953229	-2.282199723	4.7
Export	E_INV012_203mm (2min)	203	Category 7/E	32.67188819	31.03545877	-2.11141959	5
Export	E_INV012_203mm (2min)	203	Category 7/E	29.02145585	22.93243016	-1.083582055	9
Export	E_INV012_203mm (2min)	203	Category 7/E	27.28076636	18.64793955	-0.607166151	12.61710051
Export	E_INV012_203mm (2min)	203	Category 7/E	23.43092194	8.994856098	0.616414946	30.003942
Export	E_INV012_203mm (2min)	203	Category 7/E	33.11294206	31.95799684	-2.240854885	4.7
Export	E_INV012_203mm (2min)	203	Category 6/E	34.54728518	32.98312275	-2.257102082	5
Export	E_INV012_203mm (2min)	203	Category 6/E	30.68216282	24.41656253	-1.178041687	9
Export	E_INV012_203mm (2min)	203	Category 6/E	28.84144355	19.89450991	-0.681346994	12.61710051
Export	E_INV012_203mm (2min)	203	Category 6/E	24.90209461	9.626919697	0.351935138	30.003942
Export	E_INV012_203mm (2min)	203	Category 6/E	35.01586046	33.96040943	-2.392068346	4.7

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV012_203mm (2min)	203	Category 5/E	33.84981	35.75448062	-3.253368515	5
Export	E_INV012_203mm (2min)	203	Category 5/E	29.8463468	26.81985582	-1.935841755	9
Export	E_INV012_203mm (2min)	203	Category 5/E	27.97445194	22.31556774	-1.349962511	12.61710051
Export	E_INV012_203mm (2min)	203	Category 5/E	24.13143602	12.07234889	-0.159896263	30.003942
Export	E_INV012_203mm (2min)	203	Category 5/E	34.34269318	36.80548679	-3.427746151	4.7
Export	E_INV012_203mm (2min)	203	Category 4/E	34.08255275	25.70168165	-1.948239812	5
Export	E_INV012_203mm (2min)	203	Category 4/E	30.45265738	17.14352462	-0.927575871	9
Export	E_INV012_203mm (2min)	203	Category 4/E	28.57791487	12.66990774	-0.426589048	12.61710051
Export	E_INV012_203mm (2min)	203	Category 4/E	0	0	0	30.003942
Export	E_INV012_203mm (2min)	203	Category 4/E	34.50641551	26.62549828	-2.072050133	4.7
Export	E_INV012_203mm (2min)	203	Category 3/E	34.23160862	35.72537293	-3.249090768	5
Export	E_INV012_203mm (2min)	203	Category 3/E	30.23988585	26.79311363	-1.934410113	9
Export	E_INV012_203mm (2min)	203	Category 3/E	28.37036383	22.27144696	-1.351701326	12.61710051
Export	E_INV012_203mm (2min)	203	Category 3/E	24.51470002	11.98757988	-0.152977138	30.003942
Export	E_INV012_203mm (2min)	203	Category 3/E	34.71669078	36.77095771	-3.417188783	4.7
Export	E_INV012_203mm (2min)	203	Category 2/E	34.75323377	32.75611677	-2.235881875	5
Export	E_INV012_203mm (2min)	203	Category 2/E	30.91973841	24.20400126	-1.165765322	9
Export	E_INV012_203mm (2min)	203	Category 2/E	29.08921356	19.6768333	-0.671211597	12.61710051
Export	E_INV012_203mm (2min)	203	Category 2/E	25.1535299	9.492937865	0.353939553	30.003942
Export	E_INV012_203mm (2min)	203	Category 2/E	35.2168343	33.73125046	-2.371033468	4.7
Export	E_INV012_203mm (2min)	203	Category 1/E	34.34077284	26.36688013	-1.999708009	5
Export	E_INV012_203mm (2min)	203	Category 1/E	30.64580308	17.71090885	-0.963817084	9
Export	E_INV012_203mm (2min)	203	Category 1/E	28.7506814	13.11222368	-0.456552797	12.61710051
Export	E_INV012_203mm (2min)	203	Category 1/E	0	0	0	30.003942
Export	E_INV012_203mm (2min)	203	Category 1/E	34.77417014	27.29987377	-2.124642986	4.7
Export	E_INV012_610mm (2min)	610	Category 12/E	60.13744047	65.51516139	-6.356618501	5
Export	E_INV012_610mm (2min)	610	Category 12/E	53.00558394	49.61288573	-4.140086198	9
Export	E_INV012_610mm (2min)	610	Category 12/E	49.68968661	41.66098711	-3.184233731	12.61710051
Export	E_INV012_610mm (2min)	610	Category 12/E	42.96733228	23.65363517	-1.335420193	30.003942
Export	E_INV012_610mm (2min)	610	Category 12/E	61.01116001	67.39072896	-6.6464697	4.7
Export	E_INV012_610mm (2min)	610	Category 11/E	61.11578563	67.61665003	-6.556241637	5
Export	E_INV012_610mm (2min)	610	Category 11/E	53.73546468	51.21290558	-4.264653191	9
Export	E_INV012_610mm (2min)	610	Category 11/E	50.31364709	43.05585933	-3.282388099	12.61710051
Export	E_INV012_610mm (2min)	610	Category 11/E	43.41035502	24.642849	-1.395860081	30.003942
Export	E_INV012_610mm (2min)	610	Category 11/E	62.02370906	69.55827727	-6.860901823	4.7
Export	E_INV012_610mm (2min)	610	Category 10/E	65.9499402	54.12558828	-5.652694359	5
Export	E_INV012_610mm (2min)	610	Category 10/E	58.73420521	38.00438838	-3.496223966	9
Export	E_INV012_610mm (2min)	610	Category 10/E	55.11540325	29.1874615	-2.427613435	12.61710051
Export	E_INV012_610mm (2min)	610	Category 10/E	45.66204121	12.72574184	0.147048593	30.003942
Export	E_INV012_610mm (2min)	610	Category 10/E	66.80004548	55.88533385	-5.90769841	4.7
Export	E_INV012_610mm (2min)	610	Category 9/E	59.1140904	58.19417601	-4.379926312	5
Export	E_INV012_610mm (2min)	610	Category 9/E	52.50762492	43.64995611	-2.669576002	9
Export	E_INV012_610mm (2min)	610	Category 9/E	49.38498904	36.0550982	-1.912875799	12.61710051
Export	E_INV012_610mm (2min)	610	Category 9/E	42.81154498	18.49501102	-0.393720489	30.003942
Export	E_INV012_610mm (2min)	610	Category 9/E	59.91508705	59.86603986	-4.597731422	4.7
Export	E_INV012_610mm (2min)	610	Category 8/E	64.84992361	52.20325186	-5.458524622	5
Export	E_INV012_610mm (2min)	610	Category 8/E	57.84767717	36.39732186	-3.356191275	9
Export	E_INV012_610mm (2min)	610	Category 8/E	54.31407679	27.36301185	-2.30963356	12.61710051
Export	E_INV012_610mm (2min)	610	Category 8/E	44.84961947	12.41511638	0.286658844	30.003942
Export	E_INV012_610mm (2min)	610	Category 8/E	65.67310671	53.92440007	-5.707721971	4.7
Export	E_INV012_610mm (2min)	610	Category 7/E	60.04926335	60.04051095	-4.523402725	5
Export	E_INV012_610mm (2min)	610	Category 7/E	53.22049126	45.11548337	-2.763293214	9
Export	E_INV012_610mm (2min)	610	Category 7/E	50.00278799	37.36421567	-1.986231737	12.61710051
Export	E_INV012_610mm (2min)	610	Category 7/E	43.2776768	19.33955858	-0.440545048	30.003942
Export	E_INV012_610mm (2min)	610	Category 7/E	60.88006196	61.75921419	-4.750626957	4.7
Export	E_INV012_610mm (2min)	610	Category 6/E	65.27788687	65.68532394	-5.041725303	5
Export	E_INV012_610mm (2min)	610	Category 6/E	57.83754829	49.45003755	-3.142842755	9
Export	E_INV012_610mm (2min)	610	Category 6/E	54.33739914	41.03822387	-2.317316915	12.61710051
Export	E_INV012_610mm (2min)	610	Category 6/E	47.01890275	21.44785765	-0.63142036	30.003942
Export	E_INV012_610mm (2min)	610	Category 6/E	66.18550893	67.56402678	-5.290658615	4.7
Export	E_INV012_610mm (2min)	610	Category 5/E	68.82489275	76.80095404	-7.593048097	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV012_610mm (2min)	610	Category 5/E	60.48019355	58.25948341	-5.026744808	9
Export	E_INV012_610mm (2min)	610	Category 5/E	56.62355471	49.06126776	-3.947927514	12.61710051
Export	E_INV012_610mm (2min)	610	Category 5/E	48.81138928	28.36027808	-1.794166314	30.003942
Export	E_INV012_610mm (2min)	610	Category 5/E	69.85238193	78.99844271	-7.936221511	4.7
Export	E_INV012_610mm (2min)	610	Category 4/E	62.13424942	49.81499794	-5.126502211	5
Export	E_INV012_610mm (2min)	610	Category 4/E	55.4344793	34.64278587	-3.12556244	9
Export	E_INV012_610mm (2min)	610	Category 4/E	52.05161916	26.42358239	-2.134317799	12.61710051
Export	E_INV012_610mm (2min)	610	Category 4/E	42.95136379	11.73533466	0.23668942	30.003942
Export	E_INV012_610mm (2min)	610	Category 4/E	62.92089092	51.46559764	-5.362294143	4.7
Export	E_INV012_610mm (2min)	610	Category 3/E	67.88531652	74.58280039	-7.389042959	5
Export	E_INV012_610mm (2min)	610	Category 3/E	59.8063488	56.57470718	-4.901689172	9
Export	E_INV012_610mm (2min)	610	Category 3/E	56.06050365	47.59202038	-3.849536677	12.61710051
Export	E_INV012_610mm (2min)	610	Category 3/E	48.43733662	27.29660283	-1.73221162	30.003942
Export	E_INV012_610mm (2min)	610	Category 3/E	68.8770505	76.70928095	-7.718210551	4.7
Export	E_INV012_610mm (2min)	610	Category 2/E	64.22323042	63.61905219	-4.881874289	5
Export	E_INV012_610mm (2min)	610	Category 2/E	57.02836249	47.81048001	-3.034560951	9
Export	E_INV012_610mm (2min)	610	Category 2/E	53.63595383	39.5742563	-2.233817202	12.61710051
Export	E_INV012_610mm (2min)	610	Category 2/E	46.49525143	20.4947996	-0.579662814	30.003942
Export	E_INV012_610mm (2min)	610	Category 2/E	65.09700463	65.43414367	-5.119572015	4.7
Export	E_INV012_610mm (2min)	610	Category 1/E	63.14434217	51.60881782	-5.303398646	5
Export	E_INV012_610mm (2min)	610	Category 1/E	56.24944615	36.144797	-3.258475612	9
Export	E_INV012_610mm (2min)	610	Category 1/E	52.78574763	27.69356292	-2.242588807	12.61710051
Export	E_INV012_610mm (2min)	610	Category 1/E	43.63546521	12.01742884	0.243161742	30.003942
Export	E_INV012_610mm (2min)	610	Category 1/E	63.95668838	53.29492862	-5.546087284	4.7
Export	E_INV013_25mm	25	Category 12/E	12.18429198	14.26871386	2.932240824	5
Export	E_INV013_25mm	25	Category 12/E	10.58211736	10.17205059	3.683390223	9
Export	E_INV013_25mm	25	Category 12/E	9.768539992	8.129968643	4.064518975	12.61710051
Export	E_INV013_25mm	25	Category 12/E	7.653653415	3.639618714	4.953686639	30.003942
Export	E_INV013_25mm	25	Category 12/E	12.37176655	14.74880121	2.845160586	4.7
Export	E_INV013_25mm	25	Category 11/E	12.0660999	14.52678747	2.944917457	5
Export	E_INV013_25mm	25	Category 11/E	10.44452464	10.40755601	3.716959368	9
Export	E_INV013_25mm	25	Category 11/E	9.626261809	8.366672701	4.108915598	12.61710051
Export	E_INV013_25mm	25	Category 11/E	7.483421349	3.866933576	5.008636755	30.003942
Export	E_INV013_25mm	25	Category 11/E	12.25866588	15.01177331	2.852706073	4.7
Export	E_INV013_25mm	25	Category 10/E	11.93308419	14.97843892	2.918131978	5
Export	E_INV013_25mm	25	Category 10/E	10.00969115	10.91644459	3.719804976	9
Export	E_INV013_25mm	25	Category 10/E	9.041054756	8.877732441	4.1036482	12.61710051
Export	E_INV013_25mm	25	Category 10/E	6.690115719	4.220996151	4.981211401	30.003942
Export	E_INV013_25mm	25	Category 10/E	12.1622394	15.4572714	2.81711445	4.7
Export	E_INV013_25mm	25	Category 9/E	12.07216327	14.56703319	2.948588325	5
Export	E_INV013_25mm	25	Category 9/E	10.32091058	10.49347794	3.685538281	9
Export	E_INV013_25mm	25	Category 9/E	9.42667566	8.44743298	4.058163635	12.61710051
Export	E_INV013_25mm	25	Category 9/E	7.185516407	3.833285888	4.936966445	30.003942
Export	E_INV013_25mm	25	Category 9/E	12.27741191	15.04408927	2.859283866	4.7
Export	E_INV013_25mm	25	Category 8/E	11.97101124	14.71837504	2.932529675	5
Export	E_INV013_25mm	25	Category 8/E	10.0806009	10.67980473	3.689986659	9
Export	E_INV013_25mm	25	Category 8/E	9.113543812	8.639737574	4.061527221	12.61710051
Export	E_INV013_25mm	25	Category 8/E	6.794598259	3.953404545	4.92741808	30.003942
Export	E_INV013_25mm	25	Category 8/E	12.1948967	15.19638964	2.837754387	4.7
Export	E_INV013_25mm	25	Category 7/E	11.99363284	14.82322389	2.954016176	5
Export	E_INV013_25mm	25	Category 7/E	10.21599959	10.72697556	3.720670182	9
Export	E_INV013_25mm	25	Category 7/E	9.320102241	8.685258736	4.100611829	12.61710051
Export	E_INV013_25mm	25	Category 7/E	6.086094517	4.212845394	6.922784585	30.003942
Export	E_INV013_25mm	25	Category 7/E	12.20162417	15.30480224	2.865619247	4.7
Export	E_INV013_25mm	25	Category 6/E	11.99363284	14.82322389	2.954016176	5
Export	E_INV013_25mm	25	Category 6/E	10.21599959	10.72697556	3.720670182	9
Export	E_INV013_25mm	25	Category 6/E	9.320102241	8.685258736	4.100611829	12.61710051
Export	E_INV013_25mm	25	Category 6/E	6.086094517	4.212845394	6.922784585	30.003942
Export	E_INV013_25mm	25	Category 6/E	12.20162417	15.30480224	2.865619247	4.7
Export	E_INV013_25mm	25	Category 5/E	12.0660999	14.52678747	2.944917457	5
Export	E_INV013_25mm	25	Category 5/E	10.44452464	10.40755601	3.716959368	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV013_25mm	25	Category 5/E	9.626261809	8.366672701	4.108915598	12.61710051
Export	E_INV013_25mm	25	Category 5/E	7.483421349	3.866933576	5.008636755	30.003942
Export	E_INV013_25mm	25	Category 5/E	12.25866588	15.01177331	2.852706073	4.7
Export	E_INV013_25mm	25	Category 4/E	11.97101124	14.71837504	2.932529675	5
Export	E_INV013_25mm	25	Category 4/E	10.0806009	10.67980473	3.689986659	9
Export	E_INV013_25mm	25	Category 4/E	9.113543812	8.639737574	4.061527221	12.61710051
Export	E_INV013_25mm	25	Category 4/E	6.794598259	3.953404545	4.92741808	30.003942
Export	E_INV013_25mm	25	Category 4/E	12.1948967	15.19638964	2.837754387	4.7
Export	E_INV013_25mm	25	Category 3/E	12.18429198	14.26871386	2.932240824	5
Export	E_INV013_25mm	25	Category 3/E	10.58211736	10.17205059	3.683390223	9
Export	E_INV013_25mm	25	Category 3/E	9.768539992	8.129968643	4.064518975	12.61710051
Export	E_INV013_25mm	25	Category 3/E	7.653653415	3.639618714	4.953686639	30.003942
Export	E_INV013_25mm	25	Category 3/E	12.37176655	14.74880121	2.845160586	4.7
Export	E_INV013_25mm	25	Category 2/E	12.07216327	14.56703319	2.948588325	5
Export	E_INV013_25mm	25	Category 2/E	10.32091058	10.49347794	3.685538281	9
Export	E_INV013_25mm	25	Category 2/E	9.42667566	8.44743298	4.058163635	12.61710051
Export	E_INV013_25mm	25	Category 2/E	7.185516407	3.833285888	4.936966445	30.003942
Export	E_INV013_25mm	25	Category 2/E	12.27741191	15.04408927	2.859283866	4.7
Export	E_INV013_25mm	25	Category 1/E	11.93308419	14.97843892	2.918131978	5
Export	E_INV013_25mm	25	Category 1/E	10.00969115	10.91644459	3.719804976	9
Export	E_INV013_25mm	25	Category 1/E	9.041054756	8.877732441	4.1036482	12.61710051
Export	E_INV013_25mm	25	Category 1/E	6.690115719	4.220996151	4.981211401	30.003942
Export	E_INV013_25mm	25	Category 1/E	12.1622394	15.4572714	2.81711445	4.7
Export	E_INV013_50mm	50	Category 12/E	25.94744425	32.92779959	3.268246664	5
Export	E_INV013_50mm	50	Category 12/E	22.15603632	24.23892491	5.258526114	9
Export	E_INV013_50mm	50	Category 12/E	20.33153833	20.0024807	6.195303105	12.61710051
Export	E_INV013_50mm	50	Category 12/E	16.26895866	10.84552571	8.101596545	30.003942
Export	E_INV013_50mm	50	Category 12/E	26.40079149	33.96080161	3.028588311	4.7
Export	E_INV013_50mm	50	Category 11/E	25.96945709	33.74926457	3.099339732	5
Export	E_INV013_50mm	50	Category 11/E	22.07170173	24.91168552	5.193996369	9
Export	E_INV013_50mm	50	Category 11/E	20.20379857	20.62286563	6.179492276	12.61710051
Export	E_INV013_50mm	50	Category 11/E	16.13831807	11.42811169	8.167484883	30.003942
Export	E_INV013_50mm	50	Category 11/E	26.4530077	34.80892221	2.815681636	4.7
Export	E_INV013_50mm	50	Category 10/E	27.04532406	33.94240564	0.280454371	5
Export	E_INV013_50mm	50	Category 10/E	21.36189015	25.09175923	4.642285836	9
Export	E_INV013_50mm	50	Category 10/E	18.94357348	20.88735421	6.045093602	12.61710051
Export	E_INV013_50mm	50	Category 10/E	13.68250802	11.68472747	8.030201463	30.003942
Export	E_INV013_50mm	50	Category 10/E	27.77255005	35.02264854	-0.339079929	4.7
Export	E_INV013_50mm	50	Category 9/E	26.0798134	32.99898596	2.514828714	5
Export	E_INV013_50mm	50	Category 9/E	21.59659583	24.40153781	5.192764849	9
Export	E_INV013_50mm	50	Category 9/E	19.58845878	20.22115022	6.123292249	12.61710051
Export	E_INV013_50mm	50	Category 9/E	14.76645247	11.00428937	8.025204229	30.003942
Export	E_INV013_50mm	50	Category 9/E	26.66990933	34.04257867	2.083168801	4.7
Export	E_INV013_50mm	50	Category 8/E	26.59742326	33.08505899	0.978430542	5
Export	E_INV013_50mm	50	Category 8/E	21.20016874	24.44123264	4.903738332	9
Export	E_INV013_50mm	50	Category 8/E	18.90892192	20.29323789	6.084752265	12.61710051
Export	E_INV013_50mm	50	Category 8/E	13.68699593	11.06047245	7.968101981	30.003942
Export	E_INV013_50mm	50	Category 8/E	27.28979613	34.13048168	0.40932281	4.7
Export	E_INV013_50mm	50	Category 7/E	26.34753508	33.84485469	2.029696011	5
Export	E_INV013_50mm	50	Category 7/E	21.59270966	25.0473344	5.125654719	9
Export	E_INV013_50mm	50	Category 7/E	19.54122173	20.82360892	6.105302856	12.61710051
Export	E_INV013_50mm	50	Category 7/E	14.85638564	11.63109592	8.087489891	30.003942
Export	E_INV013_50mm	50	Category 7/E	26.97022377	34.91227701	1.552459572	4.7
Export	E_INV013_50mm	50	Category 6/E	26.34753508	33.84485469	2.029696011	5
Export	E_INV013_50mm	50	Category 6/E	21.59270966	25.0473344	5.125654719	9
Export	E_INV013_50mm	50	Category 6/E	19.54122173	20.82360892	6.105302856	12.61710051
Export	E_INV013_50mm	50	Category 6/E	14.85638564	11.63109592	8.087489891	30.003942
Export	E_INV013_50mm	50	Category 6/E	26.97022377	34.91227701	1.552459572	4.7
Export	E_INV013_50mm	50	Category 5/E	25.96945709	33.74926457	3.099339732	5
Export	E_INV013_50mm	50	Category 5/E	22.07170173	24.91168552	5.193996369	9
Export	E_INV013_50mm	50	Category 5/E	20.20379857	20.62286563	6.179492276	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV013_50mm	50	Category 5/E	16.13831807	11.42811169	8.167484883	30.003942
Export	E_INV013_50mm	50	Category 5/E	26.4530077	34.80892221	2.815681636	4.7
Export	E_INV013_50mm	50	Category 4/E	26.59742326	33.08505899	0.978430542	5
Export	E_INV013_50mm	50	Category 4/E	21.20016874	24.44123264	4.903738332	9
Export	E_INV013_50mm	50	Category 4/E	18.90892192	20.29323789	6.084752265	12.61710051
Export	E_INV013_50mm	50	Category 4/E	13.68699593	11.06047245	7.968101981	30.003942
Export	E_INV013_50mm	50	Category 4/E	27.28979613	34.13048168	0.40932281	4.7
Export	E_INV013_50mm	50	Category 3/E	25.94744425	32.92779959	3.268246664	5
Export	E_INV013_50mm	50	Category 3/E	22.15603632	24.23892491	5.258526114	9
Export	E_INV013_50mm	50	Category 3/E	20.33153833	20.0024807	6.195303105	12.61710051
Export	E_INV013_50mm	50	Category 3/E	16.26895866	10.84552571	8.101596545	30.003942
Export	E_INV013_50mm	50	Category 3/E	26.40079149	33.96080161	3.028588311	4.7
Export	E_INV013_50mm	50	Category 2/E	26.0798134	32.99898596	2.514828714	5
Export	E_INV013_50mm	50	Category 2/E	21.59659583	24.40153781	5.192764849	9
Export	E_INV013_50mm	50	Category 2/E	19.58845878	20.22115022	6.123292249	12.61710051
Export	E_INV013_50mm	50	Category 2/E	14.76645247	11.00428937	8.025204229	30.003942
Export	E_INV013_50mm	50	Category 2/E	26.66990933	34.04257867	2.083168801	4.7
Export	E_INV013_50mm	50	Category 1/E	27.04532406	33.94240564	0.280454371	5
Export	E_INV013_50mm	50	Category 1/E	21.36189015	25.09175923	4.642285836	9
Export	E_INV013_50mm	50	Category 1/E	18.94357348	20.88735421	6.045093602	12.61710051
Export	E_INV013_50mm	50	Category 1/E	13.68250802	11.68472747	8.030201463	30.003942
Export	E_INV013_50mm	50	Category 1/E	27.77255005	35.02264854	-0.339079929	4.7
Export	E_INV013_85mm	85	Category 12/E	35.42233897	45.24120529	2.422536356	5
Export	E_INV013_85mm	85	Category 12/E	29.72215399	33.5072793	5.997497922	9
Export	E_INV013_85mm	85	Category 12/E	27.13556143	27.83828213	7.392280691	12.61710051
Export	E_INV013_85mm	85	Category 12/E	21.5362645	15.68536155	10.19301297	30.003942
Export	E_INV013_85mm	85	Category 12/E	36.16229049	46.65569334	1.880380976	4.7
Export	E_INV013_85mm	85	Category 11/E	35.76879331	46.53449248	1.816132576	5
Export	E_INV013_85mm	85	Category 11/E	29.74356618	34.49799914	5.846600499	9
Export	E_INV013_85mm	85	Category 11/E	27.08626698	28.73811942	7.315222971	12.61710051
Export	E_INV013_85mm	85	Category 11/E	21.43233077	16.50037201	10.25274204	30.003942
Export	E_INV013_85mm	85	Category 11/E	36.54850727	47.9919308	1.22062236	4.7
Export	E_INV013_85mm	85	Category 10/E	38.07206921	46.60950673	-3.493792436	5
Export	E_INV013_85mm	85	Category 10/E	29.55721652	34.54390854	3.677745397	9
Export	E_INV013_85mm	85	Category 10/E	25.77369516	28.82943031	6.435844182	12.61710051
Export	E_INV013_85mm	85	Category 10/E	18.07270236	16.60095238	10.16613456	30.003942
Export	E_INV013_85mm	85	Category 10/E	39.14048047	48.07114358	-4.451112573	4.7
Export	E_INV013_85mm	85	Category 9/E	36.23699901	45.260477	0.253379364	5
Export	E_INV013_85mm	85	Category 9/E	29.19313713	33.54915776	5.523710808	9
Export	E_INV013_85mm	85	Category 9/E	26.13567909	27.94733933	7.341403779	12.61710051
Export	E_INV013_85mm	85	Category 9/E	19.5713832	15.79468015	10.13078709	30.003942
Export	E_INV013_85mm	85	Category 9/E	37.12813075	46.67547757	-0.479528348	4.7
Export	E_INV013_85mm	85	Category 8/E	37.21701515	45.29500148	-2.318648142	5
Export	E_INV013_85mm	85	Category 8/E	29.09646682	33.54889048	4.291003613	9
Export	E_INV013_85mm	85	Category 8/E	25.4755418	27.94009722	6.788268074	12.61710051
Export	E_INV013_85mm	85	Category 8/E	18.08689283	15.74986975	10.10740426	30.003942
Export	E_INV013_85mm	85	Category 8/E	38.2367712	46.715237	-3.211663352	4.7
Export	E_INV013_85mm	85	Category 7/E	36.86524448	46.56818765	-0.673295635	5
Export	E_INV013_85mm	85	Category 7/E	29.45355552	34.53280135	5.119200025	9
Export	E_INV013_85mm	85	Category 7/E	26.23437426	28.83014441	7.192346762	12.61710051
Export	E_INV013_85mm	85	Category 7/E	19.72128265	16.6466832	10.18993655	30.003942
Export	E_INV013_85mm	85	Category 7/E	37.80460348	48.02716269	-1.469517224	4.7
Export	E_INV013_85mm	85	Category 6/E	36.86524448	46.56818765	-0.673295635	5
Export	E_INV013_85mm	85	Category 6/E	29.45355552	34.53280135	5.119200025	9
Export	E_INV013_85mm	85	Category 6/E	26.23437426	28.83014441	7.192346762	12.61710051
Export	E_INV013_85mm	85	Category 6/E	19.72128265	16.6466832	10.18993655	30.003942
Export	E_INV013_85mm	85	Category 6/E	37.80460348	48.02716269	-1.469517224	4.7
Export	E_INV013_85mm	85	Category 5/E	35.76879331	46.53449248	1.816132576	5
Export	E_INV013_85mm	85	Category 5/E	29.74356618	34.49799914	5.846600499	9
Export	E_INV013_85mm	85	Category 5/E	27.08626698	28.73811942	7.315222971	12.61710051
Export	E_INV013_85mm	85	Category 5/E	21.43233077	16.50037201	10.25274204	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV013_85mm	85	Category 5/E	36.54850727	47.9919308	1.22062236	4.7
Export	E_INV013_85mm	85	Category 4/E	37.21701515	45.29500148	-2.318648142	5
Export	E_INV013_85mm	85	Category 4/E	29.09646682	33.54889048	4.291003613	9
Export	E_INV013_85mm	85	Category 4/E	25.4755418	27.94009722	6.788268074	12.61710051
Export	E_INV013_85mm	85	Category 4/E	18.08689283	15.74986975	10.10740426	30.003942
Export	E_INV013_85mm	85	Category 4/E	38.2367712	46.715237	-3.211663352	4.7
Export	E_INV013_85mm	85	Category 3/E	35.42233897	45.24120529	2.422536356	5
Export	E_INV013_85mm	85	Category 3/E	29.72215399	33.5072793	5.997497922	9
Export	E_INV013_85mm	85	Category 3/E	27.13556143	27.83828213	7.392280691	12.61710051
Export	E_INV013_85mm	85	Category 3/E	21.5362645	15.68536155	10.19301297	30.003942
Export	E_INV013_85mm	85	Category 3/E	36.16229049	46.65569334	1.880380976	4.7
Export	E_INV013_85mm	85	Category 2/E	36.23699901	45.260477	0.253379364	5
Export	E_INV013_85mm	85	Category 2/E	29.19313713	33.54915776	5.523710808	9
Export	E_INV013_85mm	85	Category 2/E	26.13567909	27.94733933	7.341403779	12.61710051
Export	E_INV013_85mm	85	Category 2/E	19.5713832	15.79468015	10.13078709	30.003942
Export	E_INV013_85mm	85	Category 2/E	37.12813075	46.67547757	-0.479528348	4.7
Export	E_INV013_85mm	85	Category 1/E	38.07206921	46.60950673	-3.493792436	5
Export	E_INV013_85mm	85	Category 1/E	29.55721652	34.54390854	3.677745397	9
Export	E_INV013_85mm	85	Category 1/E	25.77369516	28.82943031	6.435844182	12.61710051
Export	E_INV013_85mm	85	Category 1/E	18.07270236	16.60095238	10.16613456	30.003942
Export	E_INV013_85mm	85	Category 1/E	39.14048047	48.07114358	-4.451112573	4.7
Export	E_INV013_254mm	254	Category 12/E	35.34817337	45.14716131	2.434717297	5
Export	E_INV013_254mm	254	Category 12/E	29.66529146	33.43674467	5.992656786	9
Export	E_INV013_254mm	254	Category 12/E	27.08458582	27.77846524	7.383840451	12.61710051
Export	E_INV013_254mm	254	Category 12/E	21.4976874	15.64796718	10.17711815	30.003942
Export	E_INV013_254mm	254	Category 12/E	36.08611196	46.55880387	1.894464288	4.7
Export	E_INV013_254mm	254	Category 11/E	35.69225935	46.43684923	1.831157944	5
Export	E_INV013_254mm	254	Category 11/E	29.68559656	34.42492028	5.842632429	9
Export	E_INV013_254mm	254	Category 11/E	27.03455207	28.67612181	7.307308306	12.61710051
Export	E_INV013_254mm	254	Category 11/E	21.39344647	16.46122114	10.23686736	30.003942
Export	E_INV013_254mm	254	Category 11/E	36.46980067	47.89130625	1.237789764	4.7
Export	E_INV013_254mm	254	Category 10/E	37.98639158	46.51298956	-3.461081599	5
Export	E_INV013_254mm	254	Category 10/E	29.49377325	34.47174465	3.68835827	9
Export	E_INV013_254mm	254	Category 10/E	25.72063832	28.76871472	6.436475104	12.61710051
Export	E_INV013_254mm	254	Category 10/E	18.03982294	16.56320985	10.14974346	30.003942
Export	E_INV013_254mm	254	Category 10/E	39.05210474	47.97170173	-4.41572154	4.7
Export	E_INV013_254mm	254	Category 9/E	36.15830129	45.16702262	0.274527266	5
Export	E_INV013_254mm	254	Category 9/E	29.13376285	33.47921004	5.525933442	9
Export	E_INV013_254mm	254	Category 9/E	26.08599506	27.88836812	7.334091414	12.61710051
Export	E_INV013_254mm	254	Category 9/E	19.53651867	15.75781085	10.11467223	30.003942
Export	E_INV013_254mm	254	Category 9/E	37.04706042	46.57919257	-0.456063049	4.7
Export	E_INV013_254mm	254	Category 8/E	37.13468731	45.20201872	-2.289790202	5
Export	E_INV013_254mm	254	Category 8/E	29.03544469	33.47938496	4.298899387	9
Export	E_INV013_254mm	254	Category 8/E	25.42447091	27.88167416	6.78677812	12.61710051
Export	E_INV013_254mm	254	Category 8/E	18.05487897	15.71396142	10.09093712	30.003942
Export	E_INV013_254mm	254	Category 8/E	38.15189179	46.61941963	-3.180222137	4.7
Export	E_INV013_254mm	254	Category 7/E	36.78112842	46.47064834	-0.643808829	5
Export	E_INV013_254mm	254	Category 7/E	29.3922062	34.46021849	5.123667083	9
Export	E_INV013_254mm	254	Category 7/E	26.18288696	28.76896435	7.186901461	12.61710051
Export	E_INV013_254mm	254	Category 7/E	19.68503675	16.60838894	10.17394535	30.003942
Export	E_INV013_254mm	254	Category 7/E	37.7204208	47.92720244	-1.442382515	4.7
Export	E_INV013_254mm	254	Category 6/E	36.78112842	46.47064834	-0.643808829	5
Export	E_INV013_254mm	254	Category 6/E	29.3922062	34.46021849	5.123667083	9
Export	E_INV013_254mm	254	Category 6/E	26.18288696	28.76896435	7.186901461	12.61710051
Export	E_INV013_254mm	254	Category 6/E	19.68503675	16.60838894	10.17394535	30.003942
Export	E_INV013_254mm	254	Category 6/E	37.7204208	47.92720244	-1.442382515	4.7
Export	E_INV013_254mm	254	Category 5/E	35.69225935	46.43684923	1.831157944	5
Export	E_INV013_254mm	254	Category 5/E	29.68559656	34.42492028	5.842632429	9
Export	E_INV013_254mm	254	Category 5/E	27.03455207	28.67612181	7.307308306	12.61710051
Export	E_INV013_254mm	254	Category 5/E	21.39344647	16.46122114	10.23686736	30.003942
Export	E_INV013_254mm	254	Category 5/E	36.46980067	47.89130625	1.237789764	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV013_254mm	254	Category 4/E	37.13468731	45.20201872	-2.289790202	5
Export	E_INV013_254mm	254	Category 4/E	29.03544469	33.47938496	4.298899387	9
Export	E_INV013_254mm	254	Category 4/E	25.42447091	27.88167416	6.78677812	12.61710051
Export	E_INV013_254mm	254	Category 4/E	18.05487897	15.71396142	10.09093712	30.003942
Export	E_INV013_254mm	254	Category 4/E	38.15189179	46.61941963	-3.180222137	4.7
Export	E_INV013_254mm	254	Category 3/E	35.34817337	45.14716131	2.434717297	5
Export	E_INV013_254mm	254	Category 3/E	29.66529146	33.43674467	5.992656786	9
Export	E_INV013_254mm	254	Category 3/E	27.08458582	27.77846524	7.383840451	12.61710051
Export	E_INV013_254mm	254	Category 3/E	21.4976874	15.64796718	10.17711815	30.003942
Export	E_INV013_254mm	254	Category 3/E	36.08611196	46.55880387	1.894464288	4.7
Export	E_INV013_254mm	254	Category 2/E	36.15830129	45.16702262	0.274527266	5
Export	E_INV013_254mm	254	Category 2/E	29.13376285	33.47921004	5.525933442	9
Export	E_INV013_254mm	254	Category 2/E	26.08599506	27.88836812	7.334091414	12.61710051
Export	E_INV013_254mm	254	Category 2/E	19.53651867	15.75781085	10.11467223	30.003942
Export	E_INV013_254mm	254	Category 2/E	37.04706042	46.57919257	-0.456063049	4.7
Export	E_INV013_254mm	254	Category 1/E	37.98639158	46.51298956	-3.461081599	5
Export	E_INV013_254mm	254	Category 1/E	29.49377325	34.47174465	3.68835827	9
Export	E_INV013_254mm	254	Category 1/E	25.72063832	28.76871472	6.436475104	12.61710051
Export	E_INV013_254mm	254	Category 1/E	18.03982294	16.56320985	10.14974346	30.003942
Export	E_INV013_254mm	254	Category 1/E	39.05210474	47.97170173	-4.41572154	4.7
Export	E_INV013_10mm	10	Category 12/E	4.036165446	3.388111997	1.818321671	5
Export	E_INV013_10mm	10	Category 12/E	3.093742535	1.913013123	2.49367569	9
Export	E_INV013_10mm	10	Category 12/E	2.535088361	1.124067462	3.135353926	12.61710051
Export	E_INV013_10mm	10	Category 12/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 12/E	4.121302354	3.548896738	1.754536654	4.7
Export	E_INV013_10mm	10	Category 11/E	3.978023835	3.447796962	1.800876292	5
Export	E_INV013_10mm	10	Category 11/E	3.033529796	1.988195486	2.480680932	9
Export	E_INV013_10mm	10	Category 11/E	2.546043297	1.204747871	3.000370691	12.61710051
Export	E_INV013_10mm	10	Category 11/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 11/E	4.060808586	3.610325033	1.740168975	4.7
Export	E_INV013_10mm	10	Category 10/E	4.127350858	4.00792338	1.714422992	5
Export	E_INV013_10mm	10	Category 10/E	3.143215594	2.473146357	2.399939651	9
Export	E_INV013_10mm	10	Category 10/E	2.634496796	1.62753059	2.800528683	12.61710051
Export	E_INV013_10mm	10	Category 10/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 10/E	4.217676701	4.179719671	1.656063842	4.7
Export	E_INV013_10mm	10	Category 9/E	4.117231766	3.71119791	1.762329059	5
Export	E_INV013_10mm	10	Category 9/E	3.116989579	2.185849479	2.44339051	9
Export	E_INV013_10mm	10	Category 9/E	2.620308593	1.36717328	2.958393957	12.61710051
Export	E_INV013_10mm	10	Category 9/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 9/E	4.204889507	3.880108218	1.702566596	4.7
Export	E_INV013_10mm	10	Category 8/E	4.167228322	3.938932842	1.728241523	5
Export	E_INV013_10mm	10	Category 8/E	3.149565487	2.378897291	2.410678029	9
Export	E_INV013_10mm	10	Category 8/E	2.643927761	1.533868392	2.868767849	12.61710051
Export	E_INV013_10mm	10	Category 8/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 8/E	4.260030428	4.111503478	1.66628557	4.7
Export	E_INV013_10mm	10	Category 7/E	4.068195304	3.777306244	1.748394399	5
Export	E_INV013_10mm	10	Category 7/E	3.105370708	2.273344258	2.43346459	9
Export	E_INV013_10mm	10	Category 7/E	2.61315026	1.454629116	2.869655995	12.61710051
Export	E_INV013_10mm	10	Category 7/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 7/E	4.154605308	3.946962965	1.689606037	4.7
Export	E_INV013_10mm	10	Category 6/E	4.068195304	3.777306244	1.748394399	5
Export	E_INV013_10mm	10	Category 6/E	3.105370708	2.273344258	2.43346459	9
Export	E_INV013_10mm	10	Category 6/E	2.61315026	1.454629116	2.869655995	12.61710051
Export	E_INV013_10mm	10	Category 6/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 6/E	4.154605308	3.946962965	1.689606037	4.7
Export	E_INV013_10mm	10	Category 5/E	3.978023835	3.447796962	1.800876292	5
Export	E_INV013_10mm	10	Category 5/E	3.033529796	1.988195486	2.480680932	9
Export	E_INV013_10mm	10	Category 5/E	2.546043297	1.204747871	3.000370691	12.61710051
Export	E_INV013_10mm	10	Category 5/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 5/E	4.060808586	3.610325033	1.740168975	4.7
Export	E_INV013_10mm	10	Category 4/E	4.167228322	3.938932842	1.728241523	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV013_10mm	10	Category 4/E	3.149565487	2.378897291	2.410678029	9
Export	E_INV013_10mm	10	Category 4/E	2.643927761	1.533868392	2.868767849	12.61710051
Export	E_INV013_10mm	10	Category 4/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 4/E	4.260030428	4.111503478	1.66628557	4.7
Export	E_INV013_10mm	10	Category 3/E	4.036165446	3.388111997	1.818321671	5
Export	E_INV013_10mm	10	Category 3/E	3.093742535	1.913013123	2.49367569	9
Export	E_INV013_10mm	10	Category 3/E	2.535088361	1.124067462	3.135353926	12.61710051
Export	E_INV013_10mm	10	Category 3/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 3/E	4.121302354	3.548896738	1.754536654	4.7
Export	E_INV013_10mm	10	Category 2/E	4.117231766	3.71119791	1.762329059	5
Export	E_INV013_10mm	10	Category 2/E	3.116989579	2.185849479	2.44339051	9
Export	E_INV013_10mm	10	Category 2/E	2.620308593	1.36717328	2.958393957	12.61710051
Export	E_INV013_10mm	10	Category 2/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 2/E	4.204889507	3.880108218	1.702566596	4.7
Export	E_INV013_10mm	10	Category 1/E	4.127350858	4.00792338	1.714422992	5
Export	E_INV013_10mm	10	Category 1/E	3.143215594	2.473146357	2.399939651	9
Export	E_INV013_10mm	10	Category 1/E	2.634496796	1.62753059	2.800528683	12.61710051
Export	E_INV013_10mm	10	Category 1/E	0	0	0	30.003942
Export	E_INV013_10mm	10	Category 1/E	4.217676701	4.179719671	1.656063842	4.7
Export	E_INV014_50mm (1m)	50	Category 12/E	13.68763135	13.19721132	-1.041200585	5
Export	E_INV014_50mm (1m)	50	Category 12/E	11.99495563	9.726131108	-0.296143373	9
Export	E_INV014_50mm (1m)	50	Category 12/E	11.10833082	7.941916642	0.21523868	12.61710051
Export	E_INV014_50mm (1m)	50	Category 12/E	9.187605807	3.946242972	1.378066621	30.003942
Export	E_INV014_50mm (1m)	50	Category 12/E	13.88907637	13.59650086	-1.126259785	4.7
Export	E_INV014_50mm (1m)	50	Category 11/E	13.59890887	13.23856371	-1.059746933	5
Export	E_INV014_50mm (1m)	50	Category 11/E	11.89532971	9.764458454	-0.305482483	9
Export	E_INV014_50mm (1m)	50	Category 11/E	10.97292169	7.986351295	0.273662325	12.61710051
Export	E_INV014_50mm (1m)	50	Category 11/E	9.086888694	3.980253495	1.368673522	30.003942
Export	E_INV014_50mm (1m)	50	Category 11/E	13.80263909	13.6405688	-1.145814558	4.7
Export	E_INV014_50mm (1m)	50	Category 10/E	16.56867535	11.74054794	-0.560181384	5
Export	E_INV014_50mm (1m)	50	Category 10/E	14.54730656	5.303636164	0.335692843	9
Export	E_INV014_50mm (1m)	50	Category 10/E	13.60416696	5.303636164	0.510069826	12.61710051
Export	E_INV014_50mm (1m)	50	Category 10/E	0	0	0	30.003942
Export	E_INV014_50mm (1m)	50	Category 10/E	16.78571248	12.20589011	-0.636186803	4.7
Export	E_INV014_50mm (1m)	50	Category 9/E	14.56346522	12.68842447	-0.692172829	5
Export	E_INV014_50mm (1m)	50	Category 9/E	12.74607895	9.123224944	0.186321522	9
Export	E_INV014_50mm (1m)	50	Category 9/E	11.93710566	7.194424204	0.450182512	12.61710051
Export	E_INV014_50mm (1m)	50	Category 9/E	9.478382856	3.252293225	2.278227503	30.003942
Export	E_INV014_50mm (1m)	50	Category 9/E	14.76800673	13.09021289	-0.769727027	4.7
Export	E_INV014_50mm (1m)	50	Category 8/E	16.73164404	11.68298719	-0.552553469	5
Export	E_INV014_50mm (1m)	50	Category 8/E	14.7843356	7.369379168	0.186208753	9
Export	E_INV014_50mm (1m)	50	Category 8/E	13.76328078	5.26466083	0.499819116	12.61710051
Export	E_INV014_50mm (1m)	50	Category 8/E	0	0	0	30.003942
Export	E_INV014_50mm (1m)	50	Category 8/E	16.95048865	12.15181026	-0.632167684	4.7
Export	E_INV014_50mm (1m)	50	Category 7/E	14.43138081	12.70181474	-0.701120168	5
Export	E_INV014_50mm (1m)	50	Category 7/E	12.60746489	9.15240323	0.180736147	9
Export	E_INV014_50mm (1m)	50	Category 7/E	11.7991398	7.235689834	0.447706928	12.61710051
Export	E_INV014_50mm (1m)	50	Category 7/E	9.344370112	3.26321508	2.287763657	30.003942
Export	E_INV014_50mm (1m)	50	Category 7/E	14.63488846	13.10244797	-0.779800759	4.7
Export	E_INV014_50mm (1m)	50	Category 6/E	14.71489296	12.97271648	-0.726146836	5
Export	E_INV014_50mm (1m)	50	Category 6/E	12.85894344	9.356383851	0.164825964	9
Export	E_INV014_50mm (1m)	50	Category 6/E	12.03132385	7.406191364	0.444786346	12.61710051
Export	E_INV014_50mm (1m)	50	Category 6/E	9.510976549	3.357111284	2.359454666	30.003942
Export	E_INV014_50mm (1m)	50	Category 6/E	14.92183487	13.38131232	-0.804881809	4.7
Export	E_INV014_50mm (1m)	50	Category 5/E	13.82448713	13.47896572	-1.079804282	5
Export	E_INV014_50mm (1m)	50	Category 5/E	12.1011645	9.947475007	-0.329847281	9
Export	E_INV014_50mm (1m)	50	Category 5/E	11.14945546	8.140976317	0.286386215	12.61710051
Export	E_INV014_50mm (1m)	50	Category 5/E	9.267135855	4.061608925	1.330097353	30.003942
Export	E_INV014_50mm (1m)	50	Category 5/E	14.03061272	13.8879325	-1.166528987	4.7
Export	E_INV014_50mm (1m)	50	Category 4/E	16.51226521	11.50901003	-0.540265116	5
Export	E_INV014_50mm (1m)	50	Category 4/E	14.5142138	7.273596638	0.344901768	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV014_50mm (1m)	50	Category 4/E	13.57694081	5.176328677	0.510853117	12.61710051
Export	E_INV014_50mm (1m)	50	Category 4/E	0	0	0	30.003942
Export	E_INV014_50mm (1m)	50	Category 4/E	16.72866852	11.97270519	-0.614632855	4.7
Export	E_INV014_50mm (1m)	50	Category 3/E	13.88621762	13.40344603	-1.062456601	5
Export	E_INV014_50mm (1m)	50	Category 3/E	12.17320414	9.882973222	-0.315818925	9
Export	E_INV014_50mm (1m)	50	Category 3/E	11.27175815	8.07361959	0.206770587	12.61710051
Export	E_INV014_50mm (1m)	50	Category 3/E	9.344803247	4.015419537	1.344272272	30.003942
Export	E_INV014_50mm (1m)	50	Category 3/E	14.09020309	13.80885692	-1.148155954	4.7
Export	E_INV014_50mm (1m)	50	Category 2/E	14.83183442	12.94417386	-0.711620157	5
Export	E_INV014_50mm (1m)	50	Category 2/E	12.98532575	9.315374078	0.173313961	9
Export	E_INV014_50mm (1m)	50	Category 2/E	12.1629949	7.352846181	0.440277559	12.61710051
Export	E_INV014_50mm (1m)	50	Category 2/E	9.697779768	3.325512579	2.227231797	30.003942
Export	E_INV014_50mm (1m)	50	Category 2/E	15.04199743	13.3531209	-0.793965855	4.7
Export	E_INV014_50mm (1m)	50	Category 1/E	16.34763768	11.56260745	-0.543769234	5
Export	E_INV014_50mm (1m)	50	Category 1/E	14.34639918	5.211637744	0.352623495	9
Export	E_INV014_50mm (1m)	50	Category 1/E	13.41789876	5.211637744	0.51781957	12.61710051
Export	E_INV014_50mm (1m)	50	Category 1/E	0	0	0	30.003942
Export	E_INV014_50mm (1m)	50	Category 1/E	16.56200148	12.02212456	-0.619175097	4.7
Export	E_INV014_1000mm (1m)	1000	Category 10/E	103.9938255	89.1242421	-11.25241114	5
Export	E_INV014_1000mm (1m)	1000	Category 10/E	92.14226914	64.30849944	-7.35133857	9
Export	E_INV014_1000mm (1m)	1000	Category 10/E	86.25835915	50.66374591	-5.435372866	12.61710051
Export	E_INV014_1000mm (1m)	1000	Category 10/E	71.92944377	23.03527135	-0.973554854	30.003942
Export	E_INV014_1000mm (1m)	1000	Category 10/E	105.3966763	91.87331118	-11.71519655	4.7
Export	E_INV014_1000mm (1m)	1000	Category 9/E	90.65139096	91.27115043	-7.515279352	5
Export	E_INV014_1000mm (1m)	1000	Category 9/E	80.16506793	69.51944028	-4.985026185	9
Export	E_INV014_1000mm (1m)	1000	Category 9/E	75.18962843	58.20438954	-3.824077908	12.61710051
Export	E_INV014_1000mm (1m)	1000	Category 9/E	64.75611064	31.47866523	-1.418429057	30.003942
Export	E_INV014_1000mm (1m)	1000	Category 9/E	91.93096412	93.77912714	-7.853388253	4.7
Export	E_INV014_1000mm (1m)	1000	Category 8/E	101.614415	85.3960741	-10.7841829	5
Export	E_INV014_1000mm (1m)	1000	Category 8/E	90.21057963	61.22343548	-7.013217317	9
Export	E_INV014_1000mm (1m)	1000	Category 8/E	84.51366622	47.96352401	-5.154508553	12.61710051
Export	E_INV014_1000mm (1m)	1000	Category 8/E	70.40067301	21.96472455	-0.774718061	30.003942
Export	E_INV014_1000mm (1m)	1000	Category 8/E	102.9610864	88.05223284	-11.23240808	4.7
Export	E_INV014_1000mm (1m)	1000	Category 7/E	92.75925966	94.86112285	-7.819121119	5
Export	E_INV014_1000mm (1m)	1000	Category 7/E	81.81971266	72.35561294	-5.190961396	9
Export	E_INV014_1000mm (1m)	1000	Category 7/E	76.64856182	60.72625042	-3.989749708	12.61710051
Export	E_INV014_1000mm (1m)	1000	Category 7/E	65.87550309	33.22827902	-1.519652435	30.003942
Export	E_INV014_1000mm (1m)	1000	Category 7/E	94.09619412	97.47483746	-8.173545645	4.7
Export	E_INV014_1000mm (1m)	1000	Category 6/E	96.97466058	99.46242659	-8.295759218	5
Export	E_INV014_1000mm (1m)	1000	Category 6/E	85.51949113	75.918153	-5.543087882	9
Export	E_INV014_1000mm (1m)	1000	Category 6/E	80.10197934	63.76968209	-4.27854605	12.61710051
Export	E_INV014_1000mm (1m)	1000	Category 6/E	68.82309228	35.06180995	-1.6733456	30.003942
Export	E_INV014_1000mm (1m)	1000	Category 6/E	98.37665922	102.196004	-8.665831991	4.7
Export	E_INV014_1000mm (1m)	1000	Category 5/E	96.32712368	108.9405121	-10.05300441	5
Export	E_INV014_1000mm (1m)	1000	Category 5/E	84.26389369	83.49162589	-6.66229373	9
Export	E_INV014_1000mm (1m)	1000	Category 5/E	78.71131319	70.93289895	-5.292452453	12.61710051
Export	E_INV014_1000mm (1m)	1000	Category 5/E	67.48042302	42.60967695	-2.529840831	30.003942
Export	E_INV014_1000mm (1m)	1000	Category 5/E	97.82004484	111.966972	-10.52529146	4.7
Export	E_INV014_1000mm (1m)	1000	Category 4/E	99.27994864	83.28050806	-10.44290351	5
Export	E_INV014_1000mm (1m)	1000	Category 4/E	88.1500545	59.64289049	-6.778340661	9
Export	E_INV014_1000mm (1m)	1000	Category 4/E	82.58516112	46.67396224	-4.970302959	12.61710051
Export	E_INV014_1000mm (1m)	1000	Category 4/E	68.75892932	21.34271365	-0.700700117	30.003942
Export	E_INV014_1000mm (1m)	1000	Category 4/E	100.5940189	85.87622071	-10.87846902	4.7
Export	E_INV014_1000mm (1m)	1000	Category 2/E	94.83474713	95.75357187	-7.983020103	5
Export	E_INV014_1000mm (1m)	1000	Category 2/E	83.84868712	72.9945603	-5.335504468	9
Export	E_INV014_1000mm (1m)	1000	Category 2/E	78.62928162	61.16579122	-4.104607159	12.61710051
Export	E_INV014_1000mm (1m)	1000	Category 2/E	67.70353676	32.18072561	-1.567674699	30.003942
Export	E_INV014_1000mm (1m)	1000	Category 2/E	96.17494127	98.37990992	-8.335674069	4.7
Export	E_INV014_1000mm (1m)	1000	Category 1/E	101.6614718	86.96692026	-10.90515326	5
Export	E_INV014_1000mm (1m)	1000	Category 1/E	90.08889986	62.68972059	-7.111288977	9
Export	E_INV014_1000mm (1m)	1000	Category 1/E	84.34163994	49.33471072	-5.249830039	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV014_1000mm (1m)	1000	Category 1/E	70.29586014	22.3938162	-0.896384422	30.003942
Export	E_INV014_1000mm (1m)	1000	Category 1/E	103.0315212	89.65416798	-11.35616396	4.7
Export	E_INV014_50mm (2/3H)	50	Category 12/E	0	0	0	5
Export	E_INV014_50mm (2/3H)	50	Category 12/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 12/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 12/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 12/E	4.089248925	4.418147196	13.04553961	4.7
Export	E_INV014_50mm (2/3H)	50	Category 11/E	3.193720159	3.229329764	13.97255891	5
Export	E_INV014_50mm (2/3H)	50	Category 11/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 11/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 11/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 11/E	6.138828579	7.114223331	10.82065851	4.7
Export	E_INV014_50mm (2/3H)	50	Category 10/E	0	0	0	5
Export	E_INV014_50mm (2/3H)	50	Category 10/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 10/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 10/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 10/E	0	0	0	4.7
Export	E_INV014_50mm (2/3H)	50	Category 9/E	0	0	0	5
Export	E_INV014_50mm (2/3H)	50	Category 9/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 9/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 9/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 9/E	1.702253186	0.584508786	19.19953438	4.7
Export	E_INV014_50mm (2/3H)	50	Category 8/E	0	0	0	5
Export	E_INV014_50mm (2/3H)	50	Category 8/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 8/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 8/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 8/E	0	0	0	4.7
Export	E_INV014_50mm (2/3H)	50	Category 7/E	0	0	0	5
Export	E_INV014_50mm (2/3H)	50	Category 7/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 7/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 7/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 7/E	5.195523958	5.587851717	15.29783758	4.7
Export	E_INV014_50mm (2/3H)	50	Category 6/E	0	0	0	5
Export	E_INV014_50mm (2/3H)	50	Category 6/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 6/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 6/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 6/E	5.195523958	5.587851717	15.29783758	4.7
Export	E_INV014_50mm (2/3H)	50	Category 5/E	3.193720159	3.229329764	13.97255891	5
Export	E_INV014_50mm (2/3H)	50	Category 5/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 5/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 5/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 5/E	6.138828579	7.114223331	10.82065851	4.7
Export	E_INV014_50mm (2/3H)	50	Category 4/E	0	0	0	5
Export	E_INV014_50mm (2/3H)	50	Category 4/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 4/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 4/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 4/E	0	0	0	4.7
Export	E_INV014_50mm (2/3H)	50	Category 3/E	0	0	0	5
Export	E_INV014_50mm (2/3H)	50	Category 3/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 3/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 3/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 3/E	4.089248925	4.418147196	13.04553961	4.7
Export	E_INV014_50mm (2/3H)	50	Category 2/E	0	0	0	5
Export	E_INV014_50mm (2/3H)	50	Category 2/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 2/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 2/E	0	0	0	30.003942
Export	E_INV014_50mm (2/3H)	50	Category 2/E	1.702253186	0.584508786	19.19953438	4.7
Export	E_INV014_50mm (2/3H)	50	Category 1/E	0	0	0	5
Export	E_INV014_50mm (2/3H)	50	Category 1/E	0	0	0	9
Export	E_INV014_50mm (2/3H)	50	Category 1/E	0	0	0	12.61710051
Export	E_INV014_50mm (2/3H)	50	Category 1/E	0	0	0	30.003942

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV014_50mm (2/3H)	50	Category 1/E	0	0	0	4.7
Export	E_INV014_1000mm (2/3H)	1000	Category 10/E	271.8178199	249.0155648	-43.54752738	5
Export	E_INV014_1000mm (2/3H)	1000	Category 10/E	235.4881725	184.2374837	-24.01222383	9
Export	E_INV014_1000mm (2/3H)	1000	Category 10/E	217.7699804	150.1657239	-14.50856428	12.61710051
Export	E_INV014_1000mm (2/3H)	1000	Category 10/E	177.518488	73.37841741	8.497869256	30.003942
Export	E_INV014_1000mm (2/3H)	1000	Category 10/E	276.1570489	256.4340267	-45.91143834	4.7
Export	E_INV014_1000mm (2/3H)	1000	Category 9/E	282.8094267	297.007672	-52.55268009	5
Export	E_INV014_1000mm (2/3H)	1000	Category 9/E	242.8674724	226.5957362	-30.82891147	9
Export	E_INV014_1000mm (2/3H)	1000	Category 9/E	224.0320474	191.769933	-20.88763876	12.61710051
Export	E_INV014_1000mm (2/3H)	1000	Category 9/E	182.2688113	113.9448153	5.291530654	30.003942
Export	E_INV014_1000mm (2/3H)	1000	Category 9/E	287.69178	305.3687669	-55.33128251	4.7
Export	E_INV014_1000mm (2/3H)	1000	Category 8/E	270.9387165	243.4567325	-42.064813	5
Export	E_INV014_1000mm (2/3H)	1000	Category 8/E	235.4451388	179.596236	-22.96756976	9
Export	E_INV014_1000mm (2/3H)	1000	Category 8/E	218.0449082	145.7871829	-13.63111392	12.61710051
Export	E_INV014_1000mm (2/3H)	1000	Category 8/E	178.3264002	70.95222483	8.741817839	30.003942
Export	E_INV014_1000mm (2/3H)	1000	Category 8/E	275.1640223	250.7285852	-44.36476946	4.7
Export	E_INV014_1000mm (2/3H)	1000	Category 7/E	284.8795707	304.1978302	-54.79652817	5
Export	E_INV014_1000mm (2/3H)	1000	Category 7/E	243.6363731	231.8252563	-32.19727151	9
Export	E_INV014_1000mm (2/3H)	1000	Category 7/E	224.3156035	196.344333	-21.99272004	12.61710051
Export	E_INV014_1000mm (2/3H)	1000	Category 7/E	181.6639454	117.5899421	4.801760155	30.003942
Export	E_INV014_1000mm (2/3H)	1000	Category 7/E	289.9440672	312.8366202	-57.71309022	4.7
Export	E_INV014_1000mm (2/3H)	1000	Category 6/E	276.5090796	294.7262326	-53.19677304	5
Export	E_INV014_1000mm (2/3H)	1000	Category 6/E	236.3795108	224.4691539	-31.04802387	9
Export	E_INV014_1000mm (2/3H)	1000	Category 6/E	217.5383494	190.0080757	-20.9746551	12.61710051
Export	E_INV014_1000mm (2/3H)	1000	Category 6/E	175.9876257	113.4777995	5.294894451	30.003942
Export	E_INV014_1000mm (2/3H)	1000	Category 6/E	281.4327599	303.1098993	-56.04696035	4.7
Export	E_INV014_1000mm (2/3H)	1000	Category 5/E	286.2042664	332.613473	-68.58621278	5
Export	E_INV014_1000mm (2/3H)	1000	Category 5/E	242.4418256	253.3353345	-42.35593808	9
Export	E_INV014_1000mm (2/3H)	1000	Category 5/E	222.2895333	215.4543435	-30.95839425	12.61710051
Export	E_INV014_1000mm (2/3H)	1000	Category 5/E	180.6292391	134.795139	-6.215932003	30.003942
Export	E_INV014_1000mm (2/3H)	1000	Category 5/E	291.6299421	342.1880347	-72.03224083	4.7
Export	E_INV014_1000mm (2/3H)	1000	Category 4/E	275.3116298	247.6434611	-42.88387124	5
Export	E_INV014_1000mm (2/3H)	1000	Category 4/E	239.2969623	182.793005	-23.55983152	9
Export	E_INV014_1000mm (2/3H)	1000	Category 4/E	221.6571067	148.473597	-14.14016183	12.61710051
Export	E_INV014_1000mm (2/3H)	1000	Category 4/E	181.4555968	72.44373313	8.327091765	30.003942
Export	E_INV014_1000mm (2/3H)	1000	Category 4/E	279.5989048	255.0246013	-45.21002625	4.7
Export	E_INV014_1000mm (2/3H)	1000	Category 3/E	283.1431631	323.6035294	-65.67517211	5
Export	E_INV014_1000mm (2/3H)	1000	Category 3/E	240.9410758	246.9975509	-40.6236716	9
Export	E_INV014_1000mm (2/3H)	1000	Category 3/E	221.3856827	210.1290631	-29.60394412	12.61710051
Export	E_INV014_1000mm (2/3H)	1000	Category 3/E	180.5094773	130.9590641	-5.039987768	30.003942
Export	E_INV014_1000mm (2/3H)	1000	Category 3/E	288.3502162	332.8148303	-68.93484484	4.7
Export	E_INV014_1000mm (2/3H)	1000	Category 2/E	274.4409384	287.727281	-50.99473654	5
Export	E_INV014_1000mm (2/3H)	1000	Category 2/E	235.5711763	219.370525	-29.69556911	9
Export	E_INV014_1000mm (2/3H)	1000	Category 2/E	217.2010017	185.5458524	-19.87204038	12.61710051
Export	E_INV014_1000mm (2/3H)	1000	Category 2/E	176.5054999	109.929555	5.814256946	30.003942
Export	E_INV014_1000mm (2/3H)	1000	Category 2/E	279.1870513	295.8428102	-53.71086696	4.7
Export	E_INV014_1000mm (2/3H)	1000	Category 1/E	275.8758815	252.9856041	-44.32207467	5
Export	E_INV014_1000mm (2/3H)	1000	Category 1/E	239.0480944	187.2751493	-24.56920523	9
Export	E_INV014_1000mm (2/3H)	1000	Category 1/E	221.1033432	152.7253605	-14.98654038	12.61710051
Export	E_INV014_1000mm (2/3H)	1000	Category 1/E	180.3841508	74.81894779	8.135208904	30.003942
Export	E_INV014_1000mm (2/3H)	1000	Category 1/E	280.2758757	260.5127562	-46.71522731	4.7
Export	E_INV015_25mm (all)	25	Category 12/E	4.523869167	3.509111999	1.782127264	5
Export	E_INV015_25mm (all)	25	Category 12/E	3.538508337	1.903680361	2.471692779	9
Export	E_INV015_25mm (all)	25	Category 12/E	2.807833228	1.057467213	3.386686359	12.61710051
Export	E_INV015_25mm (all)	25	Category 12/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 12/E	4.61824352	3.687211918	1.711659615	4.7
Export	E_INV015_25mm (all)	25	Category 11/E	4.463244404	3.586096531	1.763320957	5
Export	E_INV015_25mm (all)	25	Category 11/E	3.471934173	1.988071169	2.453178746	9
Export	E_INV015_25mm (all)	25	Category 11/E	2.862777811	1.144951114	3.163808986	12.61710051
Export	E_INV015_25mm (all)	25	Category 11/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 11/E	4.554118019	3.762562395	1.697291546	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV015_25mm (all)	25	Category 10/E	4.409183888	4.148035003	1.65374268	5
Export	E_INV015_25mm (all)	25	Category 10/E	3.290209433	2.452133807	2.35138888	9
Export	E_INV015_25mm (all)	25	Category 10/E	2.785249441	1.527560266	2.818505782	12.61710051
Export	E_INV015_25mm (all)	25	Category 10/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 10/E	4.50917177	4.333480849	1.595206461	4.7
Export	E_INV015_25mm (all)	25	Category 9/E	4.492361255	3.844187783	1.709894057	5
Export	E_INV015_25mm (all)	25	Category 9/E	3.434446107	2.170620865	2.403994529	9
Export	E_INV015_25mm (all)	25	Category 9/E	2.82314785	1.273785332	3.067714989	12.61710051
Export	E_INV015_25mm (all)	25	Category 9/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 9/E	4.590914786	4.030078755	1.644127124	4.7
Export	E_INV015_25mm (all)	25	Category 8/E	4.444472384	4.064767721	1.663948738	5
Export	E_INV015_25mm (all)	25	Category 8/E	3.336175409	2.35227104	2.361668574	9
Export	E_INV015_25mm (all)	25	Category 8/E	2.767163582	1.409440812	2.916509992	12.61710051
Export	E_INV015_25mm (all)	25	Category 8/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 8/E	4.546688408	4.252080488	1.604749731	4.7
Export	E_INV015_25mm (all)	25	Category 7/E	4.44506525	3.926447943	1.695319905	5
Export	E_INV015_25mm (all)	25	Category 7/E	3.377299515	2.263692234	2.391593593	9
Export	E_INV015_25mm (all)	25	Category 7/E	2.849375344	1.376304079	2.932501705	12.61710051
Export	E_INV015_25mm (all)	25	Category 7/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 7/E	4.540272329	4.109590656	1.634899401	4.7
Export	E_INV015_25mm (all)	25	Category 6/E	4.44506525	3.926447943	1.695319905	5
Export	E_INV015_25mm (all)	25	Category 6/E	3.377299515	2.263692234	2.391593593	9
Export	E_INV015_25mm (all)	25	Category 6/E	2.849375344	1.376304079	2.932501705	12.61710051
Export	E_INV015_25mm (all)	25	Category 6/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 6/E	4.540272329	4.109590656	1.634899401	4.7
Export	E_INV015_25mm (all)	25	Category 5/E	4.463244404	3.586096531	1.763320957	5
Export	E_INV015_25mm (all)	25	Category 5/E	3.471934173	1.988071169	2.453178746	9
Export	E_INV015_25mm (all)	25	Category 5/E	2.862777811	1.144951114	3.163808986	12.61710051
Export	E_INV015_25mm (all)	25	Category 5/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 5/E	4.554118019	3.762562395	1.697291546	4.7
Export	E_INV015_25mm (all)	25	Category 4/E	4.444472384	4.064767721	1.663948738	5
Export	E_INV015_25mm (all)	25	Category 4/E	3.336175409	2.35227104	2.361668574	9
Export	E_INV015_25mm (all)	25	Category 4/E	2.767163582	1.409440812	2.916509992	12.61710051
Export	E_INV015_25mm (all)	25	Category 4/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 4/E	4.546688408	4.252080488	1.604749731	4.7
Export	E_INV015_25mm (all)	25	Category 3/E	4.523869167	3.509111999	1.782127264	5
Export	E_INV015_25mm (all)	25	Category 3/E	3.538508337	1.903680361	2.471692779	9
Export	E_INV015_25mm (all)	25	Category 3/E	2.807833228	1.057467213	3.386686359	12.61710051
Export	E_INV015_25mm (all)	25	Category 3/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 3/E	4.61824352	3.687211918	1.711659615	4.7
Export	E_INV015_25mm (all)	25	Category 2/E	4.492361255	3.844187783	1.709894057	5
Export	E_INV015_25mm (all)	25	Category 2/E	3.434446107	2.170620865	2.403994529	9
Export	E_INV015_25mm (all)	25	Category 2/E	2.82314785	1.273785332	3.067714989	12.61710051
Export	E_INV015_25mm (all)	25	Category 2/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 2/E	4.590914786	4.030078755	1.644127124	4.7
Export	E_INV015_25mm (all)	25	Category 1/E	4.409183888	4.148035003	1.65374268	5
Export	E_INV015_25mm (all)	25	Category 1/E	3.290209433	2.452133807	2.35138888	9
Export	E_INV015_25mm (all)	25	Category 1/E	2.785249441	1.527560266	2.818505782	12.61710051
Export	E_INV015_25mm (all)	25	Category 1/E	0	0	0	30.003942
Export	E_INV015_25mm (all)	25	Category 1/E	4.50917177	4.333480849	1.595206461	4.7
Export	E_INV015_50mm (all)	50	Category 12/E	10.40714313	10.78180809	2.329189432	5
Export	E_INV015_50mm (all)	50	Category 12/E	9.093273785	7.378180046	2.963376488	9
Export	E_INV015_50mm (all)	50	Category 12/E	8.385354319	5.650576412	3.296597681	12.61710051
Export	E_INV015_50mm (all)	50	Category 12/E	6.479586025	1.953547138	4.38804039	30.003942
Export	E_INV015_50mm (all)	50	Category 12/E	10.5576434	11.17828089	2.256824365	4.7
Export	E_INV015_50mm (all)	50	Category 11/E	10.28770485	10.98912986	2.339445978	5
Export	E_INV015_50mm (all)	50	Category 11/E	8.96651513	7.581079418	2.987107313	9
Export	E_INV015_50mm (all)	50	Category 11/E	8.265037233	5.856886554	3.324637323	12.61710051
Export	E_INV015_50mm (all)	50	Category 11/E	6.35205114	2.141267897	4.435653454	30.003942
Export	E_INV015_50mm (all)	50	Category 11/E	10.43805613	11.39385579	2.267615444	4.7
Export	E_INV015_50mm (all)	50	Category 10/E	9.876097415	11.51773333	2.37615126	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV015_50mm (all)	50	Category 10/E	8.27865657	8.134468753	2.973715247	9
Export	E_INV015_50mm (all)	50	Category 10/E	7.377517473	6.374613015	3.297426955	12.61710051
Export	E_INV015_50mm (all)	50	Category 10/E	5.290560796	2.28813584	4.237747493	30.003942
Export	E_INV015_50mm (all)	50	Category 10/E	10.05890895	11.90694522	2.306214434	4.7
Export	E_INV015_50mm (all)	50	Category 9/E	10.16591917	11.14006702	2.337436091	5
Export	E_INV015_50mm (all)	50	Category 9/E	8.698449943	7.730520447	2.950691403	9
Export	E_INV015_50mm (all)	50	Category 9/E	7.879355372	5.970803277	3.278235351	12.61710051
Export	E_INV015_50mm (all)	50	Category 9/E	5.259617465	2.069861086	5.428374245	30.003942
Export	E_INV015_50mm (all)	50	Category 9/E	10.3351703	11.52963153	2.265708318	4.7
Export	E_INV015_50mm (all)	50	Category 8/E	9.932311676	11.31712903	2.360144236	5
Export	E_INV015_50mm (all)	50	Category 8/E	8.334640471	7.927890232	2.948964168	9
Export	E_INV015_50mm (all)	50	Category 8/E	7.413695255	6.147737444	3.269345672	12.61710051
Export	E_INV015_50mm (all)	50	Category 8/E	5.208922057	2.035776578	4.338207632	30.003942
Export	E_INV015_50mm (all)	50	Category 8/E	10.11208408	11.70209718	2.294579116	4.7
Export	E_INV015_50mm (all)	50	Category 7/E	10.08128402	11.34506215	2.347148747	5
Export	E_INV015_50mm (all)	50	Category 7/E	8.607108909	7.936078056	2.97448798	9
Export	E_INV015_50mm (all)	50	Category 7/E	7.804570418	6.188107238	3.305620683	12.61710051
Export	E_INV015_50mm (all)	50	Category 7/E	5.748516694	2.249711978	4.387592095	30.003942
Export	E_INV015_50mm (all)	50	Category 7/E	10.24993982	11.73735683	2.276039815	4.7
Export	E_INV015_50mm (all)	50	Category 6/E	10.08128402	11.34506215	2.347148747	5
Export	E_INV015_50mm (all)	50	Category 6/E	8.607108909	7.936078056	2.97448798	9
Export	E_INV015_50mm (all)	50	Category 6/E	7.804570418	6.188107238	3.305620683	12.61710051
Export	E_INV015_50mm (all)	50	Category 6/E	5.748516694	2.249711978	4.387592095	30.003942
Export	E_INV015_50mm (all)	50	Category 6/E	10.24993982	11.73735683	2.276039815	4.7
Export	E_INV015_50mm (all)	50	Category 5/E	10.28770485	10.98912986	2.339445978	5
Export	E_INV015_50mm (all)	50	Category 5/E	8.96651513	7.581079418	2.987107313	9
Export	E_INV015_50mm (all)	50	Category 5/E	8.265037233	5.856886554	3.324637323	12.61710051
Export	E_INV015_50mm (all)	50	Category 5/E	6.35205114	2.141267897	4.435653454	30.003942
Export	E_INV015_50mm (all)	50	Category 5/E	10.43805613	11.39385579	2.267615444	4.7
Export	E_INV015_50mm (all)	50	Category 4/E	9.932311676	11.31712903	2.360144236	5
Export	E_INV015_50mm (all)	50	Category 4/E	8.334640471	7.927890232	2.948964168	9
Export	E_INV015_50mm (all)	50	Category 4/E	7.413695255	6.147737444	3.269345672	12.61710051
Export	E_INV015_50mm (all)	50	Category 4/E	5.208922057	2.035776578	4.338207632	30.003942
Export	E_INV015_50mm (all)	50	Category 4/E	10.11208408	11.70209718	2.294579116	4.7
Export	E_INV015_50mm (all)	50	Category 3/E	10.40714313	10.78180809	2.329189432	5
Export	E_INV015_50mm (all)	50	Category 3/E	9.093273785	7.378180046	2.963376488	9
Export	E_INV015_50mm (all)	50	Category 3/E	8.385354319	5.650576412	3.296597681	12.61710051
Export	E_INV015_50mm (all)	50	Category 3/E	6.479586025	1.953547138	4.38804039	30.003942
Export	E_INV015_50mm (all)	50	Category 3/E	10.5576434	11.17828089	2.256824365	4.7
Export	E_INV015_50mm (all)	50	Category 2/E	10.16591917	11.14006702	2.337436091	5
Export	E_INV015_50mm (all)	50	Category 2/E	8.698449943	7.730520447	2.950691403	9
Export	E_INV015_50mm (all)	50	Category 2/E	7.879355372	5.970803277	3.278235351	12.61710051
Export	E_INV015_50mm (all)	50	Category 2/E	5.259617465	2.069861086	5.428374245	30.003942
Export	E_INV015_50mm (all)	50	Category 2/E	10.3351703	11.52963153	2.265708318	4.7
Export	E_INV015_50mm (all)	50	Category 1/E	9.876097415	11.51773333	2.37615126	5
Export	E_INV015_50mm (all)	50	Category 1/E	8.27865657	8.134468753	2.973715247	9
Export	E_INV015_50mm (all)	50	Category 1/E	7.377517473	6.374613015	3.297426955	12.61710051
Export	E_INV015_50mm (all)	50	Category 1/E	5.290560796	2.28813584	4.237747493	30.003942
Export	E_INV015_50mm (all)	50	Category 1/E	10.05890895	11.90694522	2.306214434	4.7
Export	E_INV015_610mm (all)	610	Category 12/E	131.4450588	156.0696186	-35.76085987	5
Export	E_INV015_610mm (all)	610	Category 12/E	102.9535618	117.3033193	-9.354487625	9
Export	E_INV015_610mm (all)	610	Category 12/E	89.90590823	98.93980007	2.1780701	12.61710051
Export	E_INV015_610mm (all)	610	Category 12/E	64.06565285	61.30621405	22.32255971	30.003942
Export	E_INV015_610mm (all)	610	Category 12/E	134.9512133	160.7466085	-39.08850252	4.7
Export	E_INV015_610mm (all)	610	Category 11/E	136.0142369	161.8030052	-41.27743308	5
Export	E_INV015_610mm (all)	610	Category 11/E	105.8505549	121.5933897	-12.91695387	9
Export	E_INV015_610mm (all)	610	Category 11/E	92.06595678	102.6603009	-0.482284331	12.61710051
Export	E_INV015_610mm (all)	610	Category 11/E	64.98910433	64.14241386	21.66157104	30.003942
Export	E_INV015_610mm (all)	610	Category 11/E	139.7300537	166.6679863	-44.83851045	4.7
Export	E_INV015_610mm (all)	610	Category 10/E	148.7038511	158.7171745	-63.89304902	5
Export	E_INV015_610mm (all)	610	Category 10/E	109.9515798	118.0708048	-27.00955792	9

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV015_610mm (all)	610	Category 10/E	91.59766905	98.59191932	-10.44508294	12.61710051
Export	E_INV015_610mm (all)	610	Category 10/E	59.10341012	58.24453446	19.52156451	30.003942
Export	E_INV015_610mm (all)	610	Category 10/E	153.3886581	163.5966263	-68.44531018	4.7
Export	E_INV015_610mm (all)	610	Category 9/E	139.1271844	154.5114058	-47.7669955	5
Export	E_INV015_610mm (all)	610	Category 9/E	105.5422966	115.7093655	-16.35490472	9
Export	E_INV015_610mm (all)	610	Category 9/E	89.85765075	97.19853	-2.509779511	12.61710051
Export	E_INV015_610mm (all)	610	Category 9/E	59.03211559	58.74002766	22.32166741	30.003942
Export	E_INV015_610mm (all)	610	Category 9/E	143.2163997	159.1792375	-51.68392044	4.7
Export	E_INV015_610mm (all)	610	Category 8/E	142.48612	152.9356603	-56.85957888	5
Export	E_INV015_610mm (all)	610	Category 8/E	105.4334778	113.633774	-22.05970336	9
Export	E_INV015_610mm (all)	610	Category 8/E	87.7312114	94.64251317	-6.53792599	12.61710051
Export	E_INV015_610mm (all)	610	Category 8/E	57.22866494	55.13083745	21.24836854	30.003942
Export	E_INV015_610mm (all)	610	Category 8/E	146.9562604	157.6353294	-61.16791446	4.7
Export	E_INV015_610mm (all)	610	Category 7/E	144.7419301	160.2251631	-54.27242813	5
Export	E_INV015_610mm (all)	610	Category 7/E	109.4109112	120.0206117	-20.77811202	9
Export	E_INV015_610mm (all)	610	Category 7/E	92.98098549	100.9704447	-5.919364134	12.61710051
Export	E_INV015_610mm (all)	610	Category 7/E	60.16312088	61.64506283	20.90037526	30.003942
Export	E_INV015_610mm (all)	610	Category 7/E	149.0496355	165.0767879	-58.43448849	4.7
Export	E_INV015_610mm (all)	610	Category 6/E	144.7419301	160.2251631	-54.27242813	5
Export	E_INV015_610mm (all)	610	Category 6/E	109.4109112	120.0206117	-20.77811202	9
Export	E_INV015_610mm (all)	610	Category 6/E	92.98098549	100.9704447	-5.919364134	12.61710051
Export	E_INV015_610mm (all)	610	Category 6/E	60.16312088	61.64506283	20.90037526	30.003942
Export	E_INV015_610mm (all)	610	Category 6/E	149.0496355	165.0767879	-58.43448849	4.7
Export	E_INV015_610mm (all)	610	Category 5/E	136.0142369	161.8030052	-41.27743308	5
Export	E_INV015_610mm (all)	610	Category 5/E	105.8505549	121.5933897	-12.91695387	9
Export	E_INV015_610mm (all)	610	Category 5/E	92.06595678	102.6603009	-0.482284331	12.61710051
Export	E_INV015_610mm (all)	610	Category 5/E	64.98910433	64.14241386	21.66157104	30.003942
Export	E_INV015_610mm (all)	610	Category 5/E	139.7300537	166.6679863	-44.83851045	4.7
Export	E_INV015_610mm (all)	610	Category 4/E	142.48612	152.9356603	-56.85957888	5
Export	E_INV015_610mm (all)	610	Category 4/E	105.4334778	113.633774	-22.05970336	9
Export	E_INV015_610mm (all)	610	Category 4/E	87.7312114	94.64251317	-6.53792599	12.61710051
Export	E_INV015_610mm (all)	610	Category 4/E	57.22866494	55.13083745	21.24836854	30.003942
Export	E_INV015_610mm (all)	610	Category 4/E	146.9562604	157.6353294	-61.16791446	4.7
Export	E_INV015_610mm (all)	610	Category 3/E	131.4450588	156.0696186	-35.76085987	5
Export	E_INV015_610mm (all)	610	Category 3/E	102.9535618	117.3033193	-9.354487625	9
Export	E_INV015_610mm (all)	610	Category 3/E	89.90590823	98.93980007	2.1780701	12.61710051
Export	E_INV015_610mm (all)	610	Category 3/E	64.06565285	61.30621405	22.32255971	30.003942
Export	E_INV015_610mm (all)	610	Category 3/E	134.9512133	160.7466085	-39.08850252	4.7
Export	E_INV015_610mm (all)	610	Category 2/E	139.1271844	154.5114058	-47.7669955	5
Export	E_INV015_610mm (all)	610	Category 2/E	105.5422966	115.7093655	-16.35490472	9
Export	E_INV015_610mm (all)	610	Category 2/E	89.85765075	97.19853	-2.509779511	12.61710051
Export	E_INV015_610mm (all)	610	Category 2/E	59.03211559	58.74002766	22.32166741	30.003942
Export	E_INV015_610mm (all)	610	Category 2/E	143.2163997	159.1792375	-51.68392044	4.7
Export	E_INV015_610mm (all)	610	Category 1/E	148.7038511	158.7171745	-63.89304902	5
Export	E_INV015_610mm (all)	610	Category 1/E	109.9515798	118.0708048	-27.00955792	9
Export	E_INV015_610mm (all)	610	Category 1/E	91.59766905	98.59191932	-10.44508294	12.61710051
Export	E_INV015_610mm (all)	610	Category 1/E	59.10341012	58.24453446	19.52156451	30.003942
Export	E_INV015_610mm (all)	610	Category 1/E	153.3886581	163.5966263	-68.44531018	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 12/E	170.9187211	221.2908747	-55.77063294	5
Export	E_INV015_1829mm (1hr)	1829	Category 12/E	146.5815204	165.4803095	-31.43343223	9
Export	E_INV015_1829mm (1hr)	1829	Category 12/E	135.2096669	138.9179432	-20.06157872	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 12/E	112.5521322	84.39469809	2.595956019	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 12/E	173.8751279	227.9955386	-58.72703972	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 11/E	174.1046505	230.4395944	-60.14840716	5
Export	E_INV015_1829mm (1hr)	1829	Category 11/E	148.333862	172.3786502	-34.37761867	9
Export	E_INV015_1829mm (1hr)	1829	Category 11/E	136.3232	144.8791903	-22.36695669	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 11/E	112.4757784	88.72675607	1.480464903	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 11/E	177.2384229	237.4362861	-63.28217953	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 10/E	205.5577251	224.1065731	-102.9083107	5
Export	E_INV015_1829mm (1hr)	1829	Category 10/E	152.8224464	164.6060276	-55.44593871	9
Export	E_INV015_1829mm (1hr)	1829	Category 10/E	127.9406065	135.7989848	-34.74084773	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV015_1829mm (1hr)	1829	Category 10/E	84.43999412	76.70670559	1.947781802	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 10/E	211.9079079	231.2098844	-108.8508184	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 9/E	179.1125267	220.5508264	-66.9515807	5
Export	E_INV015_1829mm (1hr)	1829	Category 9/E	144.6566985	165.4793134	-35.67706386	9
Export	E_INV015_1829mm (1hr)	1829	Category 9/E	129.0042101	139.3138368	-22.19689254	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 9/E	98.51630608	85.47876137	1.002188377	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 9/E	183.3703648	227.1761529	-70.91635228	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 8/E	196.9313686	214.613559	-93.55862269	5
Export	E_INV015_1829mm (1hr)	1829	Category 8/E	146.4609994	157.1616615	-49.1990685	9
Export	E_INV015_1829mm (1hr)	1829	Category 8/E	123.8850223	129.3133935	-29.92711693	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 8/E	81.53075227	71.86744494	4.090674437	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 8/E	202.9948013	221.4373079	-99.16896454	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 7/E	184.5391417	229.4635306	-73.12427466	5
Export	E_INV015_1829mm (1hr)	1829	Category 7/E	147.9319828	172.1875229	-39.49919018	9
Export	E_INV015_1829mm (1hr)	1829	Category 7/E	131.3573905	145.0842544	-24.97050438	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 7/E	99.57625308	89.72938038	-0.137447163	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 7/E	189.0708612	236.3788668	-77.38338191	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 6/E	184.5391417	229.4635306	-73.12427466	5
Export	E_INV015_1829mm (1hr)	1829	Category 6/E	147.9319828	172.1875229	-39.49919018	9
Export	E_INV015_1829mm (1hr)	1829	Category 6/E	131.3573905	145.0842544	-24.97050438	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 6/E	99.57625308	89.72938038	-0.137447163	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 6/E	189.0708612	236.3788668	-77.38338191	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 5/E	174.1046505	230.4395944	-60.14840716	5
Export	E_INV015_1829mm (1hr)	1829	Category 5/E	148.333862	172.3786502	-34.37761867	9
Export	E_INV015_1829mm (1hr)	1829	Category 5/E	136.3232	144.8791903	-22.36695669	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 5/E	112.4757784	88.72675607	1.480464903	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 5/E	177.2384229	237.4362861	-63.28217953	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 4/E	196.9313686	214.613559	-93.55862269	5
Export	E_INV015_1829mm (1hr)	1829	Category 4/E	146.4609994	157.1616615	-49.1990685	9
Export	E_INV015_1829mm (1hr)	1829	Category 4/E	123.8850223	129.3133935	-29.92711693	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 4/E	81.53075227	71.86744494	4.090674437	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 4/E	202.9948013	221.4373079	-99.16896454	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 3/E	170.9187211	221.2908747	-55.77063294	5
Export	E_INV015_1829mm (1hr)	1829	Category 3/E	146.5815204	165.4803095	-31.43343223	9
Export	E_INV015_1829mm (1hr)	1829	Category 3/E	135.2096669	138.9179432	-20.06157872	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 3/E	112.5521322	84.39469809	2.595956019	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 3/E	173.8751279	227.9955386	-58.72703972	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 2/E	179.1125267	220.5508264	-66.9515807	5
Export	E_INV015_1829mm (1hr)	1829	Category 2/E	144.6566985	165.4793134	-35.67706386	9
Export	E_INV015_1829mm (1hr)	1829	Category 2/E	129.0042101	139.3138368	-22.19689254	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 2/E	98.51630608	85.47876137	1.002188377	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 2/E	183.3703648	227.1761529	-70.91635228	4.7
Export	E_INV015_1829mm (1hr)	1829	Category 1/E	205.5577251	224.1065731	-102.9083107	5
Export	E_INV015_1829mm (1hr)	1829	Category 1/E	152.8224464	164.6060276	-55.44593871	9
Export	E_INV015_1829mm (1hr)	1829	Category 1/E	127.9406065	135.7989848	-34.74084773	12.61710051
Export	E_INV015_1829mm (1hr)	1829	Category 1/E	84.43999412	76.70670559	1.947781802	30.003942
Export	E_INV015_1829mm (1hr)	1829	Category 1/E	211.9079079	231.2098844	-108.8508184	4.7
Export	E_INV015_10mm (all)	10	Category 12/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 12/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 12/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 12/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 12/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 11/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 11/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 11/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 11/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 11/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 10/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 10/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 10/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 10/E	0	0	0	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV015_10mm (all)	10	Category 10/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 9/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 9/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 9/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 9/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 9/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 8/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 8/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 8/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 8/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 8/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 7/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 7/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 7/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 7/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 7/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 6/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 6/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 6/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 6/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 6/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 5/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 5/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 5/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 5/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 5/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 4/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 4/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 4/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 4/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 4/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 3/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 3/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 3/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 3/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 3/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 2/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 2/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 2/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 2/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 2/E	0	0	0	4.7
Export	E_INV015_10mm (all)	10	Category 1/E	0	0	0	5
Export	E_INV015_10mm (all)	10	Category 1/E	0	0	0	9
Export	E_INV015_10mm (all)	10	Category 1/E	0	0	0	12.61710051
Export	E_INV015_10mm (all)	10	Category 1/E	0	0	0	30.003942
Export	E_INV015_10mm (all)	10	Category 1/E	0	0	0	4.7
Export	E_INV015_1829mm (2min)	1829	Category 12/E	170.9187211	221.2908747	-55.77063294	5
Export	E_INV015_1829mm (2min)	1829	Category 12/E	146.5815204	165.4803095	-31.43343223	9
Export	E_INV015_1829mm (2min)	1829	Category 12/E	135.2096669	138.9179432	-20.06157872	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 12/E	112.5521322	84.39469809	2.595956019	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 12/E	173.8751279	227.9955386	-58.72703972	4.7
Export	E_INV015_1829mm (2min)	1829	Category 11/E	174.1046505	230.4395944	-60.14840716	5
Export	E_INV015_1829mm (2min)	1829	Category 11/E	148.333862	172.3786502	-34.37761867	9
Export	E_INV015_1829mm (2min)	1829	Category 11/E	136.3232	144.8791903	-22.36695669	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 11/E	112.4757784	88.72675607	1.480464903	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 11/E	177.2384229	237.4362861	-63.28217953	4.7
Export	E_INV015_1829mm (2min)	1829	Category 10/E	205.5577251	224.1065731	-102.9083107	5
Export	E_INV015_1829mm (2min)	1829	Category 10/E	152.8224464	164.6060276	-55.44593871	9
Export	E_INV015_1829mm (2min)	1829	Category 10/E	127.9406065	135.7989848	-34.74084773	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 10/E	84.43999412	76.70670559	1.947781802	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 10/E	211.9079079	231.2098844	-108.8508184	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV015_1829mm (2min)	1829	Category 9/E	179.1125267	220.5508264	-66.9515807	5
Export	E_INV015_1829mm (2min)	1829	Category 9/E	144.6566985	165.4793134	-35.67706386	9
Export	E_INV015_1829mm (2min)	1829	Category 9/E	129.0042101	139.3138368	-22.19689254	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 9/E	98.51630608	85.47876137	1.002188377	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 9/E	183.3703648	227.1761529	-70.91635228	4.7
Export	E_INV015_1829mm (2min)	1829	Category 8/E	196.9313686	214.613559	-93.55862269	5
Export	E_INV015_1829mm (2min)	1829	Category 8/E	146.4609994	157.1616615	-49.1990685	9
Export	E_INV015_1829mm (2min)	1829	Category 8/E	123.8850223	129.3133935	-29.92711693	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 8/E	81.53075227	71.86744494	4.090674437	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 8/E	202.9948013	221.4373079	-99.16896454	4.7
Export	E_INV015_1829mm (2min)	1829	Category 7/E	184.5391417	229.4635306	-73.12427466	5
Export	E_INV015_1829mm (2min)	1829	Category 7/E	147.9319828	172.1875229	-39.49919018	9
Export	E_INV015_1829mm (2min)	1829	Category 7/E	131.3573905	145.0842544	-24.97050438	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 7/E	99.57625308	89.72938038	-0.137447163	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 7/E	189.0708612	236.3788668	-77.38338191	4.7
Export	E_INV015_1829mm (2min)	1829	Category 6/E	184.5391417	229.4635306	-73.12427466	5
Export	E_INV015_1829mm (2min)	1829	Category 6/E	147.9319828	172.1875229	-39.49919018	9
Export	E_INV015_1829mm (2min)	1829	Category 6/E	131.3573905	145.0842544	-24.97050438	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 6/E	99.57625308	89.72938038	-0.137447163	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 6/E	189.0708612	236.3788668	-77.38338191	4.7
Export	E_INV015_1829mm (2min)	1829	Category 5/E	174.1046505	230.4395944	-60.14840716	5
Export	E_INV015_1829mm (2min)	1829	Category 5/E	148.333862	172.3786502	-34.37761867	9
Export	E_INV015_1829mm (2min)	1829	Category 5/E	136.3232	144.8791903	-22.36695669	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 5/E	112.4757784	88.72675607	1.480464903	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 5/E	177.2384229	237.4362861	-63.28217953	4.7
Export	E_INV015_1829mm (2min)	1829	Category 4/E	196.9313686	214.613559	-93.55862269	5
Export	E_INV015_1829mm (2min)	1829	Category 4/E	146.4609994	157.1616615	-49.1990685	9
Export	E_INV015_1829mm (2min)	1829	Category 4/E	123.8850223	129.3133935	-29.92711693	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 4/E	81.53075227	71.86744494	4.090674437	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 4/E	202.9948013	221.4373079	-99.16896454	4.7
Export	E_INV015_1829mm (2min)	1829	Category 3/E	170.9187211	221.2908747	-55.77063294	5
Export	E_INV015_1829mm (2min)	1829	Category 3/E	146.5815204	165.4803095	-31.43343223	9
Export	E_INV015_1829mm (2min)	1829	Category 3/E	135.2096669	138.9179432	-20.06157872	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 3/E	112.5521322	84.39469809	2.595956019	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 3/E	173.8751279	227.9955386	-58.72703972	4.7
Export	E_INV015_1829mm (2min)	1829	Category 2/E	179.1125267	220.5508264	-66.9515807	5
Export	E_INV015_1829mm (2min)	1829	Category 2/E	144.6566985	165.4793134	-35.67706386	9
Export	E_INV015_1829mm (2min)	1829	Category 2/E	129.0042101	139.3138368	-22.19689254	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 2/E	98.51630608	85.47876137	1.002188377	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 2/E	183.3703648	227.1761529	-70.91635228	4.7
Export	E_INV015_1829mm (2min)	1829	Category 1/E	205.5577251	224.1065731	-102.9083107	5
Export	E_INV015_1829mm (2min)	1829	Category 1/E	152.8224464	164.6060276	-55.44593871	9
Export	E_INV015_1829mm (2min)	1829	Category 1/E	127.9406065	135.7989848	-34.74084773	12.61710051
Export	E_INV015_1829mm (2min)	1829	Category 1/E	84.43999412	76.70670559	1.947781802	30.003942
Export	E_INV015_1829mm (2min)	1829	Category 1/E	211.9079079	231.2098844	-108.8508184	4.7
Export	E_INV017_25mm	25	Category 12/E	12.97526833	15.11664343	3.556288584	5
Export	E_INV017_25mm	25	Category 12/E	11.24514346	10.7726061	4.376212893	9
Export	E_INV017_25mm	25	Category 12/E	10.36967845	8.604817551	4.781302906	12.61710051
Export	E_INV017_25mm	25	Category 12/E	8.126238625	3.84615809	5.717088573	30.003942
Export	E_INV017_25mm	25	Category 12/E	13.17817994	15.62519591	3.461396685	4.7
Export	E_INV017_25mm	25	Category 11/E	12.85613075	15.40497123	3.566752961	5
Export	E_INV017_25mm	25	Category 11/E	11.09957168	11.03668105	4.41766504	9
Export	E_INV017_25mm	25	Category 11/E	10.21764572	8.868082504	4.837614356	12.61710051
Export	E_INV017_25mm	25	Category 11/E	7.942214186	4.101516429	5.788602833	30.003942
Export	E_INV017_25mm	25	Category 11/E	13.06427869	15.91922811	3.464000888	4.7
Export	E_INV017_25mm	25	Category 10/E	12.74439631	15.83770444	3.452142159	5
Export	E_INV017_25mm	25	Category 10/E	10.6686508	11.51900186	4.36289657	9
Export	E_INV017_25mm	25	Category 10/E	9.615619783	9.359286413	4.811549949	12.61710051
Export	E_INV017_25mm	25	Category 10/E	7.124808387	4.43180573	5.767779158	30.003942
Export	E_INV017_25mm	25	Category 10/E	12.98752856	16.34456938	3.345806387	4.7
Export	E_INV017_25mm	25	Category 9/E	12.87674473	15.40028436	3.518495841	5

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV017_25mm	25	Category 9/E	10.97193575	11.07831893	4.369895238	9
Export	E_INV017_25mm	25	Category 9/E	10.01006808	8.9066189	4.776386045	12.61710051
Export	E_INV017_25mm	25	Category 9/E	7.641801638	4.023801431	5.705584165	30.003942
Export	E_INV017_25mm	25	Category 9/E	13.1013357	15.905763	3.415544698	4.7
Export	E_INV017_25mm	25	Category 8/E	12.78293906	15.54876289	3.464643539	5
Export	E_INV017_25mm	25	Category 8/E	10.73324493	11.25922324	4.346762374	9
Export	E_INV017_25mm	25	Category 8/E	9.68899206	9.09191426	4.768374964	12.61710051
Export	E_INV017_25mm	25	Category 8/E	7.237901293	4.138578031	5.697624811	30.003942
Export	E_INV017_25mm	25	Category 8/E	13.02199416	16.04992443	3.361566363	4.7
Export	E_INV017_25mm	25	Category 7/E	12.80421387	15.68770708	3.508380717	5
Export	E_INV017_25mm	25	Category 7/E	10.86798591	11.34005233	4.4024828	9
Export	E_INV017_25mm	25	Category 7/E	9.899608343	9.173519703	4.827671025	12.61710051
Export	E_INV017_25mm	25	Category 7/E	6.442621559	4.432482492	7.884488069	30.003942
Export	E_INV017_25mm	25	Category 7/E	13.03338464	16.19903257	3.400699163	4.7
Export	E_INV017_25mm	25	Category 6/E	12.80421387	15.68770708	3.508380717	5
Export	E_INV017_25mm	25	Category 6/E	10.86798591	11.34005233	4.4024828	9
Export	E_INV017_25mm	25	Category 6/E	9.899608343	9.173519703	4.827671025	12.61710051
Export	E_INV017_25mm	25	Category 6/E	6.442621559	4.432482492	7.884488069	30.003942
Export	E_INV017_25mm	25	Category 6/E	13.03338464	16.19903257	3.400699163	4.7
Export	E_INV017_25mm	25	Category 5/E	12.85613075	15.40497123	3.566752961	5
Export	E_INV017_25mm	25	Category 5/E	11.09957168	11.03668105	4.41766504	9
Export	E_INV017_25mm	25	Category 5/E	10.21764572	8.868082504	4.837614356	12.61710051
Export	E_INV017_25mm	25	Category 5/E	7.942214186	4.101516429	5.788602833	30.003942
Export	E_INV017_25mm	25	Category 5/E	13.06427869	15.91922811	3.464000888	4.7
Export	E_INV017_25mm	25	Category 4/E	12.78293906	15.54876289	3.464643539	5
Export	E_INV017_25mm	25	Category 4/E	10.73324493	11.25922324	4.346762374	9
Export	E_INV017_25mm	25	Category 4/E	9.68899206	9.09191426	4.768374964	12.61710051
Export	E_INV017_25mm	25	Category 4/E	7.237901293	4.138578031	5.697624811	30.003942
Export	E_INV017_25mm	25	Category 4/E	13.02199416	16.04992443	3.361566363	4.7
Export	E_INV017_25mm	25	Category 3/E	12.97526833	15.11664343	3.556288584	5
Export	E_INV017_25mm	25	Category 3/E	11.24514346	10.7726061	4.376212893	9
Export	E_INV017_25mm	25	Category 3/E	10.36967845	8.604817551	4.781302906	12.61710051
Export	E_INV017_25mm	25	Category 3/E	8.126238625	3.84615809	5.717088573	30.003942
Export	E_INV017_25mm	25	Category 3/E	13.17817994	15.62519591	3.461396685	4.7
Export	E_INV017_25mm	25	Category 2/E	12.87674473	15.40028436	3.518495841	5
Export	E_INV017_25mm	25	Category 2/E	10.97193575	11.07831893	4.369895238	9
Export	E_INV017_25mm	25	Category 2/E	10.01006808	8.9066189	4.776386045	12.61710051
Export	E_INV017_25mm	25	Category 2/E	7.641801638	4.023801431	5.705584165	30.003942
Export	E_INV017_25mm	25	Category 2/E	13.1013357	15.905763	3.415544698	4.7
Export	E_INV017_25mm	25	Category 1/E	12.74439631	15.83770444	3.452142159	5
Export	E_INV017_25mm	25	Category 1/E	10.6686508	11.51900186	4.36289657	9
Export	E_INV017_25mm	25	Category 1/E	9.615619783	9.359286413	4.811549949	12.61710051
Export	E_INV017_25mm	25	Category 1/E	7.124808387	4.43180573	5.767779158	30.003942
Export	E_INV017_25mm	25	Category 1/E	12.98752856	16.34456938	3.345806387	4.7
Export	E_INV017_50mm	50	Category 12/E	27.51713938	34.37199431	4.232326996	5
Export	E_INV017_50mm	50	Category 12/E	23.43552384	25.26211397	6.41418821	9
Export	E_INV017_50mm	50	Category 12/E	21.46978074	20.80694919	7.43402732	12.61710051
Export	E_INV017_50mm	50	Category 12/E	16.96208249	11.13706268	9.510617409	30.003942
Export	E_INV017_50mm	50	Category 12/E	28.02290552	35.46201001	3.933239803	4.7
Export	E_INV017_50mm	50	Category 11/E	27.58640511	35.27286698	3.987182136	5
Export	E_INV017_50mm	50	Category 11/E	23.35266185	25.98883051	6.352173761	9
Export	E_INV017_50mm	50	Category 11/E	21.34173534	21.48555414	7.421521199	12.61710051
Export	E_INV017_50mm	50	Category 11/E	16.87074848	11.78576761	9.595192851	30.003942
Export	E_INV017_50mm	50	Category 11/E	28.12400828	36.38676818	3.639616326	4.7
Export	E_INV017_50mm	50	Category 10/E	28.59952577	35.43080952	1.095045874	5
Export	E_INV017_50mm	50	Category 10/E	22.58352839	26.15599814	5.719630669	9
Export	E_INV017_50mm	50	Category 10/E	19.97603575	21.72818973	7.283185989	12.61710051
Export	E_INV017_50mm	50	Category 10/E	14.39245856	12.00415279	9.468753213	30.003942
Export	E_INV017_50mm	50	Category 10/E	29.36330625	36.55412548	0.445326287	4.7
Export	E_INV017_50mm	50	Category 9/E	27.6670525	34.4427576	3.324032976	5
Export	E_INV017_50mm	50	Category 9/E	22.81398297	25.40698006	6.353507854	9

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV017_50mm	50	Category 9/E	20.65961375	21.00498603	7.36936002	12.61710051
Export	E_INV017_50mm	50	Category 9/E	15.37121075	11.26069924	9.439882118	30.003942
Export	E_INV017_50mm	50	Category 9/E	28.29779645	35.53015346	2.856919105	4.7
Export	E_INV017_50mm	50	Category 8/E	28.11429133	34.5060703	1.835629154	5
Export	E_INV017_50mm	50	Category 8/E	22.39747617	25.44374164	6.008698777	9
Export	E_INV017_50mm	50	Category 8/E	19.9223875	21.06888065	7.336523833	12.61710051
Export	E_INV017_50mm	50	Category 8/E	14.56120464	11.3404851	9.387972453	30.003942
Export	E_INV017_50mm	50	Category 8/E	28.84037272	35.59947252	1.244297142	4.7
Export	E_INV017_50mm	50	Category 7/E	27.97018592	35.35135864	2.794453858	5
Export	E_INV017_50mm	50	Category 7/E	22.82583473	26.11364941	6.271287475	9
Export	E_INV017_50mm	50	Category 7/E	20.61688611	21.67137951	7.356836421	12.61710051
Export	E_INV017_50mm	50	Category 7/E	15.39624619	11.94176211	9.520395645	30.003942
Export	E_INV017_50mm	50	Category 7/E	28.63641135	36.47432048	2.275118809	4.7
Export	E_INV017_50mm	50	Category 6/E	27.97018592	35.35135864	2.794453858	5
Export	E_INV017_50mm	50	Category 6/E	22.82583473	26.11364941	6.271287475	9
Export	E_INV017_50mm	50	Category 6/E	20.61688611	21.67137951	7.356836421	12.61710051
Export	E_INV017_50mm	50	Category 6/E	15.39624619	11.94176211	9.520395645	30.003942
Export	E_INV017_50mm	50	Category 6/E	28.63641135	36.47432048	2.275118809	4.7
Export	E_INV017_50mm	50	Category 5/E	27.58640511	35.27286698	3.987182136	5
Export	E_INV017_50mm	50	Category 5/E	23.35266185	25.98883051	6.352173761	9
Export	E_INV017_50mm	50	Category 5/E	21.34173534	21.48555414	7.421521199	12.61710051
Export	E_INV017_50mm	50	Category 5/E	16.87074848	11.78576761	9.595192851	30.003942
Export	E_INV017_50mm	50	Category 5/E	28.12400828	36.38676818	3.639616326	4.7
Export	E_INV017_50mm	50	Category 4/E	28.11429133	34.5060703	1.835629154	5
Export	E_INV017_50mm	50	Category 4/E	22.39747617	25.44374164	6.008698777	9
Export	E_INV017_50mm	50	Category 4/E	19.9223875	21.06888065	7.336523833	12.61710051
Export	E_INV017_50mm	50	Category 4/E	14.56120464	11.3404851	9.387972453	30.003942
Export	E_INV017_50mm	50	Category 4/E	28.84037272	35.59947252	1.244297142	4.7
Export	E_INV017_50mm	50	Category 3/E	27.51713938	34.37199431	4.232326996	5
Export	E_INV017_50mm	50	Category 3/E	23.43552384	25.26211397	6.41418821	9
Export	E_INV017_50mm	50	Category 3/E	21.46978074	20.80694919	7.43402732	12.61710051
Export	E_INV017_50mm	50	Category 3/E	16.96208249	11.13706268	9.510617409	30.003942
Export	E_INV017_50mm	50	Category 3/E	28.02290552	35.46201001	3.933239803	4.7
Export	E_INV017_50mm	50	Category 2/E	27.6670525	34.4427576	3.324032976	5
Export	E_INV017_50mm	50	Category 2/E	22.81398297	25.40698006	6.353507854	9
Export	E_INV017_50mm	50	Category 2/E	20.65961375	21.00498603	7.36936002	12.61710051
Export	E_INV017_50mm	50	Category 2/E	15.37121075	11.26069924	9.439882118	30.003942
Export	E_INV017_50mm	50	Category 2/E	28.29779645	35.53015346	2.856919105	4.7
Export	E_INV017_50mm	50	Category 1/E	28.59952577	35.43080952	1.095045874	5
Export	E_INV017_50mm	50	Category 1/E	22.58352839	26.15599814	5.719630669	9
Export	E_INV017_50mm	50	Category 1/E	19.97603575	21.72818973	7.283185989	12.61710051
Export	E_INV017_50mm	50	Category 1/E	14.39245856	12.00415279	9.468753213	30.003942
Export	E_INV017_50mm	50	Category 1/E	29.36330625	36.55412548	0.445326287	4.7
Export	E_INV017_576mm	576	Category 12/E	162.8960756	184.4638105	-46.2392385	5
Export	E_INV017_576mm	576	Category 12/E	125.3343716	139.1114367	-10.58460734	9
Export	E_INV017_576mm	576	Category 12/E	107.9751375	117.6551749	5.265722787	12.61710051
Export	E_INV017_576mm	576	Category 12/E	72.98141091	73.70230541	34.16476701	30.003942
Export	E_INV017_576mm	576	Category 12/E	167.4860728	189.9367223	-50.67142623	4.7
Export	E_INV017_576mm	576	Category 11/E	169.611019	191.2687749	-53.94484246	5
Export	E_INV017_576mm	576	Category 11/E	129.8175838	144.1817583	-15.7534463	9
Export	E_INV017_576mm	576	Category 11/E	111.4694982	122.0181869	1.304902844	12.61710051
Export	E_INV017_576mm	576	Category 11/E	74.98893479	77.01697984	32.59150771	30.003942
Export	E_INV017_576mm	576	Category 11/E	174.480839	196.9671985	-58.6842837	4.7
Export	E_INV017_576mm	576	Category 10/E	180.2502402	188.4985788	-75.68374461	5
Export	E_INV017_576mm	576	Category 10/E	133.6222903	140.8563259	-30.60489017	9
Export	E_INV017_576mm	576	Category 10/E	111.5724523	118.131951	-10.05800381	12.61710051
Export	E_INV017_576mm	576	Category 10/E	71.65324633	71.61917419	28.17800629	30.003942
Export	E_INV017_576mm	576	Category 10/E	185.8840061	194.2280736	-81.20702261	4.7
Export	E_INV017_576mm	576	Category 9/E	169.4063286	183.0266733	-58.19319175	5
Export	E_INV017_576mm	576	Category 9/E	127.7185917	137.5284544	-18.40941793	9
Export	E_INV017_576mm	576	Category 9/E	108.1897096	115.8751193	-0.528263017	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV017_576mm	576	Category 9/E	70.03195641	71.15873252	32.31880716	30.003942
Export	E_INV017_576mm	576	Category 9/E	174.4651776	188.5006036	-63.10523247	4.7
Export	E_INV017_576mm	576	Category 8/E	172.3957497	181.6341177	-66.97837665	5
Export	E_INV017_576mm	576	Category 8/E	127.8924069	135.6666233	-24.39501816	9
Export	E_INV017_576mm	576	Category 8/E	106.7270148	113.5961956	-5.076199796	12.61710051
Export	E_INV017_576mm	576	Category 8/E	69.17894358	68.18961961	30.51846033	30.003942
Export	E_INV017_576mm	576	Category 8/E	177.7593468	187.1476758	-72.20401619	4.7
Export	E_INV017_576mm	576	Category 7/E	176.8856576	189.8168634	-66.59844985	5
Export	E_INV017_576mm	576	Category 7/E	132.9822535	142.6161066	-24.26661179	9
Export	E_INV017_576mm	576	Category 7/E	112.4611253	120.2780411	-5.129561777	12.61710051
Export	E_INV017_576mm	576	Category 7/E	71.86717678	74.4688698	30.25028212	30.003942
Export	E_INV017_576mm	576	Category 7/E	182.2223866	195.5147465	-71.81732627	4.7
Export	E_INV017_576mm	576	Category 6/E	176.8856576	189.8168634	-66.59844985	5
Export	E_INV017_576mm	576	Category 6/E	132.9822535	142.6161066	-24.26661179	9
Export	E_INV017_576mm	576	Category 6/E	112.4611253	120.2780411	-5.129561777	12.61710051
Export	E_INV017_576mm	576	Category 6/E	71.86717678	74.4688698	30.25028212	30.003942
Export	E_INV017_576mm	576	Category 6/E	182.2223866	195.5147465	-71.81732627	4.7
Export	E_INV017_576mm	576	Category 5/E	169.611019	191.2687749	-53.94484246	5
Export	E_INV017_576mm	576	Category 5/E	129.8175838	144.1817583	-15.7534463	9
Export	E_INV017_576mm	576	Category 5/E	111.4694982	122.0181869	1.304902844	12.61710051
Export	E_INV017_576mm	576	Category 5/E	74.98893479	77.01697984	32.59150771	30.003942
Export	E_INV017_576mm	576	Category 5/E	174.480839	196.9671985	-58.6842837	4.7
Export	E_INV017_576mm	576	Category 4/E	172.3957497	181.6341177	-66.97837665	5
Export	E_INV017_576mm	576	Category 4/E	127.8924069	135.6666233	-24.39501816	9
Export	E_INV017_576mm	576	Category 4/E	106.7270148	113.5961956	-5.076199796	12.61710051
Export	E_INV017_576mm	576	Category 4/E	69.17894358	68.18961961	30.51846033	30.003942
Export	E_INV017_576mm	576	Category 4/E	177.7593468	187.1476758	-72.20401619	4.7
Export	E_INV017_576mm	576	Category 3/E	162.8960756	184.4638105	-46.2392385	5
Export	E_INV017_576mm	576	Category 3/E	125.3343716	139.1114367	-10.58460734	9
Export	E_INV017_576mm	576	Category 3/E	107.9751375	117.6551749	5.265722787	12.61710051
Export	E_INV017_576mm	576	Category 3/E	72.98141091	73.70230541	34.16476701	30.003942
Export	E_INV017_576mm	576	Category 3/E	167.4860728	189.9367223	-50.67142623	4.7
Export	E_INV017_576mm	576	Category 2/E	169.4063286	183.0266733	-58.19319175	5
Export	E_INV017_576mm	576	Category 2/E	127.7185917	137.5284544	-18.40941793	9
Export	E_INV017_576mm	576	Category 2/E	108.1897096	115.8751193	-0.528263017	12.61710051
Export	E_INV017_576mm	576	Category 2/E	70.03195641	71.15873252	32.31880716	30.003942
Export	E_INV017_576mm	576	Category 2/E	174.4651776	188.5006036	-63.10523247	4.7
Export	E_INV017_576mm	576	Category 1/E	180.2502402	188.4985788	-75.68374461	5
Export	E_INV017_576mm	576	Category 1/E	133.6222903	140.8563259	-30.60489017	9
Export	E_INV017_576mm	576	Category 1/E	111.5724523	118.131951	-10.05800381	12.61710051
Export	E_INV017_576mm	576	Category 1/E	71.65324633	71.61917419	28.17800629	30.003942
Export	E_INV017_576mm	576	Category 1/E	185.8840061	194.2280736	-81.20702261	4.7
Export	E_INV017_1727mm	1727	Category 12/E	162.0023944	212.5396305	-50.40520459	5
Export	E_INV017_1727mm	1727	Category 12/E	135.7302495	159.8374003	-25.66860012	9
Export	E_INV017_1727mm	1727	Category 12/E	123.482792	134.8541871	-14.12023846	12.61710051
Export	E_INV017_1727mm	1727	Category 12/E	98.95687561	83.81822186	8.848385267	30.003942
Export	E_INV017_1727mm	1727	Category 12/E	165.2010726	218.8863677	-53.40830932	4.7
Export	E_INV017_1727mm	1727	Category 11/E	165.7157013	220.933611	-54.88533478	5
Export	E_INV017_1727mm	1727	Category 11/E	137.8586686	166.154878	-28.64873944	9
Export	E_INV017_1727mm	1727	Category 11/E	124.9217347	140.2811019	-16.43307304	12.61710051
Export	E_INV017_1727mm	1727	Category 11/E	99.15068909	87.79417975	7.775909498	30.003942
Export	E_INV017_1727mm	1727	Category 11/E	169.1141923	227.5519055	-58.07607368	4.7
Export	E_INV017_1727mm	1727	Category 10/E	198.4861032	214.134134	-95.32446685	5
Export	E_INV017_1727mm	1727	Category 10/E	146.0495785	157.8740285	-47.12797162	9
Export	E_INV017_1727mm	1727	Category 10/E	121.4910404	130.5382074	-25.94294464	12.61710051
Export	E_INV017_1727mm	1727	Category 10/E	79.34332483	73.62409575	11.45308468	30.003942
Export	E_INV017_1727mm	1727	Category 10/E	204.7965757	220.8423593	-101.3275383	4.7
Export	E_INV017_1727mm	1727	Category 9/E	182.0536499	210.5697384	-71.66326715	5
Export	E_INV017_1727mm	1727	Category 9/E	141.9902279	157.6805496	-34.85951	9
Export	E_INV017_1727mm	1727	Category 9/E	123.3543063	132.4686148	-18.71266692	12.61710051
Export	E_INV017_1727mm	1727	Category 9/E	84.57552201	80.38754703	10.20116643	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV017_1727mm	1727	Category 9/E	186.9544603	216.9280229	-76.28625483	4.7
Export	E_INV017_1727mm	1727	Category 8/E	189.7728165	205.3211872	-85.66361206	5
Export	E_INV017_1727mm	1727	Category 8/E	139.5795762	150.9409444	-40.51063318	9
Export	E_INV017_1727mm	1727	Category 8/E	117.0719293	124.4181034	-20.82901079	12.61710051
Export	E_INV017_1727mm	1727	Category 8/E	76.32963668	68.79273799	13.72949554	30.003942
Export	E_INV017_1727mm	1727	Category 8/E	195.7895781	211.7712468	-91.31303134	4.7
Export	E_INV017_1727mm	1727	Category 7/E	188.7922414	218.9815599	-79.06005478	5
Export	E_INV017_1727mm	1727	Category 7/E	146.396109	164.0317162	-39.58017301	9
Export	E_INV017_1727mm	1727	Category 7/E	126.8022393	137.9770052	-22.22542036	12.61710051
Export	E_INV017_1727mm	1727	Category 7/E	86.13758326	84.478967	8.940847505	30.003942
Export	E_INV017_1727mm	1727	Category 7/E	193.9907236	225.6145149	-84.01309452	4.7
Export	E_INV017_1727mm	1727	Category 6/E	188.7922414	218.9815599	-79.06005478	5
Export	E_INV017_1727mm	1727	Category 6/E	146.396109	164.0317162	-39.58017301	9
Export	E_INV017_1727mm	1727	Category 6/E	126.8022393	137.9770052	-22.22542036	12.61710051
Export	E_INV017_1727mm	1727	Category 6/E	86.13758326	84.478967	8.940847505	30.003942
Export	E_INV017_1727mm	1727	Category 6/E	193.9907236	225.6145149	-84.01309452	4.7
Export	E_INV017_1727mm	1727	Category 5/E	165.7157013	220.933611	-54.88533478	5
Export	E_INV017_1727mm	1727	Category 5/E	137.8586686	166.154878	-28.64873944	9
Export	E_INV017_1727mm	1727	Category 5/E	124.9217347	140.2811019	-16.43307304	12.61710051
Export	E_INV017_1727mm	1727	Category 5/E	99.15068909	87.79417975	7.775909498	30.003942
Export	E_INV017_1727mm	1727	Category 5/E	169.1141923	227.5519055	-58.07607368	4.7
Export	E_INV017_1727mm	1727	Category 4/E	189.7728165	205.3211872	-85.66361206	5
Export	E_INV017_1727mm	1727	Category 4/E	139.5795762	150.9409444	-40.51063318	9
Export	E_INV017_1727mm	1727	Category 4/E	117.0719293	124.4181034	-20.82901079	12.61710051
Export	E_INV017_1727mm	1727	Category 4/E	76.32963668	68.79273799	13.72949554	30.003942
Export	E_INV017_1727mm	1727	Category 4/E	195.7895781	211.7712468	-91.31303134	4.7
Export	E_INV017_1727mm	1727	Category 3/E	162.0023944	212.5396305	-50.40520459	5
Export	E_INV017_1727mm	1727	Category 3/E	135.7302495	159.8374003	-25.66860012	9
Export	E_INV017_1727mm	1727	Category 3/E	123.482792	134.8541871	-14.12023846	12.61710051
Export	E_INV017_1727mm	1727	Category 3/E	98.95687561	83.81822186	8.848385267	30.003942
Export	E_INV017_1727mm	1727	Category 3/E	165.2010726	218.8863677	-53.40830932	4.7
Export	E_INV017_1727mm	1727	Category 2/E	182.0536499	210.5697384	-71.66326715	5
Export	E_INV017_1727mm	1727	Category 2/E	141.9902279	157.6805496	-34.85951	9
Export	E_INV017_1727mm	1727	Category 2/E	123.3543063	132.4686148	-18.71266692	12.61710051
Export	E_INV017_1727mm	1727	Category 2/E	84.57552201	80.38754703	10.20116643	30.003942
Export	E_INV017_1727mm	1727	Category 2/E	186.9544603	216.9280229	-76.28625483	4.7
Export	E_INV017_1727mm	1727	Category 1/E	198.4861032	214.134134	-95.32446685	5
Export	E_INV017_1727mm	1727	Category 1/E	146.0495785	157.8740285	-47.12797162	9
Export	E_INV017_1727mm	1727	Category 1/E	121.4910404	130.5382074	-25.94294464	12.61710051
Export	E_INV017_1727mm	1727	Category 1/E	79.34332483	73.62409575	11.45308468	30.003942
Export	E_INV017_1727mm	1727	Category 1/E	204.7965757	220.8423593	-101.3275383	4.7
Export	E_INV017_10mm	10	Category 12/E	4.37080813	3.686256053	2.048109217	5
Export	E_INV017_10mm	10	Category 12/E	3.381646434	2.120972859	2.736963848	9
Export	E_INV017_10mm	10	Category 12/E	2.90782021	1.292227012	3.212990806	12.61710051
Export	E_INV017_10mm	10	Category 12/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 12/E	4.456963635	3.858219664	1.98847453	4.7
Export	E_INV017_10mm	10	Category 11/E	4.303007751	3.754913882	2.040720621	5
Export	E_INV017_10mm	10	Category 11/E	3.325434968	2.208934947	2.741393396	9
Export	E_INV017_10mm	10	Category 11/E	2.887433824	1.381550836	3.126957854	12.61710051
Export	E_INV017_10mm	10	Category 11/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 11/E	4.387443441	3.928463885	1.982654705	4.7
Export	E_INV017_10mm	10	Category 10/E	4.453235589	4.310617886	1.970438188	5
Export	E_INV017_10mm	10	Category 10/E	3.438018851	2.680439548	2.671377019	9
Export	E_INV017_10mm	10	Category 10/E	2.904663232	1.796332927	3.062232913	12.61710051
Export	E_INV017_10mm	10	Category 10/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 10/E	4.544803713	4.493200251	1.915144858	4.7
Export	E_INV017_10mm	10	Category 9/E	4.448373157	4.005403782	2.004443194	5
Export	E_INV017_10mm	10	Category 9/E	3.424908189	2.393485419	2.706003667	9
Export	E_INV017_10mm	10	Category 9/E	2.946298878	1.523666341	3.116065339	12.61710051
Export	E_INV017_10mm	10	Category 9/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 9/E	4.537248014	4.185496387	1.948696243	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV017_10mm	10	Category 8/E	4.496555987	4.232882054	1.981026666	5
Export	E_INV017_10mm	10	Category 8/E	3.453992503	2.583180662	2.675645496	9
Export	E_INV017_10mm	10	Category 8/E	2.957303347	1.686551104	3.056626484	12.61710051
Export	E_INV017_10mm	10	Category 8/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 8/E	4.594459633	4.416660662	1.919850848	4.7
Export	E_INV017_10mm	10	Category 7/E	4.390300985	4.080373994	2.00005889	5
Export	E_INV017_10mm	10	Category 7/E	3.403356813	2.488225119	2.699897637	9
Export	E_INV017_10mm	10	Category 7/E	2.910402589	1.623876398	3.076914928	12.61710051
Export	E_INV017_10mm	10	Category 7/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 7/E	4.478547497	4.260405477	1.943920546	4.7
Export	E_INV017_10mm	10	Category 6/E	4.390300985	4.080373994	2.00005889	5
Export	E_INV017_10mm	10	Category 6/E	3.403356813	2.488225119	2.699897637	9
Export	E_INV017_10mm	10	Category 6/E	2.910402589	1.623876398	3.076914928	12.61710051
Export	E_INV017_10mm	10	Category 6/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 6/E	4.478547497	4.260405477	1.943920546	4.7
Export	E_INV017_10mm	10	Category 5/E	4.303007751	3.754913882	2.040720621	5
Export	E_INV017_10mm	10	Category 5/E	3.325434968	2.208934947	2.741393396	9
Export	E_INV017_10mm	10	Category 5/E	2.887433824	1.381550836	3.126957854	12.61710051
Export	E_INV017_10mm	10	Category 5/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 5/E	4.387443441	3.928463885	1.982654705	4.7
Export	E_INV017_10mm	10	Category 4/E	4.496555987	4.232882054	1.981026666	5
Export	E_INV017_10mm	10	Category 4/E	3.453992503	2.583180662	2.675645496	9
Export	E_INV017_10mm	10	Category 4/E	2.957303347	1.686551104	3.056626484	12.61710051
Export	E_INV017_10mm	10	Category 4/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 4/E	4.594459633	4.416660662	1.919850848	4.7
Export	E_INV017_10mm	10	Category 3/E	4.37080813	3.686256053	2.048109217	5
Export	E_INV017_10mm	10	Category 3/E	3.381646434	2.120972859	2.736963848	9
Export	E_INV017_10mm	10	Category 3/E	2.90782021	1.292227012	3.212990806	12.61710051
Export	E_INV017_10mm	10	Category 3/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 3/E	4.456963635	3.858219664	1.98847453	4.7
Export	E_INV017_10mm	10	Category 2/E	4.448373157	4.005403782	2.004443194	5
Export	E_INV017_10mm	10	Category 2/E	3.424908189	2.393485419	2.706003667	9
Export	E_INV017_10mm	10	Category 2/E	2.946298878	1.523666341	3.116065339	12.61710051
Export	E_INV017_10mm	10	Category 2/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 2/E	4.537248014	4.185496387	1.948696243	4.7
Export	E_INV017_10mm	10	Category 1/E	4.453235589	4.310617886	1.970438188	5
Export	E_INV017_10mm	10	Category 1/E	3.438018851	2.680439548	2.671377019	9
Export	E_INV017_10mm	10	Category 1/E	2.904663232	1.796332927	3.062232913	12.61710051
Export	E_INV017_10mm	10	Category 1/E	0	0	0	30.003942
Export	E_INV017_10mm	10	Category 1/E	4.544803713	4.493200251	1.915144858	4.7
Export	E_INV018_25mm (all)	25	Category 12/E	42.72585507	52.05038444	-10.53853855	5
Export	E_INV018_25mm (all)	25	Category 12/E	34.0466289	38.90498975	-3.699241825	9
Export	E_INV018_25mm (all)	25	Category 12/E	30.96961776	33.13912917	-2.440410794	12.61710051
Export	E_INV018_25mm (all)	25	Category 12/E	25.28638242	22.41983894	-0.759178007	30.003942
Export	E_INV018_25mm (all)	25	Category 12/E	43.97876914	53.73410006	-11.76510071	4.7
Export	E_INV018_25mm (all)	25	Category 11/E	43.76659063	53.59073996	-11.47314947	5
Export	E_INV018_25mm (all)	25	Category 11/E	34.55204806	39.89398698	-3.89277214	9
Export	E_INV018_25mm (all)	25	Category 11/E	31.35725519	33.95881905	-2.541366719	12.61710051
Export	E_INV018_25mm (all)	25	Category 11/E	25.51374362	22.91710785	-0.797763996	30.003942
Export	E_INV018_25mm (all)	25	Category 11/E	45.06705367	55.32030777	-12.74964333	4.7
Export	E_INV018_25mm (all)	25	Category 10/E	45.40296369	54.12496924	-1.847842526	5
Export	E_INV018_25mm (all)	25	Category 10/E	39.80243435	41.38866634	-0.586707724	9
Export	E_INV018_25mm (all)	25	Category 10/E	36.43788116	35.03574273	1.50418767	12.61710051
Export	E_INV018_25mm (all)	25	Category 10/E	32.06111854	21.43604532	0.990741652	30.003942
Export	E_INV018_25mm (all)	25	Category 10/E	46.15081493	55.7830924	-2.133966571	4.7
Export	E_INV018_25mm (all)	25	Category 9/E	41.90633247	52.02431013	-5.21025494	5
Export	E_INV018_25mm (all)	25	Category 9/E	35.33465311	39.30080414	-2.223004369	9
Export	E_INV018_25mm (all)	25	Category 9/E	32.56332176	33.8035032	-1.408663145	12.61710051
Export	E_INV018_25mm (all)	25	Category 9/E	27.21167449	22.29110799	-0.099993602	30.003942
Export	E_INV018_25mm (all)	25	Category 9/E	42.83678974	53.61281038	-5.836249119	4.7
Export	E_INV018_25mm (all)	25	Category 8/E	44.83745339	52.69045304	-1.737899527	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV018_25mm (all)	25	Category 8/E	39.41066326	40.35913341	-0.532089942	9
Export	E_INV018_25mm (all)	25	Category 8/E	36.9036658	34.29348923	-0.031762401	12.61710051
Export	E_INV018_25mm (all)	25	Category 8/E	31.85627739	20.78339363	1.021548002	30.003942
Export	E_INV018_25mm (all)	25	Category 8/E	45.55551712	54.23956099	-2.004563189	4.7
Export	E_INV018_25mm (all)	25	Category 7/E	42.55266492	53.43853017	-5.407365743	5
Export	E_INV018_25mm (all)	25	Category 7/E	35.78056356	40.32294903	-2.332977148	9
Export	E_INV018_25mm (all)	25	Category 7/E	32.91541467	34.58199618	-1.472005994	12.61710051
Export	E_INV018_25mm (all)	25	Category 7/E	27.42937315	22.84187538	-0.136194132	30.003942
Export	E_INV018_25mm (all)	25	Category 7/E	43.67298336	55.15123656	-6.371725647	4.7
Export	E_INV018_25mm (all)	25	Category 6/E	42.55266492	53.43853017	-5.407365743	5
Export	E_INV018_25mm (all)	25	Category 6/E	35.78056356	40.32294903	-2.332977148	9
Export	E_INV018_25mm (all)	25	Category 6/E	32.91541467	34.58199618	-1.472005994	12.61710051
Export	E_INV018_25mm (all)	25	Category 6/E	27.42937315	22.84187538	-0.136194132	30.003942
Export	E_INV018_25mm (all)	25	Category 6/E	43.67298336	55.15123656	-6.371725647	4.7
Export	E_INV018_25mm (all)	25	Category 5/E	43.76659063	53.59073996	-11.47314947	5
Export	E_INV018_25mm (all)	25	Category 5/E	34.55204806	39.89398698	-3.89277214	9
Export	E_INV018_25mm (all)	25	Category 5/E	31.35725519	33.95881905	-2.541366719	12.61710051
Export	E_INV018_25mm (all)	25	Category 5/E	25.51374362	22.91710785	-0.797763996	30.003942
Export	E_INV018_25mm (all)	25	Category 5/E	45.06705367	55.32030777	-12.74964333	4.7
Export	E_INV018_25mm (all)	25	Category 4/E	44.83745339	52.69045304	-1.737899527	5
Export	E_INV018_25mm (all)	25	Category 4/E	39.41066326	40.35913341	-0.532089942	9
Export	E_INV018_25mm (all)	25	Category 4/E	36.9036658	34.29348923	-0.031762401	12.61710051
Export	E_INV018_25mm (all)	25	Category 4/E	31.85627739	20.78339363	1.021548002	30.003942
Export	E_INV018_25mm (all)	25	Category 4/E	45.55551712	54.23956099	-2.004563189	4.7
Export	E_INV018_25mm (all)	25	Category 3/E	42.72585507	52.05038444	-10.53853855	5
Export	E_INV018_25mm (all)	25	Category 3/E	34.0466289	38.90498975	-3.699241825	9
Export	E_INV018_25mm (all)	25	Category 3/E	30.96961776	33.13912917	-2.440410794	12.61710051
Export	E_INV018_25mm (all)	25	Category 3/E	25.28638242	22.41983894	-0.759178007	30.003942
Export	E_INV018_25mm (all)	25	Category 3/E	43.97876914	53.73410006	-11.76510071	4.7
Export	E_INV018_25mm (all)	25	Category 2/E	41.90633247	52.02431013	-5.21025494	5
Export	E_INV018_25mm (all)	25	Category 2/E	35.33465311	39.30080414	-2.223004369	9
Export	E_INV018_25mm (all)	25	Category 2/E	32.56332176	33.8035032	-1.408663145	12.61710051
Export	E_INV018_25mm (all)	25	Category 2/E	27.21167449	22.29110799	-0.099993602	30.003942
Export	E_INV018_25mm (all)	25	Category 2/E	42.83678974	53.61281038	-5.836249119	4.7
Export	E_INV018_25mm (all)	25	Category 1/E	45.40296369	54.12496924	-1.847842526	5
Export	E_INV018_25mm (all)	25	Category 1/E	39.80243435	41.38866634	-0.586707724	9
Export	E_INV018_25mm (all)	25	Category 1/E	36.43788116	35.03574273	1.50418767	12.61710051
Export	E_INV018_25mm (all)	25	Category 1/E	32.06111854	21.43604532	0.990741652	30.003942
Export	E_INV018_25mm (all)	25	Category 1/E	46.15081493	55.7830924	-2.133966571	4.7
Export	E_INV018_50mm (all)	50	Category 12/E	82.26510252	100.7042344	-24.10065123	5
Export	E_INV018_50mm (all)	50	Category 12/E	63.60885837	74.7574542	-6.834264837	9
Export	E_INV018_50mm (all)	50	Category 12/E	57.662049	63.81909328	-4.272034202	12.61710051
Export	E_INV018_50mm (all)	50	Category 12/E	47.08308031	43.37220041	-1.568448129	30.003942
Export	E_INV018_50mm (all)	50	Category 12/E	84.65586709	103.9053434	-26.4447441	4.7
Export	E_INV018_50mm (all)	50	Category 11/E	84.63350426	104.1825603	-26.26043252	5
Export	E_INV018_50mm (all)	50	Category 11/E	64.81644045	77.00432806	-7.409330269	9
Export	E_INV018_50mm (all)	50	Category 11/E	58.5242247	65.62962052	-4.479222677	12.61710051
Export	E_INV018_50mm (all)	50	Category 11/E	47.58075339	44.45408947	-1.630947993	30.003942
Export	E_INV018_50mm (all)	50	Category 11/E	87.12844516	107.5183283	-28.72017368	4.7
Export	E_INV018_50mm (all)	50	Category 10/E	84.50655765	104.4515272	-2.977108784	5
Export	E_INV018_50mm (all)	50	Category 10/E	73.98225283	79.87583368	-0.982595003	9
Export	E_INV018_50mm (all)	50	Category 10/E	69.213384	68.27855387	-0.332187631	12.61710051
Export	E_INV018_50mm (all)	50	Category 10/E	59.77343932	42.77308165	0.843784993	30.003942
Export	E_INV018_50mm (all)	50	Category 10/E	85.84146875	107.558557	-3.330116644	4.7
Export	E_INV018_50mm (all)	50	Category 9/E	79.9187074	100.4408632	-12.83298285	5
Export	E_INV018_50mm (all)	50	Category 9/E	65.68841394	75.61793958	-3.733810694	9
Export	E_INV018_50mm (all)	50	Category 9/E	60.50850161	64.81323133	-2.399544208	12.61710051
Export	E_INV018_50mm (all)	50	Category 9/E	50.65739142	43.46725564	-0.590674409	30.003942
Export	E_INV018_50mm (all)	50	Category 9/E	82.15131539	103.6557359	-14.94631628	4.7
Export	E_INV018_50mm (all)	50	Category 8/E	83.25008583	101.1396007	-2.766519438	5
Export	E_INV018_50mm (all)	50	Category 8/E	73.11571727	77.60711527	-0.89809757	9

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV018_50mm (all)	50	Category 8/E	68.50050879	66.32427978	-0.271814493	12.61710051
Export	E_INV018_50mm (all)	50	Category 8/E	59.32363708	41.33696778	0.885218047	30.003942
Export	E_INV018_50mm (all)	50	Category 8/E	84.52653813	104.133014	-3.085505741	4.7
Export	E_INV018_50mm (all)	50	Category 7/E	82.03447836	103.9080684	-14.60293681	5
Export	E_INV018_50mm (all)	50	Category 7/E	66.67167862	77.88539879	-3.942269	9
Export	E_INV018_50mm (all)	50	Category 7/E	61.29426631	66.53086626	-2.518493969	12.61710051
Export	E_INV018_50mm (all)	50	Category 7/E	51.13033854	44.67669673	-0.635850621	30.003942
Export	E_INV018_50mm (all)	50	Category 7/E	84.36580513	107.2599503	-16.82168615	4.7
Export	E_INV018_50mm (all)	50	Category 6/E	82.03447836	103.9080684	-14.60293681	5
Export	E_INV018_50mm (all)	50	Category 6/E	66.67167862	77.88539879	-3.942269	9
Export	E_INV018_50mm (all)	50	Category 6/E	61.29426631	66.53086626	-2.518493969	12.61710051
Export	E_INV018_50mm (all)	50	Category 6/E	51.13033854	44.67669673	-0.635850621	30.003942
Export	E_INV018_50mm (all)	50	Category 6/E	84.36580513	107.2599503	-16.82168615	4.7
Export	E_INV018_50mm (all)	50	Category 5/E	84.63350426	104.1825603	-26.26043252	5
Export	E_INV018_50mm (all)	50	Category 5/E	64.81644045	77.00432806	-7.409330269	9
Export	E_INV018_50mm (all)	50	Category 5/E	58.5242247	65.62962052	-4.479222677	12.61710051
Export	E_INV018_50mm (all)	50	Category 5/E	47.58075339	44.45408947	-1.630947993	30.003942
Export	E_INV018_50mm (all)	50	Category 5/E	87.12844516	107.5183283	-28.72017368	4.7
Export	E_INV018_50mm (all)	50	Category 4/E	83.25008583	101.1396007	-2.766519438	5
Export	E_INV018_50mm (all)	50	Category 4/E	73.11571727	77.60711527	-0.89809757	9
Export	E_INV018_50mm (all)	50	Category 4/E	68.50050879	66.32427978	-0.271814493	12.61710051
Export	E_INV018_50mm (all)	50	Category 4/E	59.32363708	41.33696778	0.885218047	30.003942
Export	E_INV018_50mm (all)	50	Category 4/E	84.52653813	104.133014	-3.085505741	4.7
Export	E_INV018_50mm (all)	50	Category 3/E	82.26510252	100.7042344	-24.10065123	5
Export	E_INV018_50mm (all)	50	Category 3/E	63.60885837	74.7574542	-6.834264837	9
Export	E_INV018_50mm (all)	50	Category 3/E	57.662049	63.81909328	-4.272034202	12.61710051
Export	E_INV018_50mm (all)	50	Category 3/E	47.08308031	43.37220041	-1.568448129	30.003942
Export	E_INV018_50mm (all)	50	Category 3/E	84.65586709	103.9053434	-26.4447441	4.7
Export	E_INV018_50mm (all)	50	Category 2/E	79.9187074	100.4408632	-12.83298285	5
Export	E_INV018_50mm (all)	50	Category 2/E	65.68841394	75.61793958	-3.733810694	9
Export	E_INV018_50mm (all)	50	Category 2/E	60.50850161	64.81323133	-2.399544208	12.61710051
Export	E_INV018_50mm (all)	50	Category 2/E	50.65739142	43.46725564	-0.590674409	30.003942
Export	E_INV018_50mm (all)	50	Category 2/E	82.15131539	103.6557359	-14.94631628	4.7
Export	E_INV018_50mm (all)	50	Category 1/E	84.50655765	104.4515272	-2.977108784	5
Export	E_INV018_50mm (all)	50	Category 1/E	73.98225283	79.87583368	-0.982595003	9
Export	E_INV018_50mm (all)	50	Category 1/E	69.213384	68.27855387	-0.332187631	12.61710051
Export	E_INV018_50mm (all)	50	Category 1/E	59.77343932	42.77308165	0.843784993	30.003942
Export	E_INV018_50mm (all)	50	Category 1/E	85.84146875	107.558557	-3.330116644	4.7
Export	E_INV018_305mm (1hr)	305	Category 12/E	357.9959238	433.8518555	-92.65044838	5
Export	E_INV018_305mm (1hr)	305	Category 12/E	281.4903099	324.9957984	-24.37324423	9
Export	E_INV018_305mm (1hr)	305	Category 12/E	257.4644753	278.571286	-16.06372126	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 12/E	213.9834327	191.422625	-8.388820372	30.003942
Export	E_INV018_305mm (1hr)	305	Category 12/E	367.875919	447.2517509	-102.1548358	4.7
Export	E_INV018_305mm (1hr)	305	Category 11/E	372.2731607	455.3092277	-105.1796905	5
Export	E_INV018_305mm (1hr)	305	Category 11/E	289.5132572	339.3460915	-28.9479772	9
Export	E_INV018_305mm (1hr)	305	Category 11/E	262.5750458	289.9330001	-16.79663202	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 11/E	217.0915122	198.4287856	-8.699772727	30.003942
Export	E_INV018_305mm (1hr)	305	Category 11/E	382.8146342	469.559223	-115.4286354	4.7
Export	E_INV018_305mm (1hr)	305	Category 10/E	433.085284	568.2679501	-33.78735865	5
Export	E_INV018_305mm (1hr)	305	Category 10/E	367.8982236	431.3865746	-4.695050069	9
Export	E_INV018_305mm (1hr)	305	Category 10/E	342.9621513	372.6269369	-2.190973066	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 10/E	294.0741383	246.7323093	1.407743939	30.003942
Export	E_INV018_305mm (1hr)	305	Category 10/E	444.4823966	586.0872103	-44.29721159	4.7
Export	E_INV018_305mm (1hr)	305	Category 9/E	370.8544742	464.4731429	-61.80181622	5
Export	E_INV018_305mm (1hr)	305	Category 9/E	303.2314619	351.3020584	-14.15756856	9
Export	E_INV018_305mm (1hr)	305	Category 9/E	280.4814455	302.2978919	-9.747600733	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 9/E	236.666686	205.3710618	-4.128348692	30.003942
Export	E_INV018_305mm (1hr)	305	Category 9/E	383.284833	479.8303368	-76.06244614	4.7
Export	E_INV018_305mm (1hr)	305	Category 8/E	419.5726892	540.3217414	-25.52690678	5
Export	E_INV018_305mm (1hr)	305	Category 8/E	360.9547304	413.5832981	-4.243747717	9
Export	E_INV018_305mm (1hr)	305	Category 8/E	337.2671556	357.472187	-1.913295259	12.61710051

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV018_305mm (1hr)	305	Category 8/E	290.5436698	235.9885562	1.543893927	30.003942
Export	E_INV018_305mm (1hr)	305	Category 8/E	429.5120174	556.7513172	-33.79857928	4.7
Export	E_INV018_305mm (1hr)	305	Category 7/E	387.5951701	489.0476981	-78.55964405	5
Export	E_INV018_305mm (1hr)	305	Category 7/E	309.7409998	366.6449574	-15.20010625	9
Export	E_INV018_305mm (1hr)	305	Category 7/E	285.6771719	313.9020857	-10.23615309	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 7/E	239.8610443	213.5682521	-4.350123814	30.003942
Export	E_INV018_305mm (1hr)	305	Category 7/E	398.2960151	504.3641457	-88.75725942	4.7
Export	E_INV018_305mm (1hr)	305	Category 6/E	387.5951701	489.0476981	-78.55964405	5
Export	E_INV018_305mm (1hr)	305	Category 6/E	309.7409998	366.6449574	-15.20010625	9
Export	E_INV018_305mm (1hr)	305	Category 6/E	285.6771719	313.9020857	-10.23615309	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 6/E	239.8610443	213.5682521	-4.350123814	30.003942
Export	E_INV018_305mm (1hr)	305	Category 6/E	398.2960151	504.3641457	-88.75725942	4.7
Export	E_INV018_305mm (1hr)	305	Category 5/E	372.2731607	455.3092277	-105.1796905	5
Export	E_INV018_305mm (1hr)	305	Category 5/E	289.5132572	339.3460915	-28.9479772	9
Export	E_INV018_305mm (1hr)	305	Category 5/E	262.5750458	289.9330001	-16.79663202	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 5/E	217.0915122	198.4287856	-8.699772727	30.003942
Export	E_INV018_305mm (1hr)	305	Category 5/E	382.8146342	469.559223	-115.4286354	4.7
Export	E_INV018_305mm (1hr)	305	Category 4/E	419.5726892	540.3217414	-25.52690678	5
Export	E_INV018_305mm (1hr)	305	Category 4/E	360.9547304	413.5832981	-4.243747717	9
Export	E_INV018_305mm (1hr)	305	Category 4/E	337.2671556	357.472187	-1.913295259	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 4/E	290.5436698	235.9885562	1.543893927	30.003942
Export	E_INV018_305mm (1hr)	305	Category 4/E	429.5120174	556.7513172	-33.79857928	4.7
Export	E_INV018_305mm (1hr)	305	Category 3/E	357.9959238	433.8518555	-92.65044838	5
Export	E_INV018_305mm (1hr)	305	Category 3/E	281.4903099	324.9957984	-24.37324423	9
Export	E_INV018_305mm (1hr)	305	Category 3/E	257.4644753	278.571286	-16.06372126	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 3/E	213.9834327	191.422625	-8.388820372	30.003942
Export	E_INV018_305mm (1hr)	305	Category 3/E	367.875919	447.2517509	-102.1548358	4.7
Export	E_INV018_305mm (1hr)	305	Category 2/E	370.8544742	464.4731429	-61.80181622	5
Export	E_INV018_305mm (1hr)	305	Category 2/E	303.2314619	351.3020584	-14.15756856	9
Export	E_INV018_305mm (1hr)	305	Category 2/E	280.4814455	302.2978919	-9.747600733	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 2/E	236.666686	205.3710618	-4.128348692	30.003942
Export	E_INV018_305mm (1hr)	305	Category 2/E	383.284833	479.8303368	-76.06244614	4.7
Export	E_INV018_305mm (1hr)	305	Category 1/E	433.085284	568.2679501	-33.78735865	5
Export	E_INV018_305mm (1hr)	305	Category 1/E	367.8982236	431.3865746	-4.695050069	9
Export	E_INV018_305mm (1hr)	305	Category 1/E	342.9621513	372.6269369	-2.190973066	12.61710051
Export	E_INV018_305mm (1hr)	305	Category 1/E	294.0741383	246.7323093	1.407743939	30.003942
Export	E_INV018_305mm (1hr)	305	Category 1/E	444.4823966	586.0872103	-44.29721159	4.7
Export	E_INV018_914mm (1hr)	914	Category 12/E	837.93683	1000.397577	-182.6054769	5
Export	E_INV018_914mm (1hr)	914	Category 12/E	678.4386521	758.7344665	-56.37544998	9
Export	E_INV018_914mm (1hr)	914	Category 12/E	627.3284927	655.3211362	-45.19467028	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 12/E	525.7762086	450.2229689	-25.37001126	30.003942
Export	E_INV018_914mm (1hr)	914	Category 12/E	857.9351911	1029.766307	-199.378192	4.7
Export	E_INV018_914mm (1hr)	914	Category 11/E	877.8662517	1062.813497	-215.7859577	5
Export	E_INV018_914mm (1hr)	914	Category 11/E	697.169028	799.0756098	-60.3858022	9
Export	E_INV018_914mm (1hr)	914	Category 11/E	642.0699101	685.9838788	-46.99155333	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 11/E	534.9919306	471.6686796	-26.48179053	30.003942
Export	E_INV018_914mm (1hr)	914	Category 11/E	901.5957224	1095.395628	-238.3464071	4.7
Export	E_INV018_914mm (1hr)	914	Category 10/E	1038.464073	1323.230969	-59.66736649	5
Export	E_INV018_914mm (1hr)	914	Category 10/E	897.2478025	1016.484174	-11.13789938	9
Export	E_INV018_914mm (1hr)	914	Category 10/E	840.0176965	878.8697908	-6.711091275	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 10/E	725.7730553	578.7897529	1.37673002	30.003942
Export	E_INV018_914mm (1hr)	914	Category 10/E	1060.269658	1362.322572	-75.02375841	4.7
Export	E_INV018_914mm (1hr)	914	Category 9/E	877.7775336	1069.972711	-123.3947875	5
Export	E_INV018_914mm (1hr)	914	Category 9/E	734.2514375	816.5848529	-35.4385113	9
Export	E_INV018_914mm (1hr)	914	Category 9/E	683.4790857	709.6651963	-27.95376887	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 9/E	581.6103895	479.3021909	-13.65832111	30.003942
Export	E_INV018_914mm (1hr)	914	Category 9/E	898.5777018	1101.650952	-141.0135196	4.7
Export	E_INV018_914mm (1hr)	914	Category 8/E	1002.766502	1242.546024	-43.31492762	5
Export	E_INV018_914mm (1hr)	914	Category 8/E	877.0221937	963.4754989	-10.13511851	9
Export	E_INV018_914mm (1hr)	914	Category 8/E	823.3295106	833.4843477	-5.988448026	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 8/E	715.3270299	546.2523748	1.827142193	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV018_914mm (1hr)	914	Category 8/E	1022.211091	1278.349768	-55.92780696	4.7
Export	E_INV018_914mm (1hr)	914	Category 7/E	916.7005801	1137.761272	-152.5259849	5
Export	E_INV018_914mm (1hr)	914	Category 7/E	752.6920548	744.3623946	-37.40871511	9
Export	E_INV018_914mm (1hr)	914	Category 7/E	698.5618859	744.3623946	-29.22388594	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 7/E	591.0437314	504.0762845	-14.44546458	30.003942
Export	E_INV018_914mm (1hr)	914	Category 7/E	937.7998604	1171.498502	-168.9948173	4.7
Export	E_INV018_914mm (1hr)	914	Category 6/E	916.7005801	1137.761272	-152.5259849	5
Export	E_INV018_914mm (1hr)	914	Category 6/E	752.6920548	744.3623946	-37.40871511	9
Export	E_INV018_914mm (1hr)	914	Category 6/E	698.5618859	744.3623946	-29.22388594	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 6/E	591.0437314	504.0762845	-14.44546458	30.003942
Export	E_INV018_914mm (1hr)	914	Category 6/E	937.7998604	1171.498502	-168.9948173	4.7
Export	E_INV018_914mm (1hr)	914	Category 5/E	877.8662517	1062.813497	-215.7859577	5
Export	E_INV018_914mm (1hr)	914	Category 5/E	697.169028	799.0756098	-60.3858022	9
Export	E_INV018_914mm (1hr)	914	Category 5/E	642.0699101	685.9838788	-46.99155333	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 5/E	534.9919306	471.6686796	-26.48179053	30.003942
Export	E_INV018_914mm (1hr)	914	Category 5/E	901.5957224	1095.395628	-238.3464071	4.7
Export	E_INV018_914mm (1hr)	914	Category 4/E	1002.766502	1242.546024	-43.31492762	5
Export	E_INV018_914mm (1hr)	914	Category 4/E	877.0221937	963.4754989	-10.13511851	9
Export	E_INV018_914mm (1hr)	914	Category 4/E	823.3295106	833.4843477	-5.988448026	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 4/E	715.3270299	546.2523748	1.827142193	30.003942
Export	E_INV018_914mm (1hr)	914	Category 4/E	1022.211091	1278.349768	-55.92780696	4.7
Export	E_INV018_914mm (1hr)	914	Category 3/E	837.93683	1000.397577	-182.6054769	5
Export	E_INV018_914mm (1hr)	914	Category 3/E	678.4386521	758.7344665	-56.37544998	9
Export	E_INV018_914mm (1hr)	914	Category 3/E	627.3284927	655.3211362	-45.19467028	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 3/E	525.7762086	450.2229689	-25.37001126	30.003942
Export	E_INV018_914mm (1hr)	914	Category 3/E	857.9351911	1029.766307	-199.378192	4.7
Export	E_INV018_914mm (1hr)	914	Category 2/E	877.7775336	1069.972711	-123.3947875	5
Export	E_INV018_914mm (1hr)	914	Category 2/E	734.2514375	816.5848529	-35.4385113	9
Export	E_INV018_914mm (1hr)	914	Category 2/E	683.4790857	709.6651963	-27.95376887	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 2/E	581.6103895	479.3021909	-13.65832111	30.003942
Export	E_INV018_914mm (1hr)	914	Category 2/E	898.5777018	1101.650952	-141.0135196	4.7
Export	E_INV018_914mm (1hr)	914	Category 1/E	1038.464073	1323.230969	-59.66736649	5
Export	E_INV018_914mm (1hr)	914	Category 1/E	897.2478025	1016.484174	-11.13789938	9
Export	E_INV018_914mm (1hr)	914	Category 1/E	840.0176965	878.8697908	-6.711091275	12.61710051
Export	E_INV018_914mm (1hr)	914	Category 1/E	725.7730553	578.7897529	1.37673002	30.003942
Export	E_INV018_914mm (1hr)	914	Category 1/E	1060.269658	1362.322572	-75.02375841	4.7
Export	E_INV018_10mm (all)	10	Category 12/E	18.14816559	21.69713553	-3.864407968	5
Export	E_INV018_10mm (all)	10	Category 12/E	14.92078301	16.30950612	-1.870898528	9
Export	E_INV018_10mm (all)	10	Category 12/E	13.54585306	13.91384757	-1.196196178	12.61710051
Export	E_INV018_10mm (all)	10	Category 12/E	10.81223833	9.216483194	0.140643862	30.003942
Export	E_INV018_10mm (all)	10	Category 12/E	18.57815183	22.36636701	-4.183310654	4.7
Export	E_INV018_10mm (all)	10	Category 11/E	18.4377104	22.19107478	-4.054623039	5
Export	E_INV018_10mm (all)	10	Category 11/E	15.09810074	16.64884934	-1.947960019	9
Export	E_INV018_10mm (all)	10	Category 11/E	13.68346075	14.16908962	-1.244387282	12.61710051
Export	E_INV018_10mm (all)	10	Category 11/E	10.89042872	9.389094802	0.125698588	30.003942
Export	E_INV018_10mm (all)	10	Category 11/E	18.885732	22.88443795	-4.394057188	4.7
Export	E_INV018_10mm (all)	10	Category 10/E	19.93153581	22.69762802	-1.088966732	5
Export	E_INV018_10mm (all)	10	Category 10/E	17.29920244	17.1604622	-0.011468256	9
Export	E_INV018_10mm (all)	10	Category 10/E	16.11741623	14.45910989	0.393221768	12.61710051
Export	E_INV018_10mm (all)	10	Category 10/E	13.68356673	8.477522772	1.311421485	30.003942
Export	E_INV018_10mm (all)	10	Category 10/E	20.25249521	23.35640432	-1.219551152	4.7
Export	E_INV018_10mm (all)	10	Category 9/E	18.35953796	21.87205643	-2.580162603	5
Export	E_INV018_10mm (all)	10	Category 9/E	15.47133782	16.52052585	-1.105682919	9
Export	E_INV018_10mm (all)	10	Category 9/E	14.21110265	14.14457961	-0.593206104	12.61710051
Export	E_INV018_10mm (all)	10	Category 9/E	11.66535045	9.071158332	0.489425024	30.003942
Export	E_INV018_10mm (all)	10	Category 9/E	18.72787385	22.53942139	-2.793333537	4.7
Export	E_INV018_10mm (all)	10	Category 8/E	19.60861802	22.16553883	-0.788847297	5
Export	E_INV018_10mm (all)	10	Category 8/E	17.14305435	16.79838729	0.054281407	9
Export	E_INV018_10mm (all)	10	Category 8/E	15.44118943	14.08362504	1.537296668	12.61710051
Export	E_INV018_10mm (all)	10	Category 8/E	13.60266365	8.255298726	1.343523919	30.003942
Export	E_INV018_10mm (all)	10	Category 8/E	20.03783233	22.85711462	-1.148692723	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV018_10mm (all)	10	Category 7/E	18.60512644	22.36958024	-2.698852434	5
Export	E_INV018_10mm (all)	10	Category 7/E	15.61060448	16.83469519	-1.118605768	9
Export	E_INV018_10mm (all)	10	Category 7/E	14.34058669	14.41900136	-0.636303774	12.61710051
Export	E_INV018_10mm (all)	10	Category 7/E	11.74334824	9.267328102	0.469923403	30.003942
Export	E_INV018_10mm (all)	10	Category 7/E	18.98725826	23.05508973	-2.92647331	4.7
Export	E_INV018_10mm (all)	10	Category 6/E	18.60512644	22.36958024	-2.698852434	5
Export	E_INV018_10mm (all)	10	Category 6/E	15.61060448	16.83469519	-1.118605768	9
Export	E_INV018_10mm (all)	10	Category 6/E	14.34058669	14.41900136	-0.636303774	12.61710051
Export	E_INV018_10mm (all)	10	Category 6/E	11.74334824	9.267328102	0.469923403	30.003942
Export	E_INV018_10mm (all)	10	Category 6/E	18.98725826	23.05508973	-2.92647331	4.7
Export	E_INV018_10mm (all)	10	Category 5/E	18.4377104	22.19107478	-4.054623039	5
Export	E_INV018_10mm (all)	10	Category 5/E	15.09810074	16.64884934	-1.947960019	9
Export	E_INV018_10mm (all)	10	Category 5/E	13.68346075	14.16908962	-1.244387282	12.61710051
Export	E_INV018_10mm (all)	10	Category 5/E	10.89042872	9.389094802	0.125698588	30.003942
Export	E_INV018_10mm (all)	10	Category 5/E	18.885732	22.88443795	-4.394057188	4.7
Export	E_INV018_10mm (all)	10	Category 4/E	19.60861802	22.16553883	-0.788847297	5
Export	E_INV018_10mm (all)	10	Category 4/E	17.14305435	16.79838729	0.054281407	9
Export	E_INV018_10mm (all)	10	Category 4/E	15.44118943	14.08362504	1.537296668	12.61710051
Export	E_INV018_10mm (all)	10	Category 4/E	13.60266365	8.255298726	1.343523919	30.003942
Export	E_INV018_10mm (all)	10	Category 4/E	20.03783233	22.85711462	-1.148692723	4.7
Export	E_INV018_10mm (all)	10	Category 3/E	18.14816559	21.69713553	-3.864407968	5
Export	E_INV018_10mm (all)	10	Category 3/E	14.92078301	16.30950612	-1.870898528	9
Export	E_INV018_10mm (all)	10	Category 3/E	13.54585306	13.91384757	-1.196196178	12.61710051
Export	E_INV018_10mm (all)	10	Category 3/E	10.81223833	9.216483194	0.140643862	30.003942
Export	E_INV018_10mm (all)	10	Category 3/E	18.57815183	22.36636701	-4.183310654	4.7
Export	E_INV018_10mm (all)	10	Category 2/E	18.35953796	21.87205643	-2.580162603	5
Export	E_INV018_10mm (all)	10	Category 2/E	15.47133782	16.52052585	-1.105682919	9
Export	E_INV018_10mm (all)	10	Category 2/E	14.21110265	14.14457961	-0.593206104	12.61710051
Export	E_INV018_10mm (all)	10	Category 2/E	11.66535045	9.071158332	0.489425024	30.003942
Export	E_INV018_10mm (all)	10	Category 2/E	18.72787385	22.53942139	-2.793333537	4.7
Export	E_INV018_10mm (all)	10	Category 1/E	19.93153581	22.69762802	-1.088966732	5
Export	E_INV018_10mm (all)	10	Category 1/E	17.29920244	17.1604622	-0.011468256	9
Export	E_INV018_10mm (all)	10	Category 1/E	16.11741623	14.45910989	0.393221768	12.61710051
Export	E_INV018_10mm (all)	10	Category 1/E	13.68356673	8.477522772	1.311421485	30.003942
Export	E_INV018_10mm (all)	10	Category 1/E	20.25249521	23.35640432	-1.219551152	4.7
Export	E_INV018_305mm (2min)	305	Category 12/E	357.9959238	433.8518555	-92.65044838	5
Export	E_INV018_305mm (2min)	305	Category 12/E	281.4903099	324.9957984	-24.37324423	9
Export	E_INV018_305mm (2min)	305	Category 12/E	257.4644753	278.571286	-16.06372126	12.61710051
Export	E_INV018_305mm (2min)	305	Category 12/E	213.9834327	191.422625	-8.388820372	30.003942
Export	E_INV018_305mm (2min)	305	Category 12/E	367.875919	447.2517509	-102.1548358	4.7
Export	E_INV018_305mm (2min)	305	Category 11/E	372.2731607	455.3092277	-105.1796905	5
Export	E_INV018_305mm (2min)	305	Category 11/E	289.5132572	339.3460915	-28.9479772	9
Export	E_INV018_305mm (2min)	305	Category 11/E	262.5750458	289.9330001	-16.79663202	12.61710051
Export	E_INV018_305mm (2min)	305	Category 11/E	217.0915122	198.4287856	-8.699772727	30.003942
Export	E_INV018_305mm (2min)	305	Category 11/E	382.8146342	469.559223	-115.4286354	4.7
Export	E_INV018_305mm (2min)	305	Category 10/E	433.085284	568.2679501	-33.78735865	5
Export	E_INV018_305mm (2min)	305	Category 10/E	367.8982236	431.3865746	-4.695050069	9
Export	E_INV018_305mm (2min)	305	Category 10/E	342.9621513	372.6269369	-2.190973066	12.61710051
Export	E_INV018_305mm (2min)	305	Category 10/E	294.0741383	246.7323093	1.407743939	30.003942
Export	E_INV018_305mm (2min)	305	Category 10/E	444.4823966	586.0872103	-44.29721159	4.7
Export	E_INV018_305mm (2min)	305	Category 9/E	370.8544742	464.4731429	-61.80181622	5
Export	E_INV018_305mm (2min)	305	Category 9/E	303.2314619	351.3020584	-14.15756856	9
Export	E_INV018_305mm (2min)	305	Category 9/E	280.4814455	302.2978919	-9.747600733	12.61710051
Export	E_INV018_305mm (2min)	305	Category 9/E	236.666686	205.3710618	-4.128348692	30.003942
Export	E_INV018_305mm (2min)	305	Category 9/E	383.284833	479.8303368	-76.06244614	4.7
Export	E_INV018_305mm (2min)	305	Category 8/E	419.5726892	540.3217414	-25.52690678	5
Export	E_INV018_305mm (2min)	305	Category 8/E	360.9547304	413.5832981	-4.243747717	9
Export	E_INV018_305mm (2min)	305	Category 8/E	337.2671556	357.472187	-1.913295259	12.61710051
Export	E_INV018_305mm (2min)	305	Category 8/E	290.5436698	235.9885562	1.543893927	30.003942
Export	E_INV018_305mm (2min)	305	Category 8/E	429.5120174	556.7513172	-33.79857928	4.7
Export	E_INV018_305mm (2min)	305	Category 7/E	387.5951701	489.0476981	-78.55964405	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV018_305mm (2min)	305	Category 7/E	309.7409998	366.6449574	-15.20010625	9
Export	E_INV018_305mm (2min)	305	Category 7/E	285.6771719	313.9020857	-10.23615309	12.61710051
Export	E_INV018_305mm (2min)	305	Category 7/E	239.8610443	213.5682521	-4.350123814	30.003942
Export	E_INV018_305mm (2min)	305	Category 7/E	398.2960151	504.3641457	-88.75725942	4.7
Export	E_INV018_305mm (2min)	305	Category 6/E	387.5951701	489.0476981	-78.55964405	5
Export	E_INV018_305mm (2min)	305	Category 6/E	309.7409998	366.6449574	-15.20010625	9
Export	E_INV018_305mm (2min)	305	Category 6/E	285.6771719	313.9020857	-10.23615309	12.61710051
Export	E_INV018_305mm (2min)	305	Category 6/E	239.8610443	213.5682521	-4.350123814	30.003942
Export	E_INV018_305mm (2min)	305	Category 6/E	398.2960151	504.3641457	-88.75725942	4.7
Export	E_INV018_305mm (2min)	305	Category 5/E	372.2731607	455.3092277	-105.1796905	5
Export	E_INV018_305mm (2min)	305	Category 5/E	289.5132572	339.3460915	-28.9479772	9
Export	E_INV018_305mm (2min)	305	Category 5/E	262.5750458	289.9330001	-16.79663202	12.61710051
Export	E_INV018_305mm (2min)	305	Category 5/E	217.0915122	198.4287856	-8.699772727	30.003942
Export	E_INV018_305mm (2min)	305	Category 5/E	382.8146342	469.559223	-115.4286354	4.7
Export	E_INV018_305mm (2min)	305	Category 4/E	419.5726892	540.3217414	-25.52690678	5
Export	E_INV018_305mm (2min)	305	Category 4/E	360.9547304	413.5832981	-4.243747717	9
Export	E_INV018_305mm (2min)	305	Category 4/E	337.2671556	357.472187	-1.913295259	12.61710051
Export	E_INV018_305mm (2min)	305	Category 4/E	290.5436698	235.9885562	1.543893927	30.003942
Export	E_INV018_305mm (2min)	305	Category 4/E	429.5120174	556.7513172	-33.79857928	4.7
Export	E_INV018_305mm (2min)	305	Category 3/E	357.9959238	433.8518555	-92.65044838	5
Export	E_INV018_305mm (2min)	305	Category 3/E	281.4903099	324.9957984	-24.37324423	9
Export	E_INV018_305mm (2min)	305	Category 3/E	257.4644753	278.571286	-16.06372126	12.61710051
Export	E_INV018_305mm (2min)	305	Category 3/E	213.9834327	191.422625	-8.388820372	30.003942
Export	E_INV018_305mm (2min)	305	Category 3/E	367.875919	447.2517509	-102.1548358	4.7
Export	E_INV018_305mm (2min)	305	Category 2/E	370.8544742	464.4731429	-61.80181622	5
Export	E_INV018_305mm (2min)	305	Category 2/E	303.2314619	351.3020584	-14.15756856	9
Export	E_INV018_305mm (2min)	305	Category 2/E	280.4814455	302.2978919	-9.747600733	12.61710051
Export	E_INV018_305mm (2min)	305	Category 2/E	236.666686	205.3710618	-4.128348692	30.003942
Export	E_INV018_305mm (2min)	305	Category 2/E	383.284833	479.8303368	-76.06244614	4.7
Export	E_INV018_305mm (2min)	305	Category 1/E	433.085284	568.2679501	-33.78735865	5
Export	E_INV018_305mm (2min)	305	Category 1/E	367.8982236	431.3865746	-4.695050069	9
Export	E_INV018_305mm (2min)	305	Category 1/E	342.9621513	372.6269369	-2.190973066	12.61710051
Export	E_INV018_305mm (2min)	305	Category 1/E	294.0741383	246.7323093	1.407743939	30.003942
Export	E_INV018_305mm (2min)	305	Category 1/E	444.4823966	586.0872103	-44.29721159	4.7
Export	E_INV018_914mm (2min)	914	Category 12/E	837.93683	1000.397577	-182.6054769	5
Export	E_INV018_914mm (2min)	914	Category 12/E	678.4386521	758.7344665	-56.37544998	9
Export	E_INV018_914mm (2min)	914	Category 12/E	627.3284927	655.3211362	-45.19467028	12.61710051
Export	E_INV018_914mm (2min)	914	Category 12/E	525.7762086	450.2229689	-25.37001126	30.003942
Export	E_INV018_914mm (2min)	914	Category 12/E	857.9351911	1029.766307	-199.378192	4.7
Export	E_INV018_914mm (2min)	914	Category 11/E	877.8662517	1062.813497	-215.7859577	5
Export	E_INV018_914mm (2min)	914	Category 11/E	697.169028	799.0756098	-60.3858022	9
Export	E_INV018_914mm (2min)	914	Category 11/E	642.0699101	685.9838788	-46.99155333	12.61710051
Export	E_INV018_914mm (2min)	914	Category 11/E	534.9919306	471.6686796	-26.48179053	30.003942
Export	E_INV018_914mm (2min)	914	Category 11/E	901.5957224	1095.395628	-238.3464071	4.7
Export	E_INV018_914mm (2min)	914	Category 10/E	1038.464073	1323.230969	-59.66736649	5
Export	E_INV018_914mm (2min)	914	Category 10/E	897.2478025	1016.484174	-11.13789938	9
Export	E_INV018_914mm (2min)	914	Category 10/E	840.0176965	878.8697908	-6.711091275	12.61710051
Export	E_INV018_914mm (2min)	914	Category 10/E	725.7730553	578.7897529	1.37673002	30.003942
Export	E_INV018_914mm (2min)	914	Category 10/E	1060.269658	1362.322572	-75.02375841	4.7
Export	E_INV018_914mm (2min)	914	Category 9/E	877.7775336	1069.972711	-123.3947875	5
Export	E_INV018_914mm (2min)	914	Category 9/E	734.2514375	816.5848529	-35.4385113	9
Export	E_INV018_914mm (2min)	914	Category 9/E	683.4790857	709.6651963	-27.95376887	12.61710051
Export	E_INV018_914mm (2min)	914	Category 9/E	581.6103895	479.3021909	-13.65832111	30.003942
Export	E_INV018_914mm (2min)	914	Category 9/E	898.5777018	1101.650952	-141.0135196	4.7
Export	E_INV018_914mm (2min)	914	Category 8/E	1002.766502	1242.546024	-43.31492762	5
Export	E_INV018_914mm (2min)	914	Category 8/E	877.0221937	963.4754989	-10.13511851	9
Export	E_INV018_914mm (2min)	914	Category 8/E	823.3295106	833.4843477	-5.988448026	12.61710051
Export	E_INV018_914mm (2min)	914	Category 8/E	715.3270299	546.2523748	1.827142193	30.003942
Export	E_INV018_914mm (2min)	914	Category 8/E	1022.211091	1278.349768	-55.92780696	4.7
Export	E_INV018_914mm (2min)	914	Category 7/E	916.7005801	1137.761272	-152.5259849	5
Export	E_INV018_914mm (2min)	914	Category 7/E	752.6920548	744.3623946	-37.40871511	9

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV018_914mm (2min)	914	Category 7/E	698.5618859	744.3623946	-29.22388594	12.61710051
Export	E_INV018_914mm (2min)	914	Category 7/E	591.0437314	504.0762845	-14.44546458	30.003942
Export	E_INV018_914mm (2min)	914	Category 7/E	937.7998604	1171.498502	-168.9948173	4.7
Export	E_INV018_914mm (2min)	914	Category 6/E	916.7005801	1137.761272	-152.5259849	5
Export	E_INV018_914mm (2min)	914	Category 6/E	752.6920548	744.3623946	-37.40871511	9
Export	E_INV018_914mm (2min)	914	Category 6/E	698.5618859	744.3623946	-29.22388594	12.61710051
Export	E_INV018_914mm (2min)	914	Category 6/E	591.0437314	504.0762845	-14.44546458	30.003942
Export	E_INV018_914mm (2min)	914	Category 6/E	937.7998604	1171.498502	-168.9948173	4.7
Export	E_INV018_914mm (2min)	914	Category 5/E	877.8662517	1062.813497	-215.7859577	5
Export	E_INV018_914mm (2min)	914	Category 5/E	697.169028	799.0756098	-60.3858022	9
Export	E_INV018_914mm (2min)	914	Category 5/E	642.0699101	685.9838788	-46.99155333	12.61710051
Export	E_INV018_914mm (2min)	914	Category 5/E	534.9919306	471.6686796	-26.48179053	30.003942
Export	E_INV018_914mm (2min)	914	Category 5/E	901.5957224	1095.395628	-238.3464071	4.7
Export	E_INV018_914mm (2min)	914	Category 4/E	1002.766502	1242.546024	-43.31492762	5
Export	E_INV018_914mm (2min)	914	Category 4/E	877.0221937	963.4754989	-10.13511851	9
Export	E_INV018_914mm (2min)	914	Category 4/E	823.3295106	833.4843477	-5.988448026	12.61710051
Export	E_INV018_914mm (2min)	914	Category 4/E	715.3270299	546.2523748	1.827142193	30.003942
Export	E_INV018_914mm (2min)	914	Category 4/E	1022.211091	1278.349768	-55.92780696	4.7
Export	E_INV018_914mm (2min)	914	Category 3/E	837.93683	1000.397577	-182.6054769	5
Export	E_INV018_914mm (2min)	914	Category 3/E	678.4386521	758.7344665	-56.37544998	9
Export	E_INV018_914mm (2min)	914	Category 3/E	627.3284927	655.3211362	-45.19467028	12.61710051
Export	E_INV018_914mm (2min)	914	Category 3/E	525.7762086	450.2229689	-25.37001126	30.003942
Export	E_INV018_914mm (2min)	914	Category 3/E	857.9351911	1029.766307	-199.378192	4.7
Export	E_INV018_914mm (2min)	914	Category 2/E	877.7775336	1069.972711	-123.3947875	5
Export	E_INV018_914mm (2min)	914	Category 2/E	734.2514375	816.5848529	-35.4385113	9
Export	E_INV018_914mm (2min)	914	Category 2/E	683.4790857	709.6651963	-27.95376887	12.61710051
Export	E_INV018_914mm (2min)	914	Category 2/E	581.6103895	479.3021909	-13.65832111	30.003942
Export	E_INV018_914mm (2min)	914	Category 2/E	898.5777018	1101.650952	-141.0135196	4.7
Export	E_INV018_914mm (2min)	914	Category 1/E	1038.464073	1323.230969	-59.66736649	5
Export	E_INV018_914mm (2min)	914	Category 1/E	897.2478025	1016.484174	-11.13789938	9
Export	E_INV018_914mm (2min)	914	Category 1/E	840.0176965	878.8697908	-6.711091275	12.61710051
Export	E_INV018_914mm (2min)	914	Category 1/E	725.7730553	578.7897529	1.37673002	30.003942
Export	E_INV018_914mm (2min)	914	Category 1/E	1060.269658	1362.322572	-75.02375841	4.7
Export	E_INV020_25mm	25	Category 12/E	19.86304094	21.98075881	3.960566465	5
Export	E_INV020_25mm	25	Category 12/E	17.21283637	15.56506552	5.281915411	9
Export	E_INV020_25mm	25	Category 12/E	15.87486517	12.35062637	5.924756948	12.61710051
Export	E_INV020_25mm	25	Category 12/E	12.61476629	5.452704674	7.308188602	30.003942
Export	E_INV020_25mm	25	Category 12/E	20.17483297	22.72784701	3.802904434	4.7
Export	E_INV020_25mm	25	Category 11/E	19.76911611	22.54010794	3.904471319	5
Export	E_INV020_25mm	25	Category 11/E	17.06619697	16.065687	5.288861485	9
Export	E_INV020_25mm	25	Category 11/E	15.72015282	12.83918592	5.950055072	12.61710051
Export	E_INV020_25mm	25	Category 11/E	12.38757446	5.859013932	7.37618926	30.003942
Export	E_INV020_25mm	25	Category 11/E	20.08848344	23.29939218	3.738477595	4.7
Export	E_INV020_25mm	25	Category 10/E	19.07651111	22.77061697	3.564511578	5
Export	E_INV020_25mm	25	Category 10/E	15.70810653	16.45259894	5.137417912	9
Export	E_INV020_25mm	25	Category 10/E	13.98966213	13.24572592	5.796594792	12.61710051
Export	E_INV020_25mm	25	Category 10/E	10.38161743	5.98048242	7.209562826	30.003942
Export	E_INV020_25mm	25	Category 10/E	19.50734506	23.51641931	3.299394063	4.7
Export	E_INV020_25mm	25	Category 9/E	19.38571977	22.17855991	3.876997963	5
Export	E_INV020_25mm	25	Category 9/E	16.42400535	15.84826544	5.20012334	9
Export	E_INV020_25mm	25	Category 9/E	14.88790864	12.62981031	5.836651916	12.61710051
Export	E_INV020_25mm	25	Category 9/E	11.42689791	5.513116998	7.218983319	30.003942
Export	E_INV020_25mm	25	Category 9/E	19.73209842	22.91263251	3.718892601	4.7
Export	E_INV020_25mm	25	Category 8/E	18.97312146	22.22504189	3.7423529	5
Export	E_INV020_25mm	25	Category 8/E	15.7050827	15.95872512	5.138566731	9
Export	E_INV020_25mm	25	Category 8/E	13.9724519	12.73852564	5.770161457	12.61710051
Export	E_INV020_25mm	25	Category 8/E	10.39766323	5.48190042	7.145816809	30.003942
Export	E_INV020_25mm	25	Category 8/E	19.38073514	22.95498313	3.516575612	4.7
Export	E_INV020_25mm	25	Category 7/E	19.36762041	22.72337681	3.817560904	5
Export	E_INV020_25mm	25	Category 7/E	16.35745844	16.34271966	5.197032124	9
Export	E_INV020_25mm	25	Category 7/E	14.82243967	13.12687739	5.860270296	12.61710051

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Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV020_25mm	25	Category 7/E	11.30581036	5.972034383	7.284591782	30.003942
Export	E_INV020_25mm	25	Category 7/E	19.72150647	23.46888745	3.65171603	4.7
Export	E_INV020_25mm	25	Category 6/E	19.36762041	22.72337681	3.817560904	5
Export	E_INV020_25mm	25	Category 6/E	16.35745844	16.34271966	5.197032124	9
Export	E_INV020_25mm	25	Category 6/E	14.82243967	13.12687739	5.860270296	12.61710051
Export	E_INV020_25mm	25	Category 6/E	11.30581036	5.972034383	7.284591782	30.003942
Export	E_INV020_25mm	25	Category 6/E	19.72150647	23.46888745	3.65171603	4.7
Export	E_INV020_25mm	25	Category 5/E	19.76911611	22.54010794	3.904471319	5
Export	E_INV020_25mm	25	Category 5/E	17.06619697	16.065687	5.288861485	9
Export	E_INV020_25mm	25	Category 5/E	15.72015282	12.83918592	5.950055072	12.61710051
Export	E_INV020_25mm	25	Category 5/E	12.38757446	5.859013932	7.37618926	30.003942
Export	E_INV020_25mm	25	Category 5/E	20.08848344	23.29939218	3.738477595	4.7
Export	E_INV020_25mm	25	Category 4/E	18.97312146	22.22504189	3.7423529	5
Export	E_INV020_25mm	25	Category 4/E	15.7050827	15.95872512	5.138566731	9
Export	E_INV020_25mm	25	Category 4/E	13.9724519	12.73852564	5.770161457	12.61710051
Export	E_INV020_25mm	25	Category 4/E	10.39766323	5.48190042	7.145816809	30.003942
Export	E_INV020_25mm	25	Category 4/E	19.38073514	22.95498313	3.516575612	4.7
Export	E_INV020_25mm	25	Category 3/E	19.86304094	21.98075881	3.960566465	5
Export	E_INV020_25mm	25	Category 3/E	17.21283637	15.56506552	5.281915411	9
Export	E_INV020_25mm	25	Category 3/E	15.87486517	12.35062637	5.924756948	12.61710051
Export	E_INV020_25mm	25	Category 3/E	12.61476629	5.452704674	7.308188602	30.003942
Export	E_INV020_25mm	25	Category 3/E	20.17483297	22.72784701	3.802904434	4.7
Export	E_INV020_25mm	25	Category 2/E	19.38571977	22.17855991	3.876997963	5
Export	E_INV020_25mm	25	Category 2/E	16.42400535	15.84826544	5.20012334	9
Export	E_INV020_25mm	25	Category 2/E	14.88790864	12.62981031	5.836651916	12.61710051
Export	E_INV020_25mm	25	Category 2/E	11.42689791	5.513116998	7.218983319	30.003942
Export	E_INV020_25mm	25	Category 2/E	19.73209842	22.91263251	3.718892601	4.7
Export	E_INV020_25mm	25	Category 1/E	19.07651111	22.77061697	3.564511578	5
Export	E_INV020_25mm	25	Category 1/E	15.70810653	16.45259894	5.137417912	9
Export	E_INV020_25mm	25	Category 1/E	13.98966213	13.24572592	5.796594792	12.61710051
Export	E_INV020_25mm	25	Category 1/E	10.38161743	5.98048242	7.209562826	30.003942
Export	E_INV020_25mm	25	Category 1/E	19.50734506	23.51641931	3.299394063	4.7
Export	E_INV020_50mm	50	Category 12/E	38.84014047	46.0617523	3.950894139	5
Export	E_INV020_50mm	50	Category 12/E	32.74873831	33.64757742	7.651103476	9
Export	E_INV020_50mm	50	Category 12/E	29.85957072	27.54459608	9.23408443	12.61710051
Export	E_INV020_50mm	50	Category 12/E	22.81233249	14.2590907	12.4443196	30.003942
Export	E_INV020_50mm	50	Category 12/E	39.61451014	47.53813755	3.410358229	4.7
Export	E_INV020_50mm	50	Category 11/E	39.18044672	47.48026257	3.415008656	5
Export	E_INV020_50mm	50	Category 11/E	32.8000523	34.79389302	7.504441675	9
Export	E_INV020_50mm	50	Category 11/E	29.84544697	28.61011307	9.169084609	12.61710051
Export	E_INV020_50mm	50	Category 11/E	22.55138303	15.17627229	12.52861325	30.003942
Export	E_INV020_50mm	50	Category 11/E	39.99542576	48.99830864	2.816492229	4.7
Export	E_INV020_50mm	50	Category 10/E	40.59642116	47.35846467	-1.843188751	5
Export	E_INV020_50mm	50	Category 10/E	31.266965	34.65767578	5.630413434	9
Export	E_INV020_50mm	50	Category 10/E	26.86540621	28.47598216	8.538446542	12.61710051
Export	E_INV020_50mm	50	Category 10/E	19.19205061	14.87265524	12.53352732	30.003942
Export	E_INV020_50mm	50	Category 10/E	41.7517504	48.88070377	-2.844717102	4.7
Export	E_INV020_50mm	50	Category 9/E	39.13169733	46.00434818	1.913264746	5
Export	E_INV020_50mm	50	Category 9/E	31.47384991	33.64500399	7.38118052	9
Export	E_INV020_50mm	50	Category 9/E	27.99998897	27.58156972	9.283522426	12.61710051
Export	E_INV020_50mm	50	Category 9/E	20.85008822	14.1747227	12.41672712	30.003942
Export	E_INV020_50mm	50	Category 9/E	40.08657177	47.47799451	1.161276094	4.7
Export	E_INV020_50mm	50	Category 8/E	39.64708397	45.92412077	-0.674980981	5
Export	E_INV020_50mm	50	Category 8/E	30.69547709	33.49786149	6.211386555	9
Export	E_INV020_50mm	50	Category 8/E	26.3569287	27.3771665	8.860336404	12.61710051
Export	E_INV020_50mm	50	Category 8/E	19.12243978	13.84180615	12.43686753	30.003942
Export	E_INV020_50mm	50	Category 8/E	40.75080299	47.40471198	-1.603625814	4.7
Export	E_INV020_50mm	50	Category 7/E	39.80386504	47.42549791	1.031862757	5
Export	E_INV020_50mm	50	Category 7/E	31.79307904	34.78474596	7.015239045	9
Export	E_INV020_50mm	50	Category 7/E	28.18523308	28.64870494	9.180091949	12.61710051
Export	E_INV020_50mm	50	Category 7/E	20.74678825	15.15362867	12.50398257	30.003942

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV020_50mm	50	Category 7/E	40.80550084	48.94094483	0.213485329	4.7
Export	E_INV020_50mm	50	Category 6/E	39.80386504	47.42549791	1.031862757	5
Export	E_INV020_50mm	50	Category 6/E	31.79307904	34.78474596	7.015239045	9
Export	E_INV020_50mm	50	Category 6/E	28.18523308	28.64870494	9.180091949	12.61710051
Export	E_INV020_50mm	50	Category 6/E	20.74678825	15.15362867	12.50398257	30.003942
Export	E_INV020_50mm	50	Category 6/E	40.80550084	48.94094483	0.213485329	4.7
Export	E_INV020_50mm	50	Category 5/E	39.18044672	47.48026257	3.415008656	5
Export	E_INV020_50mm	50	Category 5/E	32.8000523	34.79389302	7.504441675	9
Export	E_INV020_50mm	50	Category 5/E	29.84544697	28.61011307	9.169084609	12.61710051
Export	E_INV020_50mm	50	Category 5/E	22.55138303	15.17627229	12.52861325	30.003942
Export	E_INV020_50mm	50	Category 5/E	39.99542576	48.99830864	2.816492229	4.7
Export	E_INV020_50mm	50	Category 4/E	39.64708397	45.92412077	-0.674980981	5
Export	E_INV020_50mm	50	Category 4/E	30.69547709	33.49786149	6.211386555	9
Export	E_INV020_50mm	50	Category 4/E	26.3569287	27.3771665	8.860336404	12.61710051
Export	E_INV020_50mm	50	Category 4/E	19.12243978	13.84180615	12.43686753	30.003942
Export	E_INV020_50mm	50	Category 4/E	40.75080299	47.40471198	-1.603625814	4.7
Export	E_INV020_50mm	50	Category 3/E	38.84014047	46.0617523	3.950894139	5
Export	E_INV020_50mm	50	Category 3/E	32.74873831	33.64757742	7.651103476	9
Export	E_INV020_50mm	50	Category 3/E	29.85957072	27.54459608	9.23408443	12.61710051
Export	E_INV020_50mm	50	Category 3/E	22.81233249	14.2590907	12.4443196	30.003942
Export	E_INV020_50mm	50	Category 3/E	39.61451014	47.53813755	3.410358229	4.7
Export	E_INV020_50mm	50	Category 2/E	39.13169733	46.00434818	1.913264746	5
Export	E_INV020_50mm	50	Category 2/E	31.47384991	33.64500399	7.38118052	9
Export	E_INV020_50mm	50	Category 2/E	27.99998897	27.58156972	9.283522426	12.61710051
Export	E_INV020_50mm	50	Category 2/E	20.85008822	14.1747227	12.41672712	30.003942
Export	E_INV020_50mm	50	Category 2/E	40.08657177	47.47799451	1.161276094	4.7
Export	E_INV020_50mm	50	Category 1/E	40.59642116	47.35846467	-1.843188751	5
Export	E_INV020_50mm	50	Category 1/E	31.266965	34.65767578	5.630413434	9
Export	E_INV020_50mm	50	Category 1/E	26.86540621	28.47598216	8.538446542	12.61710051
Export	E_INV020_50mm	50	Category 1/E	19.19205061	14.87265524	12.53352732	30.003942
Export	E_INV020_50mm	50	Category 1/E	41.7517504	48.88070377	-2.844717102	4.7
Export	E_INV020_203mm	203	Category 12/E	82.54176146	97.08758639	-4.805659647	5
Export	E_INV020_203mm	203	Category 12/E	65.33111574	72.19085846	9.992438648	9
Export	E_INV020_203mm	203	Category 12/E	57.4439913	60.27201657	16.1908834	12.61710051
Export	E_INV020_203mm	203	Category 12/E	40.8261908	34.98611493	25.92385109	30.003942
Export	E_INV020_203mm	203	Category 12/E	84.66730208	100.0788596	-6.713762064	4.7
Export	E_INV020_203mm	203	Category 11/E	84.7724124	100.4706559	-7.546748946	5
Export	E_INV020_203mm	203	Category 11/E	66.62315467	74.79474482	8.444917328	9
Export	E_INV020_203mm	203	Category 11/E	58.34884598	62.58915779	15.18479409	12.61710051
Export	E_INV020_203mm	203	Category 11/E	41.23941019	36.96937912	25.9128892	30.003942
Export	E_INV020_203mm	203	Category 11/E	87.01814297	103.5665029	-9.601895925	4.7
Export	E_INV020_203mm	203	Category 10/E	90.13866346	99.33177433	-20.43907339	5
Export	E_INV020_203mm	203	Category 10/E	67.16648384	73.497964	0.623268336	9
Export	E_INV020_203mm	203	Category 10/E	56.2977896	61.05233054	9.753998347	12.61710051
Export	E_INV020_203mm	203	Category 10/E	37.04118171	34.91764982	25.71450054	30.003942
Export	E_INV020_203mm	203	Category 10/E	92.93081243	102.4300926	-23.08594231	4.7
Export	E_INV020_203mm	203	Category 9/E	85.13738568	96.5556148	-11.09102031	5
Export	E_INV020_203mm	203	Category 9/E	65.23114736	71.63399072	6.477898011	9
Export	E_INV020_203mm	203	Category 9/E	55.8902094	59.64356832	13.94314277	12.61710051
Export	E_INV020_203mm	203	Category 9/E	38.26000318	34.18315424	26.45597736	30.003942
Export	E_INV020_203mm	203	Category 9/E	87.57183184	99.54243427	-13.33226742	4.7
Export	E_INV020_203mm	203	Category 8/E	86.86475079	95.9651471	-16.6940244	5
Export	E_INV020_203mm	203	Category 8/E	64.87030713	70.83986392	3.038478871	9
Export	E_INV020_203mm	203	Category 8/E	54.34381833	58.64886799	11.51328311	12.61710051
Export	E_INV020_203mm	203	Category 8/E	36.25078664	32.87980881	26.21314728	30.003942
Export	E_INV020_203mm	203	Category 8/E	89.52969304	98.96448733	-19.18567095	4.7
Export	E_INV020_203mm	203	Category 7/E	87.98004892	99.91717479	-14.43317289	5
Export	E_INV020_203mm	203	Category 7/E	67.08611132	74.25321935	4.436521819	9
Export	E_INV020_203mm	203	Category 7/E	57.36905759	61.98283923	12.51719684	12.61710051
Export	E_INV020_203mm	203	Category 7/E	38.46659201	36.17639769	26.41582356	30.003942
Export	E_INV020_203mm	203	Category 7/E	90.54161423	103.0066187	-16.83010177	4.7

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV020_203mm	203	Category 6/E	87.98004892	99.91717479	-14.43317289	5
Export	E_INV020_203mm	203	Category 6/E	67.08611132	74.25321935	4.436521819	9
Export	E_INV020_203mm	203	Category 6/E	57.36905759	61.98283923	12.51719684	12.61710051
Export	E_INV020_203mm	203	Category 6/E	38.46659201	36.17639769	26.41582356	30.003942
Export	E_INV020_203mm	203	Category 6/E	90.54161423	103.0066187	-16.83010177	4.7
Export	E_INV020_203mm	203	Category 5/E	84.7724124	100.4706559	-7.546748946	5
Export	E_INV020_203mm	203	Category 5/E	66.62315467	74.79474482	8.444917328	9
Export	E_INV020_203mm	203	Category 5/E	58.34884598	62.58915779	15.18479409	12.61710051
Export	E_INV020_203mm	203	Category 5/E	41.23941019	36.96937912	25.9128892	30.003942
Export	E_INV020_203mm	203	Category 5/E	87.01814297	103.5665029	-9.601895925	4.7
Export	E_INV020_203mm	203	Category 4/E	86.86475079	95.9651471	-16.6940244	5
Export	E_INV020_203mm	203	Category 4/E	64.87030713	70.83986392	3.038478871	9
Export	E_INV020_203mm	203	Category 4/E	54.34381833	58.64886799	11.51328311	12.61710051
Export	E_INV020_203mm	203	Category 4/E	36.25078664	32.87980881	26.21314728	30.003942
Export	E_INV020_203mm	203	Category 4/E	89.52969304	98.96448733	-19.18567095	4.7
Export	E_INV020_203mm	203	Category 3/E	82.54176146	97.08758639	-4.805659647	5
Export	E_INV020_203mm	203	Category 3/E	65.33111574	72.19085846	9.992438648	9
Export	E_INV020_203mm	203	Category 3/E	57.4439913	60.27201657	16.1908834	12.61710051
Export	E_INV020_203mm	203	Category 3/E	40.8261908	34.98611493	25.92385109	30.003942
Export	E_INV020_203mm	203	Category 3/E	84.66730208	100.0788596	-6.713762064	4.7
Export	E_INV020_203mm	203	Category 2/E	85.13738568	96.5556148	-11.09102031	5
Export	E_INV020_203mm	203	Category 2/E	65.23114736	71.63399072	6.477898011	9
Export	E_INV020_203mm	203	Category 2/E	55.8902094	59.64356832	13.94314277	12.61710051
Export	E_INV020_203mm	203	Category 2/E	38.26000318	34.18315424	26.45597736	30.003942
Export	E_INV020_203mm	203	Category 2/E	87.57183184	99.54243427	-13.33226742	4.7
Export	E_INV020_203mm	203	Category 1/E	90.13866346	99.33177433	-20.43907339	5
Export	E_INV020_203mm	203	Category 1/E	67.16648384	73.497964	0.623268336	9
Export	E_INV020_203mm	203	Category 1/E	56.2977896	61.05233054	9.753998347	12.61710051
Export	E_INV020_203mm	203	Category 1/E	37.04118171	34.91764982	25.71450054	30.003942
Export	E_INV020_203mm	203	Category 1/E	92.93081243	102.4300926	-23.08594231	4.7
Export	E_INV020_610mm	610	Category 12/E	85.68204288	102.4351867	-11.57592232	5
Export	E_INV020_610mm	610	Category 12/E	68.67786721	76.15479898	3.074516104	9
Export	E_INV020_610mm	610	Category 12/E	60.91394973	63.59443386	9.226737678	12.61710051
Export	E_INV020_610mm	610	Category 12/E	44.55668496	37.23486246	19.18527059	30.003942
Export	E_INV020_610mm	610	Category 12/E	87.78433214	105.5936182	-13.46335558	4.7
Export	E_INV020_610mm	610	Category 11/E	87.81324741	106.0466649	-14.32514843	5
Export	E_INV020_610mm	610	Category 11/E	69.87717383	78.9265033	1.48158049	9
Export	E_INV020_610mm	610	Category 11/E	61.72268331	66.04633339	8.162370468	12.61710051
Export	E_INV020_610mm	610	Category 11/E	45.31502132	39.27273497	18.98182333	30.003942
Export	E_INV020_610mm	610	Category 11/E	90.03461121	109.316202	-16.35281688	4.7
Export	E_INV020_610mm	610	Category 10/E	94.9957886	103.8011675	-29.65340138	5
Export	E_INV020_610mm	610	Category 10/E	69.92123569	76.25141965	-6.931127801	9
Export	E_INV020_610mm	610	Category 10/E	57.906556	62.85140954	2.893538764	12.61710051
Export	E_INV020_610mm	610	Category 10/E	38.05438621	35.02075207	19.98502415	30.003942
Export	E_INV020_610mm	610	Category 10/E	98.02384955	107.0929766	-32.5089672	4.7
Export	E_INV020_610mm	610	Category 9/E	89.68331731	101.3813162	-19.05757028	5
Export	E_INV020_610mm	610	Category 9/E	68.61952653	75.05108748	-0.571452241	9
Export	E_INV020_610mm	610	Category 9/E	58.72758408	62.34989019	7.278978271	12.61710051
Export	E_INV020_610mm	610	Category 9/E	40.29161387	35.4333111	20.55201399	30.003942
Export	E_INV020_610mm	610	Category 9/E	92.25482128	104.5331197	-21.41848346	4.7
Export	E_INV020_610mm	610	Category 8/E	91.39219362	100.1443073	-25.5434541	5
Export	E_INV020_610mm	610	Category 8/E	67.28798454	73.32962151	-4.229651776	9
Export	E_INV020_610mm	610	Category 8/E	56.07216311	60.19782047	4.898441218	12.61710051
Export	E_INV020_610mm	610	Category 8/E	36.89350613	32.53823802	20.68152927	30.003942
Export	E_INV020_610mm	610	Category 8/E	94.2936635	103.327621	-28.23860205	4.7
Export	E_INV020_610mm	610	Category 7/E	92.69190246	104.9838409	-22.64055811	5
Export	E_INV020_610mm	610	Category 7/E	70.62172784	77.85259965	-2.818676273	9
Export	E_INV020_610mm	610	Category 7/E	60.29465407	64.86370495	5.672382388	12.61710051
Export	E_INV020_610mm	610	Category 7/E	40.6317855	37.54281307	20.34338836	30.003942
Export	E_INV020_610mm	610	Category 7/E	95.3929935	108.2444452	-25.15911961	4.7
Export	E_INV020_610mm	610	Category 6/E	92.69190246	104.9838409	-22.64055811	5

PHAST QRA Results_2 Jet Fires

Study	Model	Hole Size (mm)	Weather	Downwind Semi Axis (m)	Crosswind Semi Axis (m)	Offset Distance (m)	Radiation Level (kW/m^2)
Export	E_INV020_610mm	610	Category 6/E	70.62172784	77.85259965	-2.818676273	9
Export	E_INV020_610mm	610	Category 6/E	60.29465407	64.86370495	5.672382388	12.61710051
Export	E_INV020_610mm	610	Category 6/E	40.6317855	37.54281307	20.34338836	30.003942
Export	E_INV020_610mm	610	Category 6/E	95.3929935	108.2444452	-25.15911961	4.7
Export	E_INV020_610mm	610	Category 5/E	87.81324741	106.0466649	-14.32514843	5
Export	E_INV020_610mm	610	Category 5/E	69.87717383	78.9265033	1.48158049	9
Export	E_INV020_610mm	610	Category 5/E	61.72268331	66.04633339	8.162370468	12.61710051
Export	E_INV020_610mm	610	Category 5/E	45.31502132	39.27273497	18.98182333	30.003942
Export	E_INV020_610mm	610	Category 5/E	90.03461121	109.316202	-16.35281688	4.7
Export	E_INV020_610mm	610	Category 4/E	91.39219362	100.1443073	-25.5434541	5
Export	E_INV020_610mm	610	Category 4/E	67.28798454	73.32962151	-4.229651776	9
Export	E_INV020_610mm	610	Category 4/E	56.07216311	60.19782047	4.898441218	12.61710051
Export	E_INV020_610mm	610	Category 4/E	36.89350613	32.53823802	20.68152927	30.003942
Export	E_INV020_610mm	610	Category 4/E	94.2936635	103.327621	-28.23860205	4.7
Export	E_INV020_610mm	610	Category 3/E	85.68204288	102.4351867	-11.57592232	5
Export	E_INV020_610mm	610	Category 3/E	68.67786721	76.15479898	3.074516104	9
Export	E_INV020_610mm	610	Category 3/E	60.91394973	63.59443386	9.226737678	12.61710051
Export	E_INV020_610mm	610	Category 3/E	44.55668496	37.23486246	19.18527059	30.003942
Export	E_INV020_610mm	610	Category 3/E	87.78433214	105.5936182	-13.46335558	4.7
Export	E_INV020_610mm	610	Category 2/E	89.68331731	101.3813162	-19.05757028	5
Export	E_INV020_610mm	610	Category 2/E	68.61952653	75.05108748	-0.571452241	9
Export	E_INV020_610mm	610	Category 2/E	58.72758408	62.34989019	7.278978271	12.61710051
Export	E_INV020_610mm	610	Category 2/E	40.29161387	35.4333111	20.55201399	30.003942
Export	E_INV020_610mm	610	Category 2/E	92.25482128	104.5331197	-21.41848346	4.7
Export	E_INV020_610mm	610	Category 1/E	94.9957886	103.8011675	-29.65340138	5
Export	E_INV020_610mm	610	Category 1/E	69.92123569	76.25141965	-6.931127801	9
Export	E_INV020_610mm	610	Category 1/E	57.906556	62.85140954	2.893538764	12.61710051
Export	E_INV020_610mm	610	Category 1/E	38.05438621	35.02075207	19.98502415	30.003942
Export	E_INV020_610mm	610	Category 1/E	98.02384955	107.0929766	-32.5089672	4.7

PHAST QRA Results_2 Early Pool Fires

Not included in Export

PHAST QRA Results_2 Late Pool Fires

Not included in Export

PHAST QRA Results_2 Toxic Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV005_25mm	25	Category 1/P	1	Max Conc	122600	12.27411938	0.978734672	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 2/P	1	Max Conc	122600	12.50499821	1.011434674	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 3/P	1	Max Conc	122600	13.49907398	1.039860487	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 4/P	1	Max Conc	122600	13.12039375	1.007295609	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 5/P	1	Max Conc	122600	14.04039955	1.056149721	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 6/P	1	Max Conc	122600	13.21709633	1.019072413	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 7/P	1	Max Conc	122600	12.41603088	1.008589506	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 8/P	1	Max Conc	122600	13.7136364	1.023547292	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 9/P	1	Max Conc	122600	13.58724117	1.052779555	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 10/P	1	Max Conc	122600	14.07531357	1.057497144	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 11/P	1	Max Conc	122600	13.77362728	1.024125457	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 12/P	1	Max Conc	122600	12.75980663	1.041355729	0	12.9857378
Export	E_INV005_25mm	25	Category 12/E	1	Max Conc	122600	13.07448387	1.063566923	0	12.9857378
Export	E_INV005_25mm	25	Category 11/E	1	Max Conc	122600	13.00214672	1.037729502	0	12.9857378
Export	E_INV005_25mm	25	Category 10/E	1	Max Conc	122600	14.25699615	1.056397557	0	12.9857378
Export	E_INV005_25mm	25	Category 9/E	1	Max Conc	122600	13.76614189	1.074786305	0	12.9857378
Export	E_INV005_25mm	25	Category 8/E	1	Max Conc	122600	14.31716728	1.08261776	0	12.9857378
Export	E_INV005_25mm	25	Category 7/E	1	Max Conc	122600	13.69217777	1.048460126	0	12.9857378
Export	E_INV005_25mm	25	Category 6/E	1	Max Conc	122600	13.60572815	1.036894679	0	12.9857378
Export	E_INV005_25mm	25	Category 5/E	1	Max Conc	122600	12.80937958	1.013821125	0	12.9857378
Export	E_INV005_25mm	25	Category 4/E	1	Max Conc	122600	14.31505489	1.083162546	0	12.9857378
Export	E_INV005_25mm	25	Category 3/E	1	Max Conc	122600	12.89030838	1.039664984	0	12.9857378
Export	E_INV005_25mm	25	Category 2/E	1	Max Conc	122600	13.68685341	1.063431025	0	12.9857378
Export	E_INV005_25mm	25	Category 1/E	1	Max Conc	122600	14.27032375	1.056774855	0	12.9857378
Export	E_INV005_68mm	68	Category 12/E	1	Max Conc	122600	46.77447128	2.910409451	0	96.07369232
Export	E_INV005_68mm	68	Category 11/E	1	Max Conc	122600	46.86572266	3.051795244	0	96.07369232
Export	E_INV005_68mm	68	Category 10/E	1	Max Conc	122600	45.88319016	2.927381992	0	96.07369232
Export	E_INV005_68mm	68	Category 9/E	1	Max Conc	122600	46.48983002	2.93582654	0	96.07369232
Export	E_INV005_68mm	68	Category 8/E	1	Max Conc	122600	45.61207581	2.853915215	0	96.07369232
Export	E_INV005_68mm	68	Category 7/E	1	Max Conc	122600	46.68067932	3.010323048	0	96.07369232
Export	E_INV005_68mm	68	Category 6/E	1	Max Conc	122600	46.22740555	2.93640089	0	96.07369232
Export	E_INV005_68mm	68	Category 5/E	1	Max Conc	122600	46.56739044	2.87675333	0	96.07369232
Export	E_INV005_68mm	68	Category 4/E	1	Max Conc	122600	46.21179962	2.92518568	0	96.07369232
Export	E_INV005_68mm	68	Category 3/E	1	Max Conc	122600	46.49919128	2.78473258	0	96.07369232
Export	E_INV005_68mm	68	Category 2/E	1	Max Conc	122600	46.05134201	2.820792675	0	96.07369232
Export	E_INV005_68mm	68	Category 1/E	1	Max Conc	122600	46.51449585	3.042742491	0	96.07369232
Export	E_INV005_203mm	203	Category 12/E	1	Max Conc	122600	169.5060272	12.89141846	0	856.2067871
Export	E_INV005_203mm	203	Category 11/E	1	Max Conc	122600	169.2365875	14.12317467	0	856.2067871
Export	E_INV005_203mm	203	Category 10/E	1	Max Conc	122600	159.851532	13.62555122	0	856.2067871
Export	E_INV005_203mm	203	Category 9/E	1	Max Conc	122600	166.1542816	13.14661884	0	856.2067871
Export	E_INV005_203mm	203	Category 8/E	1	Max Conc	122600	159.2410431	12.49540234	0	856.2067871
Export	E_INV005_203mm	203	Category 7/E	1	Max Conc	122600	166.1198578	14.36851788	0	856.2067871
Export	E_INV005_203mm	203	Category 6/E	1	Max Conc	122600	163.1461029	13.29587269	0	856.2067871
Export	E_INV005_203mm	203	Category 5/E	1	Max Conc	122600	166.8621216	12.95502186	0	856.2067871
Export	E_INV005_203mm	203	Category 4/E	1	Max Conc	122600	163.3389435	13.36328602	0	856.2067871
Export	E_INV005_203mm	203	Category 3/E	1	Max Conc	122600	168.1135101	11.92375565	0	856.2067871
Export	E_INV005_203mm	203	Category 2/E	1	Max Conc	122600	162.8501129	12.2177248	0	856.2067871
Export	E_INV005_203mm	203	Category 1/E	1	Max Conc	122600	163.2574768	14.62783432	0	856.2067871

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV001_25mm	25	Category 1/P	1	Max Conc	0.5	22000	37.69444656	2.723519325	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 1/P	1	Max Conc	1	44000	14.64359093	1.34795928	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 2/P	1	Max Conc	0.5	22000	39.77059174	2.813651323	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 2/P	1	Max Conc	1	44000	15.35005283	1.386136532	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 3/P	1	Max Conc	0.5	22000	40.72162247	3.100875616	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 3/P	1	Max Conc	1	44000	16.66112328	1.465657473	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 4/P	1	Max Conc	0.5	22000	38.78259659	2.995083809	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 4/P	1	Max Conc	1	44000	16.02263641	1.420793056	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 5/P	1	Max Conc	0.5	22000	40.91477966	3.321059704	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 5/P	1	Max Conc	1	44000	17.38563538	1.51767385	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 6/P	1	Max Conc	0.5	22000	39.65187073	3.292806387	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 6/P	1	Max Conc	1	44000	16.34330177	1.474552393	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 7/P	1	Max Conc	0.5	22000	39.20402908	3.086718559	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 7/P	1	Max Conc	1	44000	15.29385376	1.426984906	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 8/P	1	Max Conc	0.5	22000	39.12490082	3.212390184	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 8/P	1	Max Conc	1	44000	16.82314491	1.475012183	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 9/P	1	Max Conc	0.5	22000	41.56126785	3.40644598	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 9/P	1	Max Conc	1	44000	16.93942261	1.519720674	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 10/P	1	Max Conc	0.5	22000	41.63684464	3.556226254	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 10/P	1	Max Conc	1	44000	17.58566284	1.546365142	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 11/P	1	Max Conc	0.5	22000	39.85604858	3.439288855	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 11/P	1	Max Conc	1	44000	16.98051071	1.50329423	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 12/P	1	Max Conc	0.5	22000	41.26576233	3.192122459	0	3.578574896
Peak Shaver	P_INV001_25mm	25	Category 12/P	1	Max Conc	1	44000	15.9582777	1.469380021	0	3.578574896
Peak Shaver	P_INV001_50mm	50	Category 1/P	1	Max Conc	0.5	22000	90.26014709	5.948406219	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 1/P	1	Max Conc	1	44000	39.02187729	3.030510187	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 2/P	1	Max Conc	0.5	22000	96.66335297	6.155161858	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 2/P	1	Max Conc	1	44000	40.5847168	3.131240129	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 3/P	1	Max Conc	0.5	22000	92.06559753	6.73886776	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 3/P	1	Max Conc	1	44000	40.54462433	3.320990086	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 4/P	1	Max Conc	0.5	22000	86.27205658	6.510547638	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 4/P	1	Max Conc	1	44000	39.08901596	3.218551159	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 5/P	1	Max Conc	0.5	22000	88.94852448	7.195864677	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 5/P	1	Max Conc	1	44000	40.40568161	3.449102163	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 6/P	1	Max Conc	0.5	22000	86.30958557	7.054875851	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 6/P	1	Max Conc	1	44000	39.76372147	3.444267511	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 7/P	1	Max Conc	0.5	22000	89.61303711	6.601924419	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 7/P	1	Max Conc	1	44000	39.76399231	3.316550493	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 8/P	1	Max Conc	0.5	22000	83.65631104	6.939650536	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 8/P	1	Max Conc	1	44000	39.02302933	3.346318007	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 9/P	1	Max Conc	0.5	22000	92.51564789	7.309771061	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 9/P	1	Max Conc	1	44000	41.18257141	3.551397324	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 10/P	1	Max Conc	0.5	22000	90.08717346	7.682460785	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 10/P	1	Max Conc	1	44000	41.12239838	3.636481524	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 11/P	1	Max Conc	0.5	22000	84.24994659	7.39530611	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 11/P	1	Max Conc	1	44000	39.72212219	3.52814579	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 12/P	1	Max Conc	0.5	22000	96.534729	6.834269524	0	14.31429958
Peak Shaver	P_INV001_50mm	50	Category 12/P	1	Max Conc	1	44000	41.33086014	3.423985958	0	14.31429958
Peak Shaver	P_INV001_152mm	152	Category 1/P	1	Max Conc	0.5	22000	240.4962311	17.90415764	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 1/P	1	Max Conc	1	44000	140.2327271	10.42108917	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 2/P	1	Max Conc	0.5	22000	266.3702087	18.68892097	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 2/P	1	Max Conc	1	44000	148.2870026	10.75935841	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 3/P	1	Max Conc	0.5	22000	247.0898285	20.32136154	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 3/P	1	Max Conc	1	44000	141.9413147	11.3822546	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 4/P	1	Max Conc	0.5	22000	225.5733032	19.40120316	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 4/P	1	Max Conc	1	44000	135.0455322	11.01966095	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 5/P	1	Max Conc	0.5	22000	237.2503052	21.56022263	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 5/P	1	Max Conc	1	44000	138.5976105	11.82147884	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 6/P	1	Max Conc	0.5	22000	219.195755	19.77975273	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 6/P	1	Max Conc	1	44000	136.5431519	11.62327957	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 7/P	1	Max Conc	0.5	22000	232.7647552	18.40133476	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 7/P	1	Max Conc	1	44000	140.9915924	11.09589386	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 8/P	1	Max Conc	0.5	22000	215.4237518	20.52065659	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 8/P	1	Max Conc	1	44000	131.7304382	11.44186592	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 9/P	1	Max Conc	0.5	22000	242.3404388	20.73786926	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 9/P	1	Max Conc	1	44000	144.1277008	12.00568008	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 10/P	1	Max Conc	0.5	22000	233.1140289	21.93748283	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 10/P	1	Max Conc	1	44000	141.2423553	12.40224075	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 11/P	1	Max Conc	0.5	22000	209.7210541	20.85082436	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 11/P	1	Max Conc	1	44000	133.8454895	12.00581646	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 12/P	1	Max Conc	0.5	22000	258.7668762	19.21923447	0	132.2870178
Peak Shaver	P_INV001_152mm	152	Category 12/P	1	Max Conc	1	44000	149.9820099	11.4495163	0	132.2870178
Peak Shaver	P_INV001_10mm	10	Category 1/P	1	Max Conc	0.5	22000	9.058755875	0.972769618	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 1/P	1	Max Conc	1	44000	5.406730652	0.521929443	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 2/P	1	Max Conc	0.5	22000	9.391526222	1.001767278	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 2/P	1	Max Conc	1	44000	5.565062523	0.535230219	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 3/P	1	Max Conc	0.5	22000	11.12952137	1.086008668	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 3/P	1	Max Conc	1	44000	6.022909164	0.559274375	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 4/P	1	Max Conc	0.5	22000	10.67718601	1.053275824	0	0.572571933

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV001_10mm	10	Category 4/P	1	Max Conc	1	44000	5.835797787	0.544745922	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 5/P	1	Max Conc	0.5	22000	12.60861874	1.148832798	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 5/P	1	Max Conc	1	44000	6.407749176	0.575218916	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 6/P	1	Max Conc	0.5	22000	11.10682869	1.122374177	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 6/P	1	Max Conc	1	44000	5.786130428	0.563588738	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 7/P	1	Max Conc	0.5	22000	9.456742287	1.073645115	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 7/P	1	Max Conc	1	44000	5.293670654	0.55141592	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 8/P	1	Max Conc	0.5	22000	12.12679386	1.118383169	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 8/P	1	Max Conc	1	44000	6.221299648	0.561086833	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 9/P	1	Max Conc	0.5	22000	11.61533642	1.156574249	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 9/P	1	Max Conc	1	44000	5.961397171	0.578425407	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 10/P	1	Max Conc	0.5	22000	12.88521099	1.188050508	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 10/P	1	Max Conc	1	44000	6.383642673	0.586211622	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 11/P	1	Max Conc	0.5	22000	12.37511063	1.157335281	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 11/P	1	Max Conc	1	44000	6.197124958	0.571974039	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 12/P	1	Max Conc	0.5	22000	9.911741257	1.10522151	0	0.572571933
Peak Shaver	P_INV001_10mm	10	Category 12/P	1	Max Conc	1	44000	5.455628872	0.5651595	0	0.572571933
Peak Shaver	P_INV002_25mm	25	Category 1/P	1	Max Conc	0.5	22000	36.42921829	2.649628401	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 1/P	1	Max Conc	1	44000	14.2112112	1.314119816	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 2/P	1	Max Conc	0.5	22000	38.39102173	2.739046097	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 2/P	1	Max Conc	1	44000	14.76484299	1.352110624	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 3/P	1	Max Conc	0.5	22000	39.44914246	3.015218735	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 3/P	1	Max Conc	1	44000	16.16762543	1.42584312	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 4/P	1	Max Conc	0.5	22000	37.61902618	2.916887283	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 4/P	1	Max Conc	1	44000	15.53210354	1.382117391	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 5/P	1	Max Conc	0.5	22000	39.74970245	3.233832836	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 5/P	1	Max Conc	1	44000	16.95508957	1.479286909	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 6/P	1	Max Conc	0.5	22000	38.46853638	3.201513529	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 6/P	1	Max Conc	1	44000	15.85061932	1.433367252	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 7/P	1	Max Conc	0.5	22000	37.91166306	3.006501913	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 7/P	1	Max Conc	1	44000	14.71730995	1.389305949	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 8/P	1	Max Conc	0.5	22000	38.01287842	3.12561059	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 8/P	1	Max Conc	1	44000	16.37675095	1.43668294	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 9/P	1	Max Conc	0.5	22000	40.32498169	3.314959049	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 9/P	1	Max Conc	1	44000	16.46187973	1.478939891	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 10/P	1	Max Conc	0.5	22000	40.4801712	3.462733746	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 10/P	1	Max Conc	1	44000	17.0927372	1.506720543	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 11/P	1	Max Conc	0.5	22000	38.71178818	3.346759319	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 11/P	1	Max Conc	1	44000	16.52793312	1.463496089	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 12/P	1	Max Conc	0.5	22000	39.92092133	3.102839708	0	3.417174578
Peak Shaver	P_INV002_25mm	25	Category 12/P	1	Max Conc	1	44000	15.4016304	1.430131674	0	3.417174578
Peak Shaver	P_INV002_50mm	50	Category 1/P	1	Max Conc	0.5	22000	57.17164612	3.922318459	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 1/P	1	Max Conc	1	44000	23.24487495	1.948453665	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 2/P	1	Max Conc	0.5	22000	60.5269165	4.056642532	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 2/P	1	Max Conc	1	44000	24.20642471	2.011489868	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 3/P	1	Max Conc	0.5	22000	59.3850174	4.460059166	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 3/P	1	Max Conc	1	44000	25.18983269	2.12996316	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 4/P	1	Max Conc	0.5	22000	56.36956406	4.307763577	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 4/P	1	Max Conc	1	44000	24.14446259	2.067277193	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 5/P	1	Max Conc	0.5	22000	58.38565063	4.763425827	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 5/P	1	Max Conc	1	44000	25.72258759	2.211467505	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 6/P	1	Max Conc	0.5	22000	56.95935059	4.716051102	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 6/P	1	Max Conc	1	44000	24.52368355	2.175871611	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 7/P	1	Max Conc	0.5	22000	57.8154068	4.421299458	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 7/P	1	Max Conc	1	44000	23.86923218	2.104658127	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 8/P	1	Max Conc	0.5	22000	55.57148361	4.602436066	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 8/P	1	Max Conc	1	44000	24.6687088	2.14391923	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 9/P	1	Max Conc	0.5	22000	60.16261673	4.885722637	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 9/P	1	Max Conc	1	44000	25.66697502	2.247703075	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 10/P	1	Max Conc	0.5	22000	59.32934189	5.107935905	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 10/P	1	Max Conc	1	44000	26.09504318	2.303594112	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 11/P	1	Max Conc	0.5	22000	56.349617	4.931952953	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 11/P	1	Max Conc	1	44000	25.03633308	2.225367069	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 12/P	1	Max Conc	0.5	22000	61.35929108	4.578085899	0	6.763641357
Peak Shaver	P_INV002_50mm	50	Category 12/P	1	Max Conc	1	44000	24.8965683	2.172136784	0	6.763641357
Peak Shaver	P_INV002_152mm	152	Category 1/P	1	Max Conc	0.5	22000	56.50360107	3.929217339	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 1/P	1	Max Conc	1	44000	23.23509216	1.957000971	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 2/P	1	Max Conc	0.5	22000	59.8378067	4.063055992	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 2/P	1	Max Conc	1	44000	24.23456764	2.020259857	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 3/P	1	Max Conc	0.5	22000	58.74293137	4.463794708	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 3/P	1	Max Conc	1	44000	25.19949722	2.139010429	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 4/P	1	Max Conc	0.5	22000	55.7569809	4.311184883	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 4/P	1	Max Conc	1	44000	24.15936661	2.076492071	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 5/P	1	Max Conc	0.5	22000	57.87735367	4.765904427	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 5/P	1	Max Conc	1	44000	25.74084282	2.221095562	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 6/P	1	Max Conc	0.5	22000	56.20073318	4.714282513	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 6/P	1	Max Conc	1	44000	24.52872086	2.185357571	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 7/P	1	Max Conc	0.5	22000	57.00234222	4.420917988	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 7/P	1	Max Conc	1	44000	23.84427834	2.112853289	0	6.797736645

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV002_152mm	152	Category 8/P	1	Max Conc	0.5	22000	54.96318054	4.602398872	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 8/P	1	Max Conc	1	44000	24.65472794	2.152961016	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 9/P	1	Max Conc	0.5	22000	59.33228683	4.884617805	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 9/P	1	Max Conc	1	44000	25.65952682	2.256304741	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 10/P	1	Max Conc	0.5	22000	58.62108231	5.106255054	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 10/P	1	Max Conc	1	44000	26.10477066	2.312992096	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 11/P	1	Max Conc	0.5	22000	55.67770004	4.928189278	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 11/P	1	Max Conc	1	44000	25.03854942	2.234583139	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 12/P	1	Max Conc	0.5	22000	60.45733643	4.580332279	0	6.797736645
Peak Shaver	P_INV002_152mm	152	Category 12/P	1	Max Conc	1	44000	24.90447998	2.181566715	0	6.797736645
Peak Shaver	P_INV002_10mm	10	Category 1/P	1	Max Conc	0.5	22000	8.827541351	0.948498547	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 1/P	1	Max Conc	1	44000	5.287131786	0.509903073	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 2/P	1	Max Conc	0.5	22000	9.12318325	0.976985812	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 2/P	1	Max Conc	1	44000	5.448438168	0.523256779	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 3/P	1	Max Conc	0.5	22000	10.79693317	1.058107376	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 3/P	1	Max Conc	1	44000	5.877612591	0.546236634	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 4/P	1	Max Conc	0.5	22000	10.35924435	1.028989673	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 4/P	1	Max Conc	1	44000	5.720324516	0.532455444	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 5/P	1	Max Conc	0.5	22000	12.23546505	1.122143507	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 5/P	1	Max Conc	1	44000	6.266459465	0.562394738	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 6/P	1	Max Conc	0.5	22000	10.73889542	1.093715787	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 6/P	1	Max Conc	1	44000	5.668811798	0.550442636	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 7/P	1	Max Conc	0.5	22000	9.146794319	1.046178341	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 7/P	1	Max Conc	1	44000	5.170663834	0.538832068	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 8/P	1	Max Conc	0.5	22000	11.77690792	1.091672301	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 8/P	1	Max Conc	1	44000	6.076088428	0.54820621	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 9/P	1	Max Conc	0.5	22000	11.20519447	1.127223969	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 9/P	1	Max Conc	1	44000	5.823534489	0.565038621	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 10/P	1	Max Conc	0.5	22000	12.49066067	1.160930991	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 10/P	1	Max Conc	1	44000	6.241810322	0.573219538	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 11/P	1	Max Conc	0.5	22000	12.01525974	1.130209923	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 11/P	1	Max Conc	1	44000	6.05063343	0.558919728	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 12/P	1	Max Conc	0.5	22000	9.583109856	1.078005672	0	0.546747923
Peak Shaver	P_INV002_10mm	10	Category 12/P	1	Max Conc	1	44000	5.335180283	0.552669048	0	0.546747923
Peak Shaver	P_INV004_25mm	25	Category 1/P	1	Max Conc	0.5	22000	36.27553177	2.63094449	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 1/P	1	Max Conc	1	44000	14.10487747	1.304554462	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 2/P	1	Max Conc	0.5	22000	38.24651718	2.720394373	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 2/P	1	Max Conc	1	44000	14.65639687	1.342694998	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 3/P	1	Max Conc	0.5	22000	39.41348648	2.996474504	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 3/P	1	Max Conc	1	44000	16.10284805	1.415215135	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 4/P	1	Max Conc	0.5	22000	37.51315689	2.898513556	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 4/P	1	Max Conc	1	44000	15.42272472	1.372553229	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 5/P	1	Max Conc	0.5	22000	39.66899872	3.214386702	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 5/P	1	Max Conc	1	44000	16.87387085	1.468020558	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 6/P	1	Max Conc	0.5	22000	38.39141846	3.181953907	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 6/P	1	Max Conc	1	44000	15.75167084	1.42172277	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 7/P	1	Max Conc	0.5	22000	37.82144547	2.986567259	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 7/P	1	Max Conc	1	44000	14.60824966	1.377925873	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 8/P	1	Max Conc	0.5	22000	37.94769669	3.106785536	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 8/P	1	Max Conc	1	44000	16.30255318	1.425711274	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 9/P	1	Max Conc	0.5	22000	40.28671265	3.296177149	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 9/P	1	Max Conc	1	44000	16.38309097	1.468054652	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 10/P	1	Max Conc	0.5	22000	40.42459488	3.44396162	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 10/P	1	Max Conc	1	44000	17.01690674	1.496018887	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 11/P	1	Max Conc	0.5	22000	38.61811447	3.326130629	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 11/P	1	Max Conc	1	44000	16.43394661	1.451690912	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 12/P	1	Max Conc	0.5	22000	39.8836441	3.084828138	0	3.378033161
Peak Shaver	P_INV004_25mm	25	Category 12/P	1	Max Conc	1	44000	15.31204987	1.41970396	0	3.378033161
Peak Shaver	P_INV004_50mm	50	Category 1/P	1	Max Conc	0.5	22000	53.67885971	3.689706802	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 1/P	1	Max Conc	1	44000	21.50286484	1.827891827	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 2/P	1	Max Conc	0.5	22000	56.85369492	3.81289506	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 2/P	1	Max Conc	1	44000	22.52643394	1.882943869	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 3/P	1	Max Conc	0.5	22000	56.11324692	4.190987587	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 3/P	1	Max Conc	1	44000	23.50826263	1.994943976	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 4/P	1	Max Conc	0.5	22000	53.23720551	4.048960686	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 4/P	1	Max Conc	1	44000	22.62426186	1.932282329	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 5/P	1	Max Conc	0.5	22000	55.29562378	4.485108376	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 5/P	1	Max Conc	1	44000	24.01509857	2.071278334	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 6/P	1	Max Conc	0.5	22000	53.90855789	4.437792778	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 6/P	1	Max Conc	1	44000	22.99804306	2.033751726	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 7/P	1	Max Conc	0.5	22000	54.57976913	4.164993763	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 7/P	1	Max Conc	1	44000	22.18689728	1.960092187	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 8/P	1	Max Conc	0.5	22000	52.60548782	4.327454567	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 8/P	1	Max Conc	1	44000	23.2007122	2.009819746	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 9/P	1	Max Conc	0.5	22000	57.00322723	4.601974487	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 9/P	1	Max Conc	1	44000	23.87975121	2.100166321	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 10/P	1	Max Conc	0.5	22000	56.27181625	4.81495142	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 10/P	1	Max Conc	1	44000	24.27025414	2.142185688	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 11/P	1	Max Conc	0.5	22000	53.47640228	4.647080898	0	6.05599308

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV004_50mm	50	Category 11/P	1	Max Conc	1	44000	23.49408531	2.079803467	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 12/P	1	Max Conc	0.5	22000	57.93687439	4.30659914	0	6.05599308
Peak Shaver	P_INV004_50mm	50	Category 12/P	1	Max Conc	1	44000	23.15946198	2.027493238	0	6.05599308
Peak Shaver	P_INV004_152mm	152	Category 1/P	1	Max Conc	0.5	22000	53.16466904	3.696269512	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 1/P	1	Max Conc	1	44000	21.51573563	1.835338473	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 2/P	1	Max Conc	0.5	22000	56.32320404	3.819773912	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 2/P	1	Max Conc	1	44000	22.5232563	1.890515924	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 3/P	1	Max Conc	0.5	22000	55.61839294	4.194612503	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 3/P	1	Max Conc	1	44000	23.51940346	2.00267458	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 4/P	1	Max Conc	0.5	22000	52.74885559	4.054170132	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 4/P	1	Max Conc	1	44000	22.65011597	1.940317512	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 5/P	1	Max Conc	0.5	22000	54.841259	4.486767769	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 5/P	1	Max Conc	1	44000	24.01400185	2.079061985	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 6/P	1	Max Conc	0.5	22000	53.3090744	4.436998367	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 6/P	1	Max Conc	1	44000	22.99528885	2.041698694	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 7/P	1	Max Conc	0.5	22000	53.91504288	4.169104576	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 7/P	1	Max Conc	1	44000	22.20171165	1.968549132	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 8/P	1	Max Conc	0.5	22000	52.122715	4.327782154	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 8/P	1	Max Conc	1	44000	23.19317245	2.017518282	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 9/P	1	Max Conc	0.5	22000	56.37543488	4.602406025	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 9/P	1	Max Conc	1	44000	23.88492775	2.1082654	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 10/P	1	Max Conc	0.5	22000	55.7334671	4.813402653	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 10/P	1	Max Conc	1	44000	24.27277374	2.150225639	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 11/P	1	Max Conc	0.5	22000	52.87811661	4.641886711	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 11/P	1	Max Conc	1	44000	23.45593643	2.08617115	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 12/P	1	Max Conc	0.5	22000	57.22315979	4.308012009	0	6.084130287
Peak Shaver	P_INV004_152mm	152	Category 12/P	1	Max Conc	1	44000	23.15055084	2.034706354	0	6.084130287
Peak Shaver	P_INV005_25mm	25	Category 1/P	1	Max Conc	0.5	18694.5131	129.0566864	11.36212158	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 1/P	1	Max Conc	1	37389.0262	56.65687943	4.120421886	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 2/P	1	Max Conc	0.5	18694.5131	137.6945496	11.29903889	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 2/P	1	Max Conc	1	37389.0262	59.7967186	3.966336966	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 3/P	1	Max Conc	0.5	18694.5131	131.6366272	13.04035854	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 3/P	1	Max Conc	1	37389.0262	58.50524139	4.437316418	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 4/P	1	Max Conc	0.5	18694.5131	125.1928177	13.13011265	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 4/P	1	Max Conc	1	37389.0262	55.82742691	4.65137434	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 5/P	1	Max Conc	0.5	18694.5131	123.9194183	14.58528137	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 5/P	1	Max Conc	1	37389.0262	57.46680832	4.78053236	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 6/P	1	Max Conc	0.5	18694.5131	127.3545227	22.76488495	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 6/P	1	Max Conc	1	37389.0262	56.4771347	5.44214201	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 7/P	1	Max Conc	0.5	18694.5131	136.5044098	15.77790642	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 7/P	1	Max Conc	1	37389.0262	57.36994553	5.063776016	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 8/P	1	Max Conc	0.5	18694.5131	118.4543228	14.82286644	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 8/P	1	Max Conc	1	37389.0262	54.97494888	5.030331135	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 9/P	1	Max Conc	0.5	18694.5131	133.7605133	20.9127636	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 9/P	1	Max Conc	1	37389.0262	59.09414673	5.121550083	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 10/P	1	Max Conc	0.5	18694.5131	124.1686554	24.10202789	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 10/P	1	Max Conc	1	37389.0262	58.21821213	5.368772507	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 11/P	1	Max Conc	0.5	18694.5131	118.2309265	25.12457275	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 11/P	1	Max Conc	1	37389.0262	55.89451981	5.700003624	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 12/P	1	Max Conc	0.5	18694.5131	142.9954681	14.90816307	0	12.9857378
Peak Shaver	P_INV005_25mm	25	Category 12/P	1	Max Conc	1	37389.0262	60.59417725	4.766741276	0	12.9857378
Peak Shaver	P_INV006_25mm (all)	25	Category 1/P	1	Max Conc	0.5	22000	90.11422729	12.43871307	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 1/P	1	Max Conc	1	44000	19.55160904	2.22112155	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 2/P	1	Max Conc	0.5	22000	97.25942993	13.21319199	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 2/P	1	Max Conc	1	44000	39.40545654	3.288660049	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 3/P	1	Max Conc	0.5	22000	118.0543137	22.62583733	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 3/P	1	Max Conc	1	44000	47.05251694	4.744524479	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 4/P	1	Max Conc	0.5	22000	110.7347107	21.23114777	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 4/P	1	Max Conc	1	44000	23.91308212	1.877056956	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 5/P	1	Max Conc	0.5	22000	145.7176208	38.54681396	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 5/P	1	Max Conc	1	44000	63.78577042	10.17320728	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 6/P	1	Max Conc	0.5	22000	103.7267151	51.39859772	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 6/P	1	Max Conc	1	44000	65.10342407	13.61964703	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 7/P	1	Max Conc	0.5	22000	82.50241852	27.74149895	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 7/P	1	Max Conc	1	44000	54.8193512	9.879005432	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 8/P	1	Max Conc	0.5	22000	133.1596985	34.7452507	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 8/P	1	Max Conc	1	44000	46.41350555	5.24131012	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 9/P	1	Max Conc	0.5	22000	111.6144409	51.01185989	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 9/P	1	Max Conc	1	44000	73.19026947	20.69046974	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 10/P	1	Max Conc	0.5	22000	142.9154358	101.3585815	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 10/P	1	Max Conc	1	44000	85.4069519	32.57952118	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 11/P	1	Max Conc	0.5	22000	135.1908569	97.64418793	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 11/P	1	Max Conc	1	44000	70.21652222	26.06853867	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 12/P	1	Max Conc	0.5	22000	87.33120728	27.0970974	0	5.041100979
Peak Shaver	P_INV006_25mm (all)	25	Category 12/P	1	Max Conc	1	44000	58.18884277	12.74179268	0	5.041100979
Peak Shaver	P_INV006_50mm (all)	50	Category 1/P	1	Max Conc	0.5	22000	89.1634903	14.72766495	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 1/P	1	Max Conc	1	44000	57.15072632	7.034885406	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 2/P	1	Max Conc	0.5	22000	91.7363205	14.16439533	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 2/P	1	Max Conc	1	44000	59.80890274	8.304416656	0	6.049255848

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV006_50mm (all)	50	Category 3/P	1	Max Conc	0.5	22000	116.1758118	19.70713997	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 3/P	1	Max Conc	1	44000	75.10667419	13.90650463	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 4/P	1	Max Conc	0.5	22000	110.2799225	21.92437363	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 4/P	1	Max Conc	1	44000	71.4405899	13.94690228	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 5/P	1	Max Conc	0.5	22000	151.6861115	31.91018486	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 5/P	1	Max Conc	1	44000	97.35726929	23.46437454	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 6/P	1	Max Conc	0.5	22000	249.8859253	39.67413712	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 6/P	1	Max Conc	1	44000	119.3775635	28.94565964	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 7/P	1	Max Conc	0.5	22000	186.8663635	25.4176712	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 7/P	1	Max Conc	1	44000	86.80066681	17.32035637	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 8/P	1	Max Conc	0.5	22000	138.2290649	36.26307678	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 8/P	1	Max Conc	1	44000	87.94419098	24.46030617	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 9/P	1	Max Conc	0.5	22000	283.7322083	33.72939682	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 9/P	1	Max Conc	1	44000	141.9666901	26.14729118	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 10/P	1	Max Conc	0.5	22000	316.134552	58.34877014	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 10/P	1	Max Conc	1	44000	147.6039429	45.68647385	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 11/P	1	Max Conc	0.5	22000	292.2235107	69.36037445	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 11/P	1	Max Conc	1	44000	142.6715393	51.73129654	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 12/P	1	Max Conc	0.5	22000	226.8551941	22.6303463	0	6.049255848
Peak Shaver	P_INV006_50mm (all)	50	Category 12/P	1	Max Conc	1	44000	116.2327957	16.64473915	0	6.049255848
Peak Shaver	P_INV006_102mm (1hr)	102	Category 1/P	1	Max Conc	0.5	22000	75.0541687	13.74704647	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 1/P	1	Max Conc	1	44000	44.43252182	7.818040848	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 2/P	1	Max Conc	0.5	22000	79.03070068	13.2481451	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 2/P	1	Max Conc	1	44000	47.46310425	8.588219643	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 3/P	1	Max Conc	0.5	22000	98.11782074	19.88203049	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 3/P	1	Max Conc	1	44000	58.74187851	14.29504967	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 4/P	1	Max Conc	0.5	22000	93.79533386	21.28839111	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 4/P	1	Max Conc	1	44000	56.52340317	14.11823368	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 5/P	1	Max Conc	0.5	22000	122.291687	32.05319977	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 5/P	1	Max Conc	1	44000	70.77560425	24.2761097	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 6/P	1	Max Conc	0.5	22000	300.7897339	37.47666168	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 6/P	1	Max Conc	1	44000	162.7991486	27.37106133	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 7/P	1	Max Conc	0.5	22000	227.0658875	21.80294609	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 7/P	1	Max Conc	1	44000	119.9619064	16.12285805	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 8/P	1	Max Conc	0.5	22000	120.1322784	33.74887085	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 8/P	1	Max Conc	1	44000	70.63601685	24.00620842	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 9/P	1	Max Conc	0.5	22000	315.9343262	32.25266266	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 9/P	1	Max Conc	1	44000	172.3449554	25.44986343	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 10/P	1	Max Conc	0.5	22000	376.8553162	53.68608093	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 10/P	1	Max Conc	1	44000	193.1070404	42.8793869	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 11/P	1	Max Conc	0.5	22000	387.2478027	56.50439835	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 11/P	1	Max Conc	1	44000	205.3310852	44.59884262	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 12/P	1	Max Conc	0.5	22000	247.3846283	21.18888283	0	5.932136059
Peak Shaver	P_INV006_102mm (1hr)	102	Category 12/P	1	Max Conc	1	44000	136.235611	16.0963974	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 1/P	1	Max Conc	0.5	22000	74.03030396	11.56267452	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 1/P	1	Max Conc	1	44000	44.7588501	6.910316944	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 2/P	1	Max Conc	0.5	22000	79.62676239	10.98781967	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 2/P	1	Max Conc	1	44000	49.4875946	7.458609104	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 3/P	1	Max Conc	0.5	22000	96.71330261	16.88002586	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 3/P	1	Max Conc	1	44000	59.07883072	12.2177906	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 4/P	1	Max Conc	0.5	22000	92.09546661	17.07006073	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 4/P	1	Max Conc	1	44000	56.30343628	11.81828785	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 5/P	1	Max Conc	0.5	22000	120.4500885	27.4347496	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 5/P	1	Max Conc	1	44000	71.50286865	20.75575066	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 6/P	1	Max Conc	0.5	22000	286.3456421	27.69825745	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 6/P	1	Max Conc	1	44000	156.5033875	21.49295235	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 7/P	1	Max Conc	0.5	22000	218.2470551	18.68617821	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 7/P	1	Max Conc	1	44000	117.3889389	13.81383133	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 8/P	1	Max Conc	0.5	22000	117.0905533	26.59265709	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 8/P	1	Max Conc	1	44000	70.09967804	19.76685715	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 9/P	1	Max Conc	0.5	22000	302.3383179	27.61504555	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 9/P	1	Max Conc	1	44000	167.2100067	21.79139709	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 10/P	1	Max Conc	0.5	22000	356.8297729	43.76639557	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 10/P	1	Max Conc	1	44000	183.9709015	35.57762909	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 11/P	1	Max Conc	0.5	22000	362.2695618	41.89691162	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 11/P	1	Max Conc	1	44000	194.1873779	33.87917328	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 12/P	1	Max Conc	0.5	22000	239.4800873	18.22794533	0	5.932136059
Peak Shaver	P_INV006_102mm (2min)	102	Category 12/P	1	Max Conc	1	44000	133.0632629	13.86546993	0	5.932136059
Peak Shaver	P_INV008_25mm (all)	25	Category 1/P	1	Max Conc	0.5	22000	194.8568726	26.05303192	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 1/P	1	Max Conc	1	44000	100.8263931	9.91000843	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 2/P	1	Max Conc	0.5	22000	207.4750977	24.62923622	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 2/P	1	Max Conc	1	44000	108.7217484	9.720004082	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 3/P	1	Max Conc	0.5	22000	239.4673767	33.09006119	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 3/P	1	Max Conc	1	44000	106.8600616	10.93576813	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 4/P	1	Max Conc	0.5	22000	223.1218109	34.3630867	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 4/P	1	Max Conc	1	44000	99.00317383	11.16777039	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 5/P	1	Max Conc	0.5	22000	210.2149353	37.99338531	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 5/P	1	Max Conc	1	44000	102.5688477	12.19641399	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 6/P	1	Max Conc	0.5	22000	231.8688965	57.48427582	0	20.41393089

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV008_25mm (all)	25	Category 6/P	1	Max Conc	1	44000	106.3162155	16.76153183	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 7/P	1	Max Conc	0.5	22000	194.3908691	43.80225754	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 7/P	1	Max Conc	1	44000	113.1813965	15.17212009	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 8/P	1	Max Conc	0.5	22000	197.1283417	39.41025925	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 8/P	1	Max Conc	1	44000	96.17369843	12.76352882	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 9/P	1	Max Conc	0.5	22000	248.177063	51.83641434	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 9/P	1	Max Conc	1	44000	112.8922577	15.11074924	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 10/P	1	Max Conc	0.5	22000	216.7331543	54.06324387	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 10/P	1	Max Conc	1	44000	107.3362045	16.17839813	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 11/P	1	Max Conc	0.5	22000	205.7616119	59.83114624	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 11/P	1	Max Conc	1	44000	100.6637573	17.89795113	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 12/P	1	Max Conc	0.5	22000	209.9615784	39.84807587	0	20.41393089
Peak Shaver	P_INV008_25mm (all)	25	Category 12/P	1	Max Conc	1	44000	120.0090942	13.65308571	0	20.41393089
Peak Shaver	P_INV008_50mm (all)	50	Category 1/P	1	Max Conc	0.5	22000	403.1642151	70.3249588	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 1/P	1	Max Conc	1	44000	243.6909485	29.83216476	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 2/P	1	Max Conc	0.5	22000	432.5639038	66.35932159	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 2/P	1	Max Conc	1	44000	260.5873108	28.16439629	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 3/P	1	Max Conc	0.5	22000	491.794281	87.14949799	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 3/P	1	Max Conc	1	44000	233.8109741	31.60015869	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 4/P	1	Max Conc	0.5	22000	456.8721008	90.86541748	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 4/P	1	Max Conc	1	44000	217.6908875	33.61949158	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 5/P	1	Max Conc	0.5	22000	412.2267761	96.30329895	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 5/P	1	Max Conc	1	44000	213.521759	34.4549942	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 6/P	1	Max Conc	0.5	22000	479.2347107	133.7173767	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 6/P	1	Max Conc	1	44000	223.0826874	46.35336685	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 7/P	1	Max Conc	0.5	22000	403.4411926	106.600441	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 7/P	1	Max Conc	1	44000	251.1818237	44.00657654	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 8/P	1	Max Conc	0.5	22000	384.1870117	101.5403137	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 8/P	1	Max Conc	1	44000	199.7819214	36.51503754	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 9/P	1	Max Conc	0.5	22000	511.7791443	119.6100464	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 9/P	1	Max Conc	1	44000	236.5689392	41.3793335	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 10/P	1	Max Conc	0.5	22000	415.5434875	124.5736084	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 10/P	1	Max Conc	1	44000	217.1835785	43.55043793	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 11/P	1	Max Conc	0.5	22000	392.4378357	138.1242523	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 11/P	1	Max Conc	1	44000	203.3779144	48.46057892	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 12/P	1	Max Conc	0.5	22000	438.6850586	96.99836731	0	81.65572357
Peak Shaver	P_INV008_50mm (all)	50	Category 12/P	1	Max Conc	1	44000	267.0160828	39.52692795	0	81.65572357
Peak Shaver	P_INV008_85mm (1hr)	85	Category 1/P	1	Max Conc	0.5	22000	401.4201965	102.3527527	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 1/P	1	Max Conc	1	44000	285.3334961	64.53923035	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 2/P	1	Max Conc	0.5	22000	428.2731018	97.60873413	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 2/P	1	Max Conc	1	44000	296.7919617	61.52568054	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 3/P	1	Max Conc	0.5	22000	537.3738403	173.2643738	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 3/P	1	Max Conc	1	44000	356.1497192	88.69845581	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 4/P	1	Max Conc	0.5	22000	498.9512634	181.3381348	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 4/P	1	Max Conc	1	44000	336.8485413	92.51306152	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 5/P	1	Max Conc	0.5	22000	709.538269	273.6867676	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 5/P	1	Max Conc	1	44000	324.2037048	100.2690048	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 6/P	1	Max Conc	0.5	22000	490.5005493	330.5798035	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 6/P	1	Max Conc	1	44000	340.8052063	193.4767609	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 7/P	1	Max Conc	0.5	22000	378.9866028	176.9964294	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 7/P	1	Max Conc	1	44000	265.8579712	118.1823502	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 8/P	1	Max Conc	0.5	22000	646.045166	278.6399536	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 8/P	1	Max Conc	1	44000	297.1334229	104.2939835	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 9/P	1	Max Conc	0.5	22000	540.5982666	301.6554565	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 9/P	1	Max Conc	1	44000	361.1247559	171.9797058	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 10/P	1	Max Conc	0.5	22000	753.5518799	547.2470093	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 10/P	1	Max Conc	1	44000	382.8583984	181.6442719	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 11/P	1	Max Conc	0.5	22000	664.0355835	582.4025269	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 11/P	1	Max Conc	1	44000	369.5790405	203.6213684	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 12/P	1	Max Conc	0.5	22000	414.4513245	162.2328949	0	92.3615036
Peak Shaver	P_INV008_85mm (1hr)	85	Category 12/P	1	Max Conc	1	44000	282.7066956	107.8358688	0	92.3615036
Peak Shaver	P_INV008_254mm (1hr)	254	Category 1/P	1	Max Conc	0.5	22000	244.6976624	108.1881561	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 1/P	1	Max Conc	1	44000	143.4221497	87.56151581	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 2/P	1	Max Conc	0.5	22000	257.8275146	106.0187454	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 2/P	1	Max Conc	1	44000	149.6951294	87.09780121	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 3/P	1	Max Conc	0.5	22000	310.4767761	147.7931824	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 3/P	1	Max Conc	1	44000	170.3297424	124.5983582	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 4/P	1	Max Conc	0.5	22000	313.9885254	148.6022034	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 4/P	1	Max Conc	1	44000	180.6498871	124.1941376	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 5/P	1	Max Conc	0.5	22000	386.3474121	223.4646149	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 5/P	1	Max Conc	1	44000	208.6511993	191.2103577	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 6/P	1	Max Conc	0.5	22000	1009.429688	207.5664063	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 6/P	1	Max Conc	1	44000	541.3947754	179.3435211	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 7/P	1	Max Conc	0.5	22000	790.9423828	147.1038208	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 7/P	1	Max Conc	1	44000	430.072052	125.0576706	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 8/P	1	Max Conc	0.5	22000	390.8848877	233.4238281	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 8/P	1	Max Conc	1	44000	215.4532471	192.014267	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 9/P	1	Max Conc	0.5	22000	1047.323608	209.7404633	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 9/P	1	Max Conc	1	44000	530.3939209	181.8479156	0	93.08312225

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV008_254mm (1hr)	254	Category 10/P	1	Max Conc	0.5	22000	1157.662476	359.6280823	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 10/P	1	Max Conc	1	44000	527.6315918	310.2601013	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 11/P	1	Max Conc	0.5	22000	1251.343262	386.288147	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 11/P	1	Max Conc	1	44000	618.2298584	330.2745972	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 12/P	1	Max Conc	0.5	22000	840.9923096	144.6348572	0	93.08312225
Peak Shaver	P_INV008_254mm (1hr)	254	Category 12/P	1	Max Conc	1	44000	462.0682983	124.0128021	0	93.08312225
Peak Shaver	P_INV008_10mm (all)	10	Category 1/P	1	Max Conc	0.5	22000	63.98205185	5.900811672	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 1/P	1	Max Conc	1	44000	28.78848076	2.232014894	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 2/P	1	Max Conc	0.5	22000	70.83755493	5.936281681	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 2/P	1	Max Conc	1	44000	31.54719162	2.20255971	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 3/P	1	Max Conc	0.5	22000	69.7926712	7.523174286	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 3/P	1	Max Conc	1	44000	33.51079559	2.723246813	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 4/P	1	Max Conc	0.5	22000	63.47098541	7.38785553	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 4/P	1	Max Conc	1	44000	30.55676651	2.733392954	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 5/P	1	Max Conc	0.5	22000	71.10395813	8.784275055	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 5/P	1	Max Conc	1	44000	34.09690094	3.091644287	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 6/P	1	Max Conc	0.5	22000	77.6332016	12.21594048	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 6/P	1	Max Conc	1	44000	31.75972939	3.495176792	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 7/P	1	Max Conc	0.5	22000	65.5864563	9.199667931	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 7/P	1	Max Conc	1	44000	30.77327156	3.084871292	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 8/P	1	Max Conc	0.5	22000	66.42947388	8.516710281	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 8/P	1	Max Conc	1	44000	31.20577621	3.092700005	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 9/P	1	Max Conc	0.5	22000	82.08004761	11.31983662	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 9/P	1	Max Conc	1	44000	34.59047318	3.41931963	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 10/P	1	Max Conc	0.5	22000	79.10086823	13.0957098	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 10/P	1	Max Conc	1	44000	35.13061523	3.720238924	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 11/P	1	Max Conc	0.5	22000	75.15531921	14.15067577	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 11/P	1	Max Conc	1	44000	32.32367325	3.744669437	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 12/P	1	Max Conc	0.5	22000	70.50246429	9.245306969	0	3.266228676
Peak Shaver	P_INV008_10mm (all)	10	Category 12/P	1	Max Conc	1	44000	33.67639542	2.989811897	0	3.266228676
Peak Shaver	P_INV008_85mm (2min)	85	Category 1/P	1	Max Conc	0.5	22000	401.4201965	102.3527527	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 1/P	1	Max Conc	1	44000	285.3334961	64.53923035	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 2/P	1	Max Conc	0.5	22000	428.2731018	97.60873413	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 2/P	1	Max Conc	1	44000	296.7919617	61.52568054	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 3/P	1	Max Conc	0.5	22000	537.3738403	173.2643738	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 3/P	1	Max Conc	1	44000	356.1497192	88.69845581	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 4/P	1	Max Conc	0.5	22000	498.9512634	181.3381348	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 4/P	1	Max Conc	1	44000	336.8485413	92.51306152	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 5/P	1	Max Conc	0.5	22000	614.6160278	277.5056152	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 5/P	1	Max Conc	1	44000	383.56073	119.6726379	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 6/P	1	Max Conc	0.5	22000	499.8126831	330.5894775	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 6/P	1	Max Conc	1	44000	379.1089478	193.4767609	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 7/P	1	Max Conc	0.5	22000	378.9866028	176.9964294	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 7/P	1	Max Conc	1	44000	265.8579712	118.1823502	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 8/P	1	Max Conc	0.5	22000	581.8505249	277.9743347	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 8/P	1	Max Conc	1	44000	361.6355591	105.3261566	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 9/P	1	Max Conc	0.5	22000	526.8106079	301.6569519	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 9/P	1	Max Conc	1	44000	394.518158	189.0816345	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 10/P	1	Max Conc	0.5	22000	533.3477783	393.0341187	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 10/P	1	Max Conc	1	44000	372.1604004	181.6595764	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 11/P	1	Max Conc	0.5	22000	502.2398682	441.4239502	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 11/P	1	Max Conc	1	44000	351.6818848	203.6038513	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 12/P	1	Max Conc	0.5	22000	414.4513245	162.2328949	0	92.3615036
Peak Shaver	P_INV008_85mm (2min)	85	Category 12/P	1	Max Conc	1	44000	282.7066956	107.8358688	0	92.3615036
Peak Shaver	P_INV008_254mm (2min)	254	Category 1/P	1	Max Conc	0.5	22000	255.0097504	73.8769989	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 1/P	1	Max Conc	1	44000	150.9337311	61.60968781	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 2/P	1	Max Conc	0.5	22000	265.4995117	73.59636688	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 2/P	1	Max Conc	1	44000	156.825592	61.99219513	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 3/P	1	Max Conc	0.5	22000	333.0996399	110.3061981	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 3/P	1	Max Conc	1	44000	193.8283539	94.03609467	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 4/P	1	Max Conc	0.5	22000	320.4070129	108.424736	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 4/P	1	Max Conc	1	44000	186.3599396	91.90972137	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 5/P	1	Max Conc	0.5	22000	420.7996826	174.3483887	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 5/P	1	Max Conc	1	44000	236.0460815	150.8124847	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 6/P	1	Max Conc	0.5	22000	1016.484009	162.2479095	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 6/P	1	Max Conc	1	44000	548.2908936	140.8790588	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 7/P	1	Max Conc	0.5	22000	801.9055176	108.5235138	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 7/P	1	Max Conc	1	44000	441.3418274	93.02361298	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 8/P	1	Max Conc	0.5	22000	393.9314575	168.2993622	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 8/P	1	Max Conc	1	44000	218.585434	144.4094391	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 9/P	1	Max Conc	0.5	22000	1001.89679	164.1968536	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 9/P	1	Max Conc	1	44000	526.576416	142.8918915	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 10/P	1	Max Conc	0.5	22000	1113.117432	261.2241211	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 10/P	1	Max Conc	1	44000	510.6265259	228.6524963	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 11/P	1	Max Conc	0.5	22000	1212.293091	242.5532074	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 11/P	1	Max Conc	1	44000	605.8186035	212.8197327	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 12/P	1	Max Conc	0.5	22000	842.1574707	108.5367889	0	93.08312225
Peak Shaver	P_INV008_254mm (2min)	254	Category 12/P	1	Max Conc	1	44000	465.8019714	93.76010895	0	93.08312225
Peak Shaver	P_INV009_25mm	25	Category 1/P	1	Max Conc	0.5	22000	45.36981583	3.0908916	0	4.43950367

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV009_25mm	25	Category 1/P	1	Max Conc	1	44000	17.2752552	1.51909411	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 2/P	1	Max Conc	0.5	22000	47.82709885	3.193180323	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 2/P	1	Max Conc	1	44000	18.09174538	1.565798402	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 3/P	1	Max Conc	0.5	22000	48.08515167	3.522743225	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 3/P	1	Max Conc	1	44000	19.40427208	1.653377652	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 4/P	1	Max Conc	0.5	22000	45.87223434	3.403026581	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 4/P	1	Max Conc	1	44000	18.68509674	1.600673079	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 5/P	1	Max Conc	0.5	22000	47.6908989	3.778501987	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 5/P	1	Max Conc	1	44000	20.0786705	1.716417193	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 6/P	1	Max Conc	0.5	22000	46.81354904	3.750469446	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 6/P	1	Max Conc	1	44000	18.98456764	1.67114687	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 7/P	1	Max Conc	0.5	22000	46.9813385	3.510504484	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 7/P	1	Max Conc	1	44000	17.95670891	1.617536545	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 8/P	1	Max Conc	0.5	22000	45.66432571	3.652795076	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 8/P	1	Max Conc	1	44000	19.40990448	1.665340781	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 9/P	1	Max Conc	0.5	22000	49.17073441	3.884114504	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 9/P	1	Max Conc	1	44000	19.75918388	1.726698637	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 10/P	1	Max Conc	0.5	22000	48.65708923	4.063195705	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 10/P	1	Max Conc	1	44000	20.25954819	1.760445595	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 11/P	1	Max Conc	0.5	22000	46.56182098	3.928006411	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 11/P	1	Max Conc	1	44000	19.59867477	1.707704902	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 12/P	1	Max Conc	0.5	22000	49.54517746	3.628823996	0	4.43950367
Peak Shaver	P_INV009_25mm	25	Category 12/P	1	Max Conc	1	44000	18.7589035	1.665933132	0	4.43950367
Peak Shaver	P_INV009_50mm	50	Category 1/P	1	Max Conc	0.5	22000	110.2789612	6.749279976	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 1/P	1	Max Conc	1	44000	45.67791748	3.433378696	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 2/P	1	Max Conc	0.5	22000	118.1453781	6.979972363	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 2/P	1	Max Conc	1	44000	47.42485428	3.541454554	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 3/P	1	Max Conc	0.5	22000	111.0334625	7.659478664	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 3/P	1	Max Conc	1	44000	47.02287674	3.759516478	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 4/P	1	Max Conc	0.5	22000	104.1386185	7.405806065	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 4/P	1	Max Conc	1	44000	45.30278397	3.64112711	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 5/P	1	Max Conc	0.5	22000	106.2035828	8.188628197	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 5/P	1	Max Conc	1	44000	46.53616333	3.908204556	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 6/P	1	Max Conc	0.5	22000	105.2033081	8.021518707	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 6/P	1	Max Conc	1	44000	46.14216232	3.908393145	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 7/P	1	Max Conc	0.5	22000	110.6360626	7.477976322	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 7/P	1	Max Conc	1	44000	46.51370621	3.758587122	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 8/P	1	Max Conc	0.5	22000	100.1174698	7.912937641	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 8/P	1	Max Conc	1	44000	44.93736649	3.787809372	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 9/P	1	Max Conc	0.5	22000	112.9748688	8.302941322	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 9/P	1	Max Conc	1	44000	47.82883835	4.035295963	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 10/P	1	Max Conc	0.5	22000	108.697258	8.746150017	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 10/P	1	Max Conc	1	44000	47.47530365	4.134717464	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 11/P	1	Max Conc	0.5	22000	101.8633728	8.441083908	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 11/P	1	Max Conc	1	44000	45.90520859	4.011088848	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 12/P	1	Max Conc	0.5	22000	119.5103607	7.735246181	0	17.75801468
Peak Shaver	P_INV009_50mm	50	Category 12/P	1	Max Conc	1	44000	48.27449036	3.882353306	0	17.75801468
Peak Shaver	P_INV009_40mm	40	Category 1/P	1	Max Conc	0.5	22000	84.76305389	5.278385162	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 1/P	1	Max Conc	1	44000	33.80519867	2.639328718	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 2/P	1	Max Conc	0.5	22000	90.18052673	5.465031147	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 2/P	1	Max Conc	1	44000	35.17446518	2.725345135	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 3/P	1	Max Conc	0.5	22000	85.94467163	6.013902664	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 3/P	1	Max Conc	1	44000	35.53235245	2.888205528	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 4/P	1	Max Conc	0.5	22000	81.34971619	5.807855606	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 4/P	1	Max Conc	1	44000	34.16391754	2.801517487	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 5/P	1	Max Conc	0.5	22000	82.90994263	6.435464859	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 5/P	1	Max Conc	1	44000	35.57503128	2.997447729	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 6/P	1	Max Conc	0.5	22000	82.52436066	6.345267773	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 6/P	1	Max Conc	1	44000	34.71118927	2.984381914	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 7/P	1	Max Conc	0.5	22000	85.84951019	5.924945354	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 7/P	1	Max Conc	1	44000	34.49403	2.881540298	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 8/P	1	Max Conc	0.5	22000	78.74753571	6.214671612	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 8/P	1	Max Conc	1	44000	34.25021362	2.909346104	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 9/P	1	Max Conc	0.5	22000	87.56341553	6.573120594	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 9/P	1	Max Conc	1	44000	36.20785141	3.080710649	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 10/P	1	Max Conc	0.5	22000	84.77716827	6.904230595	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 10/P	1	Max Conc	1	44000	36.24111176	3.15922308	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 11/P	1	Max Conc	0.5	22000	80.31513214	6.664197445	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 11/P	1	Max Conc	1	44000	34.81758499	3.052160501	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 12/P	1	Max Conc	0.5	22000	91.87269592	6.134181499	0	11.36512852
Peak Shaver	P_INV009_40mm	40	Category 12/P	1	Max Conc	1	44000	36.11925507	2.973819971	0	11.36512852
Peak Shaver	P_INV009_135mm	135	Category 1/P	1	Max Conc	0.5	22000	234.5671082	15.48150158	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 1/P	1	Max Conc	1	44000	120.3220444	8.657576561	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 2/P	1	Max Conc	0.5	22000	259.6844177	16.13789558	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 2/P	1	Max Conc	1	44000	126.6048889	8.921579361	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 3/P	1	Max Conc	0.5	22000	241.1890717	17.65195847	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 3/P	1	Max Conc	1	44000	120.690094	9.443286896	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 4/P	1	Max Conc	0.5	22000	218.4297638	16.88246346	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 4/P	1	Max Conc	1	44000	115.9188232	9.163205147	0	92.37638855

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV009_135mm	135	Category 5/P	1	Max Conc	0.5	22000	230.3868866	18.83883858	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 5/P	1	Max Conc	1	44000	117.6252594	9.809521675	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 6/P	1	Max Conc	0.5	22000	214.9821472	17.465765	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 6/P	1	Max Conc	1	44000	118.1949997	9.739500999	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 7/P	1	Max Conc	0.5	22000	229.3509827	16.18127441	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 7/P	1	Max Conc	1	44000	122.4164886	9.306118965	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 8/P	1	Max Conc	0.5	22000	208.130661	17.96534157	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 8/P	1	Max Conc	1	44000	113.0742645	9.519563675	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 9/P	1	Max Conc	0.5	22000	239.8606415	18.23604393	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 9/P	1	Max Conc	1	44000	124.033432	10.03074741	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 10/P	1	Max Conc	0.5	22000	230.0030212	19.37232399	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 10/P	1	Max Conc	1	44000	120.7541046	10.34366512	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 11/P	1	Max Conc	0.5	22000	205.8087463	18.4835968	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 11/P	1	Max Conc	1	44000	115.8812103	10.04853725	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 12/P	1	Max Conc	0.5	22000	255.9792938	16.81779861	0	92.37638855
Peak Shaver	P_INV009_135mm	135	Category 12/P	1	Max Conc	1	44000	129.0919342	9.584076881	0	92.37638855
Peak Shaver	P_INV009_406mm	406	Category 1/P	1	Max Conc	0.5	22000	210.6135254	15.17398548	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 1/P	1	Max Conc	1	44000	116.9624863	8.633515358	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 2/P	1	Max Conc	0.5	22000	232.6603699	15.81370258	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 2/P	1	Max Conc	1	44000	123.068985	8.911676407	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 3/P	1	Max Conc	0.5	22000	216.8135071	17.215662	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 3/P	1	Max Conc	1	44000	118.1087494	9.427293777	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 4/P	1	Max Conc	0.5	22000	197.6630707	16.4802742	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 4/P	1	Max Conc	1	44000	112.8306351	9.132706642	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 5/P	1	Max Conc	0.5	22000	206.6150208	18.29202271	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 5/P	1	Max Conc	1	44000	115.3739243	9.79220295	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 6/P	1	Max Conc	0.5	22000	192.8003387	16.99102211	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 6/P	1	Max Conc	1	44000	114.5398331	9.697285652	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 7/P	1	Max Conc	0.5	22000	203.5300903	15.80764675	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 7/P	1	Max Conc	1	44000	117.9964371	9.270634651	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 8/P	1	Max Conc	0.5	22000	189.5853424	17.46651077	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 8/P	1	Max Conc	1	44000	110.1567383	9.482365608	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 9/P	1	Max Conc	0.5	22000	212.5447083	17.76740074	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 9/P	1	Max Conc	1	44000	120.2893829	10.00985241	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 10/P	1	Max Conc	0.5	22000	204.0358734	18.77950096	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 10/P	1	Max Conc	1	44000	117.9928513	10.32230663	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 11/P	1	Max Conc	0.5	22000	185.6691284	17.90695	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 11/P	1	Max Conc	1	44000	112.4308624	9.997636795	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 12/P	1	Max Conc	0.5	22000	226.7465973	16.48018837	0	92.40691376
Peak Shaver	P_INV009_406mm	406	Category 12/P	1	Max Conc	1	44000	124.8788223	9.561767578	0	92.40691376
Peak Shaver	P_INV010_25mm (all)	25	Category 1/P	1	Max Conc	0.5	22000	95.55072021	13.54712963	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 1/P	1	Max Conc	1	44000	27.26375198	2.728764057	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 2/P	1	Max Conc	0.5	22000	102.1752243	14.12291813	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 2/P	1	Max Conc	1	44000	51.28212357	4.252372265	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 3/P	1	Max Conc	0.5	22000	125.5341873	24.39379692	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 3/P	1	Max Conc	1	44000	58.34075165	6.425468445	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 4/P	1	Max Conc	0.5	22000	116.3505249	23.09100914	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 4/P	1	Max Conc	1	44000	34.1504631	3.765407085	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 5/P	1	Max Conc	0.5	22000	153.867981	41.08439255	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 5/P	1	Max Conc	1	44000	69.16179657	11.59945965	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 6/P	1	Max Conc	0.5	22000	110.2358093	54.72942352	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 6/P	1	Max Conc	1	44000	69.77939606	17.55472755	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 7/P	1	Max Conc	0.5	22000	87.14522552	29.48262405	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 7/P	1	Max Conc	1	44000	57.9341507	11.52682114	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 8/P	1	Max Conc	0.5	22000	140.3104095	37.78042221	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 8/P	1	Max Conc	1	44000	54.85902023	7.888524532	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 9/P	1	Max Conc	0.5	22000	117.1015472	53.54772568	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 9/P	1	Max Conc	1	44000	77.75432587	22.72509384	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 10/P	1	Max Conc	0.5	22000	151.8634338	107.5235901	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 10/P	1	Max Conc	1	44000	91.24306488	34.2283287	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 11/P	1	Max Conc	0.5	22000	141.1126862	105.8395386	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 11/P	1	Max Conc	1	44000	77.31255341	28.84101868	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 12/P	1	Max Conc	0.5	22000	91.94989777	28.70564079	0	5.522246361
Peak Shaver	P_INV010_25mm (all)	25	Category 12/P	1	Max Conc	1	44000	62.2664566	13.77957344	0	5.522246361
Peak Shaver	P_INV010_50mm (all)	50	Category 1/P	1	Max Conc	0.5	22000	109.010704	18.81774712	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 1/P	1	Max Conc	1	44000	71.61354828	10.06591797	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 2/P	1	Max Conc	0.5	22000	111.7734299	18.2520771	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 2/P	1	Max Conc	1	44000	75.61058807	11.09845734	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 3/P	1	Max Conc	0.5	22000	137.4479218	27.650383	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 3/P	1	Max Conc	1	44000	91.99703217	18.69363403	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 4/P	1	Max Conc	0.5	22000	129.8775482	29.37075043	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 4/P	1	Max Conc	1	44000	86.67380524	18.28809929	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 5/P	1	Max Conc	0.5	22000	171.8774872	50.04662323	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 5/P	1	Max Conc	1	44000	116.5616302	33.23539734	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 6/P	1	Max Conc	0.5	22000	245.810257	55.28002548	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 6/P	1	Max Conc	1	44000	110.0779419	39.05863953	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 7/P	1	Max Conc	0.5	22000	187.0380707	33.27492523	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 7/P	1	Max Conc	1	44000	80.97554779	22.53897095	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 8/P	1	Max Conc	0.5	22000	159.4989929	53.44707489	0	8.115982056

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV010_50mm (all)	50	Category 8/P	1	Max Conc	1	44000	107.4163208	33.03860855	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 9/P	1	Max Conc	0.5	22000	288.4219971	49.90787125	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 9/P	1	Max Conc	1	44000	138.670929	36.90108109	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 10/P	1	Max Conc	0.5	22000	316.7999573	90.52015686	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 10/P	1	Max Conc	1	44000	145.7096252	67.20658875	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 11/P	1	Max Conc	0.5	22000	286.1185608	102.2774658	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 11/P	1	Max Conc	1	44000	125.8711014	72.84143066	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 12/P	1	Max Conc	0.5	22000	228.7566223	31.02044106	0	8.115982056
Peak Shaver	P_INV010_50mm (all)	50	Category 12/P	1	Max Conc	1	44000	108.4223557	22.16867828	0	8.115982056
Peak Shaver	P_INV010_102mm (1hr)	102	Category 1/P	1	Max Conc	0.5	22000	85.53502655	18.09778023	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 1/P	1	Max Conc	1	44000	52.12297058	11.14233685	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 2/P	1	Max Conc	0.5	22000	89.639534	17.73240852	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 2/P	1	Max Conc	1	44000	53.97505951	11.53152561	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 3/P	1	Max Conc	0.5	22000	113.2460556	25.2399559	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 3/P	1	Max Conc	1	44000	68.62182617	18.79870987	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 4/P	1	Max Conc	0.5	22000	108.1779251	26.90799522	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 4/P	1	Max Conc	1	44000	65.90001678	18.56213951	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 5/P	1	Max Conc	0.5	22000	144.4248962	39.80612183	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 5/P	1	Max Conc	1	44000	84.23594666	31.0494175	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 6/P	1	Max Conc	0.5	22000	349.3603516	46.84674454	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 6/P	1	Max Conc	1	44000	190.1814575	34.5082283	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 7/P	1	Max Conc	0.5	22000	263.6481323	27.23951149	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 7/P	1	Max Conc	1	44000	140.2492371	20.79820824	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 8/P	1	Max Conc	0.5	22000	141.0436707	42.55856705	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 8/P	1	Max Conc	1	44000	83.14247131	31.01843452	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 9/P	1	Max Conc	0.5	22000	366.9000244	39.25770187	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 9/P	1	Max Conc	1	44000	200.6059265	31.69139671	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 10/P	1	Max Conc	0.5	22000	435.096283	68.35715485	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 10/P	1	Max Conc	1	44000	220.8355865	55.34328842	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 11/P	1	Max Conc	0.5	22000	447.0197449	71.92275238	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 11/P	1	Max Conc	1	44000	236.6154022	56.99986267	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 12/P	1	Max Conc	0.5	22000	288.071106	25.92802238	0	8.134809494
Peak Shaver	P_INV010_102mm (1hr)	102	Category 12/P	1	Max Conc	1	44000	159.2129822	20.2589817	0	8.134809494
Peak Shaver	P_INV010_10mm (all)	10	Category 1/P	1	Max Conc	0.5	22000	19.08715439	2.223381519	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 1/P	1	Max Conc	1	44000	11.29014683	1.145443559	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 2/P	1	Max Conc	0.5	22000	26.24256706	2.624893188	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 2/P	1	Max Conc	1	44000	13.29245567	1.249544263	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 3/P	1	Max Conc	0.5	22000	19.37957573	2.522895098	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 3/P	1	Max Conc	1	44000	11.52049065	1.335147738	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 4/P	1	Max Conc	0.5	22000	12.86825562	1.909978509	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 4/P	1	Max Conc	1	44000	9.500818253	1.117044926	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 5/P	1	Max Conc	0.5	22000	20.54572105	2.16567874	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 5/P	1	Max Conc	1	44000	9.689500809	1.114354014	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 6/P	1	Max Conc	0.5	22000	13.95946884	1.881219506	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 6/P	1	Max Conc	1	44000	8.474504471	1.188526273	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 7/P	1	Max Conc	0.5	22000	15.78967476	2.715107679	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 7/P	1	Max Conc	1	44000	9.857467651	1.497211218	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 8/P	1	Max Conc	0.5	22000	10.28713226	1.450074434	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 8/P	1	Max Conc	1	44000	8.365712166	0.906958103	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 9/P	1	Max Conc	0.5	22000	30.28883934	4.047710419	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 9/P	1	Max Conc	1	44000	10.63418388	1.467899442	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 10/P	1	Max Conc	0.5	22000	34.44462204	6.514825344	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 10/P	1	Max Conc	1	44000	8.898033142	1.093739986	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 11/P	1	Max Conc	0.5	22000	8.886917114	1.176422477	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 11/P	1	Max Conc	1	44000	7.675611019	0.873010218	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 12/P	1	Max Conc	0.5	22000	28.1512146	3.754554987	0	0.883559406
Peak Shaver	P_INV010_10mm (all)	10	Category 12/P	1	Max Conc	1	44000	12.43994045	1.772224545	0	0.883559406
Peak Shaver	P_INV010_102mm (2min)	102	Category 1/P	1	Max Conc	0.5	22000	85.04723358	14.24435425	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 1/P	1	Max Conc	1	44000	52.26306534	9.423930168	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 2/P	1	Max Conc	0.5	22000	90.70079803	13.65453434	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 2/P	1	Max Conc	1	44000	56.5236969	9.715819359	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 3/P	1	Max Conc	0.5	22000	112.017601	20.65276146	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 3/P	1	Max Conc	1	44000	68.51774597	15.52631855	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 4/P	1	Max Conc	0.5	22000	107.1196899	20.84781075	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 4/P	1	Max Conc	1	44000	65.82985687	15.17423344	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 5/P	1	Max Conc	0.5	22000	141.5497894	32.5880928	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 5/P	1	Max Conc	1	44000	83.58271027	25.50566101	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 6/P	1	Max Conc	0.5	22000	332.3439331	32.92300797	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 6/P	1	Max Conc	1	44000	182.4869385	26.22207642	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 7/P	1	Max Conc	0.5	22000	253.6928406	22.46295357	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 7/P	1	Max Conc	1	44000	137.9674835	17.20471382	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 8/P	1	Max Conc	0.5	22000	138.3684235	31.62563515	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 8/P	1	Max Conc	1	44000	82.72422028	24.41638565	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 9/P	1	Max Conc	0.5	22000	349.1747437	32.57289124	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 9/P	1	Max Conc	1	44000	193.7244263	26.34558105	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 10/P	1	Max Conc	0.5	22000	406.6853943	52.34163284	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 10/P	1	Max Conc	1	44000	205.8065643	43.36189651	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 11/P	1	Max Conc	0.5	22000	414.4330444	50.2305336	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 11/P	1	Max Conc	1	44000	220.3675079	41.22566605	0	8.134809494

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV010_102mm (2min)	102	Category 12/P	1	Max Conc	0.5	22000	278.2186279	21.84243202	0	8.134809494
Peak Shaver	P_INV010_102mm (2min)	102	Category 12/P	1	Max Conc	1	44000	155.9359283	17.10660553	0	8.134809494
Peak Shaver	P_INV011_25mm	25	Category 1/P	1	Max Conc	0.5	22000	5.052297592	0.512449026	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 1/P	1	Max Conc	1	44000	3.146685123	0.289441437	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 2/P	1	Max Conc	0.5	22000	5.169012547	0.526826143	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 2/P	1	Max Conc	1	44000	3.218739271	0.297615916	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 3/P	1	Max Conc	0.5	22000	5.921802998	0.590542793	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 3/P	1	Max Conc	1	44000	3.529637098	0.320119441	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 4/P	1	Max Conc	0.5	22000	5.783473492	0.574962199	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 4/P	1	Max Conc	1	44000	3.451569557	0.311240464	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 5/P	1	Max Conc	0.5	22000	6.719943523	0.64384073	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 5/P	1	Max Conc	1	44000	3.813633442	0.336619735	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 6/P	1	Max Conc	0.5	22000	5.527914047	0.637608826	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 6/P	1	Max Conc	1	44000	3.364224195	0.330358058	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 7/P	1	Max Conc	0.5	22000	4.679036617	0.593744934	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 7/P	1	Max Conc	1	44000	3.003828049	0.317276001	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 8/P	1	Max Conc	0.5	22000	6.557433605	0.626920819	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 8/P	1	Max Conc	1	44000	3.721057653	0.32731241	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 9/P	1	Max Conc	0.5	22000	5.664319515	0.654486179	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 9/P	1	Max Conc	1	44000	3.445514441	0.339636028	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 10/P	1	Max Conc	0.5	22000	6.583357334	0.686922193	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 10/P	1	Max Conc	1	44000	3.767475843	0.348669976	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 11/P	1	Max Conc	0.5	22000	6.418720722	0.669334888	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 11/P	1	Max Conc	1	44000	3.672828436	0.339150667	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 12/P	1	Max Conc	0.5	22000	4.791646481	0.610432327	0	0.108359918
Peak Shaver	P_INV011_25mm	25	Category 12/P	1	Max Conc	1	44000	3.075739145	0.326171368	0	0.108359918
Peak Shaver	P_INV011_50mm	50	Category 1/P	1	Max Conc	0.5	22000	6.028787613	0.679351568	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 1/P	1	Max Conc	1	44000	4.086728573	0.418641418	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 2/P	1	Max Conc	0.5	22000	6.167167664	0.698195159	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 2/P	1	Max Conc	1	44000	4.183367252	0.43041122	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 3/P	1	Max Conc	0.5	22000	7.30497551	0.839461505	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 3/P	1	Max Conc	1	44000	4.827112198	0.493365437	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 4/P	1	Max Conc	0.5	22000	7.134241104	0.816624105	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 4/P	1	Max Conc	1	44000	4.715886116	0.479788691	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 5/P	1	Max Conc	0.5	22000	8.732197762	0.982634008	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 5/P	1	Max Conc	1	44000	5.542368889	0.54859525	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 6/P	1	Max Conc	0.5	22000	6.56986618	0.989340484	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 6/P	1	Max Conc	1	44000	4.400382519	0.545734763	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 7/P	1	Max Conc	0.5	22000	5.227447987	0.864094496	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 7/P	1	Max Conc	1	44000	3.669849396	0.499166459	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 8/P	1	Max Conc	0.5	22000	8.513221741	0.957228124	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 8/P	1	Max Conc	1	44000	5.410385609	0.534133017	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 9/P	1	Max Conc	0.5	22000	6.788794994	1.017853141	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 9/P	1	Max Conc	1	44000	4.495929718	0.560928702	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 10/P	1	Max Conc	0.5	22000	9.239073753	1.131394744	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 10/P	1	Max Conc	1	44000	5.350579739	0.596700311	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 11/P	1	Max Conc	0.5	22000	8.719221115	1.101109982	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 11/P	1	Max Conc	1	44000	5.21069622	0.581383169	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 12/P	1	Max Conc	0.5	22000	5.356608868	0.887957156	0	0.12077079
Peak Shaver	P_INV011_50mm	50	Category 12/P	1	Max Conc	1	44000	3.757410526	0.51310569	0	0.12077079
Peak Shaver	P_INV011_76mm	76	Category 1/P	1	Max Conc	0.5	22000	6.488219261	0.745531857	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 1/P	1	Max Conc	1	44000	4.463343143	0.485941082	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 2/P	1	Max Conc	0.5	22000	6.618304729	0.766841054	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 2/P	1	Max Conc	1	44000	4.558022022	0.499874204	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 3/P	1	Max Conc	0.5	22000	7.75067234	0.957387328	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 3/P	1	Max Conc	1	44000	5.365417957	0.602181375	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 4/P	1	Max Conc	0.5	22000	7.580112934	0.932883501	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 4/P	1	Max Conc	1	44000	5.249064922	0.585683703	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 5/P	1	Max Conc	0.5	22000	9.515991211	1.18568635	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 5/P	1	Max Conc	1	44000	6.322477818	0.706530452	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 6/P	1	Max Conc	0.5	22000	6.967416763	1.210876107	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 6/P	1	Max Conc	1	44000	4.661711693	0.71336019	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 7/P	1	Max Conc	0.5	22000	5.220626831	1.003886461	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 7/P	1	Max Conc	1	44000	3.768743038	0.620510161	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 8/P	1	Max Conc	0.5	22000	9.185014725	1.154535294	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 8/P	1	Max Conc	1	44000	6.196386337	0.687504292	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 9/P	1	Max Conc	0.5	22000	7.308725357	1.244712472	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 9/P	1	Max Conc	1	44000	4.770537853	0.733626127	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 10/P	1	Max Conc	0.5	22000	10.67767429	1.461030602	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 10/P	1	Max Conc	1	44000	5.907000065	0.817382872	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 11/P	1	Max Conc	0.5	22000	9.946032524	1.42172122	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 11/P	1	Max Conc	1	44000	5.780382633	0.795365632	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 12/P	1	Max Conc	0.5	22000	5.346192837	1.032633543	0	0.118866056
Peak Shaver	P_INV011_76mm	76	Category 12/P	1	Max Conc	1	44000	3.847964287	0.637601674	0	0.118866056
Peak Shaver	P_INV011_8mm	8	Category 1/P	1	Max Conc	0.5	22000	1.914617181	0.163785085	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 1/P	1	Max Conc	1	44000	1.129606962	0.092943884	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 2/P	1	Max Conc	0.5	22000	1.960251451	0.168183222	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 2/P	1	Max Conc	1	44000	1.156988382	0.095507517	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 3/P	1	Max Conc	0.5	22000	2.167669535	0.188563257	0	0.011096057

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Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV011_8mm	8	Category 3/P	1	Max Conc	1	44000	1.226824045	0.102698438	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 4/P	1	Max Conc	0.5	22000	2.115610838	0.183457449	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 4/P	1	Max Conc	1	44000	1.196125507	0.099822164	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 5/P	1	Max Conc	0.5	22000	2.370111227	0.205399677	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 5/P	1	Max Conc	1	44000	1.284113169	0.107964382	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 6/P	1	Max Conc	0.5	22000	2.003787279	0.203280643	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 6/P	1	Max Conc	1	44000	1.158706903	0.105983697	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 7/P	1	Max Conc	0.5	22000	1.754675865	0.189699978	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 7/P	1	Max Conc	1	44000	1.067957282	0.101956509	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 8/P	1	Max Conc	0.5	22000	2.3115592	0.199959442	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 8/P	1	Max Conc	1	44000	1.253257394	0.105060093	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 9/P	1	Max Conc	0.5	22000	2.053764343	0.208882183	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 9/P	1	Max Conc	1	44000	1.186567664	0.10900405	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 10/P	1	Max Conc	0.5	22000	2.301485538	0.219107404	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 10/P	1	Max Conc	1	44000	1.262535691	0.111813001	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 11/P	1	Max Conc	0.5	22000	2.244095564	0.213391721	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 11/P	1	Max Conc	1	44000	1.231068373	0.108843625	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 12/P	1	Max Conc	0.5	22000	1.797271371	0.194698885	0	0.011096057
Peak Shaver	P_INV011_8mm	8	Category 12/P	1	Max Conc	1	44000	1.092546701	0.104700334	0	0.011096057
Peak Shaver	P_INV012_25mm (1hr)	25	Category 1/P	1	Max Conc	0.5	22000	18.59988594	1.59145236	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 1/P	1	Max Conc	1	44000	5.358509541	0.735458255	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 2/P	1	Max Conc	0.5	22000	19.46149826	1.63912642	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 2/P	1	Max Conc	1	44000	9.897616386	0.814181387	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 3/P	1	Max Conc	0.5	22000	30.33910751	2.599102259	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 3/P	1	Max Conc	1	44000	0.729488373	0.13216655	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 4/P	1	Max Conc	0.5	22000	0.838542521	0.155486688	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 4/P	1	Max Conc	1	44000	0.711670995	0.129025027	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 5/P	1	Max Conc	0.5	22000	45.2317009	4.692773819	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 5/P	1	Max Conc	1	44000	0.578951359	0.09205614	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 6/P	1	Max Conc	0.5	22000	78.07926178	5.579967022	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 6/P	1	Max Conc	1	44000	0.573081136	0.102193907	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 7/P	1	Max Conc	0.5	22000	40.93087769	1.741116285	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 7/P	1	Max Conc	1	44000	0.773508668	0.178086638	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 8/P	1	Max Conc	0.5	22000	40.40962601	4.349345207	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 8/P	1	Max Conc	1	44000	0.569778204	0.090497546	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 9/P	1	Max Conc	0.5	22000	91.1237793	5.392098904	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 9/P	1	Max Conc	1	44000	46.00172424	2.569052219	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 10/P	1	Max Conc	0.5	22000	107.1798325	9.280333519	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 10/P	1	Max Conc	1	44000	50.90287781	5.185125351	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 11/P	1	Max Conc	0.5	22000	101.3539581	9.303541183	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 11/P	1	Max Conc	1	44000	44.97835159	4.363040924	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 12/P	1	Max Conc	0.5	22000	68.97974396	3.271635294	0	0.504041851
Peak Shaver	P_INV012_25mm (1hr)	25	Category 12/P	1	Max Conc	1	44000	28.21438599	0.817672908	0	0.504041851
Peak Shaver	P_INV012_30mm (1hr)	30	Category 1/P	1	Max Conc	0.5	22000	25.63486671	2.039414406	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 1/P	1	Max Conc	1	44000	4.835239887	0.914434671	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 2/P	1	Max Conc	0.5	22000	26.66908264	2.250090361	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 2/P	1	Max Conc	1	44000	14.7110424	1.031612396	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 3/P	1	Max Conc	0.5	22000	38.26745605	3.691451073	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 3/P	1	Max Conc	1	44000	0.778487206	0.163754523	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 4/P	1	Max Conc	0.5	22000	33.8923111	2.50048542	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 4/P	1	Max Conc	1	44000	0.746427894	0.15625298	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 5/P	1	Max Conc	0.5	22000	53.76277161	6.44460535	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 5/P	1	Max Conc	1	44000	29.96174812	2.452946186	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 6/P	1	Max Conc	0.5	22000	98.81774902	7.740560532	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 6/P	1	Max Conc	1	44000	44.25280762	2.384036541	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 7/P	1	Max Conc	0.5	22000	65.09636688	4.440205574	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 7/P	1	Max Conc	1	44000	0.801488519	0.187971205	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 8/P	1	Max Conc	0.5	22000	49.87078094	6.38099575	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 8/P	1	Max Conc	1	44000	0.597535849	0.097098246	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 9/P	1	Max Conc	0.5	22000	112.4821777	7.157315254	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 9/P	1	Max Conc	1	44000	59.49388885	4.08161974	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 10/P	1	Max Conc	0.5	22000	130.9165192	10.58369541	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 10/P	1	Max Conc	1	44000	63.15168381	7.369554043	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 11/P	1	Max Conc	0.5	22000	125.8205338	12.32300854	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 11/P	1	Max Conc	1	44000	60.81949997	7.164605141	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 12/P	1	Max Conc	0.5	22000	81.72109222	4.671092033	0	0.725820184
Peak Shaver	P_INV012_30mm (1hr)	30	Category 12/P	1	Max Conc	1	44000	33.62159348	0.888418794	0	0.725820184
Peak Shaver	P_INV012_102mm (1hr)	102	Category 1/P	1	Max Conc	0.5	22000	86.78491974	15.15511894	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 1/P	1	Max Conc	1	44000	53.10791397	10.07721424	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 2/P	1	Max Conc	0.5	22000	92.23004913	14.56690884	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 2/P	1	Max Conc	1	44000	57.23564529	10.3839159	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 3/P	1	Max Conc	0.5	22000	114.6401672	21.8931427	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 3/P	1	Max Conc	1	44000	69.69052124	16.52219009	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 4/P	1	Max Conc	0.5	22000	109.512764	22.10994911	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 4/P	1	Max Conc	1	44000	67.00328827	16.19112968	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 5/P	1	Max Conc	0.5	22000	145.138092	34.48080444	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 5/P	1	Max Conc	1	44000	85.47994232	27.0730896	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 6/P	1	Max Conc	0.5	22000	342.385437	34.75879669	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 6/P	1	Max Conc	1	44000	188.1103668	27.76819992	0	8.390481949

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Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV012_102mm (1hr)	102	Category 7/P	1	Max Conc	0.5	22000	260.9513245	23.75082779	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 7/P	1	Max Conc	1	44000	141.4680939	18.26250458	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 8/P	1	Max Conc	0.5	22000	141.8720245	33.5158844	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 8/P	1	Max Conc	1	44000	84.55770111	25.99108696	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 9/P	1	Max Conc	0.5	22000	359.3116455	34.32614136	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 9/P	1	Max Conc	1	44000	198.6725311	27.88245392	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 10/P	1	Max Conc	0.5	22000	418.3077393	55.07570267	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 10/P	1	Max Conc	1	44000	212.0028534	45.67464828	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 11/P	1	Max Conc	0.5	22000	427.7776489	52.8053894	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 11/P	1	Max Conc	1	44000	227.2686462	43.50235748	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 12/P	1	Max Conc	0.5	22000	286.5273132	23.05526924	0	8.390481949
Peak Shaver	P_INV012_102mm (1hr)	102	Category 12/P	1	Max Conc	1	44000	160.5423126	18.12628365	0	8.390481949
Peak Shaver	P_INV012_305mm (1hr)	305	Category 1/P	1	Max Conc	0.5	22000	208.5831146	47.71860886	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 1/P	1	Max Conc	1	44000	125.8985443	39.40396118	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 2/P	1	Max Conc	0.5	22000	227.5177307	48.89280701	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 2/P	1	Max Conc	1	44000	138.1760406	40.85137177	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 3/P	1	Max Conc	0.5	22000	290.6498413	81.7719574	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 3/P	1	Max Conc	1	44000	174.7080231	68.92711639	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 4/P	1	Max Conc	0.5	22000	256.7734375	73.57975769	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 4/P	1	Max Conc	1	44000	154.8187561	61.44404984	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 5/P	1	Max Conc	0.5	22000	370.5488586	145.1385498	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 5/P	1	Max Conc	1	44000	213.5968933	122.8477402	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 6/P	1	Max Conc	0.5	22000	803.1568604	124.992424	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 6/P	1	Max Conc	1	44000	437.8514404	107.1869736	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 7/P	1	Max Conc	0.5	22000	631.6186523	75.17075348	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 7/P	1	Max Conc	1	44000	350.4694824	63.88961029	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 8/P	1	Max Conc	0.5	22000	355.9069214	129.8451538	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 8/P	1	Max Conc	1	44000	209.6697083	109.4887238	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 9/P	1	Max Conc	0.5	22000	841.0163574	134.2542114	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 9/P	1	Max Conc	1	44000	454.0904236	115.4458771	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 10/P	1	Max Conc	0.5	22000	916.5276489	213.2550507	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 10/P	1	Max Conc	1	44000	443.5559998	184.7512207	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 11/P	1	Max Conc	0.5	22000	980.8630371	196.1001434	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 11/P	1	Max Conc	1	44000	508.4256592	171.3586273	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 12/P	1	Max Conc	0.5	22000	632.9841309	70.34233856	0	75.02159119
Peak Shaver	P_INV012_305mm (1hr)	305	Category 12/P	1	Max Conc	1	44000	354.1902771	59.99213409	0	75.02159119
Peak Shaver	P_INV012_10mm (all)	10	Category 1/P	1	Max Conc	0.5	22000	5.703258038	0.478671908	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 1/P	1	Max Conc	1	44000	2.776248693	0.244454131	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 2/P	1	Max Conc	0.5	22000	5.862058163	0.494139254	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 2/P	1	Max Conc	1	44000	2.890197039	0.253499478	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 3/P	1	Max Conc	0.5	22000	1.269424677	0.140165642	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 3/P	1	Max Conc	1	44000	0.639325321	0.095732249	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 4/P	1	Max Conc	0.5	22000	1.173813224	0.128910214	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 4/P	1	Max Conc	1	44000	0.594845593	0.089795344	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 5/P	1	Max Conc	0.5	22000	0.54205364	0.076128565	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 5/P	1	Max Conc	1	44000	0.474339366	0.064269789	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 6/P	1	Max Conc	0.5	22000	0.524460435	0.081968717	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 6/P	1	Max Conc	1	44000	0.471114427	0.070990682	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 7/P	1	Max Conc	0.5	22000	1.843732953	0.508979797	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 7/P	1	Max Conc	1	44000	1.611333847	0.176735207	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 8/P	1	Max Conc	0.5	22000	0.528165638	0.072600849	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 8/P	1	Max Conc	1	44000	0.464392126	0.061673608	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 9/P	1	Max Conc	0.5	22000	0.539383829	0.086577602	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 9/P	1	Max Conc	1	44000	0.482479781	0.074921601	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 10/P	1	Max Conc	0.5	22000	0.450416476	0.061484419	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 10/P	1	Max Conc	1	44000	0.401898116	0.056224603	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 11/P	1	Max Conc	0.5	22000	0.436170816	0.058601923	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 11/P	1	Max Conc	1	44000	0.398298532	0.054216653	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 12/P	1	Max Conc	0.5	22000	1.846679807	0.521666765	0	0.080646686
Peak Shaver	P_INV012_10mm (all)	10	Category 12/P	1	Max Conc	1	44000	1.660641313	0.188954368	0	0.080646686
Peak Shaver	P_INV012_25mm (10min)	25	Category 1/P	1	Max Conc	0.5	22000	18.48108292	1.584802032	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 1/P	1	Max Conc	1	44000	5.373126507	0.730315089	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 2/P	1	Max Conc	0.5	22000	19.33165932	1.625986934	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 2/P	1	Max Conc	1	44000	9.80801487	0.807787538	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 3/P	1	Max Conc	0.5	22000	30.12730217	2.554868698	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 3/P	1	Max Conc	1	44000	0.729488373	0.13216655	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 4/P	1	Max Conc	0.5	22000	2.489665747	0.400517672	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 4/P	1	Max Conc	1	44000	0.711670995	0.129025027	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 5/P	1	Max Conc	0.5	22000	45.09804153	4.61211729	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 5/P	1	Max Conc	1	44000	0.578951359	0.09205614	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 6/P	1	Max Conc	0.5	22000	77.76528168	5.494133949	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 6/P	1	Max Conc	1	44000	0.573081136	0.102193907	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 7/P	1	Max Conc	0.5	22000	41.49634933	1.801532507	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 7/P	1	Max Conc	1	44000	2.18072319	0.270897001	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 8/P	1	Max Conc	0.5	22000	40.11633301	4.240581036	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 8/P	1	Max Conc	1	44000	0.569778204	0.090497546	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 9/P	1	Max Conc	0.5	22000	90.45743561	5.294828415	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 9/P	1	Max Conc	1	44000	45.57446671	2.546596527	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 10/P	1	Max Conc	0.5	22000	106.3164749	7.805592537	0	0.504041851

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV012_25mm (10min)	25	Category 10/P	1	Max Conc	1	44000	50.46908569	5.101657867	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 11/P	1	Max Conc	0.5	22000	100.0733032	9.148525238	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 11/P	1	Max Conc	1	44000	44.32471085	4.290543556	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 12/P	1	Max Conc	0.5	22000	68.71539307	3.220101118	0	0.504041851
Peak Shaver	P_INV012_25mm (10min)	25	Category 12/P	1	Max Conc	1	44000	28.67271805	1.005142212	0	0.504041851
Peak Shaver	P_INV012_30mm (10min)	30	Category 1/P	1	Max Conc	0.5	22000	25.3392849	2.032254219	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 1/P	1	Max Conc	1	44000	4.839389801	0.906089544	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 2/P	1	Max Conc	0.5	22000	26.26303291	2.207393646	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 2/P	1	Max Conc	1	44000	14.424963	1.013796329	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 3/P	1	Max Conc	0.5	22000	37.81770706	3.567518473	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 3/P	1	Max Conc	1	44000	0.778487206	0.163754523	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 4/P	1	Max Conc	0.5	22000	34.06978226	2.521559477	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 4/P	1	Max Conc	1	44000	0.746427894	0.15625298	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 5/P	1	Max Conc	0.5	22000	53.36669159	6.240181446	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 5/P	1	Max Conc	1	44000	29.99821091	2.407594204	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 6/P	1	Max Conc	0.5	22000	96.6999588	7.444690704	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 6/P	1	Max Conc	1	44000	42.70019531	2.088387489	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 7/P	1	Max Conc	0.5	22000	65.08398438	4.346585751	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 7/P	1	Max Conc	1	44000	0.801488519	0.187971205	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 8/P	1	Max Conc	0.5	22000	49.72196579	6.256263256	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 8/P	1	Max Conc	1	44000	0.597535849	0.097098246	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 9/P	1	Max Conc	0.5	22000	110.4278793	7.041174412	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 9/P	1	Max Conc	1	44000	58.86098862	3.990872622	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 10/P	1	Max Conc	0.5	22000	134.0872345	11.77280331	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 10/P	1	Max Conc	1	44000	68.19520569	7.130626678	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 11/P	1	Max Conc	0.5	22000	126.1075058	11.71642303	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 11/P	1	Max Conc	1	44000	62.97993469	6.890051842	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 12/P	1	Max Conc	0.5	22000	81.22434235	4.576773167	0	0.725820184
Peak Shaver	P_INV012_30mm (10min)	30	Category 12/P	1	Max Conc	1	44000	33.94076538	0.962094247	0	0.725820184
Peak Shaver	P_INV012_102mm (2min)	102	Category 1/P	1	Max Conc	0.5	22000	39.86711121	3.268036366	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 1/P	1	Max Conc	1	44000	2.316605568	1.107951403	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 2/P	1	Max Conc	0.5	22000	42.97933578	4.029910088	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 2/P	1	Max Conc	1	44000	2.325414896	1.317917109	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 3/P	1	Max Conc	0.5	22000	60.39792633	5.920370579	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 3/P	1	Max Conc	1	44000	37.4250145	2.878382683	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 4/P	1	Max Conc	0.5	22000	53.19124985	5.825185776	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 4/P	1	Max Conc	1	44000	1.125071406	0.336612135	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 5/P	1	Max Conc	0.5	22000	79.13474274	8.70046711	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 5/P	1	Max Conc	1	44000	51.10287476	5.320134163	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 6/P	1	Max Conc	0.5	22000	120.3571548	10.98756599	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 6/P	1	Max Conc	1	44000	57.43287277	5.907681942	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 7/P	1	Max Conc	0.5	22000	93.73483276	7.359390259	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 7/P	1	Max Conc	1	44000	41.25768661	2.407719612	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 8/P	1	Max Conc	0.5	22000	70.35562134	9.42083931	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 8/P	1	Max Conc	1	44000	42.17243576	2.791945934	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 9/P	1	Max Conc	0.5	22000	137.0956421	9.328040123	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 9/P	1	Max Conc	1	44000	70.17738342	6.589225769	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 10/P	1	Max Conc	0.5	22000	155.6271057	15.75006962	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 10/P	1	Max Conc	1	44000	70.94005585	11.190835	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 11/P	1	Max Conc	0.5	22000	131.1571198	18.05915451	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 11/P	1	Max Conc	1	44000	64.08297729	10.63058376	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 12/P	1	Max Conc	0.5	22000	113.4159012	6.959498882	0	8.390481949
Peak Shaver	P_INV012_102mm (2min)	102	Category 12/P	1	Max Conc	1	44000	60.32788849	4.221436977	0	8.390481949
Peak Shaver	P_INV012_305mm (2min)	305	Category 1/P	1	Max Conc	0.5	22000	85.55283356	11.74719524	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 1/P	1	Max Conc	1	44000	55.94893265	6.904572487	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 2/P	1	Max Conc	0.5	22000	89.84870148	11.20577049	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 2/P	1	Max Conc	1	44000	58.70153427	7.541577339	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 3/P	1	Max Conc	0.5	22000	108.6311951	14.65594482	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 3/P	1	Max Conc	1	44000	71.81652832	10.46281052	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 4/P	1	Max Conc	0.5	22000	102.5452805	15.83223915	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 4/P	1	Max Conc	1	44000	67.67726135	10.28429031	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 5/P	1	Max Conc	0.5	22000	126.1161194	23.2574482	1.391076	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 5/P	1	Max Conc	1	44000	82.88819122	15.96238041	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 6/P	1	Max Conc	0.5	22000	206.504837	28.07160568	13.119649	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 6/P	1	Max Conc	1	44000	99.22676086	19.69947052	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 7/P	1	Max Conc	0.5	22000	185.7446899	19.06317711	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 7/P	1	Max Conc	1	44000	91.99017334	13.266222	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 8/P	1	Max Conc	0.5	22000	115.2388458	25.76993942	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 8/P	1	Max Conc	1	44000	75.43361664	15.39300919	0	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 9/P	1	Max Conc	0.5	22000	235.0372467	24.44695854	10.120878	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 9/P	1	Max Conc	1	44000	117.927803	18.53156471	17.127377	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 10/P	1	Max Conc	0.5	22000	236.1150055	40.75201797	9.5450506	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 10/P	1	Max Conc	1	44000	104.812912	29.87217903	11.141224	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 11/P	1	Max Conc	0.5	22000	202.3114777	45.7598114	11.131897	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 11/P	1	Max Conc	1	44000	86.30528259	30.99361038	14.979057	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 12/P	1	Max Conc	0.5	22000	218.4873657	16.74794769	1.5357378	75.02159119
Peak Shaver	P_INV012_305mm (2min)	305	Category 12/P	1	Max Conc	1	44000	118.2847977	12.69978619	0	75.02159119
Peak Shaver	P_INV013_25mm	25	Category 1/P	1	Max Conc	0.5	22000	7.778090954	0.827111661	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 1/P	1	Max Conc	1	44000	4.638987541	0.446731329	0	0.417412251

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV013_25mm	25	Category 2/P	1	Max Conc	0.5	22000	7.999560833	0.851145208	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 2/P	1	Max Conc	1	44000	4.785543919	0.458231062	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 3/P	1	Max Conc	0.5	22000	9.117159843	0.919543445	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 3/P	1	Max Conc	1	44000	5.14912796	0.478516102	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 4/P	1	Max Conc	0.5	22000	8.838237762	0.895043671	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 4/P	1	Max Conc	1	44000	5.002667427	0.466880649	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 5/P	1	Max Conc	0.5	22000	10.30646324	0.973085642	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 5/P	1	Max Conc	1	44000	5.469661236	0.492555201	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 6/P	1	Max Conc	0.5	22000	8.951621056	0.951276183	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 6/P	1	Max Conc	1	44000	4.955438614	0.482795686	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 7/P	1	Max Conc	0.5	22000	7.617546558	0.911100209	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 7/P	1	Max Conc	1	44000	4.533558846	0.47166723	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 8/P	1	Max Conc	0.5	22000	9.941072464	0.947280228	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 8/P	1	Max Conc	1	44000	5.299118519	0.479880959	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 9/P	1	Max Conc	0.5	22000	9.300577164	0.97903806	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 9/P	1	Max Conc	1	44000	5.09576416	0.494611353	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 10/P	1	Max Conc	0.5	22000	10.47102737	1.00722456	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 10/P	1	Max Conc	1	44000	5.447009563	0.502121866	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 11/P	1	Max Conc	0.5	22000	10.09774208	0.981238961	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 11/P	1	Max Conc	1	44000	5.275630474	0.489202589	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 12/P	1	Max Conc	0.5	22000	7.914604187	0.938105464	0	0.417412251
Peak Shaver	P_INV013_25mm	25	Category 12/P	1	Max Conc	1	44000	4.683422565	0.484092712	0	0.417412251
Peak Shaver	P_INV013_50mm	50	Category 1/P	1	Max Conc	0.5	22000	8.039103508	0.889408946	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 1/P	1	Max Conc	1	44000	4.892333031	0.48636198	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 2/P	1	Max Conc	0.5	22000	8.269830704	0.914677024	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 2/P	1	Max Conc	1	44000	5.035885334	0.498631865	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 3/P	1	Max Conc	0.5	22000	9.662541389	1.001153469	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 3/P	1	Max Conc	1	44000	5.512594223	0.524877906	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 4/P	1	Max Conc	0.5	22000	9.307759285	0.972959995	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 4/P	1	Max Conc	1	44000	5.340309143	0.511613369	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 5/P	1	Max Conc	0.5	22000	11.13945103	1.068428755	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 5/P	1	Max Conc	1	44000	5.876392365	0.542186618	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 6/P	1	Max Conc	0.5	22000	9.614302635	1.047280669	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 6/P	1	Max Conc	1	44000	5.270346165	0.532592058	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 7/P	1	Max Conc	0.5	22000	8.011881828	0.994682431	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 7/P	1	Max Conc	1	44000	4.768144608	0.518652916	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 8/P	1	Max Conc	0.5	22000	10.69958878	1.036370039	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 8/P	1	Max Conc	1	44000	5.707863808	0.529346287	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 9/P	1	Max Conc	0.5	22000	10.06058407	1.076932669	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 9/P	1	Max Conc	1	44000	5.444711685	0.546155035	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 10/P	1	Max Conc	0.5	22000	11.44193268	1.11502099	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 10/P	1	Max Conc	1	44000	5.846768379	0.554950595	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 11/P	1	Max Conc	0.5	22000	10.97941971	1.082352877	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 11/P	1	Max Conc	1	44000	5.681827545	0.541542351	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 12/P	1	Max Conc	0.5	22000	8.373385429	1.022438765	0	0.419391572
Peak Shaver	P_INV013_50mm	50	Category 12/P	1	Max Conc	1	44000	4.916690826	0.531391382	0	0.419391572
Peak Shaver	P_INV013_152mm	152	Category 1/P	1	Max Conc	0.5	22000	9.334392548	1.347974181	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 1/P	1	Max Conc	1	44000	6.381750584	0.857480407	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 2/P	1	Max Conc	0.5	22000	9.867447853	1.391643047	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 2/P	1	Max Conc	1	44000	6.597095013	0.881760955	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 3/P	1	Max Conc	0.5	22000	11.53945732	1.670085669	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 3/P	1	Max Conc	1	44000	7.632468224	1.022481322	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 4/P	1	Max Conc	0.5	22000	10.71881485	1.610117197	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 4/P	1	Max Conc	1	44000	7.335285664	0.993892491	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 5/P	1	Max Conc	0.5	22000	12.08817768	1.850917935	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 5/P	1	Max Conc	1	44000	8.521823883	1.133000135	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 6/P	1	Max Conc	0.5	22000	10.28010178	1.936227798	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 6/P	1	Max Conc	1	44000	7.001685143	1.157781959	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 7/P	1	Max Conc	0.5	22000	9.566436768	1.740482569	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 7/P	1	Max Conc	1	44000	5.756435394	1.051075697	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 8/P	1	Max Conc	0.5	22000	11.35814667	1.766232967	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 8/P	1	Max Conc	1	44000	8.046875954	1.095610261	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 9/P	1	Max Conc	0.5	22000	11.05630207	2.01780057	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 9/P	1	Max Conc	1	44000	7.336508751	1.191462874	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 10/P	1	Max Conc	0.5	22000	11.54709721	2.055036306	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 10/P	1	Max Conc	1	44000	8.415735245	1.252761245	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 11/P	1	Max Conc	0.5	22000	10.72888279	1.962688088	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 11/P	1	Max Conc	1	44000	7.906748772	1.2115134	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 12/P	1	Max Conc	0.5	22000	10.39253807	1.7911731	0	0.419421017
Peak Shaver	P_INV013_152mm	152	Category 12/P	1	Max Conc	1	44000	5.981396198	1.079782724	0	0.419421017
Peak Shaver	P_INV013_10mm	10	Category 1/P	1	Max Conc	0.5	22000	7.796188831	0.825266182	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 1/P	1	Max Conc	1	44000	4.655937672	0.445296824	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 2/P	1	Max Conc	0.5	22000	8.014608383	0.849629283	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 2/P	1	Max Conc	1	44000	4.798708439	0.456965119	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 3/P	1	Max Conc	0.5	22000	9.128720284	0.917981565	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 3/P	1	Max Conc	1	44000	5.163380623	0.477096885	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 4/P	1	Max Conc	0.5	22000	8.846802711	0.893131137	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 4/P	1	Max Conc	1	44000	5.017357826	0.465495825	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 5/P	1	Max Conc	0.5	22000	10.32882023	0.971180618	0	0.416667283

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV013_10mm	10	Category 5/P	1	Max Conc	1	44000	5.482595921	0.491204768	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 6/P	1	Max Conc	0.5	22000	8.966286659	0.949215889	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 6/P	1	Max Conc	1	44000	4.969754696	0.481356472	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 7/P	1	Max Conc	0.5	22000	7.644211292	0.909603953	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 7/P	1	Max Conc	1	44000	4.550220966	0.470168173	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 8/P	1	Max Conc	0.5	22000	9.960745811	0.945455074	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 8/P	1	Max Conc	1	44000	5.315773487	0.478477061	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 9/P	1	Max Conc	0.5	22000	9.317382813	0.97740221	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 9/P	1	Max Conc	1	44000	5.106939793	0.493130118	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 10/P	1	Max Conc	0.5	22000	10.49232006	1.005259752	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 10/P	1	Max Conc	1	44000	5.459403038	0.500741005	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 11/P	1	Max Conc	0.5	22000	10.10816956	0.979338348	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 11/P	1	Max Conc	1	44000	5.292143345	0.487891406	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 12/P	1	Max Conc	0.5	22000	7.93146944	0.93644321	0	0.416667283
Peak Shaver	P_INV013_10mm	10	Category 12/P	1	Max Conc	1	44000	4.696434021	0.482766449	0	0.416667283
Peak Shaver	P_INV014_50mm (1m)	50	Category 1/P	1	Max Conc	0.5	22000	59.82574081	7.842358112	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 1/P	1	Max Conc	1	44000	2.777415276	0.74422586	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 2/P	1	Max Conc	0.5	22000	60.33374023	7.760879517	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 2/P	1	Max Conc	1	44000	35.61541748	3.280641079	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 3/P	1	Max Conc	0.5	22000	77.35080719	11.34003544	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 3/P	1	Max Conc	1	44000	47.09962845	7.211817265	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 4/P	1	Max Conc	0.5	22000	73.71452332	11.75516605	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 4/P	1	Max Conc	1	44000	44.57172394	6.574683189	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 5/P	1	Max Conc	0.5	22000	99.91150665	17.15078163	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 5/P	1	Max Conc	1	44000	61.26520538	12.30012321	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 6/P	1	Max Conc	0.5	22000	207.0506897	19.45742798	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 6/P	1	Max Conc	1	44000	107.473465	14.09923458	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 7/P	1	Max Conc	0.5	22000	151.8355865	13.29819202	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 7/P	1	Max Conc	1	44000	77.86320496	8.656255722	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 8/P	1	Max Conc	0.5	22000	96.48583221	17.78380585	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 8/P	1	Max Conc	1	44000	59.42867279	12.23114967	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 9/P	1	Max Conc	0.5	22000	227.7177734	18.01343155	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 9/P	1	Max Conc	1	44000	123.2813492	13.59103203	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 10/P	1	Max Conc	0.5	22000	246.7457428	28.63779449	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 10/P	1	Max Conc	1	44000	114.9921188	22.63228798	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 11/P	1	Max Conc	0.5	22000	252.0641174	30.73412132	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 11/P	1	Max Conc	1	44000	123.4644394	23.64903069	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 12/P	1	Max Conc	0.5	22000	173.778183	12.34204388	0	2.851492405
Peak Shaver	P_INV014_50mm (1m)	50	Category 12/P	1	Max Conc	1	44000	93.67337799	8.681758881	0	2.851492405
Peak Shaver	P_INV014_Rupture (1m)		Category 1/P	1	Max Conc	0.5	22000	9135.229492	4203.769043	-565.05579	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 1/P	1	Max Conc	1	44000	5138.191895	3470.085449	-491.19739	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 2/P	1	Max Conc	0.5	22000	9276.862305	3071.649658	-578.19244	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 2/P	1	Max Conc	1	44000	4667.161621	2491.453369	-500.29166	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 3/P	1	Max Conc	0.5	22000	14509.94043	6228.666504	-827.63202	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 3/P	1	Max Conc	1	44000	6930.494629	5528.782715	-699.55304	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 4/P	1	Max Conc	0.5	22000	14104.0918	6166.178223	-831.43433	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 4/P	1	Max Conc	1	44000	6968.187988	5449.288574	-700.16296	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 5/P	1	Max Conc	0.5	22000	12965.49219	5141.615723	-1772.4478	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 5/P	1	Max Conc	1	44000	5238.858398	4544.513184	-1486.725	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 6/P	1	Max Conc	0.5	22000	49905.15625	7136.805664	-1147.5216	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 6/P	1	Max Conc	1	44000	26061.16992	6361.640625	-939.22748	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 7/P	1	Max Conc	0.5	22000	35852.16797	5031.419922	-678.79236	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 7/P	1	Max Conc	1	44000	15871.72949	4390.180664	-583.17938	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 8/P	1	Max Conc	0.5	22000	13084.3877	5186.574707	-1742.4657	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 8/P	1	Max Conc	1	44000	5688.902344	4563.631836	-1445.343	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 9/P	1	Max Conc	0.5	22000	49640.41406	7412.656738	-1181.9404	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 9/P	1	Max Conc	1	44000	20608.06836	6626.191406	-974.0376	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 10/P	1	Max Conc	0.5	22000	45021.33203	6226.867188	-2409.9558	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 10/P	1	Max Conc	1	44000	12569.83496	5476.64209	-2048.0496	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 11/P	1	Max Conc	0.5	22000	44141.74219	6442.199707	-2375.2571	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 11/P	1	Max Conc	1	44000	12599.02051	5692.741699	-2016.5426	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 12/P	1	Max Conc	0.5	22000	38651	4860.045898	-697.02094	67776677.85
Peak Shaver	P_INV014_Rupture (1m)		Category 12/P	1	Max Conc	1	44000	19841.02734	4253.008301	-598.94281	67776677.85
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 1/P	1	Max Conc	0.5	22000	748.1495972	574.4863892	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 1/P	1	Max Conc	1	44000	411.4040222	503.3446045	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 2/P	1	Max Conc	0.5	22000	763.1315918	566.7156372	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 2/P	1	Max Conc	1	44000	401.5776978	497.8451843	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 3/P	1	Max Conc	0.5	22000	919.0725098	590.206604	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 3/P	1	Max Conc	1	44000	418.9366455	520.1673584	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 4/P	1	Max Conc	0.5	22000	914.5531006	594.5236816	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 4/P	1	Max Conc	1	44000	479.8435364	509.7138977	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 5/P	1	Max Conc	0.5	22000	1337.784546	939.5294189	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 5/P	1	Max Conc	1	44000	664.3145752	814.8222656	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 8/P	1	Max Conc	0.5	22000	1354.099854	1038.678833	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 8/P	1	Max Conc	1	44000	707.8148804	895.0343628	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 9/P	1	Max Conc	0.5	22000	3714.466309	697.0122681	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 9/P	1	Max Conc	1	44000	1821.494263	616.755188	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 10/P	1	Max Conc	0.5	22000	3172.570801	1413.561279	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 10/P	1	Max Conc	1	44000	1180.425659	1240.148315	0	1140.596924

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Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 11/P	1	Max Conc	0.5	22000	3537.589355	1497.970337	0	1140.596924
Peak Shaver	P_INV014_1000mm (1m)	1000	Category 11/P	1	Max Conc	1	44000	1489.335205	1308.572021	0	1140.596924
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 1/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 1/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 2/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 2/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 3/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 3/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 4/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 4/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 5/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 5/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 6/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 6/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 7/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 7/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 8/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 8/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 9/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 9/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 10/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 10/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 11/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 11/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 12/P	1	Max Conc	0.5	22000	0	0	0	2.851492405
Peak Shaver	P_INV014_50mm (2/3H)	50	Category 12/P	1	Max Conc	1	44000	0	0	0	2.851492405
Peak Shaver	P_INV014_Rupture (2/3H)		Category 1/P	1	Max Conc	0.5	22000	7931.595215	4203.348633	-482.98801	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 1/P	1	Max Conc	1	44000	4342.853516	3468.587158	-406.1091	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 2/P	1	Max Conc	0.5	22000	9278.146484	3073.171143	-496.31332	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 2/P	1	Max Conc	1	44000	4334.219238	2491.844971	-415.59454	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 3/P	1	Max Conc	0.5	22000	13983.28711	6226.154785	-700.96942	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 3/P	1	Max Conc	1	44000	7661.952148	5525.543457	-576.51251	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 4/P	1	Max Conc	0.5	22000	12544.26953	6180.703613	-657.81458	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 4/P	1	Max Conc	1	44000	5916.939941	5461.526367	-540.22241	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 5/P	1	Max Conc	0.5	22000	14245.96777	4685.362305	-1404.6918	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 5/P	1	Max Conc	1	44000	6039.277344	4191.158691	-1140.3789	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 6/P	1	Max Conc	0.5	22000	50128.32813	7142.94873	-959.78662	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 6/P	1	Max Conc	1	44000	24517.27539	6367.198242	-805.65387	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 7/P	1	Max Conc	0.5	22000	43990.80078	5043.418945	-691.61084	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 7/P	1	Max Conc	1	44000	23405.94727	4400.55957	-577.66907	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 8/P	1	Max Conc	0.5	22000	14893.90527	4877.48877	-1312.0532	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 8/P	1	Max Conc	1	44000	6838.828125	4326.475586	-1051.3802	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 9/P	1	Max Conc	0.5	22000	49469.01172	7417.128418	-1045.1907	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 9/P	1	Max Conc	1	44000	19491.59375	6630.286133	-859.64789	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 10/P	1	Max Conc	0.5	22000	45875.53906	6114.617676	-2127.3135	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 10/P	1	Max Conc	1	44000	13131.39941	5419.097656	-1792.9796	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 11/P	1	Max Conc	0.5	22000	48141.33594	6048.767578	-2003.4015	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 11/P	1	Max Conc	1	44000	15142.00977	5362.716797	-1670.5769	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 12/P	1	Max Conc	0.5	22000	38567.10156	4868.822266	-706.99133	67776677.85
Peak Shaver	P_INV014_Rupture (2/3H)		Category 12/P	1	Max Conc	1	44000	18658.06836	4260.178223	-593.06805	67776677.85
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 1/P	1	Max Conc	0.5	22000	1061.986328	338.5032959	7.2041788	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 1/P	1	Max Conc	1	44000	668.0653687	278.8669739	7.2041788	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 2/P	1	Max Conc	0.5	22000	1128.145752	308.8783875	7.2508335	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 2/P	1	Max Conc	1	44000	690.3276978	258.247345	7.2508335	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 3/P	1	Max Conc	0.5	22000	1299.042114	487.4326782	12.562016	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 3/P	1	Max Conc	1	44000	740.1854248	416.5776367	12.562016	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 4/P	1	Max Conc	0.5	22000	1220.637085	532.6582642	12.754227	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 4/P	1	Max Conc	1	44000	703.9448242	449.9935608	12.754227	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 5/P	1	Max Conc	0.5	22000	1444.756592	813.4415283	13.739523	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 5/P	1	Max Conc	1	44000	765.107605	702.3380127	13.739523	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 6/P	1	Max Conc	0.5	22000	2766.978027	801.7471924	12.579884	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 6/P	1	Max Conc	1	44000	1194.23645	673.8221436	12.579884	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 7/P	1	Max Conc	0.5	22000	2409.246094	517.2654419	-2.8808646	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 7/P	1	Max Conc	1	44000	1167.869385	424.0107727	4.4283152	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 8/P	1	Max Conc	0.5	22000	1258.688232	903.5861206	13.738398	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 8/P	1	Max Conc	1	44000	662.3236694	774.0116577	13.738398	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 9/P	1	Max Conc	0.5	22000	3079.388672	705.2997437	12.524706	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 9/P	1	Max Conc	1	44000	1306.508911	599.3363647	12.524706	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 10/P	1	Max Conc	0.5	22000	3370.484619	1189.150513	11.599823	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 10/P	1	Max Conc	1	44000	1288.950684	1021.878662	11.599823	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 11/P	1	Max Conc	0.5	22000	2567.376221	1364.053589	12.595177	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 11/P	1	Max Conc	1	44000	828.2633057	1164.574463	12.595177	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 12/P	1	Max Conc	0.5	22000	2880.660156	449.5791931	4.4560304	1140.596924
Peak Shaver	P_INV014_1000mm (2/3H)	1000	Category 12/P	1	Max Conc	1	44000	1451.048218	373.4664917	4.4560304	1140.596924
Export	E_INV001_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	55.82115936	4.191897869	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	22.04442596	1.926548362	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	53.99219131	4.108222485	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	21.46144867	1.887094617	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	51.40328217	4.347847939	0	5.37520504

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Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV001_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	22.63506699	1.955566764	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	54.91077423	4.44297266	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	22.71967316	1.987354755	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	52.76589966	4.443381786	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	23.08814621	1.994690776	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	53.31200027	4.343553543	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	22.27507973	1.945337772	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	52.29551315	3.990032196	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	21.87239265	1.862374902	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	52.84745026	3.672283888	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	20.90923882	1.779187799	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	54.02836609	4.711051464	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	23.32953072	2.03955555	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	54.53887939	3.74840045	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	21.46931076	1.814707398	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	53.88718033	4.07182169	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	22.42055702	1.903263927	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	52.5650177	4.607695103	0	5.37520504
Export	E_INV001_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	22.83502579	1.998578906	0	5.37520504
Export	E_INV001_50mm (all)	50	Category 12/E	1	Max Conc	0.5	22000	124.0999374	8.751148224	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 12/E	1	Max Conc	1	44000	54.41888428	4.45167923	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 11/E	1	Max Conc	0.5	22000	118.4668884	8.567389488	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 11/E	1	Max Conc	1	44000	53.16314697	4.36235857	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 10/E	1	Max Conc	0.5	22000	107.7888641	9.263302803	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 10/E	1	Max Conc	1	44000	50.56352234	4.425771236	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 9/E	1	Max Conc	0.5	22000	118.7470932	9.327571869	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 9/E	1	Max Conc	1	44000	53.77983093	4.608457088	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 8/E	1	Max Conc	0.5	22000	111.9267426	9.476444244	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 8/E	1	Max Conc	1	44000	51.73072052	4.517876625	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 7/E	1	Max Conc	0.5	22000	113.8350677	9.124523163	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 7/E	1	Max Conc	1	44000	52.5451889	4.512672901	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 6/E	1	Max Conc	0.5	22000	113.1040878	8.529091835	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 6/E	1	Max Conc	1	44000	51.39584732	4.22355175	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 5/E	1	Max Conc	0.5	22000	118.7411499	7.868925095	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 5/E	1	Max Conc	1	44000	52.15261078	4.025269508	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 4/E	1	Max Conc	0.5	22000	114.2669907	9.974921227	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 4/E	1	Max Conc	1	44000	53.13106918	4.756467819	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 3/E	1	Max Conc	0.5	22000	123.7989502	8.04295826	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 3/E	1	Max Conc	1	44000	53.41841507	4.103734016	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 2/E	1	Max Conc	0.5	22000	117.6395569	8.719638824	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 2/E	1	Max Conc	1	44000	52.61262512	4.309148788	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 1/E	1	Max Conc	0.5	22000	109.5727997	9.748740196	0	21.50082016
Export	E_INV001_50mm (all)	50	Category 1/E	1	Max Conc	1	44000	51.94929123	4.659182549	0	21.50082016
Export	E_INV001_406mm (all)	406	Category 12/E	1	Max Conc	0.5	22000	594.5105591	51.2477684	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 12/E	1	Max Conc	1	44000	413.3084412	34.94717407	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 11/E	1	Max Conc	0.5	22000	571.4915771	50.36896896	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 11/E	1	Max Conc	1	44000	403.9922485	34.3993454	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 10/E	1	Max Conc	0.5	22000	510.7084351	58.86673355	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 10/E	1	Max Conc	1	44000	380.4074097	37.78528214	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 9/E	1	Max Conc	0.5	22000	557.7207031	54.72342682	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 9/E	1	Max Conc	1	44000	398.0990601	36.73706436	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 8/E	1	Max Conc	0.5	22000	537.6972656	60.08845139	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 8/E	1	Max Conc	1	44000	390.3653564	38.40999222	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 7/E	1	Max Conc	0.5	22000	531.791626	53.74568176	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 7/E	1	Max Conc	1	44000	388.6520386	36.16943741	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 6/E	1	Max Conc	0.5	22000	546.4083862	55.86197662	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 6/E	1	Max Conc	1	44000	393.0332031	36.179039	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 5/E	1	Max Conc	0.5	22000	580.3375854	52.7786026	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 5/E	1	Max Conc	1	44000	407.2227783	34.55681229	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 4/E	1	Max Conc	0.5	22000	516.9707642	58.61349106	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 4/E	1	Max Conc	1	44000	384.6616211	38.66446304	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 3/E	1	Max Conc	0.5	22000	604.157959	53.75533676	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 3/E	1	Max Conc	1	44000	416.3517151	35.13233948	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 2/E	1	Max Conc	0.5	22000	572.9932861	56.99917221	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 2/E	1	Max Conc	1	44000	402.6860046	36.78819656	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 1/E	1	Max Conc	0.5	22000	499.2199402	57.47142792	0	1417.643555
Export	E_INV001_406mm (all)	406	Category 1/E	1	Max Conc	1	44000	374.8173828	38.05562592	0	1417.643555
Export	E_INV001_1219mm (1hr)	1219	Category 12/E	1	Max Conc	0.5	22000	1193.43335	116.8456879	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 12/E	1	Max Conc	1	44000	906.802063	85.32959747	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 11/E	1	Max Conc	0.5	22000	1160.308472	115.1566162	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 11/E	1	Max Conc	1	44000	890.5944214	84.11997223	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 10/E	1	Max Conc	0.5	22000	971.3585815	131.1755219	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 10/E	1	Max Conc	1	44000	799.9794312	94.21666718	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 9/E	1	Max Conc	0.5	22000	1105.985718	123.8590698	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 9/E	1	Max Conc	1	44000	867.4320679	89.66869354	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 8/E	1	Max Conc	0.5	22000	996.5205078	133.1624603	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 8/E	1	Max Conc	1	44000	814.8901978	95.60441589	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 7/E	1	Max Conc	0.5	22000	1078.048706	122.0608978	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 7/E	1	Max Conc	1	44000	850.395813	88.37767792	0	12779.75195

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV001_1219mm (1hr)	1219	Category 6/E	1	Max Conc	0.5	22000	1021.289246	127.2004547	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 6/E	1	Max Conc	1	44000	825.8297119	91.20379639	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 5/E	1	Max Conc	0.5	22000	1092.891724	122.530632	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 5/E	1	Max Conc	1	44000	858.0001831	87.9882431	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 4/E	1	Max Conc	0.5	22000	1021.324768	131.3707733	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 4/E	1	Max Conc	1	44000	828.9157715	94.27084351	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 3/E	1	Max Conc	0.5	22000	1115.681519	124.4380951	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 3/E	1	Max Conc	1	44000	874.166687	89.33914185	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 2/E	1	Max Conc	0.5	22000	1055.533691	129.1154938	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 2/E	1	Max Conc	1	44000	842.1889038	92.58404541	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 1/E	1	Max Conc	0.5	22000	1003.463745	129.2897644	0	12779.75195
Export	E_INV001_1219mm (1hr)	1219	Category 1/E	1	Max Conc	1	44000	811.5916748	92.92470551	0	12779.75195
Export	E_INV001_10mm	10	Category 12/E	1	Max Conc	0.5	22000	14.73889256	1.410004854	0	0.860032797
Export	E_INV001_10mm	10	Category 12/E	1	Max Conc	1	44000	6.922352791	0.705980539	0	0.860032797
Export	E_INV001_10mm	10	Category 11/E	1	Max Conc	0.5	22000	14.30450535	1.381390333	0	0.860032797
Export	E_INV001_10mm	10	Category 11/E	1	Max Conc	1	44000	6.786888123	0.694494724	0	0.860032797
Export	E_INV001_10mm	10	Category 10/E	1	Max Conc	0.5	22000	17.29742432	1.482545853	0	0.860032797
Export	E_INV001_10mm	10	Category 10/E	1	Max Conc	1	44000	8.109464645	0.713088572	0	0.860032797
Export	E_INV001_10mm	10	Category 9/E	1	Max Conc	0.5	22000	16.37294388	1.481230974	0	0.860032797
Export	E_INV001_10mm	10	Category 9/E	1	Max Conc	1	44000	7.550151348	0.719820023	0	0.860032797
Export	E_INV001_10mm	10	Category 8/E	1	Max Conc	0.5	22000	17.70555878	1.512088418	0	0.860032797
Export	E_INV001_10mm	10	Category 8/E	1	Max Conc	1	44000	8.264545441	0.724994779	0	0.860032797
Export	E_INV001_10mm	10	Category 7/E	1	Max Conc	0.5	22000	15.886343	1.449549317	0	0.860032797
Export	E_INV001_10mm	10	Category 7/E	1	Max Conc	1	44000	7.423713684	0.707388163	0	0.860032797
Export	E_INV001_10mm	10	Category 6/E	1	Max Conc	0.5	22000	15.36344337	1.37460494	0	0.860032797
Export	E_INV001_10mm	10	Category 6/E	1	Max Conc	1	44000	7.455442905	0.688162446	0	0.860032797
Export	E_INV001_10mm	10	Category 5/E	1	Max Conc	0.5	22000	13.33022022	1.27081573	0	0.860032797
Export	E_INV001_10mm	10	Category 5/E	1	Max Conc	1	44000	6.883369446	0.663484752	0	0.860032797
Export	E_INV001_10mm	10	Category 4/E	1	Max Conc	0.5	22000	17.8688221	1.547682881	0	0.860032797
Export	E_INV001_10mm	10	Category 4/E	1	Max Conc	1	44000	8.262417793	0.731733978	0	0.860032797
Export	E_INV001_10mm	10	Category 3/E	1	Max Conc	0.5	22000	13.709548	1.296826601	0	0.860032797
Export	E_INV001_10mm	10	Category 3/E	1	Max Conc	1	44000	7.013729572	0.674801469	0	0.860032797
Export	E_INV001_10mm	10	Category 2/E	1	Max Conc	0.5	22000	15.78461933	1.39871943	0	0.860032797
Export	E_INV001_10mm	10	Category 2/E	1	Max Conc	1	44000	7.579214096	0.70057255	0	0.860032797
Export	E_INV001_10mm	10	Category 1/E	1	Max Conc	0.5	22000	17.46777153	1.514269352	0	0.860032797
Export	E_INV001_10mm	10	Category 1/E	1	Max Conc	1	44000	8.106434822	0.719855785	0	0.860032797
Export	E_INV001_1219mm (2min)	1219	Category 12/E	1	Max Conc	0.5	22000	1193.43335	116.8456879	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 12/E	1	Max Conc	1	44000	906.802063	85.32959747	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 11/E	1	Max Conc	0.5	22000	1160.308472	115.1566162	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 11/E	1	Max Conc	1	44000	890.5944214	84.11997223	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 10/E	1	Max Conc	0.5	22000	971.3585815	131.1755219	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 10/E	1	Max Conc	1	44000	799.9794312	94.21666718	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 9/E	1	Max Conc	0.5	22000	1105.985718	123.8590698	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 9/E	1	Max Conc	1	44000	867.4320679	89.66869354	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 8/E	1	Max Conc	0.5	22000	990.1176758	133.0853424	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 8/E	1	Max Conc	1	44000	814.8901978	95.60441589	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 7/E	1	Max Conc	0.5	22000	1078.048706	122.0608978	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 7/E	1	Max Conc	1	44000	850.395813	88.37767792	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 6/E	1	Max Conc	0.5	22000	1021.289246	127.2004547	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 6/E	1	Max Conc	1	44000	825.8297119	91.20379639	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 5/E	1	Max Conc	0.5	22000	1092.891724	122.530632	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 5/E	1	Max Conc	1	44000	858.0001831	87.9882431	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 4/E	1	Max Conc	0.5	22000	1021.324768	131.2526855	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 4/E	1	Max Conc	1	44000	828.9157715	94.27084351	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 3/E	1	Max Conc	0.5	22000	1115.681519	124.4380951	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 3/E	1	Max Conc	1	44000	874.166687	89.33914185	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 2/E	1	Max Conc	0.5	22000	1055.533691	129.1154938	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 2/E	1	Max Conc	1	44000	842.1889038	92.58404541	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 1/E	1	Max Conc	0.5	22000	998.3296509	129.3306122	0	12779.75195
Export	E_INV001_1219mm (2min)	1219	Category 1/E	1	Max Conc	1	44000	811.5916748	92.92470551	0	12779.75195
Export	E_INV002_25mm	25	Category 12/E	1	Max Conc	0.5	22000	51.76922226	3.942209721	0	4.813026428
Export	E_INV002_25mm	25	Category 12/E	1	Max Conc	1	44000	20.33300781	1.804159164	0	4.813026428
Export	E_INV002_25mm	25	Category 11/E	1	Max Conc	0.5	22000	50.09381866	3.858485222	0	4.813026428
Export	E_INV002_25mm	25	Category 11/E	1	Max Conc	1	44000	19.87445831	1.766853571	0	4.813026428
Export	E_INV002_25mm	25	Category 10/E	1	Max Conc	0.5	22000	48.18513107	4.079386234	0	4.813026428
Export	E_INV002_25mm	25	Category 10/E	1	Max Conc	1	44000	21.12818146	1.827942848	0	4.813026428
Export	E_INV002_25mm	25	Category 9/E	1	Max Conc	0.5	22000	51.16055298	4.166706085	0	4.813026428
Export	E_INV002_25mm	25	Category 9/E	1	Max Conc	1	44000	21.08918953	1.850411177	0	4.813026428
Export	E_INV002_25mm	25	Category 8/E	1	Max Conc	0.5	22000	49.42524338	4.16110611	0	4.813026428
Export	E_INV002_25mm	25	Category 8/E	1	Max Conc	1	44000	21.62600708	1.866822958	0	4.813026428
Export	E_INV002_25mm	25	Category 7/E	1	Max Conc	0.5	22000	49.64143372	4.081473827	0	4.813026428
Export	E_INV002_25mm	25	Category 7/E	1	Max Conc	1	44000	20.5427742	1.814037561	0	4.813026428
Export	E_INV002_25mm	25	Category 6/E	1	Max Conc	0.5	22000	48.79770279	3.749694586	0	4.813026428
Export	E_INV002_25mm	25	Category 6/E	1	Max Conc	1	44000	20.31370354	1.750001192	0	4.813026428
Export	E_INV002_25mm	25	Category 5/E	1	Max Conc	0.5	22000	48.9204216	3.43943429	0	4.813026428
Export	E_INV002_25mm	25	Category 5/E	1	Max Conc	1	44000	19.38606834	1.663965702	0	4.813026428
Export	E_INV002_25mm	25	Category 4/E	1	Max Conc	0.5	22000	50.50940323	4.408434868	0	4.813026428
Export	E_INV002_25mm	25	Category 4/E	1	Max Conc	1	44000	21.80895615	1.905390501	0	4.813026428
Export	E_INV002_25mm	25	Category 3/E	1	Max Conc	0.5	22000	50.53801346	3.516173601	0	4.813026428

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV002_25mm	25	Category 3/E	1	Max Conc	1	44000	19.88022423	1.700159311	0	4.813026428
Export	E_INV002_25mm	25	Category 2/E	1	Max Conc	0.5	22000	50.21892166	3.828745365	0	4.813026428
Export	E_INV002_25mm	25	Category 2/E	1	Max Conc	1	44000	20.78307152	1.784471869	0	4.813026428
Export	E_INV002_25mm	25	Category 1/E	1	Max Conc	0.5	22000	49.17876816	4.309741497	0	4.813026428
Export	E_INV002_25mm	25	Category 1/E	1	Max Conc	1	44000	21.33621216	1.865685582	0	4.813026428
Export	E_INV002_50mm	50	Category 12/E	1	Max Conc	0.5	22000	116.4302368	8.26611805	0	19.25210571
Export	E_INV002_50mm	50	Category 12/E	1	Max Conc	1	44000	50.62350082	4.18134737	0	19.25210571
Export	E_INV002_50mm	50	Category 11/E	1	Max Conc	0.5	22000	111.0577011	8.10114193	0	19.25210571
Export	E_INV002_50mm	50	Category 11/E	1	Max Conc	1	44000	49.30295181	4.100549221	0	19.25210571
Export	E_INV002_50mm	50	Category 10/E	1	Max Conc	0.5	22000	101.0965042	8.708952904	0	19.25210571
Export	E_INV002_50mm	50	Category 10/E	1	Max Conc	1	44000	47.44170761	4.157242298	0	19.25210571
Export	E_INV002_50mm	50	Category 9/E	1	Max Conc	0.5	22000	111.4435349	8.80161953	0	19.25210571
Export	E_INV002_50mm	50	Category 9/E	1	Max Conc	1	44000	50.04329681	4.316009521	0	19.25210571
Export	E_INV002_50mm	50	Category 8/E	1	Max Conc	0.5	22000	105.0394974	8.920869827	0	19.25210571
Export	E_INV002_50mm	50	Category 8/E	1	Max Conc	1	44000	48.3756485	4.236493587	0	19.25210571
Export	E_INV002_50mm	50	Category 7/E	1	Max Conc	0.5	22000	106.6041565	8.609576225	0	19.25210571
Export	E_INV002_50mm	50	Category 7/E	1	Max Conc	1	44000	48.84482193	4.233934879	0	19.25210571
Export	E_INV002_50mm	50	Category 6/E	1	Max Conc	0.5	22000	105.8834915	8.031756401	0	19.25210571
Export	E_INV002_50mm	50	Category 6/E	1	Max Conc	1	44000	47.97305679	3.970310688	0	19.25210571
Export	E_INV002_50mm	50	Category 5/E	1	Max Conc	0.5	22000	111.2535553	7.419213295	0	19.25210571
Export	E_INV002_50mm	50	Category 5/E	1	Max Conc	1	44000	48.48121643	3.778920889	0	19.25210571
Export	E_INV002_50mm	50	Category 4/E	1	Max Conc	0.5	22000	107.163887	9.404863358	0	19.25210571
Export	E_INV002_50mm	50	Category 4/E	1	Max Conc	1	44000	49.48688507	4.443996429	0	19.25210571
Export	E_INV002_50mm	50	Category 3/E	1	Max Conc	0.5	22000	116.072876	7.571567535	0	19.25210571
Export	E_INV002_50mm	50	Category 3/E	1	Max Conc	1	44000	49.60308456	3.855498314	0	19.25210571
Export	E_INV002_50mm	50	Category 2/E	1	Max Conc	0.5	22000	110.2742844	8.207138062	0	19.25210571
Export	E_INV002_50mm	50	Category 2/E	1	Max Conc	1	44000	48.9420929	4.048638344	0	19.25210571
Export	E_INV002_50mm	50	Category 1/E	1	Max Conc	0.5	22000	102.7778244	9.179420471	0	19.25210571
Export	E_INV002_50mm	50	Category 1/E	1	Max Conc	1	44000	48.46776962	4.360119343	0	19.25210571
Export	E_INV002_237mm	237	Category 12/E	1	Max Conc	0.5	22000	284.2121887	22.98407936	0	189.3431549
Export	E_INV002_237mm	237	Category 12/E	1	Max Conc	1	44000	174.128891	13.98701477	0	189.3431549
Export	E_INV002_237mm	237	Category 11/E	1	Max Conc	0.5	22000	266.7236328	22.3961525	0	189.3431549
Export	E_INV002_237mm	237	Category 11/E	1	Max Conc	1	44000	168.3488159	13.72246552	0	189.3431549
Export	E_INV002_237mm	237	Category 10/E	1	Max Conc	0.5	22000	245.3931274	25.40525436	0	189.3431549
Export	E_INV002_237mm	237	Category 10/E	1	Max Conc	1	44000	157.6666107	14.34186077	0	189.3431549
Export	E_INV002_237mm	237	Category 9/E	1	Max Conc	0.5	22000	269.4084778	24.57677841	0	189.3431549
Export	E_INV002_237mm	237	Category 9/E	1	Max Conc	1	44000	169.0962982	14.59593773	0	189.3431549
Export	E_INV002_237mm	237	Category 8/E	1	Max Conc	0.5	22000	261.4379578	26.21779442	0	189.3431549
Export	E_INV002_237mm	237	Category 8/E	1	Max Conc	1	44000	162.6530151	14.62641144	0	189.3431549
Export	E_INV002_237mm	237	Category 7/E	1	Max Conc	0.5	22000	251.3436737	23.8966732	0	189.3431549
Export	E_INV002_237mm	237	Category 7/E	1	Max Conc	1	44000	163.6732178	14.31336689	0	189.3431549
Export	E_INV002_237mm	237	Category 6/E	1	Max Conc	0.5	22000	259.375824	23.74559021	0	189.3431549
Export	E_INV002_237mm	237	Category 6/E	1	Max Conc	1	44000	162.3693237	13.70336819	0	189.3431549
Export	E_INV002_237mm	237	Category 5/E	1	Max Conc	0.5	22000	275.1828918	22.17162132	0	189.3431549
Export	E_INV002_237mm	237	Category 5/E	1	Max Conc	1	44000	167.7397003	13.06411552	0	189.3431549
Export	E_INV002_237mm	237	Category 4/E	1	Max Conc	0.5	22000	255.3155823	26.40118027	0	189.3431549
Export	E_INV002_237mm	237	Category 4/E	1	Max Conc	1	44000	165.078064	15.22058487	0	189.3431549
Export	E_INV002_237mm	237	Category 3/E	1	Max Conc	0.5	22000	291.6540222	22.77289772	0	189.3431549
Export	E_INV002_237mm	237	Category 3/E	1	Max Conc	1	44000	172.9193268	13.32181835	0	189.3431549
Export	E_INV002_237mm	237	Category 2/E	1	Max Conc	0.5	22000	276.2362061	24.43882751	0	189.3431549
Export	E_INV002_237mm	237	Category 2/E	1	Max Conc	1	44000	167.4503632	13.97435474	0	189.3431549
Export	E_INV002_237mm	237	Category 1/E	1	Max Conc	0.5	22000	239.8597717	25.59281921	0	189.3431549
Export	E_INV002_237mm	237	Category 1/E	1	Max Conc	1	44000	159.7414551	14.92635536	0	189.3431549
Export	E_INV002_711mm	711	Category 12/E	1	Max Conc	0.5	22000	268.711792	22.7077446	0	189.069809
Export	E_INV002_711mm	711	Category 12/E	1	Max Conc	1	44000	170.3365173	13.94517803	0	189.069809
Export	E_INV002_711mm	711	Category 11/E	1	Max Conc	0.5	22000	249.6813202	22.07708359	0	189.069809
Export	E_INV002_711mm	711	Category 11/E	1	Max Conc	1	44000	163.9736633	13.66045094	0	189.069809
Export	E_INV002_711mm	711	Category 10/E	1	Max Conc	0.5	22000	233.1014862	24.8556385	0	189.069809
Export	E_INV002_711mm	711	Category 10/E	1	Max Conc	1	44000	154.0797882	14.27763844	0	189.069809
Export	E_INV002_711mm	711	Category 9/E	1	Max Conc	0.5	22000	253.52948	24.21594429	0	189.069809
Export	E_INV002_711mm	711	Category 9/E	1	Max Conc	1	44000	165.7707062	14.54263687	0	189.069809
Export	E_INV002_711mm	711	Category 8/E	1	Max Conc	0.5	22000	246.6804657	25.74411011	0	189.069809
Export	E_INV002_711mm	711	Category 8/E	1	Max Conc	1	44000	159.8231049	14.58202553	0	189.069809
Export	E_INV002_711mm	711	Category 7/E	1	Max Conc	0.5	22000	237.8919067	23.49263573	0	189.069809
Export	E_INV002_711mm	711	Category 7/E	1	Max Conc	1	44000	159.3964996	14.24748516	0	189.069809
Export	E_INV002_711mm	711	Category 6/E	1	Max Conc	0.5	22000	244.8262787	23.3175621	0	189.069809
Export	E_INV002_711mm	711	Category 6/E	1	Max Conc	1	44000	158.6628113	13.65008354	0	189.069809
Export	E_INV002_711mm	711	Category 5/E	1	Max Conc	0.5	22000	259.8245544	21.83490372	0	189.069809
Export	E_INV002_711mm	711	Category 5/E	1	Max Conc	1	44000	163.9258728	13.0196209	0	189.069809
Export	E_INV002_711mm	711	Category 4/E	1	Max Conc	0.5	22000	241.7661591	25.92978668	0	189.069809
Export	E_INV002_711mm	711	Category 4/E	1	Max Conc	1	44000	161.922226	15.16779041	0	189.069809
Export	E_INV002_711mm	711	Category 3/E	1	Max Conc	0.5	22000	277.2438049	22.50188065	0	189.069809
Export	E_INV002_711mm	711	Category 3/E	1	Max Conc	1	44000	169.8376312	13.28900433	0	189.069809
Export	E_INV002_711mm	711	Category 2/E	1	Max Conc	0.5	22000	261.5523376	24.08520126	0	189.069809
Export	E_INV002_711mm	711	Category 2/E	1	Max Conc	1	44000	164.5203857	13.93549252	0	189.069809
Export	E_INV002_711mm	711	Category 1/E	1	Max Conc	0.5	22000	227.2686615	25.05959129	0	189.069809
Export	E_INV002_711mm	711	Category 1/E	1	Max Conc	1	44000	155.6509857	14.85295296	0	189.069809
Export	E_INV002_10mm	10	Category 12/E	1	Max Conc	0.5	22000	13.50959206	1.329533935	0	0.770084202
Export	E_INV002_10mm	10	Category 12/E	1	Max Conc	1	44000	6.565799713	0.668578982	0	0.770084202

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV002_10mm	10	Category 11/E	1	Max Conc	0.5	22000	13.12949848	1.307318926	0	0.770084202
Export	E_INV002_10mm	10	Category 11/E	1	Max Conc	1	44000	6.45887804	0.657060862	0	0.770084202
Export	E_INV002_10mm	10	Category 10/E	1	Max Conc	0.5	22000	16.14964294	1.391759038	0	0.770084202
Export	E_INV002_10mm	10	Category 10/E	1	Max Conc	1	44000	7.661299229	0.674074769	0	0.770084202
Export	E_INV002_10mm	10	Category 9/E	1	Max Conc	0.5	22000	15.11127663	1.383040428	0	0.770084202
Export	E_INV002_10mm	10	Category 9/E	1	Max Conc	1	44000	7.157535076	0.680315614	0	0.770084202
Export	E_INV002_10mm	10	Category 8/E	1	Max Conc	0.5	22000	16.52012825	1.419548392	0	0.770084202
Export	E_INV002_10mm	10	Category 8/E	1	Max Conc	1	44000	7.784828663	0.685968876	0	0.770084202
Export	E_INV002_10mm	10	Category 7/E	1	Max Conc	0.5	22000	14.70014763	1.358571649	0	0.770084202
Export	E_INV002_10mm	10	Category 7/E	1	Max Conc	1	44000	7.02256155	0.669386983	0	0.770084202
Export	E_INV002_10mm	10	Category 6/E	1	Max Conc	0.5	22000	14.19302559	1.295826554	0	0.770084202
Export	E_INV002_10mm	10	Category 6/E	1	Max Conc	1	44000	7.064482689	0.651416957	0	0.770084202
Export	E_INV002_10mm	10	Category 5/E	1	Max Conc	0.5	22000	12.23517036	1.201845884	0	0.770084202
Export	E_INV002_10mm	10	Category 5/E	1	Max Conc	1	44000	6.54197979	0.62729001	0	0.770084202
Export	E_INV002_10mm	10	Category 4/E	1	Max Conc	0.5	22000	16.6980114	1.447268248	0	0.770084202
Export	E_INV002_10mm	10	Category 4/E	1	Max Conc	1	44000	7.779129505	0.692570806	0	0.770084202
Export	E_INV002_10mm	10	Category 3/E	1	Max Conc	0.5	22000	12.59152412	1.223441958	0	0.770084202
Export	E_INV002_10mm	10	Category 3/E	1	Max Conc	1	44000	6.647069931	0.638561845	0	0.770084202
Export	E_INV002_10mm	10	Category 2/E	1	Max Conc	0.5	22000	14.58406925	1.320185423	0	0.770084202
Export	E_INV002_10mm	10	Category 2/E	1	Max Conc	1	44000	7.195202351	0.662311077	0	0.770084202
Export	E_INV002_10mm	10	Category 1/E	1	Max Conc	0.5	22000	16.33397293	1.419348121	0	0.770084202
Export	E_INV002_10mm	10	Category 1/E	1	Max Conc	1	44000	7.655920506	0.680769622	0	0.770084202
Export	E_INV004_25mm	25	Category 12/E	1	Max Conc	0.5	22000	50.13014221	3.824518919	0	4.565387726
Export	E_INV004_25mm	25	Category 12/E	1	Max Conc	1	44000	19.69636154	1.746651411	0	4.565387726
Export	E_INV004_25mm	25	Category 11/E	1	Max Conc	0.5	22000	48.52898026	3.74226284	0	4.565387726
Export	E_INV004_25mm	25	Category 11/E	1	Max Conc	1	44000	19.20613098	1.709234357	0	4.565387726
Export	E_INV004_25mm	25	Category 10/E	1	Max Conc	0.5	22000	46.80498505	3.962381363	0	4.565387726
Export	E_INV004_25mm	25	Category 10/E	1	Max Conc	1	44000	20.43978882	1.770900249	0	4.565387726
Export	E_INV004_25mm	25	Category 9/E	1	Max Conc	0.5	22000	49.59412003	4.045808792	0	4.565387726
Export	E_INV004_25mm	25	Category 9/E	1	Max Conc	1	44000	20.3581295	1.793347597	0	4.565387726
Export	E_INV004_25mm	25	Category 8/E	1	Max Conc	0.5	22000	48.03614044	4.04355526	0	4.565387726
Export	E_INV004_25mm	25	Category 8/E	1	Max Conc	1	44000	20.90104675	1.805912018	0	4.565387726
Export	E_INV004_25mm	25	Category 7/E	1	Max Conc	0.5	22000	48.2038269	3.961411238	0	4.565387726
Export	E_INV004_25mm	25	Category 7/E	1	Max Conc	1	44000	19.94348526	1.758066177	0	4.565387726
Export	E_INV004_25mm	25	Category 6/E	1	Max Conc	0.5	22000	47.31155777	3.636241913	0	4.565387726
Export	E_INV004_25mm	25	Category 6/E	1	Max Conc	1	44000	19.70309639	1.696087599	0	4.565387726
Export	E_INV004_25mm	25	Category 5/E	1	Max Conc	0.5	22000	47.33201218	3.337683678	0	4.565387726
Export	E_INV004_25mm	25	Category 5/E	1	Max Conc	1	44000	18.71758461	1.616284013	0	4.565387726
Export	E_INV004_25mm	25	Category 4/E	1	Max Conc	0.5	22000	49.0446167	4.272236347	0	4.565387726
Export	E_INV004_25mm	25	Category 4/E	1	Max Conc	1	44000	21.08159828	1.841837406	0	4.565387726
Export	E_INV004_25mm	25	Category 3/E	1	Max Conc	0.5	22000	48.86948395	3.406425476	0	4.565387726
Export	E_INV004_25mm	25	Category 3/E	1	Max Conc	1	44000	19.20518112	1.646907568	0	4.565387726
Export	E_INV004_25mm	25	Category 2/E	1	Max Conc	0.5	22000	48.70469666	3.714806557	0	4.565387726
Export	E_INV004_25mm	25	Category 2/E	1	Max Conc	1	44000	20.12964439	1.730564952	0	4.565387726
Export	E_INV004_25mm	25	Category 1/E	1	Max Conc	0.5	22000	47.7967186	4.186506271	0	4.565387726
Export	E_INV004_25mm	25	Category 1/E	1	Max Conc	1	44000	20.57264519	1.801657438	0	4.565387726
Export	E_INV004_50mm	50	Category 12/E	1	Max Conc	0.5	22000	113.8319168	8.060931206	0	18.2615509
Export	E_INV004_50mm	50	Category 12/E	1	Max Conc	1	44000	48.8644104	4.056110382	0	18.2615509
Export	E_INV004_50mm	50	Category 11/E	1	Max Conc	0.5	22000	108.7069931	7.899009228	0	18.2615509
Export	E_INV004_50mm	50	Category 11/E	1	Max Conc	1	44000	47.88903046	3.97661972	0	18.2615509
Export	E_INV004_50mm	50	Category 10/E	1	Max Conc	0.5	22000	99.04610443	8.490512848	0	18.2615509
Export	E_INV004_50mm	50	Category 10/E	1	Max Conc	1	44000	46.13726425	4.034835815	0	18.2615509
Export	E_INV004_50mm	50	Category 9/E	1	Max Conc	0.5	22000	108.9960403	8.571671486	0	18.2615509
Export	E_INV004_50mm	50	Category 9/E	1	Max Conc	1	44000	48.50000381	4.19034481	0	18.2615509
Export	E_INV004_50mm	50	Category 8/E	1	Max Conc	0.5	22000	102.5497818	8.671725273	0	18.2615509
Export	E_INV004_50mm	50	Category 8/E	1	Max Conc	1	44000	47.08345795	4.113307476	0	18.2615509
Export	E_INV004_50mm	50	Category 7/E	1	Max Conc	0.5	22000	104.3192978	8.394749641	0	18.2615509
Export	E_INV004_50mm	50	Category 7/E	1	Max Conc	1	44000	47.52526855	4.107430458	0	18.2615509
Export	E_INV004_50mm	50	Category 6/E	1	Max Conc	0.5	22000	103.5316238	7.823551178	0	18.2615509
Export	E_INV004_50mm	50	Category 6/E	1	Max Conc	1	44000	46.64555359	3.850318193	0	18.2615509
Export	E_INV004_50mm	50	Category 5/E	1	Max Conc	0.5	22000	108.7030716	7.22134161	0	18.2615509
Export	E_INV004_50mm	50	Category 5/E	1	Max Conc	1	44000	47.08332825	3.661481857	0	18.2615509
Export	E_INV004_50mm	50	Category 4/E	1	Max Conc	0.5	22000	104.7882385	9.152997971	0	18.2615509
Export	E_INV004_50mm	50	Category 4/E	1	Max Conc	1	44000	48.10511017	4.314036846	0	18.2615509
Export	E_INV004_50mm	50	Category 3/E	1	Max Conc	0.5	22000	113.3183212	7.37277174	0	18.2615509
Export	E_INV004_50mm	50	Category 3/E	1	Max Conc	1	44000	48.11203766	3.738735676	0	18.2615509
Export	E_INV004_50mm	50	Category 2/E	1	Max Conc	0.5	22000	107.6544266	7.986037731	0	18.2615509
Export	E_INV004_50mm	50	Category 2/E	1	Max Conc	1	44000	47.61532211	3.928033113	0	18.2615509
Export	E_INV004_50mm	50	Category 1/E	1	Max Conc	0.5	22000	100.5632553	8.944076538	0	18.2615509
Export	E_INV004_50mm	50	Category 1/E	1	Max Conc	1	44000	47.15470505	4.23148632	0	18.2615509
Export	E_INV004_237mm	237	Category 12/E	1	Max Conc	0.5	22000	276.6254578	22.03609848	0	170.5535431
Export	E_INV004_237mm	237	Category 12/E	1	Max Conc	1	44000	166.7098236	13.2990427	0	170.5535431
Export	E_INV004_237mm	237	Category 11/E	1	Max Conc	0.5	22000	259.0431213	21.50146866	0	170.5535431
Export	E_INV004_237mm	237	Category 11/E	1	Max Conc	1	44000	161.3843689	13.03879738	0	170.5535431
Export	E_INV004_237mm	237	Category 10/E	1	Max Conc	0.5	22000	238.9637146	24.34028816	0	170.5535431
Export	E_INV004_237mm	237	Category 10/E	1	Max Conc	1	44000	150.2703094	13.59469318	0	170.5535431
Export	E_INV004_237mm	237	Category 9/E	1	Max Conc	0.5	22000	261.6645508	23.57061577	0	170.5535431
Export	E_INV004_237mm	237	Category 9/E	1	Max Conc	1	44000	161.9571838	13.87113857	0	170.5535431
Export	E_INV004_237mm	237	Category 8/E	1	Max Conc	0.5	22000	253.3582916	25.12069511	0	170.5535431

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV004_237mm	237	Category 8/E	1	Max Conc	1	44000	155.039917	13.87443161	0	170.5535431
Export	E_INV004_237mm	237	Category 7/E	1	Max Conc	0.5	22000	244.6700897	22.94894981	0	170.5535431
Export	E_INV004_237mm	237	Category 7/E	1	Max Conc	1	44000	156.6191711	13.59665203	0	170.5535431
Export	E_INV004_237mm	237	Category 6/E	1	Max Conc	0.5	22000	251.401001	22.72374535	0	170.5535431
Export	E_INV004_237mm	237	Category 6/E	1	Max Conc	1	44000	155.0051575	12.98732471	0	170.5535431
Export	E_INV004_237mm	237	Category 5/E	1	Max Conc	0.5	22000	267.4979858	21.19826889	0	170.5535431
Export	E_INV004_237mm	237	Category 5/E	1	Max Conc	1	44000	160.4908295	12.38027	0	170.5535431
Export	E_INV004_237mm	237	Category 4/E	1	Max Conc	0.5	22000	247.7712402	25.34412003	0	170.5535431
Export	E_INV004_237mm	237	Category 4/E	1	Max Conc	1	44000	157.8858948	14.46526909	0	170.5535431
Export	E_INV004_237mm	237	Category 3/E	1	Max Conc	0.5	22000	284.0290222	21.77313232	0	170.5535431
Export	E_INV004_237mm	237	Category 3/E	1	Max Conc	1	44000	165.4767914	12.63333797	0	170.5535431
Export	E_INV004_237mm	237	Category 2/E	1	Max Conc	0.5	22000	268.3605652	23.38670349	0	170.5535431
Export	E_INV004_237mm	237	Category 2/E	1	Max Conc	1	44000	159.9476013	13.25321865	0	170.5535431
Export	E_INV004_237mm	237	Category 1/E	1	Max Conc	0.5	22000	233.8798523	24.58052444	0	170.5535431
Export	E_INV004_237mm	237	Category 1/E	1	Max Conc	1	44000	152.7488708	14.17890167	0	170.5535431
Export	E_INV004_711mm	711	Category 12/E	1	Max Conc	0.5	22000	262.2870178	21.81658936	0	170.3681488
Export	E_INV004_711mm	711	Category 12/E	1	Max Conc	1	44000	163.774826	13.25751114	0	170.3681488
Export	E_INV004_711mm	711	Category 11/E	1	Max Conc	0.5	22000	244.5336304	21.23853493	0	170.3681488
Export	E_INV004_711mm	711	Category 11/E	1	Max Conc	1	44000	157.5129242	12.98779964	0	170.3681488
Export	E_INV004_711mm	711	Category 10/E	1	Max Conc	0.5	22000	227.794342	23.89863396	0	170.3681488
Export	E_INV004_711mm	711	Category 10/E	1	Max Conc	1	44000	147.3120728	13.54179287	0	170.3681488
Export	E_INV004_711mm	711	Category 9/E	1	Max Conc	0.5	22000	247.2192383	23.27266312	0	170.3681488
Export	E_INV004_711mm	711	Category 9/E	1	Max Conc	1	44000	159.0814056	13.82382107	0	170.3681488
Export	E_INV004_711mm	711	Category 8/E	1	Max Conc	0.5	22000	241.6069489	24.71350288	0	170.3681488
Export	E_INV004_711mm	711	Category 8/E	1	Max Conc	1	44000	152.676239	13.83539677	0	170.3681488
Export	E_INV004_711mm	711	Category 7/E	1	Max Conc	0.5	22000	232.8835602	22.61117554	0	170.3681488
Export	E_INV004_711mm	711	Category 7/E	1	Max Conc	1	44000	152.9532318	13.54160213	0	170.3681488
Export	E_INV004_711mm	711	Category 6/E	1	Max Conc	0.5	22000	239.5463715	22.37208748	0	170.3681488
Export	E_INV004_711mm	711	Category 6/E	1	Max Conc	1	44000	151.8519897	12.94324017	0	170.3681488
Export	E_INV004_711mm	711	Category 5/E	1	Max Conc	0.5	22000	253.1647034	20.91431046	0	170.3681488
Export	E_INV004_711mm	711	Category 5/E	1	Max Conc	1	44000	157.1335754	12.34365749	0	170.3681488
Export	E_INV004_711mm	711	Category 4/E	1	Max Conc	0.5	22000	236.5173798	24.93632317	0	170.3681488
Export	E_INV004_711mm	711	Category 4/E	1	Max Conc	1	44000	155.1168671	14.41804409	0	170.3681488
Export	E_INV004_711mm	711	Category 3/E	1	Max Conc	0.5	22000	270.6211243	21.54488754	0	170.3681488
Export	E_INV004_711mm	711	Category 3/E	1	Max Conc	1	44000	162.8604584	12.60359764	0	170.3681488
Export	E_INV004_711mm	711	Category 2/E	1	Max Conc	0.5	22000	254.7693939	23.0839653	0	170.3681488
Export	E_INV004_711mm	711	Category 2/E	1	Max Conc	1	44000	157.474884	13.21829128	0	170.3681488
Export	E_INV004_711mm	711	Category 1/E	1	Max Conc	0.5	22000	222.0894318	24.14470863	0	170.3681488
Export	E_INV004_711mm	711	Category 1/E	1	Max Conc	1	44000	149.2549286	14.11501598	0	170.3681488
Export	E_INV005_25mm	25	Category 12/E	1	Max Conc	0.5	18694.5131	147.6141357	14.35299301	0	12.9857378
Export	E_INV005_25mm	25	Category 12/E	1	Max Conc	1	37389.0262	61.38903427	4.538681507	0	12.9857378
Export	E_INV005_25mm	25	Category 11/E	1	Max Conc	0.5	18694.5131	143.9487	15.1924181	0	12.9857378
Export	E_INV005_25mm	25	Category 11/E	1	Max Conc	1	37389.0262	59.49994659	4.900453091	0	12.9857378
Export	E_INV005_25mm	25	Category 10/E	1	Max Conc	0.5	18694.5131	118.5936508	15.65298748	0	12.9857378
Export	E_INV005_25mm	25	Category 10/E	1	Max Conc	1	37389.0262	56.34183121	4.985590935	0	12.9857378
Export	E_INV005_25mm	25	Category 9/E	1	Max Conc	0.5	18694.5131	135.9602356	15.62221432	0	12.9857378
Export	E_INV005_25mm	25	Category 9/E	1	Max Conc	1	37389.0262	59.91326523	4.786348343	0	12.9857378
Export	E_INV005_25mm	25	Category 8/E	1	Max Conc	0.5	18694.5131	122.2195816	15.01665592	0	12.9857378
Export	E_INV005_25mm	25	Category 8/E	1	Max Conc	1	37389.0262	57.59210968	4.628613472	0	12.9857378
Export	E_INV005_25mm	25	Category 7/E	1	Max Conc	0.5	18694.5131	132.3903351	16.9332943	0	12.9857378
Export	E_INV005_25mm	25	Category 7/E	1	Max Conc	1	37389.0262	58.29039383	5.182656765	0	12.9857378
Export	E_INV005_25mm	25	Category 6/E	1	Max Conc	0.5	18694.5131	128.6655579	13.24579811	0	12.9857378
Export	E_INV005_25mm	25	Category 6/E	1	Max Conc	1	37389.0262	57.6764679	4.549947262	0	12.9857378
Export	E_INV005_25mm	25	Category 5/E	1	Max Conc	0.5	18694.5131	134.6647186	11.71192932	0	12.9857378
Export	E_INV005_25mm	25	Category 5/E	1	Max Conc	1	37389.0262	58.79478836	4.127281666	0	12.9857378
Export	E_INV005_25mm	25	Category 4/E	1	Max Conc	0.5	18694.5131	124.6840591	17.59503555	0	12.9857378
Export	E_INV005_25mm	25	Category 4/E	1	Max Conc	1	37389.0262	58.48490143	5.043840885	0	12.9857378
Export	E_INV005_25mm	25	Category 3/E	1	Max Conc	0.5	18694.5131	141.7175446	11.3426075	0	12.9857378
Export	E_INV005_25mm	25	Category 3/E	1	Max Conc	1	37389.0262	60.84561539	3.91794467	0	12.9857378
Export	E_INV005_25mm	25	Category 2/E	1	Max Conc	0.5	18694.5131	132.9810028	12.89304829	0	12.9857378
Export	E_INV005_25mm	25	Category 2/E	1	Max Conc	1	37389.0262	59.24688339	4.257672787	0	12.9857378
Export	E_INV005_25mm	25	Category 1/E	1	Max Conc	0.5	18694.5131	121.2995605	18.83788681	0	12.9857378
Export	E_INV005_25mm	25	Category 1/E	1	Max Conc	1	37389.0262	57.41148758	5.493461609	0	12.9857378
Export	E_INV005_68mm	68	Category 12/E	1	Max Conc	0.5	18694.5131	445.9172668	55.88205719	0	96.07369232
Export	E_INV005_68mm	68	Category 12/E	1	Max Conc	1	37389.0262	201.5040588	18.52294159	0	96.07369232
Export	E_INV005_68mm	68	Category 11/E	1	Max Conc	0.5	18694.5131	432.466217	60.4264679	0	96.07369232
Export	E_INV005_68mm	68	Category 11/E	1	Max Conc	1	37389.0262	196.2319946	20.78860092	0	96.07369232
Export	E_INV005_68mm	68	Category 10/E	1	Max Conc	0.5	18694.5131	331.6068115	85.72110748	0	96.07369232
Export	E_INV005_68mm	68	Category 10/E	1	Max Conc	1	37389.0262	170.1955872	20.80438614	0	96.07369232
Export	E_INV005_68mm	68	Category 9/E	1	Max Conc	0.5	18694.5131	384.2173157	60.19482422	0	96.07369232
Export	E_INV005_68mm	68	Category 9/E	1	Max Conc	1	37389.0262	189.8734741	19.9009304	0	96.07369232
Export	E_INV005_68mm	68	Category 8/E	1	Max Conc	0.5	18694.5131	335.2569275	60.56096649	0	96.07369232
Export	E_INV005_68mm	68	Category 8/E	1	Max Conc	1	37389.0262	174.9798126	19.23514366	0	96.07369232
Export	E_INV005_68mm	68	Category 7/E	1	Max Conc	0.5	18694.5131	379.4597473	85.71658325	0	96.07369232
Export	E_INV005_68mm	68	Category 7/E	1	Max Conc	1	37389.0262	184.3882446	22.05225182	0	96.07369232
Export	E_INV005_68mm	68	Category 6/E	1	Max Conc	0.5	18694.5131	375.2362671	55.86645889	0	96.07369232
Export	E_INV005_68mm	68	Category 6/E	1	Max Conc	1	37389.0262	182.6221771	19.05322647	0	96.07369232
Export	E_INV005_68mm	68	Category 5/E	1	Max Conc	0.5	18694.5131	432.6169434	49.99590683	0	96.07369232
Export	E_INV005_68mm	68	Category 5/E	1	Max Conc	1	37389.0262	195.4500732	17.43578529	0	96.07369232

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV005_68mm	68	Category 4/E	1	Max Conc	0.5	18694.5131	340.3006897	88.06398773	0	96.07369232
Export	E_INV005_68mm	68	Category 4/E	1	Max Conc	1	37389.0262	178.3777466	21.2442627	0	96.07369232
Export	E_INV005_68mm	68	Category 3/E	1	Max Conc	0.5	18694.5131	450.7634583	47.75688171	0	96.07369232
Export	E_INV005_68mm	68	Category 3/E	1	Max Conc	1	37389.0262	200.8621674	16.30498695	0	96.07369232
Export	E_INV005_68mm	68	Category 2/E	1	Max Conc	0.5	18694.5131	390.1313477	53.24798965	0	96.07369232
Export	E_INV005_68mm	68	Category 2/E	1	Max Conc	1	37389.0262	188.2031555	17.44631004	0	96.07369232
Export	E_INV005_68mm	68	Category 1/E	1	Max Conc	0.5	18694.5131	326.9546509	92.78064728	0	96.07369232
Export	E_INV005_68mm	68	Category 1/E	1	Max Conc	1	37389.0262	172.9690704	23.37302017	0	96.07369232
Export	E_INV005_203mm	203	Category 12/E	1	Max Conc	0.5	18694.5131	676.805481	116.4221115	0	856.2067871
Export	E_INV005_203mm	203	Category 12/E	1	Max Conc	1	37389.0262	473.8113708	71.18806458	0	856.2067871
Export	E_INV005_203mm	203	Category 11/E	1	Max Conc	0.5	18694.5131	625.1278076	121.1349182	0	856.2067871
Export	E_INV005_203mm	203	Category 11/E	1	Max Conc	1	37389.0262	441.6447449	75.51760864	0	856.2067871
Export	E_INV005_203mm	203	Category 10/E	1	Max Conc	0.5	18694.5131	498.4096375	116.0517349	0	856.2067871
Export	E_INV005_203mm	203	Category 10/E	1	Max Conc	1	37389.0262	374.6598511	73.35556793	0	856.2067871
Export	E_INV005_203mm	203	Category 9/E	1	Max Conc	0.5	18694.5131	594.2990723	115.1523132	0	856.2067871
Export	E_INV005_203mm	203	Category 9/E	1	Max Conc	1	37389.0262	427.2141113	71.31491852	0	856.2067871
Export	E_INV005_203mm	203	Category 8/E	1	Max Conc	0.5	18694.5131	528.4072266	112.1001511	0	856.2067871
Export	E_INV005_203mm	203	Category 8/E	1	Max Conc	1	37389.0262	394.7312927	69.54309082	0	856.2067871
Export	E_INV005_203mm	203	Category 7/E	1	Max Conc	0.5	18694.5131	553.8617554	119.801033	0	856.2067871
Export	E_INV005_203mm	203	Category 7/E	1	Max Conc	1	37389.0262	400.808136	75.54284668	0	856.2067871
Export	E_INV005_203mm	203	Category 6/E	1	Max Conc	0.5	18694.5131	596.083313	117.1862793	0	856.2067871
Export	E_INV005_203mm	203	Category 6/E	1	Max Conc	1	37389.0262	416.7479858	73.21216583	0	856.2067871
Export	E_INV005_203mm	203	Category 5/E	1	Max Conc	0.5	18694.5131	674.2327881	118.6022263	0	856.2067871
Export	E_INV005_203mm	203	Category 5/E	1	Max Conc	1	37389.0262	470.6878662	73.0422287	0	856.2067871
Export	E_INV005_203mm	203	Category 4/E	1	Max Conc	0.5	18694.5131	514.7981567	114.1449127	0	856.2067871
Export	E_INV005_203mm	203	Category 4/E	1	Max Conc	1	37389.0262	389.7496033	71.4368515	0	856.2067871
Export	E_INV005_203mm	203	Category 3/E	1	Max Conc	0.5	18694.5131	718.2580566	114.5995255	0	856.2067871
Export	E_INV005_203mm	203	Category 3/E	1	Max Conc	1	37389.0262	499.9202576	69.06677246	0	856.2067871
Export	E_INV005_203mm	203	Category 2/E	1	Max Conc	0.5	18694.5131	633.7150879	113.1971893	0	856.2067871
Export	E_INV005_203mm	203	Category 2/E	1	Max Conc	1	37389.0262	441.4204102	69.38497925	0	856.2067871
Export	E_INV005_203mm	203	Category 1/E	1	Max Conc	0.5	18694.5131	483.2734375	118.6854706	0	856.2067871
Export	E_INV005_203mm	203	Category 1/E	1	Max Conc	1	37389.0262	368.2669678	75.54956818	0	856.2067871
Export	E_INV006_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	215.5083466	39.57087708	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	116.7517624	12.94430733	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	201.0420074	44.73560715	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	111.2994843	15.02470303	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	180.9929504	42.91740799	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	92.71208954	13.69203663	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	247.8442993	48.87884521	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	109.3088074	14.43043709	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	193.2595825	39.95552826	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	97.80513	12.59111404	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	235.3673248	56.10137558	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	103.5722122	16.52574921	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	223.7432556	34.91575241	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	97.4199295	11.37141705	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	199.8340759	27.0757637	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	99.5281601	10.17162991	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	197.2667999	53.10984039	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	101.5050659	15.90360737	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	211.2667847	24.97847939	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	107.1529694	9.642436981	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	238.7122803	32.78859711	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	103.5626526	10.90332508	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	186.944519	59.96049881	0	17.38711739
Export	E_INV006_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	96.8509903	18.05932808	0	17.38711739
Export	E_INV006_35mm (all)	35	Category 12/E	1	Max Conc	0.5	22000	309.934082	62.36959839	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 12/E	1	Max Conc	1	44000	177.1474152	22.76213837	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 11/E	1	Max Conc	0.5	22000	287.5027161	70.73583984	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 11/E	1	Max Conc	1	44000	168.3311157	26.30655289	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 10/E	1	Max Conc	0.5	22000	249.6234894	68.25115967	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 10/E	1	Max Conc	1	44000	132.7692108	22.9954834	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 9/E	1	Max Conc	0.5	22000	353.956543	75.53821564	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 9/E	1	Max Conc	1	44000	159.9989624	24.45718193	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 8/E	1	Max Conc	0.5	22000	267.0614319	63.77099609	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 8/E	1	Max Conc	1	44000	140.5202789	21.13698006	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 7/E	1	Max Conc	0.5	22000	336.8514099	87.25727081	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 7/E	1	Max Conc	1	44000	151.1786499	28.11645889	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 6/E	1	Max Conc	0.5	22000	320.2055664	56.85809326	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 6/E	1	Max Conc	1	44000	144.9740295	19.92504311	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 5/E	1	Max Conc	0.5	22000	287.475708	44.72264481	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 5/E	1	Max Conc	1	44000	158.9030762	17.30335426	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 4/E	1	Max Conc	0.5	22000	270.7749634	81.53423309	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 4/E	1	Max Conc	1	44000	143.8886566	26.46965981	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 3/E	1	Max Conc	0.5	22000	305.5948792	41.40582657	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 3/E	1	Max Conc	1	44000	169.3421631	15.69529152	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 2/E	1	Max Conc	0.5	22000	342.5422974	53.31094742	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 2/E	1	Max Conc	1	44000	155.7979889	18.34784698	0	34.07875061
Export	E_INV006_35mm (all)	35	Category 1/E	1	Max Conc	0.5	22000	255.9031219	93.10482788	0	34.07875061

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV006_35mm (all)	35	Category 1/E	1	Max Conc	1	44000	137.1705475	30.0915947	0	34.07875061
Export	E_INV006_50mm (all)	50	Category 12/E	1	Max Conc	0.5	22000	451.3829041	97.97180176	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 12/E	1	Max Conc	1	44000	264.3300781	38.41134644	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 11/E	1	Max Conc	0.5	22000	418.800354	110.7901077	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 11/E	1	Max Conc	1	44000	249.5188904	44.18346405	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 10/E	1	Max Conc	0.5	22000	347.5580444	109.1763	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 10/E	1	Max Conc	1	44000	189.4887543	38.29907608	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 9/E	1	Max Conc	0.5	22000	509.3782654	116.587944	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 9/E	1	Max Conc	1	44000	231.9850769	40.5309639	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 8/E	1	Max Conc	0.5	22000	371.7432251	102.5391235	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 8/E	1	Max Conc	1	44000	201.1411133	35.1808548	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 7/E	1	Max Conc	0.5	22000	488.0142822	133.8363953	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 7/E	1	Max Conc	1	44000	218.7411652	46.62958145	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 6/E	1	Max Conc	0.5	22000	459.6802979	92.34571075	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 6/E	1	Max Conc	1	44000	213.0415649	33.98622894	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 5/E	1	Max Conc	0.5	22000	414.6004028	73.30561066	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 5/E	1	Max Conc	1	44000	240.6864471	30.43556404	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 4/E	1	Max Conc	0.5	22000	375.7987671	127.4464111	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 4/E	1	Max Conc	1	44000	204.8574066	43.6178627	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 3/E	1	Max Conc	0.5	22000	442.0864868	67.83563995	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 3/E	1	Max Conc	1	44000	257.3536377	27.80004692	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 2/E	1	Max Conc	0.5	22000	490.474884	86.54096222	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 2/E	1	Max Conc	1	44000	228.798584	31.21390724	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 1/E	1	Max Conc	0.5	22000	354.0514832	143.7253418	0	69.54846954
Export	E_INV006_50mm (all)	50	Category 1/E	1	Max Conc	1	44000	194.2934265	49.42084503	0	69.54846954
Export	E_INV006_119mm (1hr)	119	Category 12/E	1	Max Conc	0.5	22000	841.0806274	209.6000977	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 12/E	1	Max Conc	1	44000	437.2472534	142.3179016	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 11/E	1	Max Conc	0.5	22000	759.8569946	234.0182343	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 11/E	1	Max Conc	1	44000	407.5331421	160.7492218	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 10/E	1	Max Conc	0.5	22000	814.3945923	444.9732971	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 10/E	1	Max Conc	1	44000	379.4611206	269.1166382	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 9/E	1	Max Conc	0.5	22000	928.8592529	378.8818359	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 9/E	1	Max Conc	1	44000	550.4578857	214.1755524	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 8/E	1	Max Conc	0.5	22000	854.9519653	424.0145569	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 8/E	1	Max Conc	1	44000	412.23703	192.0141296	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 7/E	1	Max Conc	0.5	22000	852.3768921	421.5933838	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 7/E	1	Max Conc	1	44000	512.5609131	244.9150696	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 6/E	1	Max Conc	0.5	22000	722.9709473	270.6411133	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 6/E	1	Max Conc	1	44000	492.8528137	143.5492859	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 5/E	1	Max Conc	0.5	22000	563.5316162	152.0399475	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 5/E	1	Max Conc	1	44000	401.9164124	100.9531403	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 4/E	1	Max Conc	0.5	22000	970.9423828	614.1682739	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 4/E	1	Max Conc	1	44000	434.9213257	363.4995117	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 3/E	1	Max Conc	0.5	22000	605.8425293	140.9934082	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 3/E	1	Max Conc	1	44000	426.6625061	92.33637238	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 2/E	1	Max Conc	0.5	22000	786.4168701	254.0106506	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 2/E	1	Max Conc	1	44000	526.4334106	132.5037231	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 1/E	1	Max Conc	0.5	22000	971.3583984	676.2784424	0	164.0197449
Export	E_INV006_119mm (1hr)	119	Category 1/E	1	Max Conc	1	44000	407.7402039	468.4543152	0	164.0197449
Export	E_INV006_356mm (1hr)	356	Category 12/E	1	Max Conc	0.5	22000	1173.539917	242.427124	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 12/E	1	Max Conc	1	44000	624.2005005	211.5417633	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 11/E	1	Max Conc	0.5	22000	1143.627197	243.8548889	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 11/E	1	Max Conc	1	44000	610.3764038	211.8972015	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 10/E	1	Max Conc	0.5	22000	542.9665527	563.3471069	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 10/E	1	Max Conc	1	44000	242.063797	486.0529785	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 9/E	1	Max Conc	0.5	22000	1321.11792	368.8173523	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 9/E	1	Max Conc	1	44000	627.3341064	323.7234192	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 8/E	1	Max Conc	0.5	22000	514.5827026	549.7227783	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 8/E	1	Max Conc	1	44000	210.0069275	478.9577332	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 7/E	1	Max Conc	0.5	22000	1341.354126	362.3717957	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 7/E	1	Max Conc	1	44000	659.6744385	317.3411255	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 6/E	1	Max Conc	0.5	22000	385.7602539	252.2995758	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 6/E	1	Max Conc	1	44000	188.2794952	216.7904358	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 5/E	1	Max Conc	0.5	22000	347.6724854	176.9183197	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 5/E	1	Max Conc	1	44000	191.5980835	149.5207062	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 4/E	1	Max Conc	0.5	22000	1435.419678	788.1594238	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 4/E	1	Max Conc	1	44000	411.4653931	694.498291	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 3/E	1	Max Conc	0.5	22000	353.254425	174.6811676	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 3/E	1	Max Conc	1	44000	190.5928955	148.7419281	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 2/E	1	Max Conc	0.5	22000	385.5449219	251.1496887	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 2/E	1	Max Conc	1	44000	180.4934845	216.9134216	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 1/E	1	Max Conc	0.5	22000	1571.37561	866.3269653	0	164.4746246
Export	E_INV006_356mm (1hr)	356	Category 1/E	1	Max Conc	1	44000	524.3598022	766.4786377	0	164.4746246
Export	E_INV006_10mm (all)	10	Category 12/E	1	Max Conc	0.5	22000	71.09061432	9.234997749	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 12/E	1	Max Conc	1	44000	32.68625641	2.937910795	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 11/E	1	Max Conc	0.5	22000	66.79430389	9.44023037	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 11/E	1	Max Conc	1	44000	30.28809357	3.125121117	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 10/E	1	Max Conc	0.5	22000	66.2667923	9.886157036	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 10/E	1	Max Conc	1	44000	30.92713356	3.378383398	0	2.781938553

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV006_10mm (all)	10	Category 9/E	1	Max Conc	0.5	22000	80.42881012	10.85187626	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 9/E	1	Max Conc	1	44000	33.663414	3.344095945	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 8/E	1	Max Conc	0.5	22000	69.71109772	9.547064781	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 8/E	1	Max Conc	1	44000	33.39067841	3.278381586	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 7/E	1	Max Conc	0.5	22000	77.23365784	12.1688118	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 7/E	1	Max Conc	1	44000	31.30838013	3.564606905	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 6/E	1	Max Conc	0.5	22000	63.85364151	7.689513206	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 6/E	1	Max Conc	1	44000	30.112957	2.821149588	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 5/E	1	Max Conc	0.5	22000	64.76531982	6.165542603	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 5/E	1	Max Conc	1	44000	28.42619514	2.314773798	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 4/E	1	Max Conc	0.5	22000	75.13467407	13.42864895	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 4/E	1	Max Conc	1	44000	34.31887436	3.756579876	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 3/E	1	Max Conc	0.5	22000	71.11611176	6.021695137	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 3/E	1	Max Conc	1	44000	30.4989109	2.222989798	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 2/E	1	Max Conc	0.5	22000	69.48365021	7.62223196	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 2/E	1	Max Conc	1	44000	32.59635162	2.726208925	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 1/E	1	Max Conc	0.5	22000	71.88298035	14.94008636	0	2.781938553
Export	E_INV006_10mm (all)	10	Category 1/E	1	Max Conc	1	44000	32.06630707	3.944511414	0	2.781938553
Export	E_INV006_119mm (2min)	119	Category 12/E	1	Max Conc	0.5	22000	802.529541	205.6177063	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 12/E	1	Max Conc	1	44000	433.0747681	137.716217	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 11/E	1	Max Conc	0.5	22000	722.3141479	226.6047363	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 11/E	1	Max Conc	1	44000	397.862793	153.4443359	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 10/E	1	Max Conc	0.5	22000	757.7122803	405.328125	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 10/E	1	Max Conc	1	44000	366.0774841	176.3284302	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 9/E	1	Max Conc	0.5	22000	891.0739136	368.7770691	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 9/E	1	Max Conc	1	44000	535.7002563	199.9958496	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 8/E	1	Max Conc	0.5	22000	804.7108765	391.4423523	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 8/E	1	Max Conc	1	44000	396.5549927	168.9559326	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 7/E	1	Max Conc	0.5	22000	804.3525391	405.7872314	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 7/E	1	Max Conc	1	44000	499.9517822	225.7884369	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 6/E	1	Max Conc	0.5	22000	711.5031128	258.2189636	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 6/E	1	Max Conc	1	44000	479.242981	131.8886108	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 5/E	1	Max Conc	0.5	22000	557.8170776	147.001358	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 5/E	1	Max Conc	1	44000	398.5626526	95.73294067	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 4/E	1	Max Conc	0.5	22000	896.4700317	563.3000488	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 4/E	1	Max Conc	1	44000	417.6201172	278.6376648	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 3/E	1	Max Conc	0.5	22000	600.4448853	137.9630432	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 3/E	1	Max Conc	1	44000	423.8271179	89.0553894	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 2/E	1	Max Conc	0.5	22000	774.8184204	245.6717072	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 2/E	1	Max Conc	1	44000	514.3410034	124.4253387	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 1/E	1	Max Conc	0.5	22000	915.8981323	637.909729	0	164.0197449
Export	E_INV006_119mm (2min)	119	Category 1/E	1	Max Conc	1	44000	399.9812317	288.3467712	0	164.0197449
Export	E_INV006_356mm (2min)	356	Category 12/E	1	Max Conc	0.5	22000	1199.685303	197.6098022	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 12/E	1	Max Conc	1	44000	639.9382935	173.2380524	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 11/E	1	Max Conc	0.5	22000	1176.073853	196.6542053	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 11/E	1	Max Conc	1	44000	630.8278809	171.8700714	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 10/E	1	Max Conc	0.5	22000	545.6486816	455.2924194	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 10/E	1	Max Conc	1	44000	244.296463	397.977356	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 9/E	1	Max Conc	0.5	22000	1310.126221	310.2088013	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 9/E	1	Max Conc	1	44000	627.9468994	272.8103333	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 8/E	1	Max Conc	0.5	22000	506.7350769	482.487793	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 8/E	1	Max Conc	1	44000	211.920639	413.5400391	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 7/E	1	Max Conc	0.5	22000	1350.59314	306.186554	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 7/E	1	Max Conc	1	44000	669.6022949	268.9552307	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 6/E	1	Max Conc	0.5	22000	420.4855957	204.2706604	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 6/E	1	Max Conc	1	44000	239.9632568	176.9812012	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 5/E	1	Max Conc	0.5	22000	363.6300049	131.2336426	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 5/E	1	Max Conc	1	44000	201.6025085	112.8294296	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 4/E	1	Max Conc	0.5	22000	1458.357666	685.6119995	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 4/E	1	Max Conc	1	44000	410.5755615	620.8098145	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 3/E	1	Max Conc	0.5	22000	368.4743652	130.7858429	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 3/E	1	Max Conc	1	44000	200.5912323	113.1100388	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 2/E	1	Max Conc	0.5	22000	484.6573486	205.3900757	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 2/E	1	Max Conc	1	44000	276.6575012	178.5601501	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 1/E	1	Max Conc	0.5	22000	1519.388184	589.2460327	0	164.4746246
Export	E_INV006_356mm (2min)	356	Category 1/E	1	Max Conc	1	44000	500.1746521	528.4155884	0	164.4746246
Export	E_INV007_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	147.186264	39.45318985	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	94.79204559	19.08760643	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	133.6786499	44.38786316	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	88.89163208	20.91988373	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	168.3736877	53.70206833	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	82.97670746	17.0816288	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	186.2247009	69.38388062	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	112.4222641	24.88726997	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	181.732193	51.760746	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	90.78411865	16.58625603	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	170.8567352	77.91087341	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	104.84021	27.54136848	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	175.5299225	36.92407608	0	9.017731667

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV007_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	88.14870453	12.44088459	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	141.3811798	22.71867561	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	81.74667358	9.032700539	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	209.173233	100.8814697	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	98.11843872	27.77812386	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	151.1078644	21.42286491	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	89.59220886	9.45131588	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	188.8771057	35.3712883	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	98.59584045	12.51441574	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	204.3260956	115.473053	0	9.017731667
Export	E_INV007_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	92.22258759	30.70407867	0	9.017731667
Export	E_INV007_35mm (all)	35	Category 12/E	1	Max Conc	0.5	22000	212.0669403	62.43710709	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 12/E	1	Max Conc	1	44000	137.5171051	33.75802612	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 11/E	1	Max Conc	0.5	22000	190.0782013	70.49816132	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 11/E	1	Max Conc	1	44000	129.6650848	38.07482529	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 10/E	1	Max Conc	0.5	22000	237.0999451	87.84973145	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 10/E	1	Max Conc	1	44000	119.4239655	30.13568306	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 9/E	1	Max Conc	0.5	22000	267.9374084	109.444191	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 9/E	1	Max Conc	1	44000	165.6938629	44.64710617	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 8/E	1	Max Conc	0.5	22000	253.5415344	83.7383728	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 8/E	1	Max Conc	1	44000	129.8966827	28.4690361	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 7/E	1	Max Conc	0.5	22000	245.5429535	125.1215134	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 7/E	1	Max Conc	1	44000	157.0728149	50.95257568	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 6/E	1	Max Conc	0.5	22000	251.3498535	62.49085999	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 6/E	1	Max Conc	1	44000	139.59552	23.793787	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 5/E	1	Max Conc	0.5	22000	201.8844147	38.14729691	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 5/E	1	Max Conc	1	44000	130.1237793	18.53573418	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 4/E	1	Max Conc	0.5	22000	291.1333008	153.6658936	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 4/E	1	Max Conc	1	44000	138.5287628	46.90507889	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 3/E	1	Max Conc	0.5	22000	213.1359253	35.32278061	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 3/E	1	Max Conc	1	44000	138.1377869	17.90296173	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 2/E	1	Max Conc	0.5	22000	270.2703552	59.01548004	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 2/E	1	Max Conc	1	44000	153.2320251	22.91012192	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 1/E	1	Max Conc	0.5	22000	286.8551636	178.4111328	0	17.6747551
Export	E_INV007_35mm (all)	35	Category 1/E	1	Max Conc	1	44000	130.4396515	52.82128906	0	17.6747551
Export	E_INV007_119mm (1hr)	119	Category 12/E	1	Max Conc	0.5	22000	713.6848755	256.1149902	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 12/E	1	Max Conc	1	44000	423.8389587	172.235733	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 11/E	1	Max Conc	0.5	22000	609.4232178	291.058136	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 11/E	1	Max Conc	1	44000	402.2871094	197.7937164	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 10/E	1	Max Conc	0.5	22000	727.9077759	457.6631165	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 10/E	1	Max Conc	1	44000	360.7301941	176.4407806	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 9/E	1	Max Conc	0.5	22000	831.6833496	480.8220215	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 9/E	1	Max Conc	1	44000	557.1386108	257.7505188	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 8/E	1	Max Conc	0.5	22000	777.4501343	431.6549072	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 8/E	1	Max Conc	1	44000	389.664093	162.9992828	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 7/E	1	Max Conc	0.5	22000	770.3817749	534.4354858	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 7/E	1	Max Conc	1	44000	525.4648438	297.3020935	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 6/E	1	Max Conc	0.5	22000	724.1130981	313.3473816	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 6/E	1	Max Conc	1	44000	494.7356873	150.7328033	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 5/E	1	Max Conc	0.5	22000	584.2845459	175.6301422	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 5/E	1	Max Conc	1	44000	416.5591736	112.0181351	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 4/E	1	Max Conc	0.5	22000	920.0870361	688.697998	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 4/E	1	Max Conc	1	44000	415.0017395	256.0509338	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 3/E	1	Max Conc	0.5	22000	609.003418	161.2784729	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 3/E	1	Max Conc	1	44000	434.0118103	102.9110107	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 2/E	1	Max Conc	0.5	22000	775.2234497	288.5127258	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 2/E	1	Max Conc	1	44000	519.4110718	139.804184	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 1/E	1	Max Conc	0.5	22000	930.6141968	772.298584	0	164.7288055
Export	E_INV007_119mm (1hr)	119	Category 1/E	1	Max Conc	1	44000	392.1471558	285.3300171	0	164.7288055
Export	E_INV007_356mm (1hr)	356	Category 12/E	1	Max Conc	0.5	22000	1145.760132	250.2962799	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 12/E	1	Max Conc	1	44000	601.9668579	218.2272339	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 11/E	1	Max Conc	0.5	22000	1128.185059	251.084198	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 11/E	1	Max Conc	1	44000	599.4682617	218.0793915	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 10/E	1	Max Conc	0.5	22000	484.0463562	583.3432007	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 10/E	1	Max Conc	1	44000	200.0928955	507.7801514	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 9/E	1	Max Conc	0.5	22000	1288.646484	384.2324219	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 9/E	1	Max Conc	1	44000	608.5357666	336.5402832	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 8/E	1	Max Conc	0.5	22000	518.6264648	593.1867676	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 8/E	1	Max Conc	1	44000	204.7029724	517.5548706	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 7/E	1	Max Conc	0.5	22000	1306.723877	379.8460388	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 7/E	1	Max Conc	1	44000	640.3652344	332.3875732	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 6/E	1	Max Conc	0.5	22000	378.9020996	259.7693787	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 6/E	1	Max Conc	1	44000	184.448288	223.0219269	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 5/E	1	Max Conc	0.5	22000	342.5602722	180.3214111	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 5/E	1	Max Conc	1	44000	187.9045715	152.222168	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 4/E	1	Max Conc	0.5	22000	1439.553833	803.5514526	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 4/E	1	Max Conc	1	44000	432.4595337	681.87323	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 3/E	1	Max Conc	0.5	22000	347.9233704	178.4163666	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 3/E	1	Max Conc	1	44000	186.7327423	151.7549591	0	164.8203888

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV007_356mm (1hr)	356	Category 2/E	1	Max Conc	0.5	22000	378.3511047	259.0480957	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 2/E	1	Max Conc	1	44000	176.3128967	223.5399323	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 1/E	1	Max Conc	0.5	22000	1604.010376	864.0192871	0	164.8203888
Export	E_INV007_356mm (1hr)	356	Category 1/E	1	Max Conc	1	44000	562.5853882	770.3203125	0	164.8203888
Export	E_INV007_119mm (2min)	119	Category 12/E	1	Max Conc	0.5	22000	713.6848755	256.1483459	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 12/E	1	Max Conc	1	44000	423.8389587	172.235733	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 11/E	1	Max Conc	0.5	22000	736.3690186	320.1159363	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 11/E	1	Max Conc	1	44000	477.2833557	197.7369995	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 10/E	1	Max Conc	0.5	22000	619.6405029	408.9061279	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 10/E	1	Max Conc	1	44000	411.8166809	181.3751373	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 9/E	1	Max Conc	0.5	22000	680.1646118	431.9694214	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 9/E	1	Max Conc	1	44000	514.8184204	258.4491577	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 8/E	1	Max Conc	0.5	22000	655.0414429	373.2773743	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 8/E	1	Max Conc	1	44000	432.2210693	182.1363678	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 7/E	1	Max Conc	0.5	22000	767.7944946	534.5958252	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 7/E	1	Max Conc	1	44000	524.0436401	295.2201538	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 6/E	1	Max Conc	0.5	22000	729.7642212	357.2158813	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 6/E	1	Max Conc	1	44000	531.1876221	195.2838745	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 5/E	1	Max Conc	0.5	22000	584.2845459	175.6301422	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 5/E	1	Max Conc	1	44000	416.5591736	112.0181351	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 4/E	1	Max Conc	0.5	22000	618.6047363	472.9651184	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 4/E	1	Max Conc	1	44000	419.4710388	256.0149536	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 3/E	1	Max Conc	0.5	22000	609.003418	161.2784729	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 3/E	1	Max Conc	1	44000	434.0118103	102.9110107	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 2/E	1	Max Conc	0.5	22000	761.5111694	339.934021	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 2/E	1	Max Conc	1	44000	545.7397461	174.8706665	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 1/E	1	Max Conc	0.5	22000	915.5968628	760.7130737	0	164.7288055
Export	E_INV007_119mm (2min)	119	Category 1/E	1	Max Conc	1	44000	388.6487427	284.2588806	0	164.7288055
Export	E_INV007_356mm (2min)	356	Category 12/E	1	Max Conc	0.5	22000	1165.164185	203.6414185	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 12/E	1	Max Conc	1	44000	611.0474243	178.4553223	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 11/E	1	Max Conc	0.5	22000	1161.514648	202.2393341	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 11/E	1	Max Conc	1	44000	620.40448	176.5527954	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 10/E	1	Max Conc	0.5	22000	511.4527588	489.9407043	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 10/E	1	Max Conc	1	44000	232.2000275	428.3094482	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 9/E	1	Max Conc	0.5	22000	1285.959717	322.6660461	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 9/E	1	Max Conc	1	44000	614.1750488	284.271759	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 8/E	1	Max Conc	0.5	22000	505.1795654	514.4744873	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 8/E	1	Max Conc	1	44000	211.3346252	452.9883728	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 7/E	1	Max Conc	0.5	22000	1322.187378	319.5606384	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 7/E	1	Max Conc	1	44000	653.8131104	280.1896973	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 6/E	1	Max Conc	0.5	22000	420.0612488	210.3411255	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 6/E	1	Max Conc	1	44000	239.5758667	181.9920349	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 5/E	1	Max Conc	0.5	22000	359.0715027	134.0744324	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 5/E	1	Max Conc	1	44000	198.2391663	115.1595078	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 4/E	1	Max Conc	0.5	22000	1445.740112	728.8276367	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 4/E	1	Max Conc	1	44000	421.6822815	646.9418945	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 3/E	1	Max Conc	0.5	22000	363.4653625	133.8624878	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 3/E	1	Max Conc	1	44000	197.1251831	115.670578	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 2/E	1	Max Conc	0.5	22000	485.1514893	211.5949249	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 2/E	1	Max Conc	1	44000	276.7884827	183.7787628	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 1/E	1	Max Conc	0.5	22000	1552.21936	615.6049194	0	164.8203888
Export	E_INV007_356mm (2min)	356	Category 1/E	1	Max Conc	1	44000	537.4926147	548.3930054	0	164.8203888
Export	E_INV009_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	126.405777	36.85670471	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	81.88813782	18.82496262	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	116.080101	40.6008873	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	77.90074921	19.4710083	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	163.5345001	56.24625778	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	77.70076752	17.09864235	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	163.8179169	67.42352295	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	100.871727	28.27162361	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	177.1012421	54.59052658	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	85.09059906	17.31409454	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	146.4517365	74.92266083	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	94.14837646	29.65312958	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	154.68927	33.89123535	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	78.35560608	10.98758221	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	124.3940125	19.98917007	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	69.2971344	7.171904564	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	238.1352844	133.6637115	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	95.87228394	33.10513687	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	132.6940613	19.35850906	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	78.32701874	8.295269966	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	165.477356	32.77648163	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	90.51921082	12.00755119	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	225.3253937	152.338974	0	7.129172325
Export	E_INV009_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	88.70111847	35.53073883	0	7.129172325
Export	E_INV009_50mm (all)	50	Category 12/E	1	Max Conc	0.5	22000	268.47995	92.25579071	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 12/E	1	Max Conc	1	44000	170.3985138	57.29974365	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 11/E	1	Max Conc	0.5	22000	237.129303	103.5842819	0	28.5166893

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV009_50mm (all)	50	Category 11/E	1	Max Conc	1	44000	161.4983368	64.29497528	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 10/E	1	Max Conc	0.5	22000	333.8522034	154.2709808	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 10/E	1	Max Conc	1	44000	162.9595642	54.67834473	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 9/E	1	Max Conc	0.5	22000	348.3868103	170.1287842	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 9/E	1	Max Conc	1	44000	218.9489746	89.03474426	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 8/E	1	Max Conc	0.5	22000	356.5661316	145.8987732	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 8/E	1	Max Conc	1	44000	175.4986877	52.07068253	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 7/E	1	Max Conc	0.5	22000	306.6045227	194.1846008	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 7/E	1	Max Conc	1	44000	205.4445801	102.0095825	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 6/E	1	Max Conc	0.5	22000	312.1953125	98.09297943	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 6/E	1	Max Conc	1	44000	198.7039795	43.94929886	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 5/E	1	Max Conc	0.5	22000	250.030838	56.68635178	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 5/E	1	Max Conc	1	44000	170.7311554	32.07929993	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 4/E	1	Max Conc	0.5	22000	496.890625	309.3060608	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 4/E	1	Max Conc	1	44000	192.9758606	93.31582642	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 3/E	1	Max Conc	0.5	22000	262.2409058	52.43136978	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 3/E	1	Max Conc	1	44000	179.4734192	30.52645874	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 2/E	1	Max Conc	0.5	22000	335.2690125	91.87744141	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 2/E	1	Max Conc	1	44000	213.7908783	42.1676712	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 1/E	1	Max Conc	0.5	22000	486.9831238	361.9288025	0	28.5166893
Export	E_INV009_50mm (all)	50	Category 1/E	1	Max Conc	1	44000	181.071701	106.4677505	0	28.5166893
Export	E_INV009_610mm (1hr)	610	Category 12/E	1	Max Conc	0.5	22000	1842.688477	503.6520996	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 12/E	1	Max Conc	1	44000	914.6785889	445.1452332	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 11/E	1	Max Conc	0.5	22000	1859.243042	505.9922485	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 11/E	1	Max Conc	1	44000	952.9943848	445.6541748	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 10/E	1	Max Conc	0.5	22000	742.4735107	1221.665039	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 10/E	1	Max Conc	1	44000	269.9790039	1079.253662	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 9/E	1	Max Conc	0.5	22000	1998.748535	767.4316406	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 9/E	1	Max Conc	1	44000	872.6938477	680.8501587	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 8/E	1	Max Conc	0.5	22000	838.128479	1226.865356	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 8/E	1	Max Conc	1	44000	296.9476624	1084.28186	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 7/E	1	Max Conc	0.5	22000	2229.406006	761.604248	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 7/E	1	Max Conc	1	44000	1043.422363	675.2793579	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 6/E	1	Max Conc	0.5	22000	715.7994995	534.7806396	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 6/E	1	Max Conc	1	44000	340.2792053	468.3460999	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 5/E	1	Max Conc	0.5	22000	542.4169312	377.6372375	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 5/E	1	Max Conc	1	44000	282.3722839	328.0547485	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 4/E	1	Max Conc	0.5	22000	2057.669434	1548.072144	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 4/E	1	Max Conc	1	44000	507.2225037	1387.316162	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 3/E	1	Max Conc	0.5	22000	550.5777588	374.9090881	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 3/E	1	Max Conc	1	44000	278.5176697	327.3586731	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 2/E	1	Max Conc	0.5	22000	601.6202393	529.5643311	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 2/E	1	Max Conc	1	44000	263.5586548	465.4407349	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 1/E	1	Max Conc	0.5	22000	2304.106689	1570.98645	0	502.1858215
Export	E_INV009_610mm (1hr)	610	Category 1/E	1	Max Conc	1	44000	683.8482056	1383.46936	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 10/E	1	Max Conc	0.5	22000	982.3199463	1126.035645	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 10/E	1	Max Conc	1	44000	395.4310608	996.1594849	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 8/E	1	Max Conc	0.5	22000	912.4960938	1146.182007	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 8/E	1	Max Conc	1	44000	324.4695129	1014.448425	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 7/E	1	Max Conc	0.5	22000	2397.320313	655.6968994	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 7/E	1	Max Conc	1	44000	1140.029419	581.8261719	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 6/E	1	Max Conc	0.5	22000	884.8652954	444.0320129	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 6/E	1	Max Conc	1	44000	490.8577576	390.9469604	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 5/E	1	Max Conc	0.5	22000	672.4331665	282.6731567	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 5/E	1	Max Conc	1	44000	371.5058899	247.8115692	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 4/E	1	Max Conc	0.5	22000	2136.843262	1438.992676	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 4/E	1	Max Conc	1	44000	519.7232056	1289.862305	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 3/E	1	Max Conc	0.5	22000	686.2438965	283.4789734	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 3/E	1	Max Conc	1	44000	361.2903137	249.47789	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 2/E	1	Max Conc	0.5	22000	915.4002075	445.6106567	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 2/E	1	Max Conc	1	44000	501.2834167	393.3719482	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 1/E	1	Max Conc	0.5	22000	2481.758789	1391.133301	0	502.1858215
Export	E_INV009_610mm (2min)	610	Category 1/E	1	Max Conc	1	44000	749.2746582	1259.39978	0	502.1858215
Export	E_INV009_203mm (1hr)	203	Category 12/E	1	Max Conc	0.5	22000	1494.8396	396.5405884	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 12/E	1	Max Conc	1	44000	766.8719482	279.914093	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 11/E	1	Max Conc	0.5	22000	1315.228149	438.8576965	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 11/E	1	Max Conc	1	44000	701.036377	314.2367249	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 10/E	1	Max Conc	0.5	22000	1275.125	875.1963501	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 10/E	1	Max Conc	1	44000	605.9030151	346.0146179	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 9/E	1	Max Conc	0.5	22000	1482.27478	737.8389282	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 9/E	1	Max Conc	1	44000	955.6782837	416.6244202	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 8/E	1	Max Conc	0.5	22000	1321.692139	824.4645386	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 8/E	1	Max Conc	1	44000	641.6868286	316.6494446	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 7/E	1	Max Conc	0.5	22000	1382.06665	803.9350586	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 7/E	1	Max Conc	1	44000	885.3178711	476.5809021	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 6/E	1	Max Conc	0.5	22000	1192.413818	565.4250488	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 6/E	1	Max Conc	1	44000	838.4769287	297.8517456	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 5/E	1	Max Conc	0.5	22000	937.2846069	310.7420654	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 5/E	1	Max Conc	1	44000	678.7225952	209.9023285	0	470.0576477

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV009_203mm (1hr)	203	Category 4/E	1	Max Conc	0.5	22000	1525.027832	1107.509521	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 4/E	1	Max Conc	1	44000	698.2259521	442.2018433	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 3/E	1	Max Conc	0.5	22000	991.2006226	292.6377258	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 3/E	1	Max Conc	1	44000	714.5914917	195.0003204	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 2/E	1	Max Conc	0.5	22000	1288.774536	535.3346558	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 2/E	1	Max Conc	1	44000	887.293457	274.2572327	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 1/E	1	Max Conc	0.5	22000	1536.702637	1230.069702	0	470.0576477
Export	E_INV009_203mm (1hr)	203	Category 1/E	1	Max Conc	1	44000	657.8740234	502.127533	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 12/E	1	Max Conc	0.5	22000	1445.794678	389.098999	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 12/E	1	Max Conc	1	44000	752.6511841	271.1426392	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 11/E	1	Max Conc	0.5	22000	1280.726563	429.4431152	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 11/E	1	Max Conc	1	44000	697.4453735	303.5126648	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 10/E	1	Max Conc	0.5	22000	1223.47522	830.1991577	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 10/E	1	Max Conc	1	44000	593.3113403	327.0314331	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 9/E	1	Max Conc	0.5	22000	1465.653442	720.5338745	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 9/E	1	Max Conc	1	44000	942.0786133	388.3450012	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 8/E	1	Max Conc	0.5	22000	1275.73938	787.3736572	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 8/E	1	Max Conc	1	44000	629.8062134	303.1613159	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 7/E	1	Max Conc	0.5	22000	1355.360596	781.1355591	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 7/E	1	Max Conc	1	44000	879.4698486	445.4333801	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 6/E	1	Max Conc	0.5	22000	1187.332642	552.6233521	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 6/E	1	Max Conc	1	44000	828.8234253	283.2217102	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 5/E	1	Max Conc	0.5	22000	933.1337891	305.7759399	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 5/E	1	Max Conc	1	44000	676.3452148	204.3445129	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 4/E	1	Max Conc	0.5	22000	1474.991699	1057.03479	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 4/E	1	Max Conc	1	44000	691.8817139	502.0543518	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 3/E	1	Max Conc	0.5	22000	985.8684692	289.8273926	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 3/E	1	Max Conc	1	44000	710.9105835	191.5205231	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 2/E	1	Max Conc	0.5	22000	1285.432007	526.4902344	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 2/E	1	Max Conc	1	44000	875.7015991	263.302063	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 1/E	1	Max Conc	0.5	22000	1405.710327	1124.048096	0	470.0576477
Export	E_INV009_203mm (2min)	203	Category 1/E	1	Max Conc	1	44000	632.8961792	535.8128052	0	470.0576477
Export	E_INV010_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	96.3622818	29.72775078	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	61.73009109	14.72669697	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	88.18711853	31.47115517	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	57.96689987	12.70601749	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	145.9246368	54.1228981	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	61.77264023	13.75544167	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	123.0301437	56.10329819	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	77.34992981	24.40449715	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	164.6560059	55.28507233	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	71.40228271	16.227211	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	113.1099167	59.16274261	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	69.54864502	19.2971344	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	117.4053268	24.63458443	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	28.08720398	2.535113096	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	95.96858978	14.45696926	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	18.92809486	1.92185533	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	193.2971344	179.1772614	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	89.81680298	42.3562355	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	101.4057007	14.68705463	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	52.98760605	3.954242229	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	125.1602554	25.42746925	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	60.72966003	6.762078285	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	175.5879211	176.0466309	0	4.508899212
Export	E_INV010_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	79.64619446	41.34545135	0	4.508899212
Export	E_INV010_50mm (all)	50	Category 12/E	1	Max Conc	0.5	22000	208.6178589	77.20044708	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 12/E	1	Max Conc	1	44000	128.0582428	51.4292984	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 11/E	1	Max Conc	0.5	22000	181.8613586	84.68424988	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 11/E	1	Max Conc	1	44000	121.4520264	55.31327438	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 10/E	1	Max Conc	0.5	22000	362.3852234	173.8198547	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 10/E	1	Max Conc	1	44000	149.1029968	60.08661652	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 9/E	1	Max Conc	0.5	22000	261.7992859	149.9963837	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 9/E	1	Max Conc	1	44000	163.0715027	92.39653015	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 8/E	1	Max Conc	0.5	22000	389.5499573	169.1150818	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 8/E	1	Max Conc	1	44000	163.2817383	58.65328598	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 7/E	1	Max Conc	0.5	22000	228.3596497	166.7200317	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 7/E	1	Max Conc	1	44000	153.513443	101.6132278	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 6/E	1	Max Conc	0.5	22000	239.0708771	80.92434692	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 6/E	1	Max Conc	1	44000	160.6393585	40.62584686	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 5/E	1	Max Conc	0.5	22000	195.6565094	44.05508804	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 5/E	1	Max Conc	1	44000	132.4975281	25.64578438	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 4/E	1	Max Conc	0.5	22000	428.4917603	495.9339905	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 4/E	1	Max Conc	1	44000	217.9386139	143.1895905	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 3/E	1	Max Conc	0.5	22000	202.8260956	41.44581985	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 3/E	1	Max Conc	1	44000	138.5023804	25.35787773	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 2/E	1	Max Conc	0.5	22000	248.2108459	75.67250061	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 2/E	1	Max Conc	1	44000	169.3170929	40.36916351	0	18.03559685
Export	E_INV010_50mm (all)	50	Category 1/E	1	Max Conc	0.5	22000	378.4378662	522.1118774	0	18.03559685

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV010_50mm (all)	50	Category 1/E	1	Max Conc	1	44000	210.381897	157.6443939	0	18.03559685
Export	E_INV010_914mm (1hr)	914	Category 10/E	1	Max Conc	0.5	22000	1116.527466	2014.334717	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 10/E	1	Max Conc	1	44000	347.4929504	1764.414185	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 8/E	1	Max Conc	0.5	22000	1263.82959	1884.488037	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 8/E	1	Max Conc	1	44000	378.1687317	1676.410522	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 7/E	1	Max Conc	0.5	22000	3471.448975	1270.316772	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 7/E	1	Max Conc	1	44000	1516.181763	1132.529541	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 6/E	1	Max Conc	0.5	22000	959.2798462	949.4246826	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 6/E	1	Max Conc	1	44000	413.0916138	837.5309448	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 5/E	1	Max Conc	0.5	22000	868.1935425	688.4979248	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 5/E	1	Max Conc	1	44000	430.3550415	605.9042969	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 4/E	1	Max Conc	0.5	22000	3116.425049	2458.291748	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 4/E	1	Max Conc	1	44000	605.2044678	2176.45874	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 3/E	1	Max Conc	0.5	22000	877.2678223	678.7974243	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 3/E	1	Max Conc	1	44000	418.6630554	598.9107666	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 2/E	1	Max Conc	0.5	22000	959.4730835	938.1465454	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 2/E	1	Max Conc	1	44000	392.837616	829.6486816	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 1/E	1	Max Conc	0.5	22000	3598.059082	2671.999023	0	1387.421631
Export	E_INV010_914mm (1hr)	914	Category 1/E	1	Max Conc	1	44000	908.7479248	2360.390869	0	1387.421631
Export	E_INV010_305mm (1hr)	305	Category 12/E	1	Max Conc	0.5	22000	2218.707764	353.4590759	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 12/E	1	Max Conc	1	44000	1001.255188	297.3109741	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 11/E	1	Max Conc	0.5	22000	2116.210449	417.7300415	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 11/E	1	Max Conc	1	44000	995.184021	347.6643982	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 10/E	1	Max Conc	0.5	22000	1986.797852	1572.224487	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 10/E	1	Max Conc	1	44000	1322.27832	775.9078979	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 9/E	1	Max Conc	0.5	22000	2681.980225	502.5987549	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 9/E	1	Max Conc	1	44000	1154.060181	414.846405	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 8/E	1	Max Conc	0.5	22000	2522.484863	1501.79834	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 8/E	1	Max Conc	1	44000	1581.972778	648.8410645	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 7/E	1	Max Conc	0.5	22000	2269.633789	667.3171997	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 7/E	1	Max Conc	1	44000	979.4320068	539.1939697	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 6/E	1	Max Conc	0.5	22000	1180.117432	489.5403748	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 6/E	1	Max Conc	1	44000	790.6785278	385.1148071	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 5/E	1	Max Conc	0.5	22000	967.4017944	292.1838379	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 5/E	1	Max Conc	1	44000	621.4418335	242.2846375	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 4/E	1	Max Conc	0.5	22000	2979.188232	1720.894897	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 4/E	1	Max Conc	1	44000	1852.40979	765.8348999	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 3/E	1	Max Conc	0.5	22000	1033.205688	259.239624	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 3/E	1	Max Conc	1	44000	652.6937256	218.0882416	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 2/E	1	Max Conc	0.5	22000	1347.869873	387.4046631	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 2/E	1	Max Conc	1	44000	892.3539429	312.2572632	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 1/E	1	Max Conc	0.5	22000	2174.78125	1814.828857	0	671.1046143
Export	E_INV010_305mm (1hr)	305	Category 1/E	1	Max Conc	1	44000	1389.182007	1026.752808	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 12/E	1	Max Conc	0.5	22000	2253.497314	321.8636475	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 12/E	1	Max Conc	1	44000	1020.72998	272.9045715	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 11/E	1	Max Conc	0.5	22000	2127.281494	387.4126282	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 11/E	1	Max Conc	1	44000	992.1600952	323.1797791	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 10/E	1	Max Conc	0.5	22000	2001.383301	1511.237793	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 10/E	1	Max Conc	1	44000	1334.270508	814.7076416	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 9/E	1	Max Conc	0.5	22000	2727.758545	474.9578247	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 9/E	1	Max Conc	1	44000	1171.862061	383.8737183	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 8/E	1	Max Conc	0.5	22000	2540.571533	1466.4729	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 8/E	1	Max Conc	1	44000	1596.607544	617.6603394	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 7/E	1	Max Conc	0.5	22000	2294.080811	636.1652832	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 7/E	1	Max Conc	1	44000	984.9658203	509.4645691	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 6/E	1	Max Conc	0.5	22000	1223.142456	462.9290466	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 6/E	1	Max Conc	1	44000	812.7107544	367.1550598	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 5/E	1	Max Conc	0.5	22000	996.5567627	267.4007874	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 5/E	1	Max Conc	1	44000	640.3433838	222.0146637	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 4/E	1	Max Conc	0.5	22000	2949.961182	1638.745239	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 4/E	1	Max Conc	1	44000	1835.612671	931.8555298	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 3/E	1	Max Conc	0.5	22000	1063.628174	233.0164948	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 3/E	1	Max Conc	1	44000	669.3262939	196.8053131	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 2/E	1	Max Conc	0.5	22000	1372.570068	369.0625916	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 2/E	1	Max Conc	1	44000	897.1091919	292.9745483	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 1/E	1	Max Conc	0.5	22000	2189.542725	1764.232544	0	671.1046143
Export	E_INV010_305mm (2min)	305	Category 1/E	1	Max Conc	1	44000	1403.558228	1184.503906	0	671.1046143
Export	E_INV010_914mm (2min)	914	Category 12/E	1	Max Conc	0.5	22000	3797.318359	643.6618652	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 12/E	1	Max Conc	1	44000	1938.744019	571.883728	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 11/E	1	Max Conc	0.5	22000	3401.723877	636.446167	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 11/E	1	Max Conc	1	44000	1704.672485	564.409729	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 10/E	1	Max Conc	0.5	22000	1404.467773	1848.258057	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 10/E	1	Max Conc	1	44000	486.5131226	1643.992554	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 8/E	1	Max Conc	0.5	22000	1302.074585	1904.895142	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 8/E	1	Max Conc	1	44000	381.5067444	1694.759399	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 7/E	1	Max Conc	0.5	22000	3810.938477	1027.509399	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 7/E	1	Max Conc	1	44000	1708.366455	915.6674805	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 6/E	1	Max Conc	0.5	22000	1389.28894	736.425415	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 6/E	1	Max Conc	1	44000	748.3095703	651.9901123	0	1387.421631

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV010_914mm (2min)	914	Category 5/E	1	Max Conc	0.5	22000	1087.435791	475.6296692	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 5/E	1	Max Conc	1	44000	594.8336792	419.3695679	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 4/E	1	Max Conc	0.5	22000	3189.587402	2223.87793	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 4/E	1	Max Conc	1	44000	618.6097412	2001.579224	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 3/E	1	Max Conc	0.5	22000	1140.607178	477.6376038	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 3/E	1	Max Conc	1	44000	593.9008789	422.1921387	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 2/E	1	Max Conc	0.5	22000	1425.380737	745.4011841	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 2/E	1	Max Conc	1	44000	750.8981323	660.0101929	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 1/E	1	Max Conc	0.5	22000	3656.490723	2078.010986	0	1387.421631
Export	E_INV010_914mm (2min)	914	Category 1/E	1	Max Conc	1	44000	925.96521	1873.177856	0	1387.421631
Export	E_INV011_25mm	25	Category 12/E	1	Max Conc	0.5	22000	5.13826704	0.633902073	0	0.108359918
Export	E_INV011_25mm	25	Category 12/E	1	Max Conc	1	44000	3.228321791	0.335698605	0	0.108359918
Export	E_INV011_25mm	25	Category 11/E	1	Max Conc	0.5	22000	5.063927174	0.623333693	0	0.108359918
Export	E_INV011_25mm	25	Category 11/E	1	Max Conc	1	44000	3.181736231	0.329620272	0	0.108359918
Export	E_INV011_25mm	25	Category 10/E	1	Max Conc	0.5	22000	7.426529408	0.679081857	0	0.108359918
Export	E_INV011_25mm	25	Category 10/E	1	Max Conc	1	44000	3.980293751	0.345252573	0	0.108359918
Export	E_INV011_25mm	25	Category 9/E	1	Max Conc	0.5	22000	6.033870697	0.674679577	0	0.108359918
Export	E_INV011_25mm	25	Category 9/E	1	Max Conc	1	44000	3.57969594	0.347182214	0	0.108359918
Export	E_INV011_25mm	25	Category 8/E	1	Max Conc	0.5	22000	7.543675423	0.691162169	0	0.108359918
Export	E_INV011_25mm	25	Category 8/E	1	Max Conc	1	44000	4.045618534	0.35158509	0	0.108359918
Export	E_INV011_25mm	25	Category 7/E	1	Max Conc	0.5	22000	5.941518784	0.66239053	0	0.108359918
Export	E_INV011_25mm	25	Category 7/E	1	Max Conc	1	44000	3.528437853	0.34097001	0	0.108359918
Export	E_INV011_25mm	25	Category 6/E	1	Max Conc	0.5	22000	6.154851913	0.606066167	0	0.108359918
Export	E_INV011_25mm	25	Category 6/E	1	Max Conc	1	44000	3.603328466	0.324502707	0	0.108359918
Export	E_INV011_25mm	25	Category 5/E	1	Max Conc	0.5	22000	5.395872593	0.547363102	0	0.108359918
Export	E_INV011_25mm	25	Category 5/E	1	Max Conc	1	44000	3.312755346	0.304656267	0	0.108359918
Export	E_INV011_25mm	25	Category 4/E	1	Max Conc	0.5	22000	7.497780323	0.716730416	0	0.108359918
Export	E_INV011_25mm	25	Category 4/E	1	Max Conc	1	44000	4.025318623	0.358388513	0	0.108359918
Export	E_INV011_25mm	25	Category 3/E	1	Max Conc	0.5	22000	5.47282362	0.557057142	0	0.108359918
Export	E_INV011_25mm	25	Category 3/E	1	Max Conc	1	44000	3.358647823	0.310429275	0	0.108359918
Export	E_INV011_25mm	25	Category 2/E	1	Max Conc	0.5	22000	6.246225357	0.617377818	0	0.108359918
Export	E_INV011_25mm	25	Category 2/E	1	Max Conc	1	44000	3.657541275	0.3304874	0	0.108359918
Export	E_INV011_25mm	25	Category 1/E	1	Max Conc	0.5	22000	7.378002644	0.704472065	0	0.108359918
Export	E_INV011_25mm	25	Category 1/E	1	Max Conc	1	44000	3.96414876	0.351865083	0	0.108359918
Export	E_INV011_50mm	50	Category 12/E	1	Max Conc	0.5	22000	11.78102207	1.290631175	0	0.433439672
Export	E_INV011_50mm	50	Category 12/E	1	Max Conc	1	44000	6.054999828	0.672782183	0	0.433439672
Export	E_INV011_50mm	50	Category 11/E	1	Max Conc	0.5	22000	11.43782139	1.268984079	0	0.433439672
Export	E_INV011_50mm	50	Category 11/E	1	Max Conc	1	44000	5.962855816	0.660253882	0	0.433439672
Export	E_INV011_50mm	50	Category 10/E	1	Max Conc	0.5	22000	16.44605827	1.408743739	0	0.433439672
Export	E_INV011_50mm	50	Category 10/E	1	Max Conc	1	44000	7.797059536	0.69331336	0	0.433439672
Export	E_INV011_50mm	50	Category 9/E	1	Max Conc	0.5	22000	14.43887901	1.380279899	0	0.433439672
Export	E_INV011_50mm	50	Category 9/E	1	Max Conc	1	44000	6.842886925	0.696249127	0	0.433439672
Export	E_INV011_50mm	50	Category 8/E	1	Max Conc	0.5	22000	16.80775452	1.436375022	0	0.433439672
Export	E_INV011_50mm	50	Category 8/E	1	Max Conc	1	44000	7.921330929	0.706118762	0	0.433439672
Export	E_INV011_50mm	50	Category 7/E	1	Max Conc	0.5	22000	14.02745342	1.3567276	0	0.433439672
Export	E_INV011_50mm	50	Category 7/E	1	Max Conc	1	44000	6.733793736	0.684016407	0	0.433439672
Export	E_INV011_50mm	50	Category 6/E	1	Max Conc	0.5	22000	12.9167757	1.240921497	0	0.433439672
Export	E_INV011_50mm	50	Category 6/E	1	Max Conc	1	44000	6.843957424	0.650912106	0	0.433439672
Export	E_INV011_50mm	50	Category 5/E	1	Max Conc	0.5	22000	10.21854591	1.10962832	0	0.433439672
Export	E_INV011_50mm	50	Category 5/E	1	Max Conc	1	44000	6.171208382	0.610383928	0	0.433439672
Export	E_INV011_50mm	50	Category 4/E	1	Max Conc	0.5	22000	17.16646385	1.494603634	0	0.433439672
Export	E_INV011_50mm	50	Category 4/E	1	Max Conc	1	44000	7.90700531	0.719129622	0	0.433439672
Export	E_INV011_50mm	50	Category 3/E	1	Max Conc	0.5	22000	10.47741604	1.129621863	0	0.433439672
Export	E_INV011_50mm	50	Category 3/E	1	Max Conc	1	44000	6.25628376	0.621647298	0	0.433439672
Export	E_INV011_50mm	50	Category 2/E	1	Max Conc	0.5	22000	13.27609634	1.263615012	0	0.433439672
Export	E_INV011_50mm	50	Category 2/E	1	Max Conc	1	44000	6.949696541	0.662881792	0	0.433439672
Export	E_INV011_50mm	50	Category 1/E	1	Max Conc	0.5	22000	16.79668617	1.466910243	0	0.433439672
Export	E_INV011_50mm	50	Category 1/E	1	Max Conc	1	44000	7.783455849	0.706411898	0	0.433439672
Export	E_INV011_610mm	610	Category 12/E	1	Max Conc	0.5	22000	76.67552948	8.21062088	0	14.5688076
Export	E_INV011_610mm	610	Category 12/E	1	Max Conc	1	44000	55.05103683	6.000984192	0	14.5688076
Export	E_INV011_610mm	610	Category 11/E	1	Max Conc	0.5	22000	82.4787674	8.37070179	0	14.5688076
Export	E_INV011_610mm	610	Category 11/E	1	Max Conc	1	44000	58.65044785	6.072046757	0	14.5688076
Export	E_INV011_610mm	610	Category 10/E	1	Max Conc	0.5	22000	69.32255554	9.387069702	0	14.5688076
Export	E_INV011_610mm	610	Category 10/E	1	Max Conc	1	44000	54.79030609	6.69315052	0	14.5688076
Export	E_INV011_610mm	610	Category 9/E	1	Max Conc	0.5	22000	67.66821289	8.681230545	0	14.5688076
Export	E_INV011_610mm	610	Category 9/E	1	Max Conc	1	44000	51.42579269	6.359171391	0	14.5688076
Export	E_INV011_610mm	610	Category 8/E	1	Max Conc	0.5	22000	63.6501236	9.003050804	0	14.5688076
Export	E_INV011_610mm	610	Category 8/E	1	Max Conc	1	44000	50.50164413	6.508635998	0	14.5688076
Export	E_INV011_610mm	610	Category 7/E	1	Max Conc	0.5	22000	72.86049652	8.936203957	0	14.5688076
Export	E_INV011_610mm	610	Category 7/E	1	Max Conc	1	44000	55.52114868	6.488632202	0	14.5688076
Export	E_INV011_610mm	610	Category 6/E	1	Max Conc	0.5	22000	83.03845215	8.690051079	0	14.5688076
Export	E_INV011_610mm	610	Category 6/E	1	Max Conc	1	44000	59.9668808	6.094470024	0	14.5688076
Export	E_INV011_610mm	610	Category 5/E	1	Max Conc	0.5	22000	98.28728485	7.91558218	0	14.5688076
Export	E_INV011_610mm	610	Category 5/E	1	Max Conc	1	44000	66.01394653	5.522660732	0	14.5688076
Export	E_INV011_610mm	610	Category 4/E	1	Max Conc	0.5	22000	58.1490593	9.028745651	0	14.5688076
Export	E_INV011_610mm	610	Category 4/E	1	Max Conc	1	44000	48.07197571	6.690909863	0	14.5688076
Export	E_INV011_610mm	610	Category 3/E	1	Max Conc	0.5	22000	91.13520813	7.822760105	0	14.5688076
Export	E_INV011_610mm	610	Category 3/E	1	Max Conc	1	44000	61.40896225	5.501694202	0	14.5688076
Export	E_INV011_610mm	610	Category 2/E	1	Max Conc	0.5	22000	77.29304504	8.51803112	0	14.5688076

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV011_610mm	610	Category 2/E	1	Max Conc	1	44000	56.04593277	6.011697769	0	14.5688076
Export	E_INV011_610mm	610	Category 1/E	1	Max Conc	0.5	22000	63.18730545	9.422250748	0	14.5688076
Export	E_INV011_610mm	610	Category 1/E	1	Max Conc	1	44000	51.66700745	6.905023575	0	14.5688076
Export	E_INV011_203mm	203	Category 12/E	1	Max Conc	0.5	22000	109.3543854	6.223299503	0	7.144645214
Export	E_INV011_203mm	203	Category 12/E	1	Max Conc	1	44000	40.90419006	3.22789073	0	7.144645214
Export	E_INV011_203mm	203	Category 11/E	1	Max Conc	0.5	22000	110.7296295	6.177969456	0	7.144645214
Export	E_INV011_203mm	203	Category 11/E	1	Max Conc	1	44000	40.5073204	3.167520046	0	7.144645214
Export	E_INV011_203mm	203	Category 10/E	1	Max Conc	0.5	22000	93.28603363	7.015591145	0	7.144645214
Export	E_INV011_203mm	203	Category 10/E	1	Max Conc	1	44000	39.88626099	3.347990751	0	7.144645214
Export	E_INV011_203mm	203	Category 9/E	1	Max Conc	0.5	22000	102.3367004	6.797725677	0	7.144645214
Export	E_INV011_203mm	203	Category 9/E	1	Max Conc	1	44000	40.99315643	3.405976057	0	7.144645214
Export	E_INV011_203mm	203	Category 8/E	1	Max Conc	0.5	22000	93.54322815	7.051593781	0	7.144645214
Export	E_INV011_203mm	203	Category 8/E	1	Max Conc	1	44000	40.29281235	3.40561676	0	7.144645214
Export	E_INV011_203mm	203	Category 7/E	1	Max Conc	0.5	22000	103.0324097	6.762486458	0	7.144645214
Export	E_INV011_203mm	203	Category 7/E	1	Max Conc	1	44000	40.61664581	3.347567797	0	7.144645214
Export	E_INV011_203mm	203	Category 6/E	1	Max Conc	0.5	22000	101.5439529	6.122554302	0	7.144645214
Export	E_INV011_203mm	203	Category 6/E	1	Max Conc	1	44000	39.93482208	3.080356598	0	7.144645214
Export	E_INV011_203mm	203	Category 5/E	1	Max Conc	0.5	22000	108.3862305	5.415601254	0	7.144645214
Export	E_INV011_203mm	203	Category 5/E	1	Max Conc	1	44000	39.49098587	2.835081577	0	7.144645214
Export	E_INV011_203mm	203	Category 4/E	1	Max Conc	0.5	22000	95.46701813	7.486791611	0	7.144645214
Export	E_INV011_203mm	203	Category 4/E	1	Max Conc	1	44000	40.95621109	3.578892231	0	7.144645214
Export	E_INV011_203mm	203	Category 3/E	1	Max Conc	0.5	22000	107.7410583	5.481952667	0	7.144645214
Export	E_INV011_203mm	203	Category 3/E	1	Max Conc	1	44000	39.93107605	2.890897989	0	7.144645214
Export	E_INV011_203mm	203	Category 2/E	1	Max Conc	0.5	22000	101.2089233	6.179039955	0	7.144645214
Export	E_INV011_203mm	203	Category 2/E	1	Max Conc	1	44000	40.34318542	3.139182329	0	7.144645214
Export	E_INV011_203mm	203	Category 1/E	1	Max Conc	0.5	22000	95.40950012	7.476782799	0	7.144645214
Export	E_INV011_203mm	203	Category 1/E	1	Max Conc	1	44000	40.54333878	3.52405262	0	7.144645214
Export	E_INV012_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	27.12751579	3.482879639	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	24.88531494	2.670610189	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	73.61314392	4.050610065	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	0.681700468	0.141436934	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	54.60713196	7.870638847	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	28.76220703	4.030456543	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	96.405159	4.855602264	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	50.36269379	3.2447896	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	56.69682693	6.623819351	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	30.85890007	4.388814449	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	94.57556915	6.255812168	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	46.55183029	3.371333122	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	34.47388077	3.023834705	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	0.653711081	0.121283226	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	23.35279465	1.920792937	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	11.62448025	0.677708328	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	107.2224808	10.63833141	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	36.05213928	8.046182632	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	24.71757317	1.896414518	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	14.18901825	1.045127153	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	35.16903687	3.308647394	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	22.06901932	1.710843801	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	103.3117371	13.77804852	0	0.504041851
Export	E_INV012_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	31.64237404	9.501481056	0	0.504041851
Export	E_INV012_50mm (all)	50	Category 12/E	1	Max Conc	0.5	22000	173.7126007	10.78122044	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 12/E	1	Max Conc	1	44000	97.51654053	7.631093979	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 11/E	1	Max Conc	0.5	22000	160.4552155	11.41605473	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 11/E	1	Max Conc	1	44000	86.70938873	7.747065544	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 10/E	1	Max Conc	0.5	22000	87.4617157	22.48786736	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 10/E	1	Max Conc	1	44000	42.96620178	16.51339912	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 9/E	1	Max Conc	0.5	22000	219.287796	16.128582	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 9/E	1	Max Conc	1	44000	119.884201	12.16725922	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 8/E	1	Max Conc	0.5	22000	88.33402252	21.51702118	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 8/E	1	Max Conc	1	44000	41.98071671	16.27694702	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 7/E	1	Max Conc	0.5	22000	206.0569458	17.05440521	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 7/E	1	Max Conc	1	44000	109.1981125	12.54996967	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 6/E	1	Max Conc	0.5	22000	70.10466766	10.3712492	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 6/E	1	Max Conc	1	44000	41.77988434	6.206268787	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 5/E	1	Max Conc	0.5	22000	54.66005325	6.923812866	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 5/E	1	Max Conc	1	44000	29.4630661	1.549520135	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 4/E	1	Max Conc	0.5	22000	189.0150299	33.43500519	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 4/E	1	Max Conc	1	44000	50.80709076	27.43764877	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 3/E	1	Max Conc	0.5	22000	55.73870468	6.455266953	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 3/E	1	Max Conc	1	44000	35.84247971	3.905991554	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 2/E	1	Max Conc	0.5	22000	73.10710144	9.952778816	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 2/E	1	Max Conc	1	44000	44.3307991	6.492980003	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 1/E	1	Max Conc	0.5	22000	184.2230835	36.18862915	0	2.016167402
Export	E_INV012_50mm (all)	50	Category 1/E	1	Max Conc	1	44000	50.74994278	29.37749672	0	2.016167402
Export	E_INV012_203mm (1hr)	203	Category 12/E	1	Max Conc	0.5	22000	585.6187744	82.92320251	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 12/E	1	Max Conc	1	44000	321.5676575	69.95800018	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 11/E	1	Max Conc	0.5	22000	565.8237305	83.76668549	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 11/E	1	Max Conc	1	44000	307.3223267	70.15692139	0	33.23369217

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV012_203mm (1hr)	203	Category 10/E	1	Max Conc	0.5	22000	265.794342	196.014267	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 10/E	1	Max Conc	1	44000	127.3885498	164.8927765	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 9/E	1	Max Conc	0.5	22000	683.9331055	129.7793884	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 9/E	1	Max Conc	1	44000	346.9872437	110.5714035	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 8/E	1	Max Conc	0.5	22000	247.9589844	200.2067719	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 8/E	1	Max Conc	1	44000	125.4956207	168.6209259	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 7/E	1	Max Conc	0.5	22000	683.184021	128.2792053	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 7/E	1	Max Conc	1	44000	353.6889038	108.8397827	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 6/E	1	Max Conc	0.5	22000	195.3936615	84.08191681	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 6/E	1	Max Conc	1	44000	102.4881973	68.6891098	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 5/E	1	Max Conc	0.5	22000	175.6340027	56.50004578	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 5/E	1	Max Conc	1	44000	102.5514374	44.78613663	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 4/E	1	Max Conc	0.5	22000	809.4412842	265.5835266	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 4/E	1	Max Conc	1	44000	299.5598755	224.0417938	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 3/E	1	Max Conc	0.5	22000	180.609375	55.71874619	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 3/E	1	Max Conc	1	44000	104.2774811	44.79841995	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 2/E	1	Max Conc	0.5	22000	196.3955383	83.77255249	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 2/E	1	Max Conc	1	44000	100.1605911	69.05971527	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 1/E	1	Max Conc	0.5	22000	886.9064941	252.3722687	0	33.23369217
Export	E_INV012_203mm (1hr)	203	Category 1/E	1	Max Conc	1	44000	368.9576416	218.2636566	0	33.23369217
Export	E_INV012_610mm (1hr)	610	Category 12/E	1	Max Conc	0.5	22000	1158.83667	321.8073425	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 12/E	1	Max Conc	1	44000	587.6742554	283.7323303	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 11/E	1	Max Conc	0.5	22000	1446.692871	319.2596741	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 11/E	1	Max Conc	1	44000	740.5903931	280.5592041	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 10/E	1	Max Conc	0.5	22000	499.9589844	895.4790649	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 10/E	1	Max Conc	1	44000	213.9227753	785.489502	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 9/E	1	Max Conc	0.5	22000	1461.805054	527.7374878	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 9/E	1	Max Conc	1	44000	717.4421997	467.4605103	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 8/E	1	Max Conc	0.5	22000	512.1898193	899.0862427	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 8/E	1	Max Conc	1	44000	205.1632843	791.0167236	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 7/E	1	Max Conc	0.5	22000	1551.995972	525.9031372	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 7/E	1	Max Conc	1	44000	707.7651367	464.1952515	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 6/E	1	Max Conc	0.5	22000	479.5482788	340.5554199	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 6/E	1	Max Conc	1	44000	246.0871124	297.4295349	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 5/E	1	Max Conc	0.5	22000	438.5047607	217.0254974	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 5/E	1	Max Conc	1	44000	231.134491	188.4453278	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 4/E	1	Max Conc	0.5	22000	1728.341309	997.9067993	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 4/E	1	Max Conc	1	44000	462.6346741	889.6311646	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 3/E	1	Max Conc	0.5	22000	444.6165466	217.3934021	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 3/E	1	Max Conc	1	44000	228.626709	189.8096008	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 2/E	1	Max Conc	0.5	22000	478.2958069	341.5853271	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 2/E	1	Max Conc	1	44000	213.3634949	299.6764221	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 1/E	1	Max Conc	0.5	22000	1913.688721	954.4052734	0	300.0863647
Export	E_INV012_610mm (1hr)	610	Category 1/E	1	Max Conc	1	44000	609.2843018	852.4030151	0	300.0863647
Export	E_INV012_10mm (all)	10	Category 12/E	1	Max Conc	0.5	22000	1.761945009	0.326025158	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 12/E	1	Max Conc	1	44000	0.670947909	0.11642278	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 11/E	1	Max Conc	0.5	22000	1.759108901	0.303457886	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 11/E	1	Max Conc	1	44000	0.62832427	0.107614867	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 10/E	1	Max Conc	0.5	22000	0.478026479	0.060173519	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 10/E	1	Max Conc	1	44000	0.412938058	0.053665705	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 9/E	1	Max Conc	0.5	22000	0.507393122	0.07904847	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 9/E	1	Max Conc	1	44000	0.464258671	0.069872044	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 8/E	1	Max Conc	0.5	22000	0.484401464	0.063209213	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 8/E	1	Max Conc	1	44000	0.428659618	0.05617775	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 7/E	1	Max Conc	0.5	22000	0.49648422	0.073594041	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 7/E	1	Max Conc	1	44000	0.444162816	0.065206043	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 6/E	1	Max Conc	0.5	22000	0.707625329	0.105050519	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 6/E	1	Max Conc	1	44000	0.544010222	0.079632849	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 5/E	1	Max Conc	0.5	22000	6.791659355	0.463981271	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 5/E	1	Max Conc	1	44000	1.380950332	0.140391231	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 4/E	1	Max Conc	0.5	22000	0.40574947	0.044545557	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 4/E	1	Max Conc	1	44000	0.39089644	0.050269324	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 3/E	1	Max Conc	0.5	22000	2.172629118	0.321434766	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 3/E	1	Max Conc	1	44000	1.480509877	0.15517211	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 2/E	1	Max Conc	0.5	22000	0.751113415	0.112349264	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 2/E	1	Max Conc	1	44000	0.566815495	0.086031847	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 1/E	1	Max Conc	0.5	22000	0.402979881	0.043817703	0	0.080646686
Export	E_INV012_10mm (all)	10	Category 1/E	1	Max Conc	1	44000	0.38800028	0.04800678	0	0.080646686
Export	E_INV012_203mm (2min)	203	Category 12/E	1	Max Conc	0.5	22000	564.0587769	61.38010025	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 12/E	1	Max Conc	1	44000	315.8062744	52.05257034	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 11/E	1	Max Conc	0.5	22000	544.0571899	61.55537033	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 11/E	1	Max Conc	1	44000	302.7526855	51.86439514	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 10/E	1	Max Conc	0.5	22000	269.6699219	148.7119141	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 10/E	1	Max Conc	1	44000	133.8829193	125.1098099	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 9/E	1	Max Conc	0.5	22000	648.1645508	100.3041458	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 9/E	1	Max Conc	1	44000	335.836853	85.57918549	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 8/E	1	Max Conc	0.5	22000	257.0191956	156.0438538	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 8/E	1	Max Conc	1	44000	125.4730148	132.9842377	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 7/E	1	Max Conc	0.5	22000	644.9841919	96.83405304	0	33.23369217

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV012_203mm (2min)	203	Category 7/E	1	Max Conc	1	44000	340.4484863	82.29806519	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 6/E	1	Max Conc	0.5	22000	193.7385406	61.83220673	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 6/E	1	Max Conc	1	44000	109.0120773	50.95729065	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 5/E	1	Max Conc	0.5	22000	177.3374329	39.25136566	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 5/E	1	Max Conc	1	44000	105.0983429	31.91140938	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 4/E	1	Max Conc	0.5	22000	752.3764648	216.8266449	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 4/E	1	Max Conc	1	44000	274.7053528	188.5438995	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 3/E	1	Max Conc	0.5	22000	181.9003906	38.98431396	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 3/E	1	Max Conc	1	44000	106.6008453	32.05661392	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 2/E	1	Max Conc	0.5	22000	201.3729706	62.1817894	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 2/E	1	Max Conc	1	44000	117.4581833	51.64929581	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 1/E	1	Max Conc	0.5	22000	808.25	201.3232574	0	33.23369217
Export	E_INV012_203mm (2min)	203	Category 1/E	1	Max Conc	1	44000	330.9163513	172.484436	0	33.23369217
Export	E_INV012_610mm (2min)	610	Category 12/E	1	Max Conc	0.5	22000	970.2044067	101.6731644	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 12/E	1	Max Conc	1	44000	540.7003784	88.41621399	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 11/E	1	Max Conc	0.5	22000	883.4214478	106.0858536	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 11/E	1	Max Conc	1	44000	482.8564758	91.33608246	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 10/E	1	Max Conc	0.5	22000	472.261322	233.8154907	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 10/E	1	Max Conc	1	44000	232.8830109	202.9376526	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 9/E	1	Max Conc	0.5	22000	1049.89624	169.3919067	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 9/E	1	Max Conc	1	44000	531.8943481	148.3292236	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 8/E	1	Max Conc	0.5	22000	449.3321838	246.0366058	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 8/E	1	Max Conc	1	44000	204.7874298	215.2071686	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 7/E	1	Max Conc	0.5	22000	1061.317261	165.4884796	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 7/E	1	Max Conc	1	44000	553.2801514	144.6224365	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 6/E	1	Max Conc	0.5	22000	378.0536194	93.99108124	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 6/E	1	Max Conc	1	44000	224.8031616	80.63100433	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 5/E	1	Max Conc	0.5	22000	280.7868347	59.16223907	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 5/E	1	Max Conc	1	44000	167.3495636	49.61172867	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 4/E	1	Max Conc	0.5	22000	1087.932617	398.7136841	2.2578733	300.0863647
Export	E_INV012_610mm (2min)	610	Category 4/E	1	Max Conc	1	44000	375.4306335	349.9705811	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 3/E	1	Max Conc	0.5	22000	311.9290771	54.36757278	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 3/E	1	Max Conc	1	44000	186.9342957	46.21944809	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 2/E	1	Max Conc	0.5	22000	406.0879211	96.81939697	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 2/E	1	Max Conc	1	44000	238.9871826	83.88834381	0	300.0863647
Export	E_INV012_610mm (2min)	610	Category 1/E	1	Max Conc	0.5	22000	1189.431885	361.6212463	2.2520993	300.0863647
Export	E_INV012_610mm (2min)	610	Category 1/E	1	Max Conc	1	44000	472.3594055	324.7485962	0	300.0863647
Export	E_INV013_25mm	25	Category 12/E	1	Max Conc	0.5	22000	33.62347412	2.743885279	0	2.604170799
Export	E_INV013_25mm	25	Category 12/E	1	Max Conc	1	44000	13.28970909	1.257481217	0	2.604170799
Export	E_INV013_25mm	25	Category 11/E	1	Max Conc	0.5	22000	32.57478714	2.68226409	0	2.604170799
Export	E_INV013_25mm	25	Category 11/E	1	Max Conc	1	44000	12.9288435	1.237215281	0	2.604170799
Export	E_INV013_25mm	25	Category 10/E	1	Max Conc	0.5	22000	33.35738754	2.851375103	0	2.604170799
Export	E_INV013_25mm	25	Category 10/E	1	Max Conc	1	44000	14.65146255	1.284528136	0	2.604170799
Export	E_INV013_25mm	25	Category 9/E	1	Max Conc	0.5	22000	34.3260498	2.899586916	0	2.604170799
Export	E_INV013_25mm	25	Category 9/E	1	Max Conc	1	44000	14.20448303	1.285819769	0	2.604170799
Export	E_INV013_25mm	25	Category 8/E	1	Max Conc	0.5	22000	34.22840118	2.909345388	0	2.604170799
Export	E_INV013_25mm	25	Category 8/E	1	Max Conc	1	44000	15.00176239	1.306244135	0	2.604170799
Export	E_INV013_25mm	25	Category 7/E	1	Max Conc	0.5	22000	33.34857559	2.838929653	0	2.604170799
Export	E_INV013_25mm	25	Category 7/E	1	Max Conc	1	44000	13.90256786	1.26317215	0	2.604170799
Export	E_INV013_25mm	25	Category 6/E	1	Max Conc	0.5	22000	32.62827682	2.617104292	0	2.604170799
Export	E_INV013_25mm	25	Category 6/E	1	Max Conc	1	44000	13.70064163	1.233916044	0	2.604170799
Export	E_INV013_25mm	25	Category 5/E	1	Max Conc	0.5	22000	31.3550396	2.405714035	0	2.604170799
Export	E_INV013_25mm	25	Category 5/E	1	Max Conc	1	44000	12.4790802	1.183803082	0	2.604170799
Export	E_INV013_25mm	25	Category 4/E	1	Max Conc	0.5	22000	34.79548645	3.053506613	0	2.604170799
Export	E_INV013_25mm	25	Category 4/E	1	Max Conc	1	44000	15.07300949	1.311568856	0	2.604170799
Export	E_INV013_25mm	25	Category 3/E	1	Max Conc	0.5	22000	32.39341736	2.455907822	0	2.604170799
Export	E_INV013_25mm	25	Category 3/E	1	Max Conc	1	44000	12.85730171	1.203885078	0	2.604170799
Export	E_INV013_25mm	25	Category 2/E	1	Max Conc	0.5	22000	33.59205627	2.674527407	0	2.604170799
Export	E_INV013_25mm	25	Category 2/E	1	Max Conc	1	44000	14.01507187	1.257065773	0	2.604170799
Export	E_INV013_25mm	25	Category 1/E	1	Max Conc	0.5	22000	33.92206192	2.985481262	0	2.604170799
Export	E_INV013_25mm	25	Category 1/E	1	Max Conc	1	44000	14.70307064	1.290010929	0	2.604170799
Export	E_INV013_50mm	50	Category 12/E	1	Max Conc	0.5	22000	79.86190796	5.992471695	0	10.4166832
Export	E_INV013_50mm	50	Category 12/E	1	Max Conc	1	44000	33.98102951	2.903859377	0	10.4166832
Export	E_INV013_50mm	50	Category 11/E	1	Max Conc	0.5	22000	76.47128296	5.86663723	0	10.4166832
Export	E_INV013_50mm	50	Category 11/E	1	Max Conc	1	44000	33.1926651	2.845421076	0	10.4166832
Export	E_INV013_50mm	50	Category 10/E	1	Max Conc	0.5	22000	71.50029755	6.229496956	0	10.4166832
Export	E_INV013_50mm	50	Category 10/E	1	Max Conc	1	44000	33.06713867	2.903414726	0	10.4166832
Export	E_INV013_50mm	50	Category 9/E	1	Max Conc	0.5	22000	77.54447937	6.359546185	0	10.4166832
Export	E_INV013_50mm	50	Category 9/E	1	Max Conc	1	44000	34.16223145	2.993073702	0	10.4166832
Export	E_INV013_50mm	50	Category 8/E	1	Max Conc	0.5	22000	74.06575012	6.384538174	0	10.4166832
Export	E_INV013_50mm	50	Category 8/E	1	Max Conc	1	44000	33.75979614	2.957992077	0	10.4166832
Export	E_INV013_50mm	50	Category 7/E	1	Max Conc	0.5	22000	74.46124268	6.206221104	0	10.4166832
Export	E_INV013_50mm	50	Category 7/E	1	Max Conc	1	44000	33.42709351	2.934452295	0	10.4166832
Export	E_INV013_50mm	50	Category 6/E	1	Max Conc	0.5	22000	73.88384247	5.745202065	0	10.4166832
Export	E_INV013_50mm	50	Category 6/E	1	Max Conc	1	44000	32.92682266	2.77276659	0	10.4166832
Export	E_INV013_50mm	50	Category 5/E	1	Max Conc	0.5	22000	76.36525726	5.306248188	0	10.4166832
Export	E_INV013_50mm	50	Category 5/E	1	Max Conc	1	44000	32.62110138	2.634123802	0	10.4166832
Export	E_INV013_50mm	50	Category 4/E	1	Max Conc	0.5	22000	75.51636505	6.755331039	0	10.4166832
Export	E_INV013_50mm	50	Category 4/E	1	Max Conc	1	44000	34.28242111	3.073604107	0	10.4166832

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV013_50mm	50	Category 3/E	1	Max Conc	0.5	22000	79.46538544	5.420330524	0	10.4166832
Export	E_INV013_50mm	50	Category 3/E	1	Max Conc	1	44000	33.40071106	2.688872337	0	10.4166832
Export	E_INV013_50mm	50	Category 2/E	1	Max Conc	0.5	22000	76.75080872	5.875487804	0	10.4166832
Export	E_INV013_50mm	50	Category 2/E	1	Max Conc	1	44000	33.66597366	2.827712297	0	10.4166832
Export	E_INV013_50mm	50	Category 1/E	1	Max Conc	0.5	22000	72.70298767	6.591213226	0	10.4166832
Export	E_INV013_50mm	50	Category 1/E	1	Max Conc	1	44000	33.60187531	3.01605916	0	10.4166832
Export	E_INV013_85mm	85	Category 12/E	1	Max Conc	0.5	22000	106.9154358	8.13232708	0	18.96905327
Export	E_INV013_85mm	85	Category 12/E	1	Max Conc	1	44000	49.55353165	4.149083138	0	18.96905327
Export	E_INV013_85mm	85	Category 11/E	1	Max Conc	0.5	22000	101.5067291	7.943335056	0	18.96905327
Export	E_INV013_85mm	85	Category 11/E	1	Max Conc	1	44000	48.32935715	4.068983555	0	18.96905327
Export	E_INV013_85mm	85	Category 10/E	1	Max Conc	0.5	22000	94.91744232	8.527804375	0	18.96905327
Export	E_INV013_85mm	85	Category 10/E	1	Max Conc	1	44000	46.62494659	4.126970291	0	18.96905327
Export	E_INV013_85mm	85	Category 9/E	1	Max Conc	0.5	22000	102.9036484	8.632271767	0	18.96905327
Export	E_INV013_85mm	85	Category 9/E	1	Max Conc	1	44000	49.0578804	4.283554554	0	18.96905327
Export	E_INV013_85mm	85	Category 8/E	1	Max Conc	0.5	22000	98.84431458	8.734427452	0	18.96905327
Export	E_INV013_85mm	85	Category 8/E	1	Max Conc	1	44000	47.67292023	4.205802441	0	18.96905327
Export	E_INV013_85mm	85	Category 7/E	1	Max Conc	0.5	22000	98.14105225	8.425822258	0	18.96905327
Export	E_INV013_85mm	85	Category 7/E	1	Max Conc	1	44000	47.96032333	4.200836182	0	18.96905327
Export	E_INV013_85mm	85	Category 6/E	1	Max Conc	0.5	22000	98.61567688	7.884037018	0	18.96905327
Export	E_INV013_85mm	85	Category 6/E	1	Max Conc	1	44000	47.11055374	3.941641808	0	18.96905327
Export	E_INV013_85mm	85	Category 5/E	1	Max Conc	0.5	22000	102.9456406	7.294934273	0	18.96905327
Export	E_INV013_85mm	85	Category 5/E	1	Max Conc	1	44000	47.54398346	3.750072241	0	18.96905327
Export	E_INV013_85mm	85	Category 4/E	1	Max Conc	0.5	22000	99.70339203	9.175711632	0	18.96905327
Export	E_INV013_85mm	85	Category 4/E	1	Max Conc	1	44000	48.69417572	4.408662319	0	18.96905327
Export	E_INV013_85mm	85	Category 3/E	1	Max Conc	0.5	22000	107.9060593	7.465207577	0	18.96905327
Export	E_INV013_85mm	85	Category 3/E	1	Max Conc	1	44000	48.66599655	3.826043606	0	18.96905327
Export	E_INV013_85mm	85	Category 2/E	1	Max Conc	0.5	22000	102.9590836	8.070836067	0	18.96905327
Export	E_INV013_85mm	85	Category 2/E	1	Max Conc	1	44000	48.19286728	4.018533707	0	18.96905327
Export	E_INV013_85mm	85	Category 1/E	1	Max Conc	0.5	22000	95.39669037	8.958485603	0	18.96905327
Export	E_INV013_85mm	85	Category 1/E	1	Max Conc	1	44000	47.66410828	4.329487324	0	18.96905327
Export	E_INV013_254mm	254	Category 12/E	1	Max Conc	0.5	22000	103.7495117	8.079214096	0	18.89259911
Export	E_INV013_254mm	254	Category 12/E	1	Max Conc	1	44000	49.19565582	4.143102169	0	18.89259911
Export	E_INV013_254mm	254	Category 11/E	1	Max Conc	0.5	22000	98.6332016	7.885896206	0	18.89259911
Export	E_INV013_254mm	254	Category 11/E	1	Max Conc	1	44000	47.95583344	4.060319901	0	18.89259911
Export	E_INV013_254mm	254	Category 10/E	1	Max Conc	0.5	22000	92.75010681	8.45968914	0	18.89259911
Export	E_INV013_254mm	254	Category 10/E	1	Max Conc	1	44000	46.34093857	4.119677067	0	18.89259911
Export	E_INV013_254mm	254	Category 9/E	1	Max Conc	0.5	22000	100.055748	8.569594383	0	18.89259911
Export	E_INV013_254mm	254	Category 9/E	1	Max Conc	1	44000	48.79579163	4.276426315	0	18.89259911
Export	E_INV013_254mm	254	Category 8/E	1	Max Conc	0.5	22000	96.76241302	8.6731987	0	18.89259911
Export	E_INV013_254mm	254	Category 8/E	1	Max Conc	1	44000	47.42192459	4.199118137	0	18.89259911
Export	E_INV013_254mm	254	Category 7/E	1	Max Conc	0.5	22000	95.54862976	8.360708237	0	18.89259911
Export	E_INV013_254mm	254	Category 7/E	1	Max Conc	1	44000	47.66646576	4.194878578	0	18.89259911
Export	E_INV013_254mm	254	Category 6/E	1	Max Conc	0.5	22000	96.3575592	7.829156399	0	18.89259911
Export	E_INV013_254mm	254	Category 6/E	1	Max Conc	1	44000	46.81184006	3.93431592	0	18.89259911
Export	E_INV013_254mm	254	Category 5/E	1	Max Conc	0.5	22000	100.1707535	7.25091362	0	18.89259911
Export	E_INV013_254mm	254	Category 5/E	1	Max Conc	1	44000	47.18718719	3.743044615	0	18.89259911
Export	E_INV013_254mm	254	Category 4/E	1	Max Conc	0.5	22000	97.29546356	9.110311508	0	18.89259911
Export	E_INV013_254mm	254	Category 4/E	1	Max Conc	1	44000	48.47558212	4.405870438	0	18.89259911
Export	E_INV013_254mm	254	Category 3/E	1	Max Conc	0.5	22000	105.1350098	7.425499439	0	18.89259911
Export	E_INV013_254mm	254	Category 3/E	1	Max Conc	1	44000	48.37917328	3.820145845	0	18.89259911
Export	E_INV013_254mm	254	Category 2/E	1	Max Conc	0.5	22000	100.4741058	8.021992683	0	18.89259911
Export	E_INV013_254mm	254	Category 2/E	1	Max Conc	1	44000	47.94857407	4.012774467	0	18.89259911
Export	E_INV013_254mm	254	Category 1/E	1	Max Conc	0.5	22000	92.92272186	8.876531601	0	18.89259911
Export	E_INV013_254mm	254	Category 1/E	1	Max Conc	1	44000	47.36252594	4.319887638	0	18.89259911
Export	E_INV013_10mm	10	Category 12/E	1	Max Conc	0.5	22000	8.566488266	0.961802006	0	0.416667283
Export	E_INV013_10mm	10	Category 12/E	1	Max Conc	1	44000	4.908690929	0.491502523	0	0.416667283
Export	E_INV013_10mm	10	Category 11/E	1	Max Conc	0.5	22000	8.348338127	0.945901275	0	0.416667283
Export	E_INV013_10mm	10	Category 11/E	1	Max Conc	1	44000	4.820745468	0.48372066	0	0.416667283
Export	E_INV013_10mm	10	Category 10/E	1	Max Conc	0.5	22000	11.14688969	0.998755455	0	0.416667283
Export	E_INV013_10mm	10	Category 10/E	1	Max Conc	1	44000	5.640318871	0.496141493	0	0.416667283
Export	E_INV013_10mm	10	Category 9/E	1	Max Conc	0.5	22000	9.898301125	0.999115944	0	0.416667283
Export	E_INV013_10mm	10	Category 9/E	1	Max Conc	1	44000	5.300110817	0.50068152	0	0.416667283
Export	E_INV013_10mm	10	Category 8/E	1	Max Conc	0.5	22000	11.3951416	1.017472386	0	0.416667283
Export	E_INV013_10mm	10	Category 8/E	1	Max Conc	1	44000	5.739160538	0.504092753	0	0.416667283
Export	E_INV013_10mm	10	Category 7/E	1	Max Conc	0.5	22000	9.664917946	0.981744349	0	0.416667283
Export	E_INV013_10mm	10	Category 7/E	1	Max Conc	1	44000	5.194653511	0.492382109	0	0.416667283
Export	E_INV013_10mm	10	Category 6/E	1	Max Conc	0.5	22000	9.470831871	0.93218106	0	0.416667283
Export	E_INV013_10mm	10	Category 6/E	1	Max Conc	1	44000	5.237836361	0.478890777	0	0.416667283
Export	E_INV013_10mm	10	Category 5/E	1	Max Conc	0.5	22000	8.339007378	0.870608211	0	0.416667283
Export	E_INV013_10mm	10	Category 5/E	1	Max Conc	1	44000	4.898722172	0.461941391	0	0.416667283
Export	E_INV013_10mm	10	Category 4/E	1	Max Conc	0.5	22000	11.51934719	1.034420133	0	0.416667283
Export	E_INV013_10mm	10	Category 4/E	1	Max Conc	1	44000	5.73312521	0.509212673	0	0.416667283
Export	E_INV013_10mm	10	Category 3/E	1	Max Conc	0.5	22000	8.496185303	0.885866582	0	0.416667283
Export	E_INV013_10mm	10	Category 3/E	1	Max Conc	1	44000	4.984749794	0.469575822	0	0.416667283
Export	E_INV013_10mm	10	Category 2/E	1	Max Conc	0.5	22000	9.672638893	0.94920069	0	0.416667283
Export	E_INV013_10mm	10	Category 2/E	1	Max Conc	1	44000	5.342335701	0.486968517	0	0.416667283
Export	E_INV013_10mm	10	Category 1/E	1	Max Conc	0.5	22000	11.25165272	1.015815139	0	0.416667283
Export	E_INV013_10mm	10	Category 1/E	1	Max Conc	1	44000	5.634598732	0.501293421	0	0.416667283
Export	E_INV014_50mm (1m)	50	Category 12/E	1	Max Conc	0.5	22000	205.5465088	13.22280407	0	2.851492405

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV014_50mm (1m)	50	Category 12/E	1	Max Conc	1	44000	115.3081436	9.807694435	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 11/E	1	Max Conc	0.5	22000	188.4866791	14.2384243	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 11/E	1	Max Conc	1	44000	101.4111557	10.23846626	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 10/E	1	Max Conc	0.5	22000	106.4477997	28.9706459	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 10/E	1	Max Conc	1	44000	54.50660324	21.79405594	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 9/E	1	Max Conc	0.5	22000	238.1830139	18.78552437	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 9/E	1	Max Conc	1	44000	122.9142685	14.93389225	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 8/E	1	Max Conc	0.5	22000	108.6951065	26.03208733	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 8/E	1	Max Conc	1	44000	53.70048523	20.23159599	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 7/E	1	Max Conc	0.5	22000	240.7337494	20.9301815	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 7/E	1	Max Conc	1	44000	126.923378	16.0261879	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 6/E	1	Max Conc	0.5	22000	83.47251129	13.12395573	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 6/E	1	Max Conc	1	44000	51.32598877	8.695206642	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 5/E	1	Max Conc	0.5	22000	65.32701111	8.92002964	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 5/E	1	Max Conc	1	44000	39.01840591	4.556484699	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 4/E	1	Max Conc	0.5	22000	232.9250946	40.05419159	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 4/E	1	Max Conc	1	44000	66.83267212	32.93149948	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 3/E	1	Max Conc	0.5	22000	65.0806427	8.61322403	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 3/E	1	Max Conc	1	44000	41.2317009	5.335724831	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 2/E	1	Max Conc	0.5	22000	86.61643219	12.56322479	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 2/E	1	Max Conc	1	44000	53.36296082	8.754734993	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 1/E	1	Max Conc	0.5	22000	218.5065613	47.18640137	0	2.851492405
Export	E_INV014_50mm (1m)	50	Category 1/E	1	Max Conc	1	44000	60.39762497	37.97161484	0	2.851492405
Export	E_INV014_Rupture (1m)		Category 12/E	1	Max Conc	0.5	22000	38905.17188	5642.602539	-807.03912	67776677.85
Export	E_INV014_Rupture (1m)		Category 12/E	1	Max Conc	1	44000	13980.42578	5019.380371	-689.09857	67776677.85
Export	E_INV014_Rupture (1m)		Category 11/E	1	Max Conc	0.5	22000	40267.85938	5717.322266	-810.11658	67776677.85
Export	E_INV014_Rupture (1m)		Category 11/E	1	Max Conc	1	44000	15869.98145	5071.450195	-689.64514	67776677.85
Export	E_INV014_Rupture (1m)		Category 10/E	1	Max Conc	0.5	22000	5585.105469	7308.840332	-3094.3047	67776677.85
Export	E_INV014_Rupture (1m)		Category 10/E	1	Max Conc	1	44000	3783.347412	6446.920898	-2666.2744	67776677.85
Export	E_INV014_Rupture (1m)		Category 9/E	1	Max Conc	0.5	22000	46151.625	8761.764648	-1470.6774	67776677.85
Export	E_INV014_Rupture (1m)		Category 9/E	1	Max Conc	1	44000	15577.76953	7851.144043	-1229.5703	67776677.85
Export	E_INV014_Rupture (1m)		Category 8/E	1	Max Conc	0.5	22000	6571.040527	6580.305176	-2883.6672	67776677.85
Export	E_INV014_Rupture (1m)		Category 8/E	1	Max Conc	1	44000	3333.62793	5846.391602	-2512.343	67776677.85
Export	E_INV014_Rupture (1m)		Category 7/E	1	Max Conc	0.5	22000	50447.08984	8546.592773	-1568.3508	67776677.85
Export	E_INV014_Rupture (1m)		Category 7/E	1	Max Conc	1	44000	19620.81055	7646.043457	-1291.9681	67776677.85
Export	E_INV014_Rupture (1m)		Category 6/E	1	Max Conc	0.5	22000	13622.59375	7150.972656	-1038.3617	67776677.85
Export	E_INV014_Rupture (1m)		Category 6/E	1	Max Conc	1	44000	5732.90625	6366.391602	-838.08453	67776677.85
Export	E_INV014_Rupture (1m)		Category 5/E	1	Max Conc	0.5	22000	10992.93262	4459.293457	-649.94427	67776677.85
Export	E_INV014_Rupture (1m)		Category 5/E	1	Max Conc	1	44000	6118.552734	3796.449219	-555.95892	67776677.85
Export	E_INV014_Rupture (1m)		Category 4/E	1	Max Conc	0.5	22000	28351.26172	6980.671875	-3154.3125	67776677.85
Export	E_INV014_Rupture (1m)		Category 4/E	1	Max Conc	1	44000	3477.660645	6257.401367	-2809.3435	67776677.85
Export	E_INV014_Rupture (1m)		Category 3/E	1	Max Conc	0.5	22000	9819.250977	2239.699463	-653.35211	67776677.85
Export	E_INV014_Rupture (1m)		Category 3/E	1	Max Conc	1	44000	5103.991699	1680.925293	-560.23486	67776677.85
Export	E_INV014_Rupture (1m)		Category 2/E	1	Max Conc	0.5	22000	13432.52539	7152.20166	-985.92859	67776677.85
Export	E_INV014_Rupture (1m)		Category 2/E	1	Max Conc	1	44000	5536.411621	6381.28418	-830.5954	67776677.85
Export	E_INV014_Rupture (1m)		Category 1/E	1	Max Conc	0.5	22000	26302.875	7415.07373	-3339.6509	67776677.85
Export	E_INV014_Rupture (1m)		Category 1/E	1	Max Conc	1	44000	3686.441406	6620.259277	-2933.2393	67776677.85
Export	E_INV014_1000mm (1m)	1000	Category 10/E	1	Max Conc	0.5	22000	1201.861572	1800.452271	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 10/E	1	Max Conc	1	44000	409.5610962	1576.009155	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 9/E	1	Max Conc	0.5	22000	3231.927979	840.3776245	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 9/E	1	Max Conc	1	44000	1375.012695	749.5556641	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 8/E	1	Max Conc	0.5	22000	1167.253662	1597.081421	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 8/E	1	Max Conc	1	44000	360.59552	1402.303833	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 7/E	1	Max Conc	0.5	22000	3308.212158	962.8557739	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 7/E	1	Max Conc	1	44000	1476.025146	833.9266968	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 6/E	1	Max Conc	0.5	22000	1130.714355	694.1653442	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 6/E	1	Max Conc	1	44000	575.8782349	613.0033569	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 5/E	1	Max Conc	0.5	22000	779.451355	625.9400635	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 5/E	1	Max Conc	1	44000	389.1197205	550.1777954	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 4/E	1	Max Conc	0.5	22000	2800.537598	2221.02002	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 4/E	1	Max Conc	1	44000	538.2918091	1965.554077	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 2/E	1	Max Conc	0.5	22000	857.3519287	691.2468262	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 2/E	1	Max Conc	1	44000	355.2079468	612.2194824	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 1/E	1	Max Conc	0.5	22000	3108.76001	2419.568115	0	1140.596924
Export	E_INV014_1000mm (1m)	1000	Category 1/E	1	Max Conc	1	44000	751.6707153	2136.519531	0	1140.596924
Export	E_INV014_50mm (2/3H)	50	Category 12/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 12/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 11/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 11/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 10/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 10/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 9/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 9/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 8/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 8/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 7/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 7/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 6/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 6/E	1	Max Conc	1	44000	0	0	0	2.851492405

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV014_50mm (2/3H)	50	Category 5/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 5/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 4/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 4/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 3/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 3/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 2/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 2/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 1/E	1	Max Conc	0.5	22000	0	0	0	2.851492405
Export	E_INV014_50mm (2/3H)	50	Category 1/E	1	Max Conc	1	44000	0	0	0	2.851492405
Export	E_INV014_Rupture (2/3H)		Category 12/E	1	Max Conc	0.5	22000	39012.59375	5651.500977	-794.63959	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 12/E	1	Max Conc	1	44000	12986.42285	5027.006836	-673.16376	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 11/E	1	Max Conc	0.5	22000	41065.65625	5732.285645	-790.07025	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 11/E	1	Max Conc	1	44000	21079.58008	5082.807617	-665.00641	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 10/E	1	Max Conc	0.5	22000	6290.990234	6999.802246	-2616.6807	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 10/E	1	Max Conc	1	44000	4019.575195	6250.123047	-2229.7612	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 9/E	1	Max Conc	0.5	22000	42319.94922	8754.974609	-1306.1837	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 9/E	1	Max Conc	1	44000	13626.82324	7844.721191	-1077.9282	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 8/E	1	Max Conc	0.5	22000	6844.695313	6635.335938	-2552.6497	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 8/E	1	Max Conc	1	44000	3758.771973	5957.361328	-2197.8394	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 7/E	1	Max Conc	0.5	22000	49288.50781	8558.542969	-1347.8201	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 7/E	1	Max Conc	1	44000	18439.97656	7656.90918	-1100.557	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 6/E	1	Max Conc	0.5	22000	11995.15723	7153.731934	-798.05035	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 6/E	1	Max Conc	1	44000	4677.532227	6369.071777	-659.34998	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 5/E	1	Max Conc	0.5	22000	10161.89355	4452.875488	-544.36072	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 5/E	1	Max Conc	1	44000	4944.251465	3789.821289	-447.92685	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 4/E	1	Max Conc	0.5	22000	24289.13477	6868.59082	-2828.4983	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 4/E	1	Max Conc	1	44000	3723.171875	6220.768066	-2497.3147	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 3/E	1	Max Conc	0.5	22000	7463.923828	2518.855957	-559.99402	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 3/E	1	Max Conc	1	44000	3573.56665	2227.389893	-465.70444	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 2/E	1	Max Conc	0.5	22000	13644.54395	7156.490723	-815.96112	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 2/E	1	Max Conc	1	44000	6709.492188	6384.633789	-675.32172	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 1/E	1	Max Conc	0.5	22000	22658.11328	7213.480957	-2940.9368	67776677.85
Export	E_INV014_Rupture (2/3H)		Category 1/E	1	Max Conc	1	44000	3895.057617	6449.887207	-2554.2378	67776677.85
Export	E_INV014_1000mm (2/3H)	1000	Category 10/E	1	Max Conc	0.5	22000	1529.892578	1335.53894	12.762637	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 10/E	1	Max Conc	1	44000	691.9235229	1141.620728	10.218789	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 9/E	1	Max Conc	0.5	22000	3069.420654	704.762207	12.404455	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 9/E	1	Max Conc	1	44000	1085.526001	604.543335	12.404455	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 8/E	1	Max Conc	0.5	22000	1711.53418	1026.600586	12.771479	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 8/E	1	Max Conc	1	44000	661.2328491	888.7233276	12.771479	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 7/E	1	Max Conc	0.5	22000	2679.118408	863.6420898	12.401024	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 7/E	1	Max Conc	1	44000	935.2652588	737.9018555	12.401024	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 6/E	1	Max Conc	0.5	22000	1252.63623	589.72052	13.351783	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 6/E	1	Max Conc	1	44000	656.7972412	506.1962891	13.351783	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 5/E	1	Max Conc	0.5	22000	1180.215698	367.7830505	4.910646	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 5/E	1	Max Conc	1	44000	700.9189453	311.3520813	11.120842	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 4/E	1	Max Conc	0.5	22000	4184.367676	1257.896484	12.172442	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 4/E	1	Max Conc	1	44000	1014.437805	1089.365723	12.172442	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 3/E	1	Max Conc	0.5	22000	1233.256104	325.1344604	5.0382366	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 3/E	1	Max Conc	1	44000	718.4161987	278.6981201	10.728703	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 2/E	1	Max Conc	0.5	22000	1326.550293	519.2216187	13.140197	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 2/E	1	Max Conc	1	44000	673.6541748	448.4486389	13.140197	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 1/E	1	Max Conc	0.5	22000	3553.343018	1693.30249	12.157452	1140.596924
Export	E_INV014_1000mm (2/3H)	1000	Category 1/E	1	Max Conc	1	44000	955.5994873	1448.777222	12.157452	1140.596924
Export	E_INV015_25mm (all)	25	Category 12/E	1	Max Conc	0.5	15707.7815	8.428277969	0.9265275	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 12/E	1	Max Conc	1	31415.5629	4.986376286	0.477773488	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 11/E	1	Max Conc	0.5	15707.7815	8.252303123	0.910976112	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 11/E	1	Max Conc	1	31415.5629	4.914507389	0.469429374	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 10/E	1	Max Conc	0.5	15707.7815	11.0848341	0.962185621	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 10/E	1	Max Conc	1	31415.5629	5.733419418	0.481859654	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 9/E	1	Max Conc	0.5	15707.7815	9.773156166	0.962886631	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 9/E	1	Max Conc	1	31415.5629	5.387185574	0.487520069	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 8/E	1	Max Conc	0.5	15707.7815	11.30962849	0.980260193	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 8/E	1	Max Conc	1	31415.5629	5.816201687	0.490064412	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 7/E	1	Max Conc	0.5	15707.7815	9.550425529	0.946150184	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 7/E	1	Max Conc	1	31415.5629	5.299305916	0.478986681	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 6/E	1	Max Conc	0.5	15707.7815	9.379152298	0.89748323	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 6/E	1	Max Conc	1	31415.5629	5.345427513	0.465560973	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 5/E	1	Max Conc	0.5	15707.7815	8.323925972	0.83763051	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 5/E	1	Max Conc	1	31415.5629	4.995224476	0.448049992	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 4/E	1	Max Conc	0.5	15707.7815	11.42417145	0.997303665	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 4/E	1	Max Conc	1	31415.5629	5.809031487	0.495328009	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 3/E	1	Max Conc	0.5	15707.7815	8.453968048	0.852480829	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 3/E	1	Max Conc	1	31415.5629	5.065475464	0.455925524	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 2/E	1	Max Conc	0.5	15707.7815	9.560274124	0.913909078	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 2/E	1	Max Conc	1	31415.5629	5.432234764	0.473991007	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 1/E	1	Max Conc	0.5	15707.7815	11.19422722	0.979307294	0	0.470467091
Export	E_INV015_25mm (all)	25	Category 1/E	1	Max Conc	1	31415.5629	5.726511955	0.486917436	0	0.470467091
Export	E_INV015_50mm (all)	50	Category 12/E	1	Max Conc	0.5	15707.7815	24.54973221	1.984484673	0	1.881868362

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV015_50mm (all)	50	Category 12/E	1	Max Conc	1	31415.5629	9.938515663	0.964933217	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 11/E	1	Max Conc	0.5	15707.7815	23.92276192	1.953634024	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 11/E	1	Max Conc	1	31415.5629	9.732746124	0.947495103	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 10/E	1	Max Conc	0.5	15707.7815	25.89214516	2.009768486	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 10/E	1	Max Conc	1	31415.5629	11.56359863	0.977914393	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 9/E	1	Max Conc	0.5	15707.7815	25.81283379	2.029533148	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 9/E	1	Max Conc	1	31415.5629	10.80268097	0.981814086	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 8/E	1	Max Conc	0.5	15707.7815	26.43283272	2.033069134	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 8/E	1	Max Conc	1	31415.5629	11.75758362	0.996333182	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 7/E	1	Max Conc	0.5	15707.7815	25.21228218	2.004783869	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 7/E	1	Max Conc	1	31415.5629	10.5932436	0.964387	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 6/E	1	Max Conc	0.5	15707.7815	24.5571537	1.922975183	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 6/E	1	Max Conc	1	31415.5629	10.48478127	0.940008521	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 5/E	1	Max Conc	0.5	15707.7815	22.51478958	1.77901113	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 5/E	1	Max Conc	1	31415.5629	9.585412979	0.904633045	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 4/E	1	Max Conc	0.5	15707.7815	26.74005127	2.040648222	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 4/E	1	Max Conc	1	31415.5629	11.77492905	1.002558589	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 3/E	1	Max Conc	0.5	15707.7815	23.21874428	1.815020204	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 3/E	1	Max Conc	1	31415.5629	9.778598785	0.921766341	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 2/E	1	Max Conc	0.5	15707.7815	25.16516304	1.954574466	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 2/E	1	Max Conc	1	31415.5629	10.66405869	0.956607938	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 1/E	1	Max Conc	0.5	15707.7815	26.19532776	2.018539429	0	1.881868362
Export	E_INV015_50mm (all)	50	Category 1/E	1	Max Conc	1	31415.5629	11.56585503	0.984306037	0	1.881868362
Export	E_INV015_610mm (all)	610	Category 12/E	1	Max Conc	0.5	15707.7815	533.1053467	47.47557068	0	280.09729
Export	E_INV015_610mm (all)	610	Category 12/E	1	Max Conc	1	31415.5629	238.6634674	16.48827553	0	280.09729
Export	E_INV015_610mm (all)	610	Category 11/E	1	Max Conc	0.5	15707.7815	525.8755493	45.87131882	0	280.09729
Export	E_INV015_610mm (all)	610	Category 11/E	1	Max Conc	1	31415.5629	234.6356964	16.1674366	0	280.09729
Export	E_INV015_610mm (all)	610	Category 10/E	1	Max Conc	0.5	15707.7815	425.3334961	51.02988815	0	280.09729
Export	E_INV015_610mm (all)	610	Category 10/E	1	Max Conc	1	31415.5629	204.9700012	16.07956314	0	280.09729
Export	E_INV015_610mm (all)	610	Category 9/E	1	Max Conc	0.5	15707.7815	484.8012695	51.57089233	0	280.09729
Export	E_INV015_610mm (all)	610	Category 9/E	1	Max Conc	1	31415.5629	227.1458282	17.20053101	0	280.09729
Export	E_INV015_610mm (all)	610	Category 8/E	1	Max Conc	0.5	15707.7815	431.093811	52.84888077	0	280.09729
Export	E_INV015_610mm (all)	610	Category 8/E	1	Max Conc	1	31415.5629	209.0553894	16.38562775	0	280.09729
Export	E_INV015_610mm (all)	610	Category 7/E	1	Max Conc	0.5	15707.7815	478.2570496	49.9791069	0	280.09729
Export	E_INV015_610mm (all)	610	Category 7/E	1	Max Conc	1	31415.5629	222.8826294	16.82672501	0	280.09729
Export	E_INV015_610mm (all)	610	Category 6/E	1	Max Conc	0.5	15707.7815	469.1435852	46.37212372	0	280.09729
Export	E_INV015_610mm (all)	610	Category 6/E	1	Max Conc	1	31415.5629	215.1884613	15.36094284	0	280.09729
Export	E_INV015_610mm (all)	610	Category 5/E	1	Max Conc	0.5	15707.7815	520.2336426	42.24297333	0	280.09729
Export	E_INV015_610mm (all)	610	Category 5/E	1	Max Conc	1	31415.5629	228.1451874	14.70654583	0	280.09729
Export	E_INV015_610mm (all)	610	Category 4/E	1	Max Conc	0.5	15707.7815	441.1129761	56.99272919	0	280.09729
Export	E_INV015_610mm (all)	610	Category 4/E	1	Max Conc	1	31415.5629	218.2612762	17.95213318	0	280.09729
Export	E_INV015_610mm (all)	610	Category 3/E	1	Max Conc	0.5	15707.7815	527.2138672	43.80010986	0	280.09729
Export	E_INV015_610mm (all)	610	Category 3/E	1	Max Conc	1	31415.5629	232.2107086	15.04937935	0	280.09729
Export	E_INV015_610mm (all)	610	Category 2/E	1	Max Conc	0.5	15707.7815	475.5085754	47.92339706	0	280.09729
Export	E_INV015_610mm (all)	610	Category 2/E	1	Max Conc	1	31415.5629	219.120285	15.70638657	0	280.09729
Export	E_INV015_610mm (all)	610	Category 1/E	1	Max Conc	0.5	15707.7815	435.1651917	55.16070175	0	280.09729
Export	E_INV015_610mm (all)	610	Category 1/E	1	Max Conc	1	31415.5629	214.0330658	17.57534409	0	280.09729
Export	E_INV015_1829mm (1hr)	1829	Category 12/E	1	Max Conc	0.5	15707.7815	1055.196045	130.1547546	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 12/E	1	Max Conc	1	31415.5629	504.5094299	50.56103134	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 11/E	1	Max Conc	0.5	15707.7815	1051.987549	123.1638947	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 11/E	1	Max Conc	1	31415.5629	501.5350952	48.48884201	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 10/E	1	Max Conc	0.5	15707.7815	743.8358154	153.8725586	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 10/E	1	Max Conc	1	31415.5629	399.426178	53.37654877	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 9/E	1	Max Conc	0.5	15707.7815	907.6107178	143.6583405	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 9/E	1	Max Conc	1	31415.5629	455.2617493	54.99055099	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 8/E	1	Max Conc	0.5	15707.7815	743.1584473	162.541748	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 8/E	1	Max Conc	1	31415.5629	402.9743958	55.84632874	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 7/E	1	Max Conc	0.5	15707.7815	910.6903076	136.0534668	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 7/E	1	Max Conc	1	31415.5629	451.4512329	52.62090683	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 6/E	1	Max Conc	0.5	15707.7815	925.1397705	130.8355103	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 6/E	1	Max Conc	1	31415.5629	447.1478882	48.56696701	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 5/E	1	Max Conc	0.5	15707.7815	988.4532471	115.9190598	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 5/E	1	Max Conc	1	31415.5629	503.8179932	44.39380646	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 4/E	1	Max Conc	0.5	15707.7815	748.0293579	168.4330292	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 4/E	1	Max Conc	1	31415.5629	409.5288696	60.36632919	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 3/E	1	Max Conc	0.5	15707.7815	998.9772949	122.9235306	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 3/E	1	Max Conc	1	31415.5629	507.1487427	46.37598801	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 2/E	1	Max Conc	0.5	15707.7815	922.4015503	138.2868042	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 2/E	1	Max Conc	1	31415.5629	451.3425293	50.86162567	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 1/E	1	Max Conc	0.5	15707.7815	749.6332397	159.5296326	0	441.3871155
Export	E_INV015_1829mm (1hr)	1829	Category 1/E	1	Max Conc	1	31415.5629	406.3305664	57.64528275	0	441.3871155
Export	E_INV015_10mm (all)	10	Category 12/E	1	Max Conc	0.5	15707.7815	3.600661278	0.367743611	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 12/E	1	Max Conc	1	31415.5629	2.101461887	0.190955937	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 11/E	1	Max Conc	0.5	15707.7815	3.543567181	0.361548126	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 11/E	1	Max Conc	1	31415.5629	2.069649935	0.18754445	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 10/E	1	Max Conc	0.5	15707.7815	4.468007565	0.37992385	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 10/E	1	Max Conc	1	31415.5629	2.32545495	0.192482412	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 9/E	1	Max Conc	0.5	15707.7815	4.003974915	0.381222695	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 9/E	1	Max Conc	1	31415.5629	2.225141048	0.194598272	0	0.075274728

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV015_10mm (all)	10	Category 8/E	1	Max Conc	0.5	15707.7815	4.541849136	0.386374414	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 8/E	1	Max Conc	1	31415.5629	2.363113403	0.195941597	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 7/E	1	Max Conc	0.5	15707.7815	3.939519405	0.374867618	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 7/E	1	Max Conc	1	31415.5629	2.190727711	0.191262782	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 6/E	1	Max Conc	0.5	15707.7815	4.016692638	0.35559082	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 6/E	1	Max Conc	1	31415.5629	2.216874599	0.185980454	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 5/E	1	Max Conc	0.5	15707.7815	3.678411245	0.332683712	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 5/E	1	Max Conc	1	31415.5629	2.115637064	0.179019153	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 4/E	1	Max Conc	0.5	15707.7815	4.523565769	0.394216686	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 4/E	1	Max Conc	1	31415.5629	2.356491566	0.197973549	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 3/E	1	Max Conc	0.5	15707.7815	3.736846685	0.338580132	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 3/E	1	Max Conc	1	31415.5629	2.149808884	0.182284951	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 2/E	1	Max Conc	0.5	15707.7815	4.081532955	0.361794084	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 2/E	1	Max Conc	1	31415.5629	2.250724077	0.189270183	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 1/E	1	Max Conc	0.5	15707.7815	4.449828148	0.38774699	0	0.075274728
Export	E_INV015_10mm (all)	10	Category 1/E	1	Max Conc	1	31415.5629	2.318782806	0.194509462	0	0.075274728
Export	E_INV015_1829mm (2min)	1829	Category 12/E	1	Max Conc	0.5	15707.7815	1055.196045	130.1547546	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 12/E	1	Max Conc	1	31415.5629	504.5094299	50.56103134	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 11/E	1	Max Conc	0.5	15707.7815	1051.987549	123.1638947	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 11/E	1	Max Conc	1	31415.5629	501.5350952	48.48884201	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 10/E	1	Max Conc	0.5	15707.7815	743.8358765	153.8354187	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 10/E	1	Max Conc	1	31415.5629	399.426178	53.37654877	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 9/E	1	Max Conc	0.5	15707.7815	907.6110229	143.6574554	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 9/E	1	Max Conc	1	31415.5629	455.2617493	54.99055099	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 8/E	1	Max Conc	0.5	15707.7815	743.1585693	162.5266724	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 8/E	1	Max Conc	1	31415.5629	402.9743958	55.84632874	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 7/E	1	Max Conc	0.5	15707.7815	910.6904297	136.0560608	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 7/E	1	Max Conc	1	31415.5629	451.4512329	52.62090683	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 6/E	1	Max Conc	0.5	15707.7815	925.1397705	130.8292236	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 6/E	1	Max Conc	1	31415.5629	447.1478882	48.56696701	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 5/E	1	Max Conc	0.5	15707.7815	988.4532471	115.9190598	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 5/E	1	Max Conc	1	31415.5629	503.8179932	44.39380646	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 4/E	1	Max Conc	0.5	15707.7815	748.0294189	168.4216614	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 4/E	1	Max Conc	1	31415.5629	409.5288696	60.36632919	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 3/E	1	Max Conc	0.5	15707.7815	998.9772949	122.9235306	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 3/E	1	Max Conc	1	31415.5629	507.1487427	46.37598801	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 2/E	1	Max Conc	0.5	15707.7815	922.4015503	138.2507477	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 2/E	1	Max Conc	1	31415.5629	451.3425293	50.86162567	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 1/E	1	Max Conc	0.5	15707.7815	749.6333618	159.5275574	0	441.3871155
Export	E_INV015_1829mm (2min)	1829	Category 1/E	1	Max Conc	1	31415.5629	406.3305664	57.64528275	0	441.3871155
Export	E_INV017_25mm	25	Category 12/E	1	Max Conc	0.5	15707.7815	33.21508026	2.587219954	0	3.47849369
Export	E_INV017_25mm	25	Category 12/E	1	Max Conc	1	31415.5629	13.2691946	1.199254155	0	3.47849369
Export	E_INV017_25mm	25	Category 11/E	1	Max Conc	0.5	15707.7815	32.38928986	2.555708647	0	3.47849369
Export	E_INV017_25mm	25	Category 11/E	1	Max Conc	1	31415.5629	12.94917774	1.175195575	0	3.47849369
Export	E_INV017_25mm	25	Category 10/E	1	Max Conc	0.5	15707.7815	32.75841522	2.654812574	0	3.47849369
Export	E_INV017_25mm	25	Category 10/E	1	Max Conc	1	31415.5629	14.50602627	1.21483314	0	3.47849369
Export	E_INV017_25mm	25	Category 9/E	1	Max Conc	0.5	15707.7815	33.67025375	2.665317535	0	3.47849369
Export	E_INV017_25mm	25	Category 9/E	1	Max Conc	1	31415.5629	14.09124374	1.223452806	0	3.47849369
Export	E_INV017_25mm	25	Category 8/E	1	Max Conc	0.5	15707.7815	33.44573975	2.680511951	0	3.47849369
Export	E_INV017_25mm	25	Category 8/E	1	Max Conc	1	31415.5629	14.75990295	1.236757398	0	3.47849369
Export	E_INV017_25mm	25	Category 7/E	1	Max Conc	0.5	15707.7815	32.92359924	2.638148546	0	3.47849369
Export	E_INV017_25mm	25	Category 7/E	1	Max Conc	1	31415.5629	13.81564617	1.200737	0	3.47849369
Export	E_INV017_25mm	25	Category 6/E	1	Max Conc	0.5	15707.7815	32.33645248	2.503244638	0	3.47849369
Export	E_INV017_25mm	25	Category 6/E	1	Max Conc	1	31415.5629	13.66918468	1.177548885	0	3.47849369
Export	E_INV017_25mm	25	Category 5/E	1	Max Conc	0.5	15707.7815	31.33958626	2.330673933	0	3.47849369
Export	E_INV017_25mm	25	Category 5/E	1	Max Conc	1	31415.5629	12.62888718	1.132937193	0	3.47849369
Export	E_INV017_25mm	25	Category 4/E	1	Max Conc	0.5	15707.7815	33.9382019	2.728603601	0	3.47849369
Export	E_INV017_25mm	25	Category 4/E	1	Max Conc	1	31415.5629	14.79829693	1.239789844	0	3.47849369
Export	E_INV017_25mm	25	Category 3/E	1	Max Conc	0.5	15707.7815	32.1544838	2.37820363	0	3.47849369
Export	E_INV017_25mm	25	Category 3/E	1	Max Conc	1	31415.5629	12.95029163	1.155794978	0	3.47849369
Export	E_INV017_25mm	25	Category 2/E	1	Max Conc	0.5	15707.7815	33.08735657	2.544254065	0	3.47849369
Export	E_INV017_25mm	25	Category 2/E	1	Max Conc	1	31415.5629	13.95010281	1.200420856	0	3.47849369
Export	E_INV017_25mm	25	Category 1/E	1	Max Conc	0.5	15707.7815	33.24024963	2.704719305	0	3.47849369
Export	E_INV017_25mm	25	Category 1/E	1	Max Conc	1	31415.5629	14.54149151	1.217982888	0	3.47849369
Export	E_INV017_50mm	50	Category 12/E	1	Max Conc	0.5	15707.7815	83.83893585	5.48966217	0	13.91397476
Export	E_INV017_50mm	50	Category 12/E	1	Max Conc	1	31415.5629	33.45332718	2.771286726	0	13.91397476
Export	E_INV017_50mm	50	Category 11/E	1	Max Conc	0.5	15707.7815	82.18466187	5.347490311	0	13.91397476
Export	E_INV017_50mm	50	Category 11/E	1	Max Conc	1	31415.5629	32.77455139	2.713214636	0	13.91397476
Export	E_INV017_50mm	50	Category 10/E	1	Max Conc	0.5	15707.7815	74.14819336	5.447273254	0	13.91397476
Export	E_INV017_50mm	50	Category 10/E	1	Max Conc	1	31415.5629	32.66665649	2.7523911	0	13.91397476
Export	E_INV017_50mm	50	Category 9/E	1	Max Conc	0.5	15707.7815	80.71960449	5.721280575	0	13.91397476
Export	E_INV017_50mm	50	Category 9/E	1	Max Conc	1	31415.5629	33.62320328	2.841974974	0	13.91397476
Export	E_INV017_50mm	50	Category 8/E	1	Max Conc	0.5	15707.7815	75.6288147	5.587012768	0	13.91397476
Export	E_INV017_50mm	50	Category 8/E	1	Max Conc	1	31415.5629	33.2680397	2.80715847	0	13.91397476
Export	E_INV017_50mm	50	Category 7/E	1	Max Conc	0.5	15707.7815	79.1333847	5.569392681	0	13.91397476
Export	E_INV017_50mm	50	Category 7/E	1	Max Conc	1	31415.5629	32.98199081	2.784691334	0	13.91397476
Export	E_INV017_50mm	50	Category 6/E	1	Max Conc	0.5	15707.7815	77.40538788	5.143767357	0	13.91397476
Export	E_INV017_50mm	50	Category 6/E	1	Max Conc	1	31415.5629	32.52779007	2.646705866	0	13.91397476
Export	E_INV017_50mm	50	Category 5/E	1	Max Conc	0.5	15707.7815	80.62495422	4.874740124	0	13.91397476

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV017_50mm	50	Category 5/E	1	Max Conc	1	31415.5629	32.23890686	2.532274723	0	13.91397476
Export	E_INV017_50mm	50	Category 4/E	1	Max Conc	0.5	15707.7815	77.83270264	5.971708775	0	13.91397476
Export	E_INV017_50mm	50	Category 4/E	1	Max Conc	1	31415.5629	33.74323654	2.90884304	0	13.91397476
Export	E_INV017_50mm	50	Category 3/E	1	Max Conc	0.5	15707.7815	82.34214783	4.968528271	0	13.91397476
Export	E_INV017_50mm	50	Category 3/E	1	Max Conc	1	31415.5629	32.93610764	2.58734417	0	13.91397476
Export	E_INV017_50mm	50	Category 2/E	1	Max Conc	0.5	15707.7815	78.99628448	5.2739501	0	13.91397476
Export	E_INV017_50mm	50	Category 2/E	1	Max Conc	1	31415.5629	33.16832733	2.701532125	0	13.91397476
Export	E_INV017_50mm	50	Category 1/E	1	Max Conc	0.5	15707.7815	76.28799438	5.786635876	0	13.91397476
Export	E_INV017_50mm	50	Category 1/E	1	Max Conc	1	31415.5629	33.13957214	2.848707676	0	13.91397476
Export	E_INV017_576mm	576	Category 12/E	1	Max Conc	0.5	15707.7815	612.5518188	46.54920197	0	441.2696228
Export	E_INV017_576mm	576	Category 12/E	1	Max Conc	1	31415.5629	269.3221436	17.6223011	0	441.2696228
Export	E_INV017_576mm	576	Category 11/E	1	Max Conc	0.5	15707.7815	607.0715942	44.16856384	0	441.2696228
Export	E_INV017_576mm	576	Category 11/E	1	Max Conc	1	31415.5629	264.3232117	17.16279602	0	441.2696228
Export	E_INV017_576mm	576	Category 10/E	1	Max Conc	0.5	15707.7815	493.6110229	48.36907959	0	441.2696228
Export	E_INV017_576mm	576	Category 10/E	1	Max Conc	1	31415.5629	232.3572235	17.23213005	0	441.2696228
Export	E_INV017_576mm	576	Category 9/E	1	Max Conc	0.5	15707.7815	562.003479	50.45347977	0	441.2696228
Export	E_INV017_576mm	576	Category 9/E	1	Max Conc	1	31415.5629	256.2301331	18.24416542	0	441.2696228
Export	E_INV017_576mm	576	Category 8/E	1	Max Conc	0.5	15707.7815	499.8042603	51.16688538	0	441.2696228
Export	E_INV017_576mm	576	Category 8/E	1	Max Conc	1	31415.5629	236.6031036	17.68473053	0	441.2696228
Export	E_INV017_576mm	576	Category 7/E	1	Max Conc	0.5	15707.7815	556.3861084	47.83444977	0	441.2696228
Export	E_INV017_576mm	576	Category 7/E	1	Max Conc	1	31415.5629	251.3332672	17.74660873	0	441.2696228
Export	E_INV017_576mm	576	Category 6/E	1	Max Conc	0.5	15707.7815	537.8703613	44.84113312	0	441.2696228
Export	E_INV017_576mm	576	Category 6/E	1	Max Conc	1	31415.5629	241.6474915	16.69872856	0	441.2696228
Export	E_INV017_576mm	576	Category 5/E	1	Max Conc	0.5	15707.7815	588.8961792	41.54788208	0	441.2696228
Export	E_INV017_576mm	576	Category 5/E	1	Max Conc	1	31415.5629	253.2187347	16.1486721	0	441.2696228
Export	E_INV017_576mm	576	Category 4/E	1	Max Conc	0.5	15707.7815	515.2265015	55.18014526	0	441.2696228
Export	E_INV017_576mm	576	Category 4/E	1	Max Conc	1	31415.5629	245.3166351	18.89043236	0	441.2696228
Export	E_INV017_576mm	576	Category 3/E	1	Max Conc	0.5	15707.7815	595.6775513	43.86698532	0	441.2696228
Export	E_INV017_576mm	576	Category 3/E	1	Max Conc	1	31415.5629	258.5353394	16.53834152	0	441.2696228
Export	E_INV017_576mm	576	Category 2/E	1	Max Conc	0.5	15707.7815	544.197937	47.38986588	0	441.2696228
Export	E_INV017_576mm	576	Category 2/E	1	Max Conc	1	31415.5629	245.6674652	17.11633301	0	441.2696228
Export	E_INV017_576mm	576	Category 1/E	1	Max Conc	0.5	15707.7815	509.8199158	52.22619247	0	441.2696228
Export	E_INV017_576mm	576	Category 1/E	1	Max Conc	1	31415.5629	241.5761719	18.3633213	0	441.2696228
Export	E_INV017_1727mm	1727	Category 12/E	1	Max Conc	0.5	15707.7815	1133.836914	57.56113815	0	443.1034241
Export	E_INV017_1727mm	1727	Category 12/E	1	Max Conc	1	31415.5629	460.0953979	24.49982071	0	443.1034241
Export	E_INV017_1727mm	1727	Category 11/E	1	Max Conc	0.5	15707.7815	1097.531372	40.45125961	0	443.1034241
Export	E_INV017_1727mm	1727	Category 11/E	1	Max Conc	1	31415.5629	446.3717041	24.65249062	0	443.1034241
Export	E_INV017_1727mm	1727	Category 10/E	1	Max Conc	0.5	15707.7815	750.8184204	54.14256668	0	443.1034241
Export	E_INV017_1727mm	1727	Category 10/E	1	Max Conc	1	31415.5629	352.122345	28.22195053	0	443.1034241
Export	E_INV017_1727mm	1727	Category 9/E	1	Max Conc	0.5	15707.7815	968.3842773	64.4814682	0	443.1034241
Export	E_INV017_1727mm	1727	Category 9/E	1	Max Conc	1	31415.5629	417.3486938	26.06750488	0	443.1034241
Export	E_INV017_1727mm	1727	Category 8/E	1	Max Conc	0.5	15707.7815	783.2911987	72.90731812	0	443.1034241
Export	E_INV017_1727mm	1727	Category 8/E	1	Max Conc	1	31415.5629	363.118042	26.33608437	0	443.1034241
Export	E_INV017_1727mm	1727	Category 7/E	1	Max Conc	0.5	15707.7815	950.1113281	45.78759766	0	443.1034241
Export	E_INV017_1727mm	1727	Category 7/E	1	Max Conc	1	31415.5629	407.0198059	26.66062927	0	443.1034241
Export	E_INV017_1727mm	1727	Category 6/E	1	Max Conc	0.5	15707.7815	878.8238525	46.74831009	0	443.1034241
Export	E_INV017_1727mm	1727	Category 6/E	1	Max Conc	1	31415.5629	388.1244812	25.96596527	0	443.1034241
Export	E_INV017_1727mm	1727	Category 5/E	1	Max Conc	0.5	15707.7815	1027.905762	41.31727219	0	443.1034241
Export	E_INV017_1727mm	1727	Category 5/E	1	Max Conc	1	31415.5629	424.8664246	23.98223686	0	443.1034241
Export	E_INV017_1727mm	1727	Category 4/E	1	Max Conc	0.5	15707.7815	814.4069214	76.03168488	0	443.1034241
Export	E_INV017_1727mm	1727	Category 4/E	1	Max Conc	1	31415.5629	382.2632446	28.13759041	0	443.1034241
Export	E_INV017_1727mm	1727	Category 3/E	1	Max Conc	0.5	15707.7815	1082.661621	56.59741592	0	443.1034241
Export	E_INV017_1727mm	1727	Category 3/E	1	Max Conc	1	31415.5629	440.559082	23.11973572	0	443.1034241
Export	E_INV017_1727mm	1727	Category 2/E	1	Max Conc	0.5	15707.7815	932.7801514	63.08239746	0	443.1034241
Export	E_INV017_1727mm	1727	Category 2/E	1	Max Conc	1	31415.5629	399.7625427	24.63630676	0	443.1034241
Export	E_INV017_1727mm	1727	Category 1/E	1	Max Conc	0.5	15707.7815	824.720459	54.33160019	0	443.1034241
Export	E_INV017_1727mm	1727	Category 1/E	1	Max Conc	1	31415.5629	371.7520447	29.18744469	0	443.1034241
Export	E_INV017_10mm	10	Category 12/E	1	Max Conc	0.5	15707.7815	8.657838821	0.915828586	0	0.556558967
Export	E_INV017_10mm	10	Category 12/E	1	Max Conc	1	31415.5629	5.010178566	0.46942094	0	0.556558967
Export	E_INV017_10mm	10	Category 11/E	1	Max Conc	0.5	15707.7815	8.473339081	0.901043594	0	0.556558967
Export	E_INV017_10mm	10	Category 11/E	1	Max Conc	1	31415.5629	4.935538292	0.461601615	0	0.556558967
Export	E_INV017_10mm	10	Category 10/E	1	Max Conc	0.5	15707.7815	10.91312599	0.942766666	0	0.556558967
Export	E_INV017_10mm	10	Category 10/E	1	Max Conc	1	31415.5629	5.625266075	0.471685439	0	0.556558967
Export	E_INV017_10mm	10	Category 9/E	1	Max Conc	0.5	15707.7815	9.828907013	0.946661949	0	0.556558967
Export	E_INV017_10mm	10	Category 9/E	1	Max Conc	1	31415.5629	5.353883266	0.477448612	0	0.556558967
Export	E_INV017_10mm	10	Category 8/E	1	Max Conc	0.5	15707.7815	11.13526726	0.960640311	0	0.556558967
Export	E_INV017_10mm	10	Category 8/E	1	Max Conc	1	31415.5629	5.712600231	0.479831696	0	0.556558967
Export	E_INV017_10mm	10	Category 7/E	1	Max Conc	0.5	15707.7815	9.620838165	0.930280328	0	0.556558967
Export	E_INV017_10mm	10	Category 7/E	1	Max Conc	1	31415.5629	5.261868	0.469084352	0	0.556558967
Export	E_INV017_10mm	10	Category 6/E	1	Max Conc	0.5	15707.7815	9.490055084	0.890972197	0	0.556558967
Export	E_INV017_10mm	10	Category 6/E	1	Max Conc	1	31415.5629	5.297643661	0.458272815	0	0.556558967
Export	E_INV017_10mm	10	Category 5/E	1	Max Conc	0.5	15707.7815	8.509301186	0.83984971	0	0.556558967
Export	E_INV017_10mm	10	Category 5/E	1	Max Conc	1	31415.5629	4.997729778	0.44415468	0	0.556558967
Export	E_INV017_10mm	10	Category 4/E	1	Max Conc	0.5	15707.7815	11.22208023	0.973481774	0	0.556558967
Export	E_INV017_10mm	10	Category 4/E	1	Max Conc	1	31415.5629	5.707669258	0.483898252	0	0.556558967
Export	E_INV017_10mm	10	Category 3/E	1	Max Conc	0.5	15707.7815	8.646697998	0.854223251	0	0.556558967
Export	E_INV017_10mm	10	Category 3/E	1	Max Conc	1	31415.5629	5.071111202	0.451817721	0	0.556558967
Export	E_INV017_10mm	10	Category 2/E	1	Max Conc	0.5	15707.7815	9.673962593	0.907101631	0	0.556558967
Export	E_INV017_10mm	10	Category 2/E	1	Max Conc	1	31415.5629	5.388593197	0.466554284	0	0.556558967

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV017_10mm	10	Category 1/E	1	Max Conc	0.5	15707.7815	10.99256611	0.955717206	0	0.556558967
Export	E_INV017_10mm	10	Category 1/E	1	Max Conc	1	31415.5629	5.620549202	0.475779474	0	0.556558967
Export	E_INV018_25mm (all)	25	Category 12/E	1	Max Conc	0.5	12851.3376	213.5345917	35.24512482	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 12/E	1	Max Conc	1	25702.6752	98.76068878	10.50928497	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 11/E	1	Max Conc	0.5	12851.3376	206.0628052	36.43365479	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 11/E	1	Max Conc	1	25702.6752	96.81111908	10.8237524	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 10/E	1	Max Conc	0.5	12851.3376	168.2260284	33.50910187	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 10/E	1	Max Conc	1	25702.6752	85.68864441	10.44177628	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 9/E	1	Max Conc	0.5	12851.3376	206.1458893	38.00468445	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 9/E	1	Max Conc	1	25702.6752	95.27435303	11.21097469	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 8/E	1	Max Conc	0.5	12851.3376	172.3722534	33.32048035	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 8/E	1	Max Conc	1	25702.6752	88.13682556	10.3848362	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 7/E	1	Max Conc	0.5	12851.3376	202.968277	39.29625702	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 7/E	1	Max Conc	1	25702.6752	93.25943756	11.46618557	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 6/E	1	Max Conc	0.5	12851.3376	197.7683716	27.91548729	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 6/E	1	Max Conc	1	25702.6752	88.58171082	9.433329582	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 5/E	1	Max Conc	0.5	12851.3376	200.0809021	23.23556328	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 5/E	1	Max Conc	1	25702.6752	92.26503754	8.46950531	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 4/E	1	Max Conc	0.5	12851.3376	175.2749023	41.70133972	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 4/E	1	Max Conc	1	25702.6752	91.48027039	12.02250385	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 3/E	1	Max Conc	0.5	12851.3376	206.4714661	23.06046295	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 3/E	1	Max Conc	1	25702.6752	96.03940582	8.336919785	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 2/E	1	Max Conc	0.5	12851.3376	202.8758545	27.58070564	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 2/E	1	Max Conc	1	25702.6752	90.87173462	9.300920486	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 1/E	1	Max Conc	0.5	12851.3376	171.1946259	43.10849762	0	20.02981758
Export	E_INV018_25mm (all)	25	Category 1/E	1	Max Conc	1	25702.6752	89.46068573	12.64668274	0	20.02981758
Export	E_INV018_50mm (all)	50	Category 12/E	1	Max Conc	0.5	12851.3376	449.5600891	85.44980621	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 12/E	1	Max Conc	1	25702.6752	223.3661499	29.03624153	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 11/E	1	Max Conc	0.5	12851.3376	433.1945496	89.29212189	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 11/E	1	Max Conc	1	25702.6752	217.934906	30.75852203	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 10/E	1	Max Conc	0.5	12851.3376	324.4460144	85.01741028	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 10/E	1	Max Conc	1	25702.6752	179.054245	29.34232712	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 9/E	1	Max Conc	0.5	12851.3376	406.9412231	89.17946625	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 9/E	1	Max Conc	1	25702.6752	202.6416779	30.69013786	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 8/E	1	Max Conc	0.5	12851.3376	334.4645386	84.26649475	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 8/E	1	Max Conc	1	25702.6752	184.7402191	28.44262123	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 7/E	1	Max Conc	0.5	12851.3376	399.4727783	93.48693085	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 7/E	1	Max Conc	1	25702.6752	198.0223389	32.26082993	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 6/E	1	Max Conc	0.5	12851.3376	401.567688	73.63375092	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 6/E	1	Max Conc	1	25702.6752	196.6637421	26.23064232	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 5/E	1	Max Conc	0.5	12851.3376	423.278595	64.72447205	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 5/E	1	Max Conc	1	25702.6752	216.579895	23.67456055	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 4/E	1	Max Conc	0.5	12851.3376	335.0057068	98.1443634	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 4/E	1	Max Conc	1	25702.6752	187.4294739	32.76285553	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 3/E	1	Max Conc	0.5	12851.3376	438.3135681	63.98582077	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 3/E	1	Max Conc	1	25702.6752	223.9103699	23.00927544	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 2/E	1	Max Conc	0.5	12851.3376	413.3624268	72.44406128	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 2/E	1	Max Conc	1	25702.6752	202.117157	25.42176437	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 1/E	1	Max Conc	0.5	12851.3376	326.2229004	101.3400269	0	80.11927032
Export	E_INV018_50mm (all)	50	Category 1/E	1	Max Conc	1	25702.6752	182.579834	34.60236359	0	80.11927032
Export	E_INV018_305mm (1hr)	305	Category 12/E	1	Max Conc	0.5	12851.3376	2586.946533	573.9979858	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 12/E	1	Max Conc	1	25702.6752	1239.920044	248.650116	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 11/E	1	Max Conc	0.5	12851.3376	2535.675537	595.9748535	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 11/E	1	Max Conc	1	25702.6752	1196.308594	260.6336365	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 10/E	1	Max Conc	0.5	12851.3376	1576.871704	801.8440552	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 10/E	1	Max Conc	1	25702.6752	931.2678833	302.3395996	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 9/E	1	Max Conc	0.5	12851.3376	2048.889648	636.2741699	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 9/E	1	Max Conc	1	25702.6752	1094.480957	270.7331848	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 8/E	1	Max Conc	0.5	12851.3376	1632.31189	791.5012207	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 8/E	1	Max Conc	1	25702.6752	967.1288452	295.6126709	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 7/E	1	Max Conc	0.5	12851.3376	1988.027832	658.9165039	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 7/E	1	Max Conc	1	25702.6752	1056.55249	284.0437622	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 6/E	1	Max Conc	0.5	12851.3376	2026.327881	681.6945801	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 6/E	1	Max Conc	1	25702.6752	1057.772949	273.9996033	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 5/E	1	Max Conc	0.5	12851.3376	2514.817383	623.0950928	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 5/E	1	Max Conc	1	25702.6752	1219.535156	251.7545929	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 4/E	1	Max Conc	0.5	12851.3376	1644.768066	765.0045776	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 4/E	1	Max Conc	1	25702.6752	971.975769	304.066925	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 3/E	1	Max Conc	0.5	12851.3376	2613.619629	614.4365845	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 3/E	1	Max Conc	1	25702.6752	1265.034546	244.7348328	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 2/E	1	Max Conc	0.5	12851.3376	2090.259766	672.355957	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 2/E	1	Max Conc	1	25702.6752	1096.332031	265.6004639	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 1/E	1	Max Conc	0.5	12851.3376	1589.283081	789.2388306	0	2981.238037
Export	E_INV018_305mm (1hr)	305	Category 1/E	1	Max Conc	1	25702.6752	936.458252	316.5105286	0	2981.238037
Export	E_INV018_914mm (1hr)	914	Category 12/E	1	Max Conc	0.5	12851.3376	4016.881592	1167.910034	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 12/E	1	Max Conc	1	25702.6752	2622.654053	764.4675903	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 11/E	1	Max Conc	0.5	12851.3376	3833.501709	1183.713989	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 11/E	1	Max Conc	1	25702.6752	2497.597656	781.4789429	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 10/E	1	Max Conc	0.5	12851.3376	2436.44458	1176.187866	0	26772.52539

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV018_914mm (1hr)	914	Category 10/E	1	Max Conc	1	25702.6752	1870.682373	788.4857178	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 9/E	1	Max Conc	0.5	12851.3376	3161.48999	1155.668213	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 9/E	1	Max Conc	1	25702.6752	2246.098633	767.2622681	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 8/E	1	Max Conc	0.5	12851.3376	2520.26709	1165.834961	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 8/E	1	Max Conc	1	25702.6752	1935.098145	775.9712524	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 7/E	1	Max Conc	0.5	12851.3376	3022.236328	1170.656616	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 7/E	1	Max Conc	1	25702.6752	2150.899414	782.6768188	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 6/E	1	Max Conc	0.5	12851.3376	3004.327393	1198.649292	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 6/E	1	Max Conc	1	25702.6752	2117.143311	794.229126	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 5/E	1	Max Conc	0.5	12851.3376	3639.977295	1227.669434	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 5/E	1	Max Conc	1	25702.6752	2468.554932	800.2926025	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 4/E	1	Max Conc	0.5	12851.3376	2553.355225	1145.503906	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 4/E	1	Max Conc	1	25702.6752	1955.087402	768.0731201	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 3/E	1	Max Conc	0.5	12851.3376	3787.490234	1216.867065	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 3/E	1	Max Conc	1	25702.6752	2568.341309	786.5935669	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 2/E	1	Max Conc	0.5	12851.3376	3119.626221	1187.309204	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 2/E	1	Max Conc	1	25702.6752	2196.550781	780.9088745	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 1/E	1	Max Conc	0.5	12851.3376	2458.102295	1159.622925	0	26772.52539
Export	E_INV018_914mm (1hr)	914	Category 1/E	1	Max Conc	1	25702.6752	1886.28833	782.0737305	0	26772.52539
Export	E_INV018_10mm (all)	10	Category 12/E	1	Max Conc	0.5	12851.3376	65.19671631	7.949611664	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 12/E	1	Max Conc	1	25702.6752	29.11292076	2.497367382	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 11/E	1	Max Conc	0.5	12851.3376	63.33671188	7.932714939	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 11/E	1	Max Conc	1	25702.6752	28.37684441	2.526362658	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 10/E	1	Max Conc	0.5	12851.3376	59.78842926	8.087975502	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 10/E	1	Max Conc	1	25702.6752	29.64118958	2.793482304	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 9/E	1	Max Conc	0.5	12851.3376	67.65998077	8.91668129	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 9/E	1	Max Conc	1	25702.6752	30.421381	2.790661335	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 8/E	1	Max Conc	0.5	12851.3376	61.5078392	8.226816177	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 8/E	1	Max Conc	1	25702.6752	30.54982758	2.782769442	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 7/E	1	Max Conc	0.5	12851.3376	66.3736496	8.851222038	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 7/E	1	Max Conc	1	25702.6752	29.55532646	2.822895288	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 6/E	1	Max Conc	0.5	12851.3376	59.93360138	6.66078949	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 6/E	1	Max Conc	1	25702.6752	28.57476234	2.385732174	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 5/E	1	Max Conc	0.5	12851.3376	62.00419998	5.418890953	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 5/E	1	Max Conc	1	25702.6752	26.87693405	2.005731583	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 4/E	1	Max Conc	0.5	12851.3376	66.03762817	10.33705711	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 4/E	1	Max Conc	1	25702.6752	31.36353874	3.073578358	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 3/E	1	Max Conc	0.5	12851.3376	64.5691452	5.45979929	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 3/E	1	Max Conc	1	25702.6752	27.6265316	2.005787611	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 2/E	1	Max Conc	0.5	12851.3376	62.43579102	6.745276451	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 2/E	1	Max Conc	1	25702.6752	29.39824486	2.374002218	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 1/E	1	Max Conc	0.5	12851.3376	64.73577881	10.47843456	0	3.204770565
Export	E_INV018_10mm (all)	10	Category 1/E	1	Max Conc	1	25702.6752	30.5737648	3.118992567	0	3.204770565
Export	E_INV018_305mm (2min)	305	Category 12/E	1	Max Conc	0.5	12851.3376	1288.227661	340.6359863	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 12/E	1	Max Conc	1	25702.6752	922.1625366	218.9725037	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 11/E	1	Max Conc	0.5	12851.3376	1217.649292	346.7096252	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 11/E	1	Max Conc	1	25702.6752	876.7905884	224.7735291	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 10/E	1	Max Conc	0.5	12851.3376	908.5663452	326.4046936	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 10/E	1	Max Conc	1	25702.6752	697.9539185	215.7905273	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 9/E	1	Max Conc	0.5	12851.3376	1114.259644	333.4390259	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 9/E	1	Max Conc	1	25702.6752	803.2807617	217.9750671	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 8/E	1	Max Conc	0.5	12851.3376	944.9901733	323.0192261	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 8/E	1	Max Conc	1	25702.6752	724.8349609	211.714859	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 7/E	1	Max Conc	0.5	12851.3376	1065.158203	339.2849121	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 7/E	1	Max Conc	1	25702.6752	766.7824707	223.4975128	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 6/E	1	Max Conc	0.5	12851.3376	1143.51123	332.709198	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 6/E	1	Max Conc	1	25702.6752	797.4356689	216.9905701	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 5/E	1	Max Conc	0.5	12851.3376	1273.570557	340.77005	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 5/E	1	Max Conc	1	25702.6752	934.0365601	218.3035431	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 4/E	1	Max Conc	0.5	12851.3376	920.427124	328.5813599	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 4/E	1	Max Conc	1	25702.6752	712.7105713	217.1211853	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 3/E	1	Max Conc	0.5	12851.3376	1330.341309	337.4790344	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 3/E	1	Max Conc	1	25702.6752	975.1845093	214.116806	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 2/E	1	Max Conc	0.5	12851.3376	1190.527344	329.0150757	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 2/E	1	Max Conc	1	25702.6752	831.776123	212.8250275	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 1/E	1	Max Conc	0.5	12851.3376	881.326355	333.7359924	0	2981.238037
Export	E_INV018_305mm (2min)	305	Category 1/E	1	Max Conc	1	25702.6752	682.9873047	222.3422852	0	2981.238037
Export	E_INV018_914mm (2min)	914	Category 12/E	1	Max Conc	0.5	12851.3376	1500.989014	343.7663879	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 12/E	1	Max Conc	1	25702.6752	1137.588135	230.4897766	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 11/E	1	Max Conc	0.5	12851.3376	1432.56665	348.6636353	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 11/E	1	Max Conc	1	25702.6752	1090.474487	234.6886444	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 10/E	1	Max Conc	0.5	12851.3376	1117.298462	334.2886658	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 10/E	1	Max Conc	1	25702.6752	910.854248	229.6005096	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 9/E	1	Max Conc	0.5	12851.3376	1325.84021	336.4402771	8.1788702	26772.52539
Export	E_INV018_914mm (2min)	914	Category 9/E	1	Max Conc	1	25702.6752	1019.522156	228.4933929	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 8/E	1	Max Conc	0.5	12851.3376	1155.207397	331.1117554	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 8/E	1	Max Conc	1	25702.6752	939.0919189	226.3053131	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 7/E	1	Max Conc	0.5	12851.3376	1274.829956	341.406311	5.5318956	26772.52539
Export	E_INV018_914mm (2min)	914	Category 7/E	1	Max Conc	1	25702.6752	980.1376953	232.6348267	0	26772.52539

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concentration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV018_914mm (2min)	914	Category 6/E	1	Max Conc	0.5	12851.3376	1360.613647	341.4109802	9.0005026	26772.52539
Export	E_INV018_914mm (2min)	914	Category 6/E	1	Max Conc	1	25702.6752	1015.579407	231.9200897	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 5/E	1	Max Conc	0.5	12851.3376	1481.535889	350.3055115	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 5/E	1	Max Conc	1	25702.6752	1156.103638	234.6308594	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 4/E	1	Max Conc	0.5	12851.3376	1134.058105	331.3620911	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 4/E	1	Max Conc	1	25702.6752	928.3691406	226.8753052	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 3/E	1	Max Conc	0.5	12851.3376	1539.467285	347.3328857	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 3/E	1	Max Conc	1	25702.6752	1199.766479	231.3135986	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 2/E	1	Max Conc	0.5	12851.3376	1410.169678	337.850647	15.797773	26772.52539
Export	E_INV018_914mm (2min)	914	Category 2/E	1	Max Conc	1	25702.6752	1052.041138	228.3722534	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 1/E	1	Max Conc	0.5	12851.3376	1092.784912	335.3126526	0	26772.52539
Export	E_INV018_914mm (2min)	914	Category 1/E	1	Max Conc	1	25702.6752	895.6203613	230.766449	0	26772.52539
Export	E_INV020_25mm	25	Category 12/E	1	Max Conc	0.5	23339.4869	45.05793381	3.359205246	0	7.516283035
Export	E_INV020_25mm	25	Category 12/E	1	Max Conc	1	46678.9739	17.86994171	1.532147169	0	7.516283035
Export	E_INV020_25mm	25	Category 11/E	1	Max Conc	0.5	23339.4869	44.14826965	3.26018858	0	7.516283035
Export	E_INV020_25mm	25	Category 11/E	1	Max Conc	1	46678.9739	17.506464	1.497349381	0	7.516283035
Export	E_INV020_25mm	25	Category 10/E	1	Max Conc	0.5	23339.4869	42.69227219	3.363473415	0	7.516283035
Export	E_INV020_25mm	25	Category 10/E	1	Max Conc	1	46678.9739	18.81582451	1.549782515	0	7.516283035
Export	E_INV020_25mm	25	Category 9/E	1	Max Conc	0.5	23339.4869	44.73181534	3.457153797	0	7.516283035
Export	E_INV020_25mm	25	Category 9/E	1	Max Conc	1	46678.9739	18.58188438	1.568457127	0	7.516283035
Export	E_INV020_25mm	25	Category 8/E	1	Max Conc	0.5	23339.4869	43.46242523	3.47095561	0	7.516283035
Export	E_INV020_25mm	25	Category 8/E	1	Max Conc	1	46678.9739	19.12942505	1.584036708	0	7.516283035
Export	E_INV020_25mm	25	Category 7/E	1	Max Conc	0.5	23339.4869	43.87528992	3.344676733	0	7.516283035
Export	E_INV020_25mm	25	Category 7/E	1	Max Conc	1	46678.9739	18.21658134	1.532800913	0	7.516283035
Export	E_INV020_25mm	25	Category 6/E	1	Max Conc	0.5	23339.4869	43.15000534	3.216615915	0	7.516283035
Export	E_INV020_25mm	25	Category 6/E	1	Max Conc	1	46678.9739	18.10962105	1.496059895	0	7.516283035
Export	E_INV020_25mm	25	Category 5/E	1	Max Conc	0.5	23339.4869	43.17778397	3.045910358	0	7.516283035
Export	E_INV020_25mm	25	Category 5/E	1	Max Conc	1	46678.9739	17.20825386	1.441803694	0	7.516283035
Export	E_INV020_25mm	25	Category 4/E	1	Max Conc	0.5	23339.4869	44.31910324	3.546132803	0	7.516283035
Export	E_INV020_25mm	25	Category 4/E	1	Max Conc	1	46678.9739	19.18068504	1.596886277	0	7.516283035
Export	E_INV020_25mm	25	Category 3/E	1	Max Conc	0.5	23339.4869	44.08106232	3.117604733	0	7.516283035
Export	E_INV020_25mm	25	Category 3/E	1	Max Conc	1	46678.9739	17.53357315	1.47443831	0	7.516283035
Export	E_INV020_25mm	25	Category 2/E	1	Max Conc	0.5	23339.4869	43.96316147	3.304973364	0	7.516283035
Export	E_INV020_25mm	25	Category 2/E	1	Max Conc	1	46678.9739	18.43577385	1.530610085	0	7.516283035
Export	E_INV020_25mm	25	Category 1/E	1	Max Conc	0.5	23339.4869	43.51437759	3.421202183	0	7.516283035
Export	E_INV020_25mm	25	Category 1/E	1	Max Conc	1	46678.9739	18.82220078	1.561834335	0	7.516283035
Export	E_INV020_50mm	50	Category 12/E	1	Max Conc	0.5	23339.4869	109.3051453	7.151238441	0	30.06513214
Export	E_INV020_50mm	50	Category 12/E	1	Max Conc	1	46678.9739	44.36139297	3.611280441	0	30.06513214
Export	E_INV020_50mm	50	Category 11/E	1	Max Conc	0.5	23339.4869	107.2043152	7.011704445	0	30.06513214
Export	E_INV020_50mm	50	Category 11/E	1	Max Conc	1	46678.9739	43.54920959	3.525358915	0	30.06513214
Export	E_INV020_50mm	50	Category 10/E	1	Max Conc	0.5	23339.4869	95.47296906	7.057517052	0	30.06513214
Export	E_INV020_50mm	50	Category 10/E	1	Max Conc	1	46678.9739	42.14794922	3.547213554	0	30.06513214
Export	E_INV020_50mm	50	Category 9/E	1	Max Conc	0.5	23339.4869	104.5551529	7.456478596	0	30.06513214
Export	E_INV020_50mm	50	Category 9/E	1	Max Conc	1	46678.9739	44.10802078	3.705245733	0	30.06513214
Export	E_INV020_50mm	50	Category 8/E	1	Max Conc	0.5	23339.4869	97.15523529	7.219240189	0	30.06513214
Export	E_INV020_50mm	50	Category 8/E	1	Max Conc	1	46678.9739	42.88461685	3.627995014	0	30.06513214
Export	E_INV020_50mm	50	Category 7/E	1	Max Conc	0.5	23339.4869	102.6017685	7.311193943	0	30.06513214
Export	E_INV020_50mm	50	Category 7/E	1	Max Conc	1	46678.9739	43.3167305	3.617008686	0	30.06513214
Export	E_INV020_50mm	50	Category 6/E	1	Max Conc	0.5	23339.4869	100.1522293	6.668270111	0	30.06513214
Export	E_INV020_50mm	50	Category 6/E	1	Max Conc	1	46678.9739	42.49695206	3.416991949	0	30.06513214
Export	E_INV020_50mm	50	Category 5/E	1	Max Conc	0.5	23339.4869	105.2452545	6.296548843	0	30.06513214
Export	E_INV020_50mm	50	Category 5/E	1	Max Conc	1	46678.9739	42.77640152	3.284063339	0	30.06513214
Export	E_INV020_50mm	50	Category 4/E	1	Max Conc	0.5	23339.4869	100.2916031	7.782930851	0	30.06513214
Export	E_INV020_50mm	50	Category 4/E	1	Max Conc	1	46678.9739	43.86966324	3.793445587	0	30.06513214
Export	E_INV020_50mm	50	Category 3/E	1	Max Conc	0.5	23339.4869	107.2354279	6.447843552	0	30.06513214
Export	E_INV020_50mm	50	Category 3/E	1	Max Conc	1	46678.9739	43.59665298	3.357720613	0	30.06513214
Export	E_INV020_50mm	50	Category 2/E	1	Max Conc	0.5	23339.4869	101.9800873	6.828150749	0	30.06513214
Export	E_INV020_50mm	50	Category 2/E	1	Max Conc	1	46678.9739	43.27167892	3.496823072	0	30.06513214
Export	E_INV020_50mm	50	Category 1/E	1	Max Conc	0.5	23339.4869	98.5375061	7.629088879	0	30.06513214
Export	E_INV020_50mm	50	Category 1/E	1	Max Conc	1	46678.9739	43.09499359	3.702743053	0	30.06513214
Export	E_INV020_203mm	203	Category 12/E	1	Max Conc	0.5	23339.4869	252.8439789	16.69860077	0	145.7086182
Export	E_INV020_203mm	203	Category 12/E	1	Max Conc	1	46678.9739	106.7197876	8.360055923	0	145.7086182
Export	E_INV020_203mm	203	Category 11/E	1	Max Conc	0.5	23339.4869	248.2847443	16.38827515	0	145.7086182
Export	E_INV020_203mm	203	Category 11/E	1	Max Conc	1	46678.9739	104.6246948	8.142532349	0	145.7086182
Export	E_INV020_203mm	203	Category 10/E	1	Max Conc	0.5	23339.4869	213.3175201	16.63221741	0	145.7086182
Export	E_INV020_203mm	203	Category 10/E	1	Max Conc	1	46678.9739	96.33552551	8.177511215	0	145.7086182
Export	E_INV020_203mm	203	Category 9/E	1	Max Conc	0.5	23339.4869	238.3972931	17.59038734	0	145.7086182
Export	E_INV020_203mm	203	Category 9/E	1	Max Conc	1	46678.9739	103.8109436	8.573638916	0	145.7086182
Export	E_INV020_203mm	203	Category 8/E	1	Max Conc	0.5	23339.4869	217.1756592	17.03835297	0	145.7086182
Export	E_INV020_203mm	203	Category 8/E	1	Max Conc	1	46678.9739	97.85700226	8.366443634	0	145.7086182
Export	E_INV020_203mm	203	Category 7/E	1	Max Conc	0.5	23339.4869	234.0552063	17.23846817	0	145.7086182
Export	E_INV020_203mm	203	Category 7/E	1	Max Conc	1	46678.9739	101.6955032	8.3387146	0	145.7086182
Export	E_INV020_203mm	203	Category 6/E	1	Max Conc	0.5	23339.4869	226.1294098	15.74146652	0	145.7086182
Export	E_INV020_203mm	203	Category 6/E	1	Max Conc	1	46678.9739	98.61556244	7.934907436	0	145.7086182
Export	E_INV020_203mm	203	Category 5/E	1	Max Conc	0.5	23339.4869	241.2983093	14.89386749	0	145.7086182
Export	E_INV020_203mm	203	Category 5/E	1	Max Conc	1	46678.9739	101.3450394	7.673303604	0	145.7086182
Export	E_INV020_203mm	203	Category 4/E	1	Max Conc	0.5	23339.4869	226.1283722	18.61384773	0	145.7086182
Export	E_INV020_203mm	203	Category 4/E	1	Max Conc	1	46678.9739	101.1588211	8.776891708	0	145.7086182
Export	E_INV020_203mm	203	Category 3/E	1	Max Conc	0.5	23339.4869	245.6121368	15.22627831	0	145.7086182

PHAST QRA Results_2 Flammable Dispersion

Study	Model	Hole Size (mm)	Weather	Height (m)	Time	LFL Fraction	Concen-tration (ppm)	Max Distance (m)	Max Width (m)	Min Distance	Release Rate (kg/s)
Export	E_INV020_203mm	203	Category 3/E	1	Max Conc	1	46678.9739	103.415863	7.831412792	0	145.7086182
Export	E_INV020_203mm	203	Category 2/E	1	Max Conc	0.5	23339.4869	230.1144867	16.10790062	0	145.7086182
Export	E_INV020_203mm	203	Category 2/E	1	Max Conc	1	46678.9739	100.1235352	8.106226921	0	145.7086182
Export	E_INV020_203mm	203	Category 1/E	1	Max Conc	0.5	23339.4869	222.0464172	18.21528244	0	145.7086182
Export	E_INV020_203mm	203	Category 1/E	1	Max Conc	1	46678.9739	99.38778687	8.524523735	0	145.7086182
Export	E_INV020_610mm	610	Category 12/E	1	Max Conc	0.5	23339.4869	303.5271606	20.24064445	0	146.1302948
Export	E_INV020_610mm	610	Category 12/E	1	Max Conc	1	46678.9739	126.7829819	9.511478424	0	146.1302948
Export	E_INV020_610mm	610	Category 11/E	1	Max Conc	0.5	23339.4869	299.0510864	19.39427948	0	146.1302948
Export	E_INV020_610mm	610	Category 11/E	1	Max Conc	1	46678.9739	124.0757141	9.32254982	0	146.1302948
Export	E_INV020_610mm	610	Category 10/E	1	Max Conc	0.5	23339.4869	248.9853973	20.23100662	0	146.1302948
Export	E_INV020_610mm	610	Category 10/E	1	Max Conc	1	46678.9739	111.9117432	9.490392685	0	146.1302948
Export	E_INV020_610mm	610	Category 9/E	1	Max Conc	0.5	23339.4869	282.8871155	21.63672066	0	146.1302948
Export	E_INV020_610mm	610	Category 9/E	1	Max Conc	1	46678.9739	121.8382721	9.816941261	0	146.1302948
Export	E_INV020_610mm	610	Category 8/E	1	Max Conc	0.5	23339.4869	253.273941	21.2448101	0	146.1302948
Export	E_INV020_610mm	610	Category 8/E	1	Max Conc	1	46678.9739	113.9617004	9.676345825	0	146.1302948
Export	E_INV020_610mm	610	Category 7/E	1	Max Conc	0.5	23339.4869	278.3218994	20.68239403	0	146.1302948
Export	E_INV020_610mm	610	Category 7/E	1	Max Conc	1	46678.9739	119.3495865	9.619105339	0	146.1302948
Export	E_INV020_610mm	610	Category 6/E	1	Max Conc	0.5	23339.4869	268.136261	18.83250046	0	146.1302948
Export	E_INV020_610mm	610	Category 6/E	1	Max Conc	1	46678.9739	115.8244476	9.124381065	0	146.1302948
Export	E_INV020_610mm	610	Category 5/E	1	Max Conc	0.5	23339.4869	291.74823	17.57750702	0	146.1302948
Export	E_INV020_610mm	610	Category 5/E	1	Max Conc	1	46678.9739	119.9887161	8.747695923	0	146.1302948
Export	E_INV020_610mm	610	Category 4/E	1	Max Conc	0.5	23339.4869	263.0166931	23.26656342	0	146.1302948
Export	E_INV020_610mm	610	Category 4/E	1	Max Conc	1	46678.9739	117.9654083	10.10433388	0	146.1302948
Export	E_INV020_610mm	610	Category 3/E	1	Max Conc	0.5	23339.4869	295.8282166	18.34393501	0	146.1302948
Export	E_INV020_610mm	610	Category 3/E	1	Max Conc	1	46678.9739	122.6654739	8.925940514	0	146.1302948
Export	E_INV020_610mm	610	Category 2/E	1	Max Conc	0.5	23339.4869	272.9923096	19.71668434	0	146.1302948
Export	E_INV020_610mm	610	Category 2/E	1	Max Conc	1	46678.9739	117.8379974	9.306416512	0	146.1302948
Export	E_INV020_610mm	610	Category 1/E	1	Max Conc	0.5	23339.4869	258.8999023	22.25481987	0	146.1302948
Export	E_INV020_610mm	610	Category 1/E	1	Max Conc	1	46678.9739	115.9496841	9.899228096	0	146.1302948

Not included in Export

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 1/P	15.188436	19.24288427	3.135336017	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 1/P	13.11674727	13.93457836	4.262539832	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 1/P	12.1140869	11.35147076	4.794263939	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 1/P	9.795450071	5.796220474	5.930906389	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 1/P	15.4356767	19.87490178	2.999856341	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 2/P	15.35709578	18.75689278	3.181905328	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 2/P	13.3433373	13.51834091	4.239836023	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 2/P	12.35898819	10.94745274	4.74488045	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 2/P	9.98091568	5.396315453	5.832194801	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 2/P	15.59768473	19.37695359	3.05495946	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 3/P	15.28704766	19.13630962	3.075568045	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 3/P	13.01697421	13.94663831	4.148275749	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 3/P	11.89280846	11.38739871	4.673029585	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 3/P	9.006164488	5.685619721	5.806762989	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 3/P	15.55618462	19.74992276	2.947963777	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 4/P	15.19945685	19.61740864	3.024485712	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 4/P	12.87226494	14.36340088	4.155751619	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 4/P	11.73167184	11.78954684	4.703265302	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 4/P	8.897338529	6.125452786	5.902358824	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 4/P	15.47658231	20.24378421	2.887159438	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 5/P	15.21963249	19.25202362	3.019843551	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 5/P	12.80393207	14.11368195	4.092547884	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 5/P	11.60470596	11.56416238	4.612764335	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 5/P	8.604086978	5.829316808	5.793069236	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 5/P	15.50472512	19.86018279	2.890518458	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 6/P	15.19945685	19.61740864	3.024485712	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 6/P	12.87226494	14.36340088	4.155751619	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 6/P	11.73167184	11.78954684	4.703265302	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 6/P	8.897338529	6.125452786	5.902358824	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 6/P	15.47658231	20.24378421	2.887159438	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 7/P	15.188436	19.24288427	3.135336017	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 7/P	13.11674727	13.93457836	4.262539832	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 7/P	12.1140869	11.35147076	4.794263939	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 7/P	9.795450071	5.796220474	5.930906389	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 7/P	15.4356767	19.87490178	2.999856341	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 8/P	15.18118762	19.72754097	2.962161379	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 8/P	12.7069724	14.51853585	4.095564104	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 8/P	11.48909406	11.96154809	4.64410052	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 8/P	8.412937873	6.263535756	5.867015233	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 8/P	15.47451348	20.34716716	2.828824339	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 9/P	15.28704766	19.13630962	3.075568045	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 9/P	13.01697421	13.94663831	4.148275749	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 9/P	11.89280846	11.38739871	4.673029585	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 9/P	9.006164488	5.685619721	5.806762989	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 9/P	15.55618462	19.74992276	2.947963777	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 10/P	15.21963249	19.25202362	3.019843551	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 10/P	12.80393207	14.11368195	4.092547884	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 10/P	11.60470596	11.56416238	4.612764335	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 10/P	8.604086978	5.829316808	5.793069236	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 10/P	15.50472512	19.86018279	2.890518458	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 11/P	15.18118762	19.72754097	2.962161379	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 11/P	12.7069724	14.51853585	4.095564104	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 11/P	11.48909406	11.96154809	4.64410052	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 11/P	8.412937873	6.263535756	5.867015233	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 11/P	15.47451348	20.34716716	2.828824339	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 12/P	15.35709578	18.75689278	3.181905328	5	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 12/P	13.3433373	13.51834091	4.239836023	9	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 12/P	12.35898819	10.94745274	4.74488045	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 12/P	9.98091568	5.396315453	5.832194801	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 12/P	15.59768473	19.37695359	3.05495946	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 1/P	32.43617146	43.49448225	2.516395751	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 1/P	27.45651856	32.17712145	5.549322713	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 1/P	25.12410649	26.75811733	6.919855209	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 1/P	20.2680999	15.37458567	9.652845981	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 1/P	33.07187878	44.86262265	2.079785812	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 2/P	32.27992369	41.96457085	2.986140272	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 2/P	27.55777871	30.9764266	5.722173928	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 2/P	25.31218571	25.67152842	6.998401672	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 2/P	20.56403167	14.41372064	9.561188915	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 2/P	32.86426314	43.28125498	2.625164314	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 3/P	32.91159925	42.02365471	1.317620025	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 3/P	26.87733933	31.13241904	5.564729542	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 3/P	24.30439375	25.92996948	6.919335467	12.61710051	15.78652191

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 3/P	18.65661693	14.70476951	9.468909058	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 3/P	33.686101	43.342412	0.705338293	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 4/P	33.53648567	43.57607071	0.286725455	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 4/P	27.03256989	32.29621635	5.213548579	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 4/P	24.28444599	26.98007058	6.836561933	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 4/P	18.63850946	15.70783859	9.558005425	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 4/P	34.36766782	44.94913888	-0.405721811	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 5/P	33.65890156	42.06708873	-0.526874547	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 5/P	26.71938434	31.15666838	4.881006529	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 5/P	23.69760753	25.96830315	6.79283079	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 5/P	17.35174417	14.74030542	9.425886587	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 5/P	34.54001009	43.39450212	-1.276903104	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 6/P	33.53648567	43.57607071	0.286725455	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 6/P	27.03256989	32.29621635	5.213548579	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 6/P	24.28444599	26.98007058	6.836561933	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 6/P	18.63850946	15.70783859	9.558005425	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 6/P	34.36766782	44.94913888	-0.405721811	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 7/P	32.43617146	43.49448225	2.516395751	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 7/P	27.45651856	32.17712145	5.549322713	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 7/P	25.12410649	26.75811733	6.919855209	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 7/P	20.2680999	15.37458567	9.652845981	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 7/P	33.07187878	44.86262265	2.079785812	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 8/P	34.54276053	43.63814829	-1.852433841	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 8/P	27.11348438	32.32992841	4.257392505	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 8/P	23.87014405	27.01920754	6.52543274	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 8/P	17.56189031	15.77306795	9.514922955	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 8/P	35.48287083	45.01428194	-2.682387697	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 9/P	32.91159925	42.02365471	1.317620025	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 9/P	26.87733933	31.13241904	5.564729542	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 9/P	24.30439375	25.92996948	6.919335467	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 9/P	18.65661693	14.70476951	9.468909058	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 9/P	33.686101	43.342412	0.705338293	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 10/P	33.65890156	42.06708873	-0.526874547	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 10/P	26.71938434	31.15666838	4.881006529	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 10/P	23.69760753	25.96830315	6.79283079	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 10/P	17.35174417	14.74030542	9.425886587	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 10/P	34.54001009	43.39450212	-1.276903104	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 11/P	34.54276053	43.63814829	-1.852433841	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 11/P	27.11348438	32.32992841	4.257392505	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 11/P	23.87014405	27.01920754	6.52543274	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 11/P	17.56189031	15.77306795	9.514922955	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 11/P	35.48287083	45.01428194	-2.682387697	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 12/P	32.27992369	41.96457085	2.986140272	5	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 12/P	27.55777871	30.9764266	5.722173928	9	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 12/P	25.31218571	25.67152842	6.998401672	12.61710051	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 12/P	20.56403167	14.41372064	9.561188915	30.003942	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 12/P	32.86426314	43.28125498	2.625164314	4.7	15.78652191
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 1/P	104.4272834	131.8921233	-24.64571529	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 1/P	81.88252131	98.92866218	-3.718581187	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 1/P	71.74472809	83.51456885	5.264867057	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 1/P	52.69072082	52.45147159	20.38379398	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 1/P	107.226548	135.8981412	-27.30577082	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 2/P	100.3055256	125.9455571	-19.49469239	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 2/P	79.43748816	94.51629907	-0.547907706	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 2/P	70.03594627	79.72112814	7.51938018	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 2/P	52.27680638	49.5950495	20.81539686	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 2/P	102.8961323	129.7527448	-21.91605283	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 3/P	107.6143134	125.083756	-30.97435211	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 3/P	82.47914016	93.82179572	-7.458445509	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 3/P	70.97284008	79.08241615	2.753896643	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 3/P	48.01735638	48.82476083	20.63785103	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 3/P	110.7014806	128.8662095	-33.92882059	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 4/P	112.982129	130.9388607	-37.35870792	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 4/P	86.03549489	98.18055638	-11.71080762	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 4/P	73.71800547	82.83283703	-0.455056141	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 4/P	49.56450338	51.72665964	19.49094972	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 4/P	116.2941807	134.9141313	-40.56614433	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 5/P	111.2856553	124.5691604	-38.01286652	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 5/P	83.95796329	93.28007606	-12.14470195	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 5/P	71.29713018	78.46595329	-0.7496912	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 5/P	45.83303691	47.79146618	19.41601565	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 5/P	114.6242133	128.3478718	-41.23796628	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 6/P	112.982129	130.9388607	-37.35870792	5	145.8927155

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 6/P	86.03549489	98.18055638	-11.71080762	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 6/P	73.71800547	82.83283703	-0.455056141	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 6/P	49.56450338	51.72665964	19.49094972	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 6/P	116.2941807	134.9141313	-40.56614433	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 7/P	104.4272834	131.8921233	-24.64571529	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 7/P	81.88252131	98.92866218	-3.718581187	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 7/P	71.74472809	83.51456885	5.264867057	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 7/P	52.69072082	52.45147159	20.38379398	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 7/P	107.226548	135.8981412	-27.30577082	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 8/P	117.2306458	130.3932164	-44.93471962	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 8/P	88.07952972	97.63775409	-16.93303464	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 8/P	74.60222148	82.23460737	-4.456726549	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 8/P	47.52204813	50.75085615	17.91330052	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 8/P	120.79314	134.3631657	-48.41159496	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 9/P	107.6143134	125.083756	-30.97435211	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 9/P	82.47914016	93.82179572	-7.458445509	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 9/P	70.97284008	79.08241615	2.753896643	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 9/P	48.01735638	48.82476083	20.63785103	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 9/P	110.7014806	128.8662095	-33.92882059	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 10/P	111.2856553	124.5691604	-38.01286652	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 10/P	83.95796329	93.28007606	-12.14470195	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 10/P	71.29713018	78.46595329	-0.7496912	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 10/P	45.83303691	47.79146618	19.41601565	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 10/P	114.6242133	128.3478718	-41.23796628	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 11/P	117.2306458	130.3932164	-44.93471962	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 11/P	88.07952972	97.63775409	-16.93303464	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 11/P	74.60222148	82.23460737	-4.456726549	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 11/P	47.52204813	50.75085615	17.91330052	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 11/P	120.79314	134.3631657	-48.41159496	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 12/P	100.3055256	125.9455571	-19.49469239	5	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 12/P	79.43748816	94.51629907	-0.547907706	9	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 12/P	70.03594627	79.72112814	7.51938018	12.61710051	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 12/P	52.27680638	49.5950495	20.81539686	30.003942	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 12/P	102.8961323	129.7527448	-21.91605283	4.7	145.8927155
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 1/P	5.142637531	4.884627409	1.967048283	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 1/P	4.305967672	3.116175568	2.545972188	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 1/P	3.657555763	2.189548612	2.990388737	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 1/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 1/P	5.230655152	5.088893464	1.911321377	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 2/P	5.272382155	4.788102028	1.953576417	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 2/P	3.999509497	3.052500691	3.378844408	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 2/P	3.792481331	2.069772382	2.969628479	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 2/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 2/P	5.358740679	4.991553831	1.897001292	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 3/P	5.342591982	5.262673746	1.900412114	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 3/P	4.420115212	3.407233685	2.483418027	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 3/P	3.72564859	2.415914776	2.922046286	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 3/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 3/P	5.436763817	5.47527537	1.846125737	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 4/P	5.237196525	5.36275017	1.913570127	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 4/P	4.341668108	3.525443739	2.470435459	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 4/P	3.649559836	2.558426469	2.964831468	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 4/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 4/P	5.330856041	5.574607074	1.858812238	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 5/P	5.366911647	5.484587103	1.87895267	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 5/P	4.408893526	3.600624148	2.442212994	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 5/P	3.688813079	2.587308918	2.892648244	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 5/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 5/P	5.466201293	5.69961066	1.824231092	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 6/P	5.237196525	5.36275017	1.913570127	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 6/P	4.341668108	3.525443739	2.470435459	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 6/P	3.649559836	2.558426469	2.964831468	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 6/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 6/P	5.330856041	5.574607074	1.858812238	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 7/P	5.142637531	4.884627409	1.967048283	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 7/P	4.305967672	3.116175568	2.545972188	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 7/P	3.657555763	2.189548612	2.990388737	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 7/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 7/P	5.230655152	5.088893464	1.911321377	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 8/P	5.278010383	5.591536349	1.891587409	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 8/P	4.343472743	3.722569993	2.436649929	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 8/P	3.652068097	2.735659473	2.901982682	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 8/P	0	0	0	30.003942	0.631460845

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 8/P	5.377098669	5.806310024	1.83661442	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 9/P	5.342591982	5.262673746	1.900412114	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 9/P	4.420115212	3.407233685	2.483418027	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 9/P	3.72564859	2.415914776	2.922046286	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 9/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 9/P	5.436763817	5.47527537	1.846125737	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 10/P	5.366911647	5.484587103	1.87895267	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 10/P	4.408893526	3.600624148	2.442212994	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 10/P	3.688813079	2.587308918	2.892648244	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 10/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 10/P	5.466201293	5.69961066	1.824231092	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 11/P	5.278010383	5.591536349	1.891587409	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 11/P	4.343472743	3.722569993	2.436649929	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 11/P	3.652068097	2.735659473	2.901982682	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 11/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 11/P	5.377098669	5.806310024	1.83661442	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 12/P	5.272382155	4.788102028	1.953576417	5	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 12/P	3.999509497	3.052500691	3.378844408	9	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 12/P	3.792481331	2.069772382	2.969628479	12.61710051	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 12/P	0	0	0	30.003942	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 12/P	5.358740679	4.991553831	1.897001292	4.7	0.631460845
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 1/P	15.188436	19.24288427	3.135336017	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 1/P	13.11674727	13.93457836	4.262539832	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 1/P	12.1140869	11.35147076	4.794263939	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 1/P	9.795450071	5.796220474	5.930906389	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 1/P	15.4356767	19.87490178	2.999856341	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 2/P	15.35709578	18.75689278	3.181905328	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 2/P	13.3433373	13.51834091	4.239836023	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 2/P	12.35898819	10.94745274	4.74488045	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 2/P	9.98091568	5.396315453	5.832194801	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 2/P	15.59768473	19.37695359	3.05495946	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 3/P	15.28704766	19.13630962	3.075568045	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 3/P	13.01697421	13.94663831	4.148275749	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 3/P	11.89280846	11.38739871	4.673029585	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 3/P	9.006164488	5.685619721	5.806762989	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 3/P	15.55618462	19.74992276	2.947963777	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 4/P	15.19945685	19.61740864	3.024485712	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 4/P	12.87226494	14.36340088	4.155751619	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 4/P	11.73167184	11.78954684	4.703265302	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 4/P	8.897338529	6.125452786	5.902358824	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 4/P	15.47658231	20.24378421	2.887159438	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 5/P	15.21963249	19.25202362	3.019843551	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 5/P	12.80393207	14.11368195	4.092547884	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 5/P	11.60470596	11.56416238	4.612764335	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 5/P	8.604086978	5.829316808	5.793069236	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 5/P	15.50472512	19.86018279	2.890518458	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 6/P	15.19945685	19.61740864	3.024485712	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 6/P	12.87226494	14.36340088	4.155751619	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 6/P	11.73167184	11.78954684	4.703265302	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 6/P	8.897338529	6.125452786	5.902358824	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 6/P	15.47658231	20.24378421	2.887159438	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 7/P	15.188436	19.24288427	3.135336017	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 7/P	13.11674727	13.93457836	4.262539832	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 7/P	12.1140869	11.35147076	4.794263939	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 7/P	9.795450071	5.796220474	5.930906389	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 7/P	15.4356767	19.87490178	2.999856341	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 8/P	15.18118762	19.72754097	2.962161379	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 8/P	12.7069724	14.51853585	4.095564104	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 8/P	11.48909406	11.96154809	4.64410052	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 8/P	8.412937873	6.263535756	5.867015233	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 8/P	15.47451348	20.34716716	2.828824339	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 9/P	15.28704766	19.13630962	3.075568045	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 9/P	13.01697421	13.94663831	4.148275749	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 9/P	11.89280846	11.38739871	4.673029585	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 9/P	9.006164488	5.685619721	5.806762989	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 9/P	15.55618462	19.74992276	2.947963777	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 10/P	15.21963249	19.25202362	3.019843551	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 10/P	12.80393207	14.11368195	4.092547884	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 10/P	11.60470596	11.56416238	4.612764335	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 10/P	8.604086978	5.829316808	5.793069236	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 10/P	15.50472512	19.86018279	2.890518458	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 11/P	15.18118762	19.72754097	2.962161379	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 11/P	12.7069724	14.51853585	4.095564104	9	3.946630478

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 11/P	11.48909406	11.96154809	4.64410052	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 11/P	8.412937873	6.263535756	5.867015233	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 11/P	15.47451348	20.34716716	2.828824339	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 12/P	15.35709578	18.75689278	3.181905328	5	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 12/P	13.3433373	13.51834091	4.239836023	9	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 12/P	12.35898819	10.94745274	4.74488045	12.61710051	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 12/P	9.98091568	5.396315453	5.832194801	30.003942	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 12/P	15.59768473	19.37695359	3.05495946	4.7	3.946630478
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 1/P	21.67277941	28.4649917	3.08724256	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 1/P	18.57695042	20.86723994	4.829407556	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 1/P	17.09614329	17.20622041	5.649943532	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 1/P	13.91615789	9.419201671	7.325408906	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 1/P	22.04546522	29.37372032	2.876980833	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 2/P	21.77599582	27.61992871	3.235830461	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 2/P	18.78801246	20.1787787	4.867215494	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 2/P	17.34744253	16.56193871	5.638872947	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 2/P	14.18671722	8.81646149	7.23287742	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 2/P	22.13461539	28.50555031	3.040191959	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 3/P	21.65480199	27.82275979	3.123779191	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 3/P	18.30171186	20.52403882	4.763588354	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 3/P	16.67613538	16.94860304	5.536015333	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 3/P	12.84736864	9.128487113	7.13309846	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 3/P	22.07704314	28.69632564	2.884666783	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 4/P	21.73798686	28.66182449	2.840705812	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 4/P	18.20354544	21.19168295	4.71735915	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 4/P	16.53434417	17.58127192	5.541967186	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 4/P	12.78394453	9.777891961	7.223422061	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 4/P	22.20226665	29.56701012	2.533654192	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 5/P	21.82670674	27.89663877	2.505719437	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 5/P	17.97889605	20.61574397	4.715954926	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 5/P	16.24352719	17.07751261	5.48571495	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 5/P	11.97811211	9.220109046	7.075655334	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 5/P	22.34326621	28.7798267	2.126379148	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 6/P	21.73798686	28.66182449	2.840705812	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 6/P	18.20354544	21.19168295	4.71735915	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 6/P	16.53434417	17.58127192	5.541967186	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 6/P	12.78394453	9.777891961	7.223422061	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 6/P	22.20226665	29.56701012	2.533654192	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 7/P	21.67277941	28.4649917	3.08724256	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 7/P	18.57695042	20.86723994	4.829407556	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 7/P	17.09614329	17.20622041	5.649943532	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 7/P	13.91615789	9.419201671	7.325408906	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 7/P	22.04546522	29.37372032	2.876980833	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 8/P	22.13064002	28.76546702	1.922904037	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 8/P	17.94697463	21.27021342	4.66927797	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 8/P	16.16991804	17.70074476	5.489261789	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 8/P	12.05697127	9.902179705	7.162296898	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 8/P	22.68858805	29.68148335	1.479138221	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 9/P	21.65480199	27.82275979	3.123779191	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 9/P	18.30171186	20.52403882	4.763588354	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 9/P	16.67613538	16.94860304	5.536015333	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 9/P	12.84736864	9.128487113	7.13309846	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 9/P	22.07704314	28.69632564	2.884666783	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 10/P	21.82670674	27.89663877	2.505719437	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 10/P	17.97889605	20.61574397	4.715954926	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 10/P	16.24352719	17.07751261	5.48571495	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 10/P	11.97811211	9.220109046	7.075655334	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 10/P	22.34326621	28.7798267	2.126379148	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 11/P	22.13064002	28.76546702	1.922904037	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 11/P	17.94697463	21.27021342	4.66927797	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 11/P	16.16991804	17.70074476	5.489261789	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 11/P	12.05697127	9.902179705	7.162296898	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 11/P	22.68858805	29.68148335	1.479138221	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 12/P	21.77599582	27.61992871	3.235830461	5	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 12/P	18.78801246	20.1787787	4.867215494	9	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 12/P	17.34744253	16.56193871	5.638872947	12.61710051	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 12/P	14.18671722	8.81646149	7.23287742	30.003942	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 12/P	22.13461539	28.50555031	3.040191959	4.7	7.4293046
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 1/P	21.45536172	28.1574602	3.091365866	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 1/P	18.39511405	20.6358827	4.811709739	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 1/P	16.93116306	17.01085982	5.62202067	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 1/P	13.78208758	9.298093557	7.279121107	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 1/P	21.8244732	29.05660053	2.885030985	4.7	7.29421854

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 2/P	21.5618137	27.32516751	3.23605579	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 2/P	18.60720078	19.95721608	4.846931736	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 2/P	17.18265916	16.37509536	5.609745274	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 2/P	14.05093319	8.702613012	7.187069041	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 2/P	21.91584107	28.20201339	3.043128989	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 3/P	21.43916384	27.53378245	3.129781442	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 3/P	18.1263579	20.30597797	4.743507948	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 3/P	16.51828263	16.76394469	5.506836839	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 3/P	12.73478791	9.01582052	7.087042314	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 3/P	21.85259931	28.39782414	2.901637466	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 4/P	21.50985228	28.35801664	2.869095889	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 4/P	18.02606569	20.96431198	4.69990163	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 4/P	16.37528613	17.38855138	5.514008663	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 4/P	12.65949447	9.656503287	7.176958935	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 4/P	21.96530094	29.25374087	2.570646998	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 5/P	21.59147184	27.60611905	2.553169982	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 5/P	17.80715214	20.40014209	4.695515809	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 5/P	16.09040299	16.89461939	5.456187699	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 5/P	11.86768832	9.107261726	7.029367308	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 5/P	22.10011607	28.48004238	2.182539937	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 6/P	21.50985228	28.35801664	2.869095889	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 6/P	18.02606569	20.96431198	4.69990163	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 6/P	16.37528613	17.38855138	5.514008663	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 6/P	12.65949447	9.656503287	7.176958935	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 6/P	21.96530094	29.25374087	2.570646998	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 7/P	21.45536172	28.1574602	3.091365866	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 7/P	18.39511405	20.6358827	4.811709739	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 7/P	16.93116306	17.01085982	5.62202067	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 7/P	13.78208758	9.298093557	7.279121107	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 7/P	21.8244732	29.05660053	2.885030985	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 8/P	21.8832309	28.46095603	1.988358173	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 8/P	17.77212334	21.04564279	4.651336637	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 8/P	16.01481263	17.51001035	5.461030647	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 8/P	11.93926423	9.781531234	7.115620831	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 8/P	22.43384477	29.36753002	1.551788231	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 9/P	21.43916384	27.53378245	3.129781442	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 9/P	18.1263579	20.30597797	4.743507948	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 9/P	16.51828263	16.76394469	5.506836839	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 9/P	12.73478791	9.01582052	7.087042314	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 9/P	21.85259931	28.39782414	2.901637466	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 10/P	21.59147184	27.60611905	2.553169982	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 10/P	17.80715214	20.40014209	4.695515809	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 10/P	16.09040299	16.89461939	5.456187699	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 10/P	11.86768832	9.107261726	7.029367308	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 10/P	22.10011607	28.48004238	2.182539937	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 11/P	21.8832309	28.46095603	1.988358173	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 11/P	17.77212334	21.04564279	4.651336637	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 11/P	16.01481263	17.51001035	5.461030647	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 11/P	11.93926423	9.781531234	7.115620831	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 11/P	22.43384477	29.36753002	1.551788231	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 12/P	21.5618137	27.32516751	3.23605579	5	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 12/P	18.60720078	19.95721608	4.846931736	9	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 12/P	17.18265916	16.37509536	5.609745274	12.61710051	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 12/P	14.05093319	8.702613012	7.187069041	30.003942	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 12/P	21.91584107	28.20201339	3.043128989	4.7	7.29421854
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 1/P	4.988902605	4.687544218	1.951833158	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 1/P	4.150675256	2.966054108	2.543048816	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 1/P	3.533968469	2.061543285	2.964832844	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 1/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 1/P	5.073814284	4.88579947	1.894935239	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 2/P	5.115301658	4.595396737	1.939926108	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 2/P	4.241084307	2.860457065	2.570376036	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 2/P	3.65975135	1.944917956	2.955557141	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 2/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 2/P	5.200884934	4.792176905	1.88264757	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 3/P	5.189812802	5.065298099	1.882324886	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 3/P	4.269688768	3.256467123	2.47785211	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 3/P	3.601163438	2.286717543	2.90480318	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 3/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 3/P	5.28242879	5.272145978	1.827990633	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 4/P	5.086473619	5.161888731	1.894032202	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 4/P	4.194891458	3.37287056	2.463197622	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 4/P	3.508868208	2.417807031	2.915582617	12.61710051	0.602820873

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 4/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 4/P	5.178347019	5.368016165	1.83944879	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 5/P	5.218324774	5.286520553	1.861624631	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 5/P	4.26119142	3.447454985	2.439429081	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 5/P	3.559980552	2.456228031	2.880588556	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 5/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 5/P	5.316501437	5.495840273	1.805832851	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 6/P	5.086473619	5.161888731	1.894032202	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 6/P	4.194891458	3.37287056	2.463197622	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 6/P	3.508868208	2.417807031	2.915582617	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 6/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 6/P	5.178347019	5.368016165	1.83944879	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 7/P	4.988902605	4.687544218	1.951833158	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 7/P	4.150675256	2.966054108	2.543048816	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 7/P	3.533968469	2.061543285	2.964832844	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 7/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 7/P	5.073814284	4.88579947	1.894935239	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 8/P	5.12963058	5.390656017	1.871663311	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 8/P	4.200963412	3.56797096	2.426342115	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 8/P	3.503447159	2.596403438	2.881165792	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 8/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 8/P	5.226925353	5.599014417	1.816852925	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 9/P	5.189812802	5.065298099	1.882324886	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 9/P	4.269688768	3.256467123	2.47785211	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 9/P	3.601163438	2.286717543	2.90480318	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 9/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 9/P	5.28242879	5.272145978	1.827990633	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 10/P	5.218324774	5.286520553	1.861624631	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 10/P	4.26119142	3.447454985	2.439429081	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 10/P	3.559980552	2.456228031	2.880588556	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 10/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 10/P	5.316501437	5.495840273	1.805832851	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 11/P	5.12963058	5.390656017	1.871663311	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 11/P	4.200963412	3.56797096	2.426342115	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 11/P	3.503447159	2.596403438	2.881165792	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 11/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 11/P	5.226925353	5.599014417	1.816852925	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 12/P	5.115301658	4.595396737	1.939926108	5	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 12/P	4.241084307	2.860457065	2.570376036	9	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 12/P	3.65975135	1.944917956	2.955557141	12.61710051	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 12/P	0	0	0	30.003942	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 12/P	5.200884934	4.792176905	1.88264757	4.7	0.602820873
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 1/P	14.69048785	18.5335257	3.130783203	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 1/P	12.69876672	13.40179555	4.204922942	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 1/P	11.73150896	10.90144137	4.715426047	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 1/P	9.476744613	5.517027915	5.80201254	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 1/P	14.92845486	19.14415178	3.000872196	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 2/P	14.8618763	18.0725544	3.171295994	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 2/P	12.92755944	13.00452935	4.173383694	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 2/P	11.97931933	10.51406122	4.654359848	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 2/P	9.637604388	5.129072999	5.701152824	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 2/P	15.0936145	18.67208769	3.049258445	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 3/P	14.79669718	18.4634654	3.065837966	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 3/P	12.60551604	13.43762541	4.10058277	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 3/P	11.51796482	10.95638984	4.607868793	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 3/P	8.744871448	5.42274596	5.682908036	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 3/P	15.05613965	19.05732847	2.943046028	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 4/P	14.70502982	18.92095864	3.017663097	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 4/P	12.45943432	13.83559575	4.110333966	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 4/P	11.35590811	11.34237961	4.641144647	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 4/P	8.576139585	5.836932386	5.774487273	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 4/P	14.97054877	19.52647321	2.888383149	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 5/P	14.73314648	18.58749362	3.009829967	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 5/P	12.40292705	13.60936581	4.04098758	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 5/P	11.23987703	11.1358481	4.549861421	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 5/P	8.352363863	5.564948823	5.671616371	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 5/P	15.00575097	19.17581984	2.889780171	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 6/P	14.70502982	18.92095864	3.017663097	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 6/P	12.45943432	13.83559575	4.110333966	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 6/P	11.35590811	11.34237961	4.641144647	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 6/P	8.576139585	5.836932386	5.774487273	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 6/P	14.97054877	19.52647321	2.888383149	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 7/P	14.69048785	18.5335257	3.130783203	5	3.72516799

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 7/P	12.69876672	13.40179555	4.204922942	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 7/P	11.73150896	10.90144137	4.715426047	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 7/P	9.476744613	5.517027915	5.80201254	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 7/P	14.92845486	19.14415178	3.000872196	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 8/P	14.685135	19.03922945	2.962583451	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 8/P	12.30048897	13.99586624	4.049966403	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 8/P	11.12446259	11.51761311	4.579000047	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 8/P	8.145985032	5.983861216	5.761325233	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 8/P	14.96980111	19.63937586	2.830237223	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 9/P	14.79669718	18.4634654	3.065837966	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 9/P	12.60551604	13.43762541	4.10058277	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 9/P	11.51796482	10.95638984	4.607868793	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 9/P	8.744871448	5.42274596	5.682908036	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 9/P	15.05613965	19.05732847	2.943046028	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 10/P	14.73314648	18.58749362	3.009829967	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 10/P	12.40292705	13.60936581	4.04098758	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 10/P	11.23987703	11.1358481	4.549861421	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 10/P	8.352363863	5.564948823	5.671616371	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 10/P	15.00575097	19.17581984	2.889780171	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 11/P	14.685135	19.03922945	2.962583451	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 11/P	12.30048897	13.99586624	4.049966403	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 11/P	11.12446259	11.51761311	4.579000047	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 11/P	8.145985032	5.983861216	5.761325233	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 11/P	14.96980111	19.63937586	2.830237223	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 12/P	14.8618763	18.0725544	3.171295994	5	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 12/P	12.92755944	13.00452935	4.173383694	9	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 12/P	11.97931933	10.51406122	4.654359848	12.61710051	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 12/P	9.637604388	5.129072999	5.701152824	30.003942	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 12/P	15.0936145	18.67208769	3.049258445	4.7	3.72516799
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 1/P	20.3871014	26.64405121	3.114478214	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 1/P	17.50137385	19.49791674	4.723571902	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 1/P	16.12016339	16.05011495	5.483624022	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 1/P	13.1187245	8.703088025	7.056136056	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 1/P	20.73391499	27.49863061	2.918264031	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 2/P	20.50637838	25.87429234	3.240500632	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 2/P	17.71749227	18.86683622	4.749219815	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 2/P	16.3702511	15.45575163	5.465611638	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 2/P	13.37926927	8.142610035	6.962540915	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 2/P	20.84080145	26.70788982	3.058059766	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 3/P	20.39277682	26.11452346	3.130783222	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 3/P	17.26366654	19.23263647	4.644006926	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 3/P	15.74096502	15.85497472	5.363359365	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 3/P	12.11724415	8.452753782	6.863120177	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 3/P	20.76684935	26.93279184	2.948840891	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 4/P	20.39695793	26.86858008	2.978533198	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 4/P	17.15243591	19.84592058	4.611911296	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 4/P	15.59303116	16.44041381	5.375091244	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 4/P	12.04334067	9.059038122	6.950032466	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 4/P	20.8088151	27.71489836	2.734133843	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 5/P	20.44526427	26.17861704	2.76527513	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 5/P	16.96224029	19.33876166	4.594429199	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 5/P	15.33590719	15.99418873	5.311185631	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 5/P	11.31985654	8.551340906	6.804193455	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 5/P	20.91225074	27.00618678	2.443072434	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 6/P	20.39695793	26.86858008	2.978533198	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 6/P	17.15243591	19.84592058	4.611911296	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 6/P	15.59303116	16.44041381	5.375091244	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 6/P	12.04334067	9.059038122	6.950032466	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 6/P	20.8088151	27.71489836	2.734133843	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 7/P	20.3871014	26.64405121	3.114478214	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 7/P	17.50137385	19.49791674	4.723571902	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 7/P	16.12016339	16.05011495	5.483624022	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 7/P	13.1187245	8.703088025	7.056136056	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 7/P	20.73391499	27.49863061	2.918264031	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 8/P	20.67635938	26.96481994	2.291627759	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 8/P	16.91305836	19.94066559	4.56110822	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 8/P	15.25159844	16.57142664	5.321943831	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 8/P	11.35462028	9.187265788	6.889798734	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 8/P	21.18672423	27.82374327	1.898971354	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 9/P	20.39277682	26.11452346	3.130783222	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 9/P	17.26366654	19.23263647	4.644006926	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 9/P	15.74096502	15.85497472	5.363359365	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 9/P	12.11724415	8.452753782	6.863120177	30.003942	6.649505138

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 9/P	20.76684935	26.93279184	2.948840891	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 10/P	20.44526427	26.17861704	2.76527513	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 10/P	16.96224029	19.33876166	4.594429199	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 10/P	15.33590719	15.99418873	5.311185631	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 10/P	11.31985654	8.551340906	6.804193455	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 10/P	20.91225074	27.00618678	2.443072434	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 11/P	20.67635938	26.96481994	2.291627759	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 11/P	16.91305836	19.94066559	4.56110822	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 11/P	15.25159844	16.57142664	5.321943831	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 11/P	11.35462028	9.187265788	6.889798734	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 11/P	21.18672423	27.82374327	1.898971354	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 12/P	20.50637838	25.87429234	3.240500632	5	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 12/P	17.71749227	18.86683622	4.749219815	9	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 12/P	16.3702511	15.45575163	5.465611638	12.61710051	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 12/P	13.37926927	8.142610035	6.962540915	30.003942	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 12/P	20.84080145	26.70788982	3.058059766	4.7	6.649505138
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 1/P	20.1559332	26.3159828	3.11806748	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 1/P	17.30773441	19.25113561	4.703983561	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 1/P	15.9435555	15.84180121	5.45378955	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 1/P	12.97573597	8.574303517	7.00784617	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 1/P	20.49820047	27.16072787	2.924713728	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 2/P	20.2781202	25.55957773	3.240010283	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 2/P	17.52475874	18.63026706	4.727578044	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 2/P	16.19365676	15.25629512	5.434212844	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 2/P	13.23194496	8.021272894	6.915660569	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 2/P	20.60821745	26.38374607	3.060188338	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 3/P	20.16638812	25.8065688	3.129865024	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 3/P	17.07653399	18.9996784	4.622210359	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 3/P	15.57216651	15.65768048	5.332242869	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 3/P	11.98002958	8.330181113	6.815097251	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 3/P	20.5350716	26.61566771	2.951680098	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 4/P	20.16028972	26.54646613	2.993560773	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 4/P	16.96386469	19.60319645	4.592358558	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 4/P	15.42306313	16.23471276	5.345265854	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 4/P	11.90853419	8.929377282	6.901467258	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 4/P	20.56211226	27.38199053	2.761880185	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 5/P	20.20025619	25.86965604	2.804164246	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 5/P	16.7789405	19.10836214	4.572385975	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 5/P	15.17199284	15.79868874	5.280112103	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 5/P	11.20394668	8.431214077	6.755871107	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 5/P	20.656017	26.68658383	2.496877629	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 6/P	20.16028972	26.54646613	2.993560773	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 6/P	16.96386469	19.60319645	4.592358558	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 6/P	15.42306313	16.23471276	5.345265854	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 6/P	11.90853419	8.929377282	6.901467258	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 6/P	20.56211226	27.38199053	2.761880185	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 7/P	20.1559332	26.3159828	3.11806748	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 7/P	17.30773441	19.25113561	4.703983561	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 7/P	15.9435555	15.84180121	5.45378955	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 7/P	12.97573597	8.574303517	7.00784617	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 7/P	20.49820047	27.16072787	2.924713728	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 8/P	20.41602511	26.64049486	2.354863764	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 8/P	16.72680534	19.70090189	4.541375826	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 8/P	15.08595864	16.36776661	5.291786354	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 8/P	11.22704821	9.057885226	6.84097476	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 8/P	20.91789554	27.4891245	1.971299849	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 9/P	20.16638812	25.8065688	3.129865024	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 9/P	17.07653399	18.9996784	4.622210359	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 9/P	15.57216651	15.65768048	5.332242869	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 9/P	11.98002958	8.330181113	6.815097251	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 9/P	20.5350716	26.61566771	2.951680098	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 10/P	20.20025619	25.86965604	2.804164246	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 10/P	16.7789405	19.10836214	4.572385975	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 10/P	15.17199284	15.79868874	5.280112103	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 10/P	11.20394668	8.431214077	6.755871107	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 10/P	20.656017	26.68658383	2.496877629	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 11/P	20.41602511	26.64049486	2.354863764	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 11/P	16.72680534	19.70090189	4.541375826	9	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 11/P	15.08595864	16.36776661	5.291786354	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 11/P	11.22704821	9.057885226	6.84097476	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 11/P	20.91789554	27.4891245	1.971299849	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 12/P	20.2781202	25.55957773	3.240010283	5	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 12/P	17.52475874	18.63026706	4.727578044	9	6.513967514

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 12/P	16.19365676	15.25629512	5.434212844	12.61710051	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 12/P	13.23194496	8.021272894	6.915660569	30.003942	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 12/P	20.60821745	26.38374607	3.060188338	4.7	6.513967514
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 1/P	34.06483041	40.49467338	-3.957564047	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 1/P	28.85605505	30.55586395	-1.858430993	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 1/P	26.58162084	26.29154454	-1.180131376	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 1/P	22.10739496	17.03411443	0.057215378	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 1/P	34.8052307	41.74315815	-4.4248853	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 2/P	33.39202885	39.15486742	-3.689316596	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 2/P	28.42574847	29.69939462	-1.760355046	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 2/P	26.23324862	25.55750294	-1.114467329	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 2/P	21.88520254	16.49583616	0.106443787	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 2/P	34.08565045	40.34821997	-4.10171895	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 3/P	34.27035447	39.5701707	-2.38019261	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 3/P	29.72753604	30.25091446	-1.023287279	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 3/P	27.66238433	25.81497439	-0.507021168	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 3/P	23.46629088	15.90830943	0.631668571	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 3/P	34.85734043	40.77096613	-2.614884394	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 4/P	34.86506437	40.94616777	-2.54184985	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 4/P	30.13085399	31.17076724	-1.097671386	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 4/P	27.99137648	26.6087411	-0.560815282	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 4/P	23.66735687	16.49935966	0.609442531	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 4/P	35.48023205	42.1935461	-2.797507236	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 5/P	36.54278807	40.16938281	-1.204135024	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 5/P	32.29981454	30.48713594	-0.2363995	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 5/P	30.2852163	25.62027499	0.262757255	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 5/P	26.2021525	14.5457408	1.27075091	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 5/P	37.06692416	41.30970774	-1.340619121	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 6/P	34.86506437	40.94616777	-2.54184985	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 6/P	30.13085399	31.17076724	-1.097671386	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 6/P	27.99137648	26.6087411	-0.560815282	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 6/P	23.66735687	16.49935966	0.609442531	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 6/P	35.48023205	42.1935461	-2.797507236	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 7/P	34.06483041	40.49467338	-3.957564047	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 7/P	28.85605505	30.55586395	-1.858430993	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 7/P	26.58162084	26.29154454	-1.180131376	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 7/P	22.10739496	17.03411443	0.057215378	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 7/P	34.8052307	41.74315815	-4.4248853	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 8/P	37.08438056	41.48838261	-1.300086866	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 8/P	32.67794422	31.49115234	-0.287515952	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 8/P	30.60610088	26.49793358	0.202982748	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 8/P	26.42864748	15.18075613	1.192670027	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 8/P	37.63468099	42.67282981	-1.452680307	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 9/P	34.27035447	39.5701707	-2.38019261	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 9/P	29.72753604	30.25091446	-1.023287279	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 9/P	27.66238433	25.81497439	-0.507021168	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 9/P	23.46629088	15.90830943	0.631668571	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 9/P	34.85734043	40.77096613	-2.614884394	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 10/P	36.54278807	40.16938281	-1.204135024	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 10/P	32.29981454	30.48713594	-0.2363995	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 10/P	30.2852163	25.62027499	0.262757255	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 10/P	26.2021525	14.5457408	1.27075091	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 10/P	37.06692416	41.30970774	-1.340619121	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 11/P	37.08438056	41.48838261	-1.300086866	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 11/P	32.67794422	31.49115234	-0.287515952	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 11/P	30.60610088	26.49793358	0.202982748	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 11/P	26.42864748	15.18075613	1.192670027	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 11/P	37.63468099	42.67282981	-1.452680307	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 12/P	33.39202885	39.15486742	-3.689316596	5	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 12/P	28.42574847	29.69939462	-1.760355046	9	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 12/P	26.23324862	25.55750294	-1.114467329	12.61710051	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 12/P	21.88520254	16.49583616	0.106443787	30.003942	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 12/P	34.08565045	40.34821997	-4.10171895	4.7	13.64766216
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 1/P	29.35682749	30.52870804	-3.413878969	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 1/P	25.19700734	23.47495767	-1.913946376	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 1/P	23.29018033	20.05181818	-1.312287484	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 1/P	19.39866953	11.88087271	-0.157624244	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 1/P	29.87413102	31.45422836	-3.627137725	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 2/P	28.86959732	29.59226253	-3.270497849	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 2/P	24.8627287	22.85375554	-1.839558894	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 2/P	23.01574678	19.49526428	-1.260498804	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 2/P	19.22162332	11.43331306	-0.130447728	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 2/P	29.37001827	30.48868843	-3.474849795	4.7	5.287149906

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 3/P	30.49437097	29.84465564	-2.651584635	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 3/P	26.53513433	22.94976469	-1.428270999	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 3/P	24.67476912	19.32252673	-0.903599307	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 3/P	20.74000049	10.36281535	0.16195917	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 3/P	30.97878973	30.64295014	-2.815272006	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 4/P	30.96833562	30.67096954	-2.760533296	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 4/P	26.87156118	23.60844415	-1.493105574	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 4/P	24.95130368	19.92559465	-0.948861636	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 4/P	20.92681627	10.82427241	0.140453678	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 4/P	31.47443419	31.49195693	-2.936237431	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 5/P	32.84204975	30.39813352	-1.64031612	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 5/P	29.02760984	22.7565963	-0.70835464	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 5/P	27.1948152	18.58449756	-0.277171864	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 5/P	23.09767531	8.797427476	0.75191616	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 5/P	33.30089286	31.25460711	-1.759793596	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 6/P	30.96833562	30.67096954	-2.760533296	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 6/P	26.87156118	23.60844415	-1.493105574	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 6/P	24.95130368	19.92559465	-0.948861636	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 6/P	20.92681627	10.82427241	0.140453678	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 6/P	31.47443419	31.49195693	-2.936237431	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 7/P	29.35682749	30.52870804	-3.413878969	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 7/P	25.19700734	23.47495767	-1.913946376	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 7/P	23.29018033	20.05181818	-1.312287484	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 7/P	19.39866953	11.88087271	-0.157624244	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 7/P	29.87413102	31.45422836	-3.627137725	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 8/P	33.29222408	31.2950121	-1.714474071	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 8/P	29.35354588	23.50541968	-0.753136853	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 8/P	27.47140084	19.28057503	-0.314182548	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 8/P	23.2906596	9.197428622	0.748386581	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 8/P	33.77108676	32.17383856	-1.840354147	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 9/P	30.49437097	29.84465564	-2.651584635	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 9/P	26.53513433	22.94976469	-1.428270999	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 9/P	24.67476912	19.32252673	-0.903599307	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 9/P	20.74000049	10.36281535	0.16195917	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 9/P	30.97878973	30.64295014	-2.815272006	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 10/P	32.84204975	30.39813352	-1.64031612	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 10/P	29.02760984	22.7565963	-0.70835464	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 10/P	27.1948152	18.58449756	-0.277171864	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 10/P	23.09767531	8.797427476	0.75191616	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 10/P	33.30089286	31.25460711	-1.759793596	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 11/P	33.29222408	31.2950121	-1.714474071	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 11/P	29.35354588	23.50541968	-0.753136853	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 11/P	27.47140084	19.28057503	-0.314182548	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 11/P	23.2906596	9.197428622	0.748386581	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 11/P	33.77108676	32.17383856	-1.840354147	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 12/P	28.86959732	29.59226253	-3.270497849	5	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 12/P	24.8627287	22.85375554	-1.839558894	9	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 12/P	23.01574678	19.49526428	-1.260498804	12.61710051	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 12/P	19.22162332	11.43331306	-0.130447728	30.003942	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 12/P	29.37001827	30.48868843	-3.474849795	4.7	5.287149906
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 1/P	29.01240896	30.62196174	-2.587575186	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 1/P	25.21305824	23.42692698	-1.376619455	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 1/P	23.45829584	19.8096444	-0.876162976	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 1/P	19.7357932	11.35896112	0.393623309	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 1/P	29.48539552	31.46921761	-2.75706863	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 2/P	28.88226603	30.09409373	-2.508574934	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 2/P	25.17321156	23.02701378	-1.337100678	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 2/P	23.456511	19.44841455	-0.849877402	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 2/P	19.7875635	11.05117859	0.40357244	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 2/P	29.33902365	30.92737532	-2.670473938	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 3/P	29.59057205	28.54478169	-2.449421074	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 3/P	25.93423001	21.60274709	-1.317811671	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 3/P	24.20134024	17.92984332	-0.812668647	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 3/P	20.49340783	9.092191122	0.230348238	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 3/P	30.03498428	29.34046431	-2.59522049	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 4/P	29.61042354	28.94106051	-2.501708869	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 4/P	25.88335215	21.93373575	-1.346145396	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 4/P	24.12431609	18.25314377	-0.833960889	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 4/P	20.37958823	9.343449155	0.233816757	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 4/P	30.06372519	29.74688021	-2.651396581	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 5/P	31.33731278	27.43211057	-2.187339547	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 5/P	27.65501865	20.04470974	-1.078404614	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 5/P	25.83943776	15.92429591	-0.541751376	12.61710051	6.344521999

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 5/P	22.06261848	6.907412773	-0.409115427	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 5/P	31.77479423	28.24343523	-2.321171424	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 6/P	29.09159235	28.39958236	-2.452331656	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 6/P	25.43189455	21.51395478	-1.314021688	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 6/P	23.70383072	17.89504563	-0.809433009	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 6/P	20.01465338	9.139159046	0.258467549	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 6/P	29.54164563	29.19060796	-2.602902494	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 7/P	26.27305711	29.0230602	1.767970184	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 7/P	23.14564161	22.40814366	1.767970184	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 7/P	21.6732192	19.1605244	1.767970184	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 7/P	18.650258	11.25313105	1.767970184	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 7/P	26.6503789	29.8811776	1.767970184	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 8/P	31.25199245	27.77489514	-2.218947952	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 8/P	27.51769943	20.38632309	-1.094462287	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 8/P	25.68506775	16.27402202	-0.549933462	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 8/P	21.93059943	7.021716796	-0.417689966	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 8/P	31.69971763	28.59571436	-2.355934246	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 9/P	29.12235828	28.06144383	-2.405212009	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 9/P	25.52443401	21.2287425	-1.288771984	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 9/P	23.81808957	17.61144116	-0.788434008	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 9/P	20.16175217	8.912534898	0.250921837	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 9/P	29.55859595	28.84510851	-2.549288594	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 10/P	30.98121342	27.09644688	-2.152677063	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 10/P	27.33942159	19.78980227	-1.051884451	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 10/P	25.54199821	15.71413395	-0.516510684	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 10/P	21.81782497	6.80530194	-0.415335846	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 10/P	31.41349484	27.89871907	-2.284630159	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 11/P	30.85921681	27.39867492	-2.179872385	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 11/P	27.17073495	20.0996024	-1.065154632	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 11/P	25.35854263	16.03630138	-0.522139951	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 11/P	21.66237803	6.904512328	-0.424440901	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 11/P	31.30132951	28.2092753	-2.315619302	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 12/P	28.35387228	29.50741489	-2.461402285	5	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 12/P	24.71430787	22.57093797	-1.308068124	9	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 12/P	23.02678662	19.05677072	-0.823538453	12.61710051	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 12/P	19.42371655	10.80910281	0.415941594	30.003942	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 12/P	28.80214721	30.32518302	-2.621014228	4.7	6.344521999
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 1/P	17.19937282	17.70316681	-1.876017552	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 1/P	15.13398642	13.04318639	-1.017652578	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 1/P	14.15884237	10.69379415	-0.614969116	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 1/P	10.7099706	5.802457075	3.077847576	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 1/P	17.45005362	18.24772801	-1.98343412	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 2/P	17.54192152	17.81194267	-1.880908963	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 2/P	15.47430477	13.12073855	-1.025934909	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 2/P	14.49348226	10.74595715	-0.622287211	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 2/P	12.34257293	5.478321483	0.443626516	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 2/P	17.79362892	18.35945504	-1.985799465	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 3/P	18.11341572	16.91762988	-1.354760958	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 3/P	16.08581976	12.26228242	-0.602132331	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 3/P	15.09881155	9.833202422	-0.209855153	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 3/P	12.86215918	4.600557675	0.853188884	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 3/P	18.3563495	17.4492513	-1.44315636	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 4/P	17.67411946	16.73953031	-1.342559484	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 4/P	15.66103912	12.14823293	-0.590932503	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 4/P	14.67712029	9.759986145	-0.188195583	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 4/P	12.45083709	4.565022853	0.910373233	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 4/P	17.91924571	17.26722486	-1.436209501	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 5/P	19.04250289	15.62012328	-0.771105528	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 5/P	16.98209285	10.83865759	-0.057353764	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 5/P	15.88768257	8.29557894	0.44705642	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 5/P	12.89641689	3.786845464	2.310864255	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 5/P	19.28137525	16.14817305	-0.845149276	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 6/P	16.81937001	15.84772821	-1.264113928	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 6/P	14.89400417	11.47792708	-0.522388432	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 6/P	13.94331118	9.205545806	-0.107971085	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 6/P	11.77094071	4.287184361	1.042517703	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 6/P	17.05180939	16.34915519	-1.354734354	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 7/P	16.53457875	16.95551921	-1.795873827	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 7/P	14.54977206	12.47808905	-0.962096918	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 7/P	13.60632957	10.21900164	-0.561549941	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 7/P	11.54033184	5.197815859	0.490364941	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 7/P	16.77758317	17.48220874	-1.900088218	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 8/P	18.57811828	15.47837523	-0.761061886	5	6.221832275

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 8/P	16.52599725	10.78126119	-0.026390814	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 8/P	15.452994	8.270394326	0.453369418	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 8/P	12.34412568	3.734143649	2.648488362	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 8/P	18.81754247	15.99892217	-0.839422364	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 9/P	17.22233602	16.00521251	-1.270297399	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 9/P	15.28896512	11.5770064	-0.537122461	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 9/P	14.33152953	9.267169984	-0.128427116	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 9/P	12.15625781	4.317609339	0.980830311	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 9/P	17.45561823	16.50969601	-1.359611411	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 10/P	18.01671592	14.68742076	-0.696186234	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 10/P	16.03459511	10.15986574	0.049182985	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 10/P	15.02424789	3.817844511	0.475606806	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 10/P	12.01956956	3.650073841	2.55442329	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 10/P	18.24548205	15.1876644	-0.772506684	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 11/P	17.62405377	14.59492074	-0.691827933	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 11/P	15.63809155	10.13614176	0.084073503	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 11/P	14.64961261	7.742672112	0.48467325	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 11/P	11.63203081	3.589122774	2.673532484	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 11/P	17.85332415	15.08928297	-0.771104397	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 12/P	16.9231863	17.1249657	-1.805790996	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 12/P	14.9264913	12.60166563	-0.971800624	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 12/P	13.97759055	10.31026064	-0.576029303	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 12/P	11.89319203	5.232278588	0.472329615	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 12/P	17.16735374	17.652602	-1.909609381	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 1/P	17.19937282	17.70316681	-1.876017552	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 1/P	15.13398642	13.04318639	-1.017652578	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 1/P	14.15884237	10.69379415	-0.614969116	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 1/P	10.7099706	5.802457075	3.077847576	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 1/P	17.45005362	18.24772801	-1.98343412	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 2/P	17.54192152	17.81194267	-1.880908963	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 2/P	15.47430477	13.12073855	-1.025934909	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 2/P	14.49348226	10.74595715	-0.622287211	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 2/P	12.34257293	5.478321483	0.443626516	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 2/P	17.79362892	18.35945504	-1.985799465	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 3/P	18.11341572	16.91762988	-1.354760958	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 3/P	16.08581976	12.26228242	-0.602132331	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 3/P	15.09881155	9.833202422	-0.209855153	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 3/P	12.86215918	4.600557675	0.853188884	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 3/P	18.3563495	17.4492513	-1.44315636	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 4/P	17.67411946	16.73953031	-1.342559484	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 4/P	15.66103912	12.14823293	-0.590932503	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 4/P	14.67712029	9.759986145	-0.188195583	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 4/P	12.45083709	4.565022853	0.910373233	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 4/P	17.91924571	17.26722486	-1.436209501	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 5/P	19.04250289	15.62012328	-0.771105528	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 5/P	16.98209285	10.83865759	-0.057353764	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 5/P	15.88768257	8.29557894	0.44705642	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 5/P	12.89641689	3.786845464	2.310864255	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 5/P	19.28137525	16.14817305	-0.845149276	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 6/P	16.81937001	15.84772821	-1.264113928	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 6/P	14.89400417	11.47792708	-0.522388432	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 6/P	13.94331118	9.205545806	-0.107971085	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 6/P	11.77094071	4.287184361	1.042517703	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 6/P	17.05180939	16.34915519	-1.354734354	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 7/P	16.53457875	16.95551921	-1.795873827	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 7/P	14.54977206	12.47808905	-0.962096918	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 7/P	13.60632957	10.21900164	-0.561549941	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 7/P	11.54033184	5.197815859	0.490364941	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 7/P	16.77758317	17.48220874	-1.900088218	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 8/P	18.57811828	15.47837523	-0.761061886	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 8/P	16.52599725	10.78126119	-0.026390814	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 8/P	15.452994	8.270394326	0.453369418	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 8/P	12.34412568	3.734143649	2.648488362	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 8/P	18.81754247	15.99892217	-0.839422364	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 9/P	17.22233602	16.00521251	-1.270297399	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 9/P	15.28896512	11.5770064	-0.537122461	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 9/P	14.33152953	9.267169984	-0.128427116	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 9/P	12.15625781	4.317609339	0.980830311	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 9/P	17.45561823	16.50969601	-1.359611411	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 10/P	18.01671592	14.68742076	-0.696186234	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 10/P	16.03459511	10.15986574	0.049182985	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 10/P	15.02424789	3.817844511	0.475606806	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 10/P	12.01956956	3.650073841	2.55442329	30.003942	6.221832275

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 10/P	18.24548205	15.1876644	-0.772506684	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 11/P	17.62405377	14.59492074	-0.691827933	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 11/P	15.63809155	10.13614176	0.084073503	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 11/P	14.64961261	7.742672112	0.48467325	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 11/P	11.63203081	3.589122774	2.673532484	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 11/P	17.85332415	15.08928297	-0.771104397	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 12/P	16.9231863	17.1249657	-1.805790996	5	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 12/P	14.9264913	12.60166563	-0.971800624	9	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 12/P	13.97759055	10.31026064	-0.576029303	12.61710051	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 12/P	11.89319203	5.232278588	0.472329615	30.003942	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 12/P	17.16735374	17.652602	-1.909609381	4.7	6.221832275
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 1/P	47.30412329	53.6001438	-4.523418254	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 1/P	40.46775298	40.80312301	-2.265359259	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 1/P	37.42573494	35.14866766	-1.518522601	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 1/P	31.4158175	22.35303502	-0.229759938	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 1/P	48.19553798	55.19578478	-4.916814385	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 2/P	46.36757679	51.73860322	-4.240382734	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 2/P	39.84363951	39.59966437	-2.155744466	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 2/P	36.9161315	34.09993081	-1.44113681	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 2/P	31.09752666	21.53251372	-0.19278513	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 2/P	47.20612662	53.2660617	-4.587417206	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 3/P	47.88353377	52.30753898	-2.694720642	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 3/P	41.86812675	40.28119638	-1.264555879	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 3/P	39.1033802	34.29833134	-0.717868306	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 3/P	33.48111068	20.41097942	0.403543105	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 3/P	48.63534771	53.88350895	-2.913294121	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 4/P	48.72878996	54.24647057	-2.864310796	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 4/P	42.4504931	41.59805266	-1.341019734	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 4/P	39.58176318	35.4542577	-0.772902333	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 4/P	33.7970239	21.30551784	0.354822052	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 4/P	49.51562517	55.88165067	-3.097930338	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 5/P	51.2853939	53.48338378	-1.31765489	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 5/P	45.65821746	40.44963673	-0.341547404	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 5/P	43.01353061	33.74217666	0.092783252	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 5/P	37.48528689	18.45022007	1.151376493	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 5/P	51.97466594	54.99316941	-1.452875378	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 6/P	48.72878996	54.24647057	-2.864310796	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 6/P	42.4504931	41.59805266	-1.341019734	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 6/P	39.58176318	35.4542577	-0.772902333	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 6/P	33.7970239	21.30551784	0.354822052	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 6/P	49.51562517	55.88165067	-3.097930338	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 7/P	47.30412329	53.6001438	-4.523418254	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 7/P	40.46775298	40.80312301	-2.265359259	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 7/P	37.42573494	35.14866766	-1.518522601	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 7/P	31.4158175	22.35303502	-0.229759938	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 7/P	48.19553798	55.19578478	-4.916814385	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 8/P	52.06322413	55.35621651	-1.418144572	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 8/P	46.2087091	41.91589486	-0.397231843	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 8/P	43.47228151	35.04850359	0.045696516	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 8/P	37.78641429	19.09314142	1.124907456	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 8/P	52.78226676	56.92322903	-1.56085918	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 9/P	47.88353377	52.30753898	-2.694720642	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 9/P	41.86812675	40.28119638	-1.264555879	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 9/P	39.1033802	34.29833134	-0.717868306	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 9/P	33.48111068	20.41097942	0.403543105	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 9/P	48.63534771	53.88350895	-2.913294121	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 10/P	51.2853939	53.48338378	-1.31765489	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 10/P	45.65821746	40.44963673	-0.341547404	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 10/P	43.01353061	33.74217666	0.092783252	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 10/P	37.48528689	18.45022007	1.151376493	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 10/P	51.97466594	54.99316941	-1.452875378	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 11/P	52.06322413	55.35621651	-1.418144572	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 11/P	46.2087091	41.91589486	-0.397231843	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 11/P	43.47228151	35.04850359	0.045696516	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 11/P	37.78641429	19.09314142	1.124907456	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 11/P	52.78226676	56.92322903	-1.56085918	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 12/P	46.36757679	51.73860322	-4.240382734	5	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 12/P	39.84363951	39.59966437	-2.155744466	9	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 12/P	36.9161315	34.09993081	-1.44113681	12.61710051	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 12/P	31.09752666	21.53251372	-0.19278513	30.003942	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 12/P	47.20612662	53.2660617	-4.587417206	4.7	21.4102211
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 1/P	88.8720266	103.8207696	-8.958883635	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 1/P	75.56764196	78.63455306	-4.287602457	9	85.6408844

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 1/P	69.81040891	68.03819004	-3.016281611	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 1/P	58.52538026	44.50386382	-0.941347498	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 1/P	90.97413173	107.0730926	-10.4969766	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 2/P	86.65461714	99.59200155	-8.112941452	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 2/P	74.17524695	75.97296751	-4.076157211	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 2/P	68.67558737	65.73270676	-2.875588461	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 2/P	57.81509635	42.72337856	-0.872632636	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 2/P	88.37185745	102.5473255	-9.010302746	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 3/P	89.08093111	100.8292048	-4.822201683	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 3/P	77.74652308	77.58730636	-2.390361852	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 3/P	72.56657639	66.49668411	-1.527243643	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 3/P	62.20428684	41.08433227	0.007112051	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 3/P	90.5065117	103.7970765	-5.221241001	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 4/P	90.97402244	105.1483439	-5.172159534	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 4/P	79.04979625	80.48569628	-2.531910481	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 4/P	73.63789553	69.0296401	-1.628512821	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 4/P	62.88257176	43.05230073	-0.045137558	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 4/P	92.4854887	108.2640996	-5.619712312	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 5/P	95.13968716	102.7051392	-2.287353571	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 5/P	84.58911146	78.46106193	-0.800811804	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 5/P	79.66866343	66.0987414	-0.205235526	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 5/P	69.66530687	37.3396671	0.932344427	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 5/P	96.43423537	105.5345847	-2.502754536	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 6/P	90.97402244	105.1483439	-5.172159534	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 6/P	79.04979625	80.48569628	-2.531910481	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 6/P	73.63789553	69.0296401	-1.628512821	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 6/P	62.88257176	43.05230073	-0.045137558	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 6/P	92.4854887	108.2640996	-5.619712312	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 7/P	88.8720266	103.8207696	-8.958883635	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 7/P	75.56764196	78.63455306	-4.287602457	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 7/P	69.81040891	68.03819004	-3.016281611	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 7/P	58.52538026	44.50386382	-0.941347498	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 7/P	90.97413173	107.0730926	-10.4969766	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 8/P	96.87376032	106.8522295	-2.467995145	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 8/P	85.81652689	81.67739522	-0.891963224	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 8/P	80.68728159	68.94995229	-0.274659407	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 8/P	70.32529801	39.47742726	0.891724483	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 8/P	98.23473279	109.8061744	-2.69874384	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 9/P	89.08093111	100.8292048	-4.822201683	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 9/P	77.74652308	77.58730636	-2.390361852	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 9/P	72.56657639	66.49668411	-1.527243643	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 9/P	62.20428684	41.08433227	0.007112051	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 9/P	90.5065117	103.7970765	-5.221241001	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 10/P	95.13968716	102.7051392	-2.287353571	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 10/P	84.58911146	78.46106193	-0.800811804	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 10/P	79.66866343	66.0987414	-0.205235526	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 10/P	69.66530687	37.3396671	0.932344427	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 10/P	96.43423537	105.5345847	-2.502754536	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 11/P	96.87376032	106.8522295	-2.467995145	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 11/P	85.81652689	81.67739522	-0.891963224	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 11/P	80.68728159	68.94995229	-0.274659407	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 11/P	70.32529801	39.47742726	0.891724483	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 11/P	98.23473279	109.8061744	-2.69874384	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 12/P	86.65461714	99.59200155	-8.112941452	5	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 12/P	74.17524695	75.97296751	-4.076157211	9	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 12/P	68.67558737	65.73270676	-2.875588461	12.61710051	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 12/P	57.81509635	42.72337856	-0.872632636	30.003942	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 12/P	88.37185745	102.5473255	-9.010302746	4.7	85.6408844
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 1/P	106.0773797	119.5626594	-14.07510716	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 1/P	90.03712654	90.82897454	-8.173273204	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 1/P	82.99828066	78.73039188	-6.359810826	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 1/P	69.07227721	51.42125742	-3.221519662	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 1/P	108.3482319	123.1746179	-15.43625011	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 2/P	103.3528724	114.6090959	-13.08952005	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 2/P	88.27368955	87.71906978	-7.855091481	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 2/P	81.55687712	76.0148859	-6.140930649	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 2/P	68.15029906	49.25987993	-3.09356129	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 2/P	105.3636108	117.9656282	-14.092483	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 3/P	107.284377	89.07488727	-9.443693698	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 3/P	93.05065646	89.07488727	-5.771406467	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 3/P	86.52569828	76.6398499	-4.423125636	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 3/P	73.26779499	47.20988657	-1.884739697	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 3/P	109.0724748	118.5586086	-10.02232315	4.7	96.88350677

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 4/P	109.7561463	120.1880881	-9.974477258	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 4/P	94.76078032	92.37129353	-6.011804308	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 4/P	87.93568466	79.56255214	-4.593636123	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 4/P	74.1935149	49.59883686	-1.9904658	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 4/P	111.6590113	123.7067233	-10.62562952	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 5/P	113.9603293	117.237557	-5.431397946	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 5/P	100.6507656	90.29432583	-3.053238882	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 5/P	94.41245933	76.30740716	-2.078397656	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 5/P	81.54129562	22.65316631	-0.232863535	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 5/P	115.5887335	120.3551493	-5.764472496	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 6/P	109.7561463	120.1880881	-9.974477258	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 6/P	94.76078032	92.37129353	-6.011804308	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 6/P	87.93568466	79.56255214	-4.593636123	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 6/P	74.1935149	49.59883686	-1.9904658	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 6/P	111.6590113	123.7067233	-10.62562952	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 7/P	106.0773797	119.5626594	-14.07510716	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 7/P	90.03712654	90.82897454	-8.173273204	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 7/P	82.99828066	78.73039188	-6.359810826	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 7/P	69.07227721	51.42125742	-3.221519662	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 7/P	108.3482319	123.1746179	-15.43625011	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 8/P	116.2355412	121.9018522	-5.719364569	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 8/P	102.2737195	93.98545075	-3.213581363	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 8/P	95.76531668	79.63710109	-2.201773781	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 8/P	82.44408348	17.18186206	-0.307324836	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 8/P	117.948854	125.1519002	-6.071901886	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 9/P	107.284377	89.07488727	-9.443693698	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 9/P	93.05065646	89.07488727	-5.771406467	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 9/P	86.52569828	76.6398499	-4.423125636	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 9/P	73.26779499	47.20988657	-1.884739697	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 9/P	109.0724748	118.5586086	-10.02232315	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 10/P	113.9603293	117.237557	-5.431397946	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 10/P	100.6507656	90.29432583	-3.053238882	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 10/P	94.41245933	76.30740716	-2.078397656	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 10/P	81.54129562	22.65316631	-0.232863535	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 10/P	115.5887335	120.3551493	-5.764472496	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 11/P	116.2355412	121.9018522	-5.719364569	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 11/P	102.2737195	93.98545075	-3.213581363	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 11/P	95.76531668	79.63710109	-2.201773781	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 11/P	82.44408348	17.18186206	-0.307324836	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 11/P	117.948854	125.1519002	-6.071901886	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 12/P	103.3528724	114.6090959	-13.08952005	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 12/P	88.27368955	87.71906978	-7.855091481	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 12/P	81.55687712	76.0148859	-6.140930649	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 12/P	68.15029906	49.25987993	-3.09356129	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 12/P	105.3636108	117.9656282	-14.092483	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 1/P	56.11154312	63.15751389	-5.310740389	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 1/P	48.85995535	48.32754722	-3.172432762	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 1/P	45.53575163	41.02544833	-2.31283002	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 1/P	38.86669906	24.50518038	-0.669385695	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 1/P	57.01304495	65.06859613	-5.611900409	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 2/P	55.54544005	61.49325608	-5.138025611	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 2/P	48.53922602	47.08176637	-3.090326533	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 2/P	45.3117685	39.93347018	-2.253347303	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 2/P	38.79854012	23.64513904	-0.638226855	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 2/P	56.41435574	63.20148691	-5.425914368	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 3/P	54.30714478	55.0874075	-4.252510335	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 3/P	47.75778971	42.00041746	-2.519903688	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 3/P	44.68364766	35.2335051	-1.771812151	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 3/P	38.2965491	15.03853437	-0.293292735	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 3/P	55.10822875	56.60638413	-4.482577227	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 4/P	54.98129407	56.70104045	-4.392172655	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 4/P	48.19790967	43.2739938	-2.597489017	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 4/P	45.03018364	36.38642392	-1.831000433	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 4/P	38.49120767	20.26205182	-0.322084775	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 4/P	55.81338064	58.26509002	-4.635988461	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 5/P	55.59626611	50.55741988	-4.523917616	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 5/P	49.25998954	37.45643601	-2.858036669	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 5/P	46.18040579	30.29232616	-2.056620874	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 5/P	39.27095341	14.16453242	-0.325574459	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 5/P	56.35808811	52.02203795	-4.735849403	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 6/P	52.54286269	54.0153115	-4.156234865	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 6/P	46.07088053	41.19238831	-2.435572932	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 6/P	43.04539132	34.60460205	-1.696385805	12.61710051	98.73004913

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 6/P	36.78162562	19.20061459	-0.217534708	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 6/P	53.33641828	55.51271373	-4.389878336	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 7/P	53.14026167	59.59034753	-4.991904049	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 7/P	46.28781096	45.57034567	-2.961438386	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 7/P	43.14258183	38.65977738	-2.141335412	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 7/P	36.82550004	22.99380415	-0.556336844	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 7/P	53.99229062	61.34912995	-5.278113826	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 8/P	56.42707703	52.28601207	-4.670437607	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 8/P	49.86490967	38.90837863	-2.955374957	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 8/P	46.69357755	31.63581893	-2.138355921	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 8/P	39.65989616	14.8615322	-0.379702803	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 8/P	57.2191668	53.78997552	-4.890905057	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 9/P	51.80157969	52.37815534	-4.014232357	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 9/P	45.56328175	39.90109666	-2.355226725	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 9/P	42.63146495	33.43813123	-1.634021807	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 9/P	36.52169406	18.05578904	-0.183826954	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 9/P	52.56408828	53.82520213	-4.233670776	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 10/P	53.80728942	48.81282577	-4.319927926	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 10/P	47.67762857	36.12439997	-2.703225115	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 10/P	44.69867181	29.17813529	-1.935016373	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 10/P	38.00754014	13.59245365	-0.267802975	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 10/P	54.54483737	50.23047716	-4.525781657	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 11/P	54.68193957	50.55157512	-4.469721037	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 11/P	48.32995785	37.58001162	-2.806982556	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 11/P	45.25973612	30.52023702	-2.018054838	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 11/P	38.4366983	14.2718789	-0.319645779	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 11/P	55.45211078	52.00743899	-4.683887469	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 12/P	52.52231701	57.93074955	-4.819951672	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 12/P	45.91178169	44.32428661	-2.877151785	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 12/P	42.86246658	37.56462472	-2.079810085	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 12/P	36.69884111	22.14543167	-0.522811818	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 12/P	53.3424448	59.54326804	-5.093176554	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 1/P	20.62374104	22.27558455	-2.150070188	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 1/P	17.6435932	17.00566229	-0.9867043	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 1/P	16.27527915	14.51935534	-0.499381781	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 1/P	13.45566457	8.823423718	0.56558219	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 1/P	21.00043445	22.95442038	-2.321114636	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 2/P	20.30105455	21.63814597	-2.042287825	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 2/P	17.42455	16.58696065	-0.931404296	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 2/P	16.09403016	14.15233676	-0.456713321	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 2/P	13.34357823	8.535653176	0.587572656	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 2/P	20.66274873	22.29499816	-2.200986121	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 3/P	21.00794087	21.9869065	-1.327259068	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 3/P	18.3033931	16.7463642	-0.408076595	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 3/P	16.97263143	14.09447691	0.133197972	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 3/P	14.32976709	7.960634644	1.063646305	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 3/P	21.33960544	22.603616	-1.446217631	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 4/P	21.30226585	22.58896469	-1.403752371	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 4/P	18.51026883	17.20547183	-0.457825034	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 4/P	17.15929465	14.49874085	0.063237091	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 4/P	14.44751587	8.258416601	1.023343864	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 4/P	21.64443343	23.22979736	-1.529538974	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 5/P	22.51091158	22.35616911	-0.571263699	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 5/P	19.8744182	16.62366563	0.347003277	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 5/P	18.69940457	13.66352416	0.62538481	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 5/P	15.87931502	6.97028743	1.939001818	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 5/P	22.82212079	23.0142905	-0.665935986	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 6/P	21.30226585	22.58896469	-1.403752371	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 6/P	18.51026883	17.20547183	-0.457825034	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 6/P	17.15929465	14.49874085	0.063237091	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 6/P	14.44751587	8.258416601	1.023343864	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 6/P	21.64443343	23.22979736	-1.529538974	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 7/P	20.62374104	22.27558455	-2.150070188	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 7/P	17.6435932	17.00566229	-0.9867043	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 7/P	16.27527915	14.51935534	-0.499381781	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 7/P	13.45566457	8.823423718	0.56558219	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 7/P	21.00043445	22.95442038	-2.321114636	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 8/P	22.78597788	23.00491489	-0.630617887	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 8/P	20.061156	17.13125626	0.323489489	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 8/P	18.86202578	14.12122126	0.593390967	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 8/P	16.00610257	7.256206443	1.884034774	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 8/P	23.10578234	23.68546204	-0.726340846	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 9/P	21.00794087	21.9869065	-1.327259068	5	3.425635099

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 9/P	18.3033931	16.7463642	-0.408076595	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 9/P	16.97263143	14.09447691	0.133197972	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 9/P	14.32976709	7.960634644	1.063646305	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 9/P	21.33960544	22.603616	-1.446217631	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 10/P	22.51091158	22.35616911	-0.571263699	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 10/P	19.8744182	16.62366563	0.347003277	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 10/P	18.69940457	13.66352416	0.62538481	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 10/P	15.87931502	6.97028743	1.939001818	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 10/P	22.82212079	23.0142905	-0.665935986	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 11/P	22.78597788	23.00491489	-0.630617887	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 11/P	20.061156	17.13125626	0.323489489	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 11/P	18.86202578	14.12122126	0.593390967	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 11/P	16.00610257	7.256206443	1.884034774	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 11/P	23.10578234	23.68546204	-0.726340846	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 12/P	20.30105455	21.63814597	-2.042287825	5	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 12/P	17.42455	16.58696065	-0.931404296	9	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 12/P	16.09403016	14.15233676	-0.456713321	12.61710051	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 12/P	13.34357823	8.535653176	0.587572656	30.003942	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 12/P	20.66274873	22.29499816	-2.200986121	4.7	3.425635099
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 1/P	106.0773797	119.5626594	-14.07510716	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 1/P	90.03712654	90.82897454	-8.173273204	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 1/P	82.99828066	78.73039188	-6.359810826	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 1/P	69.07227721	51.42125742	-3.221519662	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 1/P	108.3482319	123.1746179	-15.43625011	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 2/P	103.3528724	114.6090959	-13.08952005	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 2/P	88.27368955	87.71906978	-7.855091481	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 2/P	81.55687712	76.0148859	-6.140930649	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 2/P	68.15029906	49.25987993	-3.09356129	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 2/P	105.3636108	117.9656282	-14.092483	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 3/P	107.284377	89.07488727	-9.443693698	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 3/P	93.05065646	89.07488727	-5.771406467	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 3/P	86.52569828	76.6398499	-4.423125636	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 3/P	73.26779499	47.20988657	-1.884739697	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 3/P	109.0724748	118.5586086	-10.02232315	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 4/P	109.7561463	120.1880881	-9.974477258	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 4/P	94.76078032	92.37129353	-6.011804308	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 4/P	87.93568466	79.56255214	-4.593636123	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 4/P	74.1935149	49.59883686	-1.9904658	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 4/P	111.6590113	123.7067233	-10.62562952	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 5/P	113.9603293	117.237557	-5.431397946	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 5/P	100.6507656	90.29432583	-3.053238882	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 5/P	94.41245933	76.30740716	-2.078397656	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 5/P	81.54129562	22.65316631	-0.232863535	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 5/P	115.5887335	120.3551493	-5.764472496	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 6/P	109.7561463	120.1880881	-9.974477258	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 6/P	94.76078032	92.37129353	-6.011804308	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 6/P	87.93568466	79.56255214	-4.593636123	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 6/P	74.1935149	49.59883686	-1.9904658	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 6/P	111.6590113	123.7067233	-10.62562952	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 7/P	106.0773797	119.5626594	-14.07510716	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 7/P	90.03712654	90.82897454	-8.173273204	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 7/P	82.99828066	78.73039188	-6.359810826	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 7/P	69.07227721	51.42125742	-3.221519662	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 7/P	108.3482319	123.1746179	-15.43625011	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 8/P	116.2355412	121.9018522	-5.719364569	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 8/P	102.2737195	93.98545075	-3.213581363	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 8/P	95.76531668	79.63710109	-2.201773781	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 8/P	82.44408348	17.18186206	-0.307324836	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 8/P	117.948854	125.1519002	-6.071901886	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 9/P	107.284377	89.07488727	-9.443693698	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 9/P	93.05065646	89.07488727	-5.771406467	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 9/P	86.52569828	76.6398499	-4.423125636	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 9/P	73.26779499	47.20988657	-1.884739697	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 9/P	109.0724748	118.5586086	-10.02232315	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 10/P	113.9603293	117.237557	-5.431397946	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 10/P	100.6507656	90.29432583	-3.053238882	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 10/P	94.41245933	76.30740716	-2.078397656	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 10/P	81.54129562	22.65316631	-0.232863535	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 10/P	115.5887335	120.3551493	-5.764472496	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 11/P	116.2355412	121.9018522	-5.719364569	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 11/P	102.2737195	93.98545075	-3.213581363	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 11/P	95.76531668	79.63710109	-2.201773781	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 11/P	82.44408348	17.18186206	-0.307324836	30.003942	96.88350677

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 11/P	117.948854	125.1519002	-6.071901886	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 12/P	103.3528724	114.6090959	-13.08952005	5	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 12/P	88.27368955	87.71906978	-7.855091481	9	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 12/P	81.55687712	76.0148859	-6.140930649	12.61710051	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 12/P	68.15029906	49.25987993	-3.09356129	30.003942	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 12/P	105.3636108	117.9656282	-14.092483	4.7	96.88350677
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 1/P	56.11154312	63.15751389	-5.310740389	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 1/P	48.85995535	48.32754722	-3.172432762	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 1/P	45.53575163	41.02544833	-2.31283002	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 1/P	38.86669906	24.50518038	-0.669385695	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 1/P	57.01304495	65.06859613	-5.611900409	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 2/P	55.54544005	61.49325608	-5.138025611	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 2/P	48.53922602	47.08176637	-3.090326533	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 2/P	45.3117685	39.93347018	-2.253347303	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 2/P	38.79854012	23.64513904	-0.638226855	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 2/P	56.41435574	63.20148691	-5.425914368	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 3/P	54.30714478	55.0874075	-4.252510335	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 3/P	47.75778971	42.00041746	-2.519903688	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 3/P	44.68364766	35.2335051	-1.771812151	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 3/P	38.2965491	15.03853437	-0.293292735	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 3/P	55.10822875	56.60638413	-4.482577227	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 4/P	54.98129407	56.70104045	-4.392172655	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 4/P	48.19790967	43.2739938	-2.597489017	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 4/P	45.03018364	36.38642392	-1.831000433	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 4/P	38.49120767	20.26205182	-0.322084775	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 4/P	55.81338064	58.26509002	-4.635988461	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 5/P	55.59626611	50.55741988	-4.523917616	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 5/P	49.25998954	37.45643601	-2.858036669	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 5/P	46.18040579	30.29232616	-2.056620874	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 5/P	39.27095341	14.16453242	-0.325574459	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 5/P	56.35808811	52.02203795	-4.735849403	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 6/P	52.54286269	54.0153115	-4.156234865	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 6/P	46.07088053	41.19238831	-2.435572932	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 6/P	43.04539132	34.60460205	-1.696385805	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 6/P	36.78162562	19.20061459	-0.217534708	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 6/P	53.33641828	55.51271373	-4.389878336	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 7/P	53.14026167	59.59034753	-4.991904049	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 7/P	46.28781096	45.57034567	-2.961438386	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 7/P	43.14258183	38.65977738	-2.141335412	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 7/P	36.82550004	22.99380415	-0.556336844	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 7/P	53.99229062	61.34912995	-5.278113826	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 8/P	56.42707703	52.28601207	-4.670437607	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 8/P	49.86490967	38.90837863	-2.955374957	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 8/P	46.69357755	31.63581893	-2.138355921	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 8/P	39.65989616	14.8615322	-0.379702803	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 8/P	57.2191668	53.78997552	-4.890905057	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 9/P	51.80157969	52.37815534	-4.014232357	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 9/P	45.56328175	39.90109666	-2.355226725	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 9/P	42.63146495	33.43813123	-1.634021807	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 9/P	36.52169406	18.05578904	-0.183826954	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 9/P	52.56408828	53.82520213	-4.233670776	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 10/P	53.80728942	48.81282577	-4.319927926	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 10/P	47.67762857	36.12439997	-2.703225115	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 10/P	44.69867181	29.17813529	-1.935016373	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 10/P	38.00754014	13.59245365	-0.267802975	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 10/P	54.54483737	50.23047716	-4.525781657	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 11/P	54.68193957	50.55157512	-4.469721037	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 11/P	48.32995785	37.58001162	-2.806982556	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 11/P	45.25973612	30.52023702	-2.018054838	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 11/P	38.4366983	14.2718789	-0.319645779	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 11/P	55.45211078	52.00743899	-4.683887469	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 12/P	52.52231701	57.93074955	-4.819951672	5	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 12/P	45.91178169	44.32428661	-2.877151785	9	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 12/P	42.86246658	37.56462472	-2.079810085	12.61710051	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 12/P	36.69884111	22.14543167	-0.522811818	30.003942	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 12/P	53.3424448	59.54326804	-5.093176554	4.7	98.73004913
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 1/P	17.20404885	22.11615619	3.142360258	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 1/P	14.82480056	16.09631955	4.446065373	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 1/P	13.67512531	13.17551944	5.06935247	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 1/P	11.08809207	6.926996534	6.41720995	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 1/P	17.48915631	22.83471697	2.984277016	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 2/P	17.35781089	21.52465374	3.216437387	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 2/P	15.04761924	15.59773811	4.445205777	9	4.90948534

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 2/P	13.91922415	12.69988444	5.040516242	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 2/P	11.30532338	6.468273173	6.331502577	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 2/P	17.6325661	22.22801967	3.068959478	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 3/P	17.26988827	21.85373214	3.106647243	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 3/P	14.67242917	16.00937724	4.343948406	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 3/P	13.39970715	13.13018088	4.935866267	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 3/P	10.13614329	6.750759175	6.234734207	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 3/P	17.57751104	22.54676696	2.961635564	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 4/P	17.2102409	22.43585602	3.025917562	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 4/P	14.53930624	16.492776	4.334127484	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 4/P	13.24003565	13.59798435	4.962098023	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 4/P	10.14564388	7.268668327	6.30790156	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 4/P	17.52826549	23.14503688	2.868954045	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 5/P	17.18590535	21.93480793	3.052326507	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 5/P	14.42676758	16.14976764	4.286875783	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 5/P	13.06399352	13.28770056	4.881882365	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 5/P	9.667302831	6.886616581	6.167745849	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 5/P	17.51390149	22.61998213	2.905091649	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 6/P	17.2102409	22.43585602	3.025917562	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 6/P	14.53930624	16.492776	4.334127484	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 6/P	13.24003565	13.59798435	4.962098023	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 6/P	10.14564388	7.268668327	6.30790156	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 6/P	17.52826549	23.14503688	2.868954045	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 7/P	17.20404885	22.11615619	3.142360258	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 7/P	14.82480056	16.09631955	4.446065373	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 7/P	13.67512531	13.17551944	5.06935247	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 7/P	11.08809207	6.926996534	6.41720995	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 7/P	17.48915631	22.83471697	2.984277016	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 8/P	17.19463476	22.51055927	2.944344287	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 8/P	14.34345911	16.62584446	4.278789876	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 8/P	12.95821909	13.75555301	4.904837177	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 8/P	9.527824742	7.392422422	6.240213208	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 8/P	17.56489928	23.22055259	2.724128805	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 9/P	17.26988827	21.85373214	3.106647243	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 9/P	14.67242917	16.00937724	4.343948406	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 9/P	13.39970715	13.13018088	4.935866267	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 9/P	10.13614329	6.750759175	6.234734207	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 9/P	17.57751104	22.54676696	2.961635564	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 10/P	17.18590535	21.93480793	3.052326507	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 10/P	14.42676758	16.14976764	4.286875783	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 10/P	13.06399352	13.28770056	4.881882365	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 10/P	9.667302831	6.886616581	6.167745849	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 10/P	17.51390149	22.61998213	2.905091649	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 11/P	17.19463476	22.51055927	2.944344287	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 11/P	14.34345911	16.62584446	4.278789876	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 11/P	12.95821909	13.75555301	4.904837177	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 11/P	9.527824742	7.392422422	6.240213208	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 11/P	17.56489928	23.22055259	2.724128805	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 12/P	17.35781089	21.52465374	3.216437387	5	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 12/P	15.04761924	15.59773811	4.445205777	9	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 12/P	13.91922415	12.69988444	5.040516242	12.61710051	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 12/P	11.30532338	6.468273173	6.331502577	30.003942	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 12/P	17.6325661	22.22801967	3.068959478	4.7	4.90948534
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 1/P	36.39311094	48.84529316	1.930257032	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 1/P	30.58075416	36.19324465	5.711752959	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 1/P	27.920834	30.16004038	7.307920386	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 1/P	22.41850495	17.52533603	10.47331646	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 1/P	37.14462477	50.37883	1.375953874	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 2/P	36.06828644	47.04966615	2.62567923	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 2/P	30.62023944	34.80241743	5.943206989	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 2/P	28.06667501	28.91358893	7.423562924	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 2/P	22.7020406	16.44053276	10.38832572	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 2/P	36.76430424	48.52367767	2.145075055	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 3/P	37.05318227	47.07014144	0.290548215	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 3/P	29.98811051	34.90484431	5.574658762	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 3/P	26.95291842	29.11540137	7.369673248	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 3/P	20.59709015	16.71077548	10.3048144	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 3/P	37.95312518	48.54366849	-0.448882774	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 4/P	37.88702773	48.88179693	-0.994410623	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 4/P	30.30193987	36.2606024	5.020204003	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 4/P	27.03147344	30.32213161	7.178807027	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 4/P	20.61695312	17.8299602	10.38432704	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 4/P	38.85119419	50.41757	-1.820274429	4.7	19.63794136

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 5/P	37.98280889	47.09338941	-1.920477999	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 5/P	29.94691565	34.91328867	4.571725941	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 5/P	26.39766804	29.12985647	7.006998244	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 5/P	19.1417097	16.70999084	10.27389327	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 5/P	38.99681819	48.56864945	-2.801988449	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 6/P	37.88702773	48.88179693	-0.994410623	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 6/P	30.30193987	36.2606024	5.020204003	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 6/P	27.03147344	30.32213161	7.178807027	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 6/P	20.61695312	17.8299602	10.38432704	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 6/P	38.85119419	50.41757	-1.820274429	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 7/P	36.39311094	48.84529316	1.930257032	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 7/P	30.58075416	36.19324465	5.711752959	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 7/P	27.920834	30.16004038	7.307920386	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 7/P	22.41850495	17.52533603	10.47331646	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 7/P	37.14462477	50.37883	1.375953874	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 8/P	39.09842706	48.91854244	-3.516141724	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 8/P	30.50615711	36.2775021	3.754931841	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 8/P	26.72280854	30.34423246	6.551323788	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 8/P	19.41198621	17.86814246	10.35586313	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 8/P	40.1793149	50.45571695	-4.486769434	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 9/P	37.05318227	47.07014144	0.290548215	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 9/P	29.98811051	34.90484431	5.574658762	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 9/P	26.95291842	29.11540137	7.369673248	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 9/P	20.59709015	16.71077548	10.3048144	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 9/P	37.95312518	48.54366849	-0.448882774	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 10/P	37.98280889	47.09338941	-1.920477999	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 10/P	29.94691565	34.91328867	4.571725941	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 10/P	26.39766804	29.12985647	7.006998244	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 10/P	19.1417097	16.70999084	10.27389327	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 10/P	38.99681819	48.56864945	-2.801988449	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 11/P	39.09842706	48.91854244	-3.516141724	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 11/P	30.50615711	36.2775021	3.754931841	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 11/P	26.72280854	30.34423246	6.551323788	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 11/P	19.41198621	17.86814246	10.35586313	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 11/P	40.1793149	50.45571695	-4.486769434	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 12/P	36.06828644	47.04966615	2.62567923	5	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 12/P	30.62023944	34.80241743	5.943206989	9	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 12/P	28.06667501	28.91358893	7.423562924	12.61710051	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 12/P	22.7020406	16.44053276	10.38832572	30.003942	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 12/P	36.76430424	48.52367767	2.145075055	4.7	19.63794136
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 1/P	28.76497483	38.4232982	2.831273453	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 1/P	24.47095196	28.3638366	5.34500381	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 1/P	22.43736183	23.53255992	6.516291657	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 1/P	18.17142214	13.35148016	8.866272263	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 1/P	29.28324538	39.63155731	2.524171451	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 2/P	28.74049513	37.13827195	3.12727376	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 2/P	24.62412595	27.33693379	5.46687968	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 2/P	22.65881427	22.59689333	6.561885155	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 2/P	18.47415912	12.51200072	8.76750189	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 2/P	29.23740488	38.30816288	2.845653627	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 3/P	29.03040818	37.22974751	2.136388182	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 3/P	23.97300825	27.55763149	5.379031184	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 3/P	21.75837998	22.90464639	6.469690069	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 3/P	16.7533043	12.8165028	8.674681949	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 3/P	29.69135473	38.40053031	1.63890177	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 4/P	29.47211032	38.53815796	1.33500202	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 4/P	23.99292477	28.54236199	5.20926905	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 4/P	21.6832126	23.81128697	6.419692301	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 4/P	16.72603796	13.70247265	8.764049409	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 4/P	30.18160922	39.75554784	0.765192913	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 5/P	29.60867108	37.29053282	0.644484229	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 5/P	23.69018967	27.59345816	5.038958246	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 5/P	21.17429805	22.97200134	6.434966651	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 5/P	15.58709362	12.87420381	8.624563726	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 5/P	30.36457126	38.47119797	0.020673115	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 6/P	29.47211032	38.53815796	1.33500202	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 6/P	23.99292477	28.54236199	5.20926905	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 6/P	21.6832126	23.81128697	6.419692301	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 6/P	16.72603796	13.70247265	8.764049409	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 6/P	30.18160922	39.75554784	0.765192913	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 7/P	28.76497483	38.4232982	2.831273453	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 7/P	24.47095196	28.3638366	5.34500381	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 7/P	22.43736183	23.53255992	6.516291657	12.61710051	12.56828117

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 7/P	18.17142214	13.35148016	8.866272263	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 7/P	29.28324538	39.63155731	2.524171451	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 8/P	30.28784861	38.6226133	-0.438224639	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 8/P	23.93491787	28.58697205	4.597398466	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 8/P	21.22042843	23.86592725	6.322422845	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 8/P	15.75570772	13.79134841	8.713584233	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 8/P	31.09583349	39.8447506	-1.135744281	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 9/P	29.03040818	37.22974751	2.136388182	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 9/P	23.97300825	27.55763149	5.379031184	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 9/P	21.75837998	22.90464639	6.469690069	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 9/P	16.7533043	12.8165028	8.674681949	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 9/P	29.69135473	38.40053031	1.63890177	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 10/P	29.60867108	37.29053282	0.644484229	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 10/P	23.69018967	27.59345816	5.038958246	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 10/P	21.17429805	22.97200134	6.434966651	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 10/P	15.58709362	12.87420381	8.624563726	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 10/P	30.36457126	38.47119797	0.020673115	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 11/P	30.28784861	38.6226133	-0.438224639	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 11/P	23.93491787	28.58697205	4.597398466	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 11/P	21.22042843	23.86592725	6.322422845	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 11/P	15.75570772	13.79134841	8.713584233	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 11/P	31.09583349	39.8447506	-1.135744281	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 12/P	28.74049513	37.13827195	3.12727376	5	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 12/P	24.62412595	27.33693379	5.46687968	9	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 12/P	22.65881427	22.59689333	6.561885155	12.61710051	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 12/P	18.47415912	12.51200072	8.76750189	30.003942	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 12/P	29.23740488	38.30816288	2.845653627	4.7	12.56828117
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 1/P	86.25662949	111.0655016	-15.74113839	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 1/P	68.26614487	83.11251137	0.50689169	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 1/P	60.22743922	70.03028093	7.337581905	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 1/P	45.24532101	43.53461668	18.37697123	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 1/P	88.501701	114.4627015	-17.83089841	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 2/P	83.29682295	106.1594289	-11.90950987	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 2/P	66.61204013	79.46635546	2.748352068	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 2/P	59.14449801	66.88460161	8.850522853	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 2/P	45.07123559	41.10885586	18.61580458	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 2/P	85.37883862	109.3928049	-13.80749702	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 3/P	88.96160751	105.5575253	-21.25117852	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 3/P	68.64342319	79.01265529	-2.619125121	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 3/P	59.40691364	66.48616503	5.324723708	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 3/P	40.85432385	40.68448616	18.85927247	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 3/P	91.47801809	108.7720792	-23.6381505	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 4/P	93.01042638	110.3931294	-26.1895267	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 4/P	71.24335073	82.61706944	-5.791523243	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 4/P	61.35760799	69.60472028	3.002615071	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 4/P	42.07927066	43.14710915	18.19442486	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 4/P	95.69609959	113.7700856	-28.76269093	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 5/P	92.08021902	105.2112787	-27.32626203	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 5/P	69.81726452	78.65882946	-6.542704017	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 5/P	59.57127131	66.09683976	2.455050996	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 5/P	38.76652218	39.98911686	18.01152474	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 5/P	94.8061938	108.4198629	-29.93575577	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 6/P	93.01042638	110.3931294	-26.1895267	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 6/P	71.24335073	82.61706944	-5.791523243	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 6/P	61.35760799	69.60472028	3.002615071	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 6/P	42.07927066	43.14710915	18.19442486	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 6/P	95.69609959	113.7700856	-28.76269093	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 7/P	86.25662949	111.0655016	-15.74113839	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 7/P	68.26614487	83.11251137	0.50689169	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 7/P	60.22743922	70.03028093	7.337581905	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 7/P	45.24532101	43.53461668	18.37697123	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 7/P	88.501701	114.4627015	-17.83089841	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 8/P	96.65502645	110.0171644	-32.76218107	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 8/P	72.91898065	82.26120334	-10.20402921	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 8/P	62.01710848	69.21719085	-0.316310103	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 8/P	40.21300399	42.51378255	17.03443891	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 8/P	99.56388547	113.3827086	-35.58106342	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 9/P	88.96160751	105.5575253	-21.25117852	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 9/P	68.64342319	79.01265529	-2.619125121	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 9/P	59.40691364	66.48616503	5.324723708	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 9/P	40.85432385	40.68448616	18.85927247	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 9/P	91.47801809	108.7720792	-23.6381505	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 10/P	92.08021902	105.2112787	-27.32626203	5	101.8980942

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 10/P	69.81726452	78.65882946	-6.542704017	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 10/P	59.57127131	66.09683976	2.455050996	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 10/P	38.76652218	39.98911686	18.01152474	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 10/P	94.8061938	108.4198629	-29.93575577	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 11/P	96.65502645	110.0171644	-32.76218107	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 11/P	72.91898065	82.26120334	-10.20402921	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 11/P	62.01710848	69.21719085	-0.316310103	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 11/P	40.21300399	42.51378255	17.03443891	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 11/P	99.56388547	113.3827086	-35.58106342	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 12/P	83.29682295	106.1594289	-11.90950987	5	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 12/P	66.61204013	79.46635546	2.748352068	9	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 12/P	59.14449801	66.88460161	8.850522853	12.61710051	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 12/P	45.07123559	41.10885586	18.61580458	30.003942	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 12/P	85.37883862	109.3928049	-13.80749702	4.7	101.8980942
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 1/P	85.45553597	110.12809	-15.36650312	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 1/P	67.66522601	82.40149459	0.675547262	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 1/P	59.71876456	69.42444387	7.411764736	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 1/P	44.91402839	43.13454954	18.27583529	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 1/P	87.67625672	113.4977942	-17.43128296	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 2/P	82.5447237	105.2688443	-11.5912176	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 2/P	66.04442079	78.78981914	2.877708322	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 2/P	58.66213586	66.30800133	8.893359719	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 2/P	44.74763514	40.72826541	18.51136612	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 2/P	84.60436822	108.4763169	-13.46647764	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 3/P	88.13442955	104.6781353	-20.8330049	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 3/P	68.03262207	78.34653941	-2.422756768	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 3/P	58.89410276	65.91999732	5.425492967	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 3/P	40.54387475	40.31864151	18.76810285	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 3/P	90.62404437	107.8668795	-23.19186714	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 4/P	92.12565774	109.4680004	-25.70740527	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 4/P	70.58874795	81.91670421	-5.543410491	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 4/P	60.81067067	69.00968173	3.141612696	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 4/P	41.74786524	42.76618	18.12378242	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 4/P	94.78432612	112.817842	-28.25396492	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 5/P	91.22247629	104.3389154	-26.85535258	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 5/P	69.18778389	78.00017703	-6.30343292	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 5/P	59.04990604	65.5288611	2.586616865	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 5/P	38.45461477	39.63734052	17.93924972	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 5/P	93.92351854	107.5220282	-29.44193753	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 6/P	92.12565774	109.4680004	-25.70740527	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 6/P	70.58874795	81.91670421	-5.543410491	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 6/P	60.81067067	69.00968173	3.141612696	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 6/P	41.74786524	42.76618	18.12378242	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 6/P	94.78432612	112.817842	-28.25396492	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 7/P	85.45553597	110.12809	-15.36650312	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 7/P	67.66522601	82.40149459	0.675547262	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 7/P	59.71876456	69.42444387	7.411764736	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 7/P	44.91402839	43.13454954	18.27583529	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 7/P	87.67625672	113.4977942	-17.43128296	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 8/P	95.74012714	109.0996374	-32.23143759	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 8/P	72.24519853	81.56874304	-9.915992986	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 8/P	61.45792659	68.63088252	-0.143306234	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 8/P	39.88812162	42.14204481	16.98488973	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 8/P	98.61939997	112.4379267	-35.02005821	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 9/P	88.13442955	104.6781353	-20.8330049	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 9/P	68.03262207	78.34653941	-2.422756768	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 9/P	58.89410276	65.91999732	5.425492967	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 9/P	40.54387475	40.31864151	18.76810285	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 9/P	90.62404437	107.8668795	-23.19186714	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 10/P	91.22247629	104.3389154	-26.85535258	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 10/P	69.18778389	78.00017703	-6.30343292	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 10/P	59.04990604	65.5288611	2.586616865	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 10/P	38.45461477	39.63734052	17.93924972	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 10/P	93.92351854	107.5220282	-29.44193753	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 11/P	95.74012714	109.0996374	-32.23143759	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 11/P	72.24519853	81.56874304	-9.915992986	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 11/P	61.45792659	68.63088252	-0.143306234	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 11/P	39.88812162	42.14204481	16.98488973	30.003942	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 11/P	98.61939997	112.4379267	-35.02005821	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 12/P	82.5447237	105.2688443	-11.5912176	5	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 12/P	66.04442079	78.78981914	2.877708322	9	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 12/P	58.66213586	66.30800133	8.893359719	12.61710051	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 12/P	44.74763514	40.72826541	18.51136612	30.003942	100.1203308

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 12/P	84.60436822	108.4763169	-13.46647764	4.7	100.1203308
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 1/P	30.42747404	31.75280771	-3.547652393	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 1/P	26.09832536	24.40421871	-1.989472917	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 1/P	24.11606237	20.87314579	-1.373238404	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 1/P	20.07851285	12.45811206	-0.189574329	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 1/P	30.96947519	32.71259834	-3.77468124	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 2/P	29.91776595	30.77846417	-3.402728024	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 2/P	25.74700452	23.75857943	-1.916223917	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 2/P	23.8269745	20.29698405	-1.318420322	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 2/P	19.8919442	11.98517422	-0.161704446	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 2/P	30.43600885	31.70182029	-3.610164835	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 3/P	31.52834761	31.02249767	-2.694669473	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 3/P	27.4366836	23.88647017	-1.453342101	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 3/P	25.51415034	20.14520855	-0.918186511	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 3/P	21.4663808	10.91218722	0.152505721	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 3/P	32.03365041	31.84926003	-2.867130958	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 4/P	32.0259815	31.88650053	-2.80778247	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 4/P	27.78507723	24.57306159	-1.514541289	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 4/P	25.80409299	20.77360612	-0.966852108	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 4/P	21.66327338	11.40076847	0.130237442	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 4/P	32.54999666	32.73578435	-2.988120634	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 5/P	33.90362016	31.63694428	-1.635499862	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 5/P	29.98197735	23.72618837	-0.699547737	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 5/P	28.10370364	19.42791472	-0.270457918	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 5/P	23.92313832	9.3017165	0.769715313	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 5/P	34.3794255	32.52709926	-1.757550941	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 6/P	32.0259815	31.88650053	-2.80778247	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 6/P	27.78507723	24.57306159	-1.514541289	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 6/P	25.80409299	20.77360612	-0.966852108	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 6/P	21.66327338	11.40076847	0.130237442	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 6/P	32.54999666	32.73578435	-2.988120634	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 7/P	30.42747404	31.75280771	-3.547652393	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 7/P	26.09832536	24.40421871	-1.989472917	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 7/P	24.11606237	20.87314579	-1.373238404	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 7/P	20.07851285	12.45811206	-0.189574329	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 7/P	30.96947519	32.71259834	-3.77468124	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 8/P	34.37543763	32.58037486	-1.71300162	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 8/P	30.32081213	24.5087564	-0.745733107	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 8/P	28.38795946	20.15510658	-0.306907086	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 8/P	24.12208474	9.732817786	0.763757992	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 8/P	34.86771523	33.49459248	-1.839708484	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 9/P	31.52834761	31.02249767	-2.694669473	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 9/P	27.4366836	23.88647017	-1.453342101	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 9/P	25.51415034	20.14520855	-0.918186511	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 9/P	21.4663808	10.91218722	0.152505721	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 9/P	32.03365041	31.84926003	-2.867130958	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 10/P	33.90362016	31.63694428	-1.635499862	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 10/P	29.98197735	23.72618837	-0.699547737	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 10/P	28.10370364	19.42791472	-0.270457918	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 10/P	23.92313832	9.3017165	0.769715313	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 10/P	34.3794255	32.52709926	-1.757550941	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 11/P	34.37543763	32.58037486	-1.71300162	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 11/P	30.32081213	24.5087564	-0.745733107	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 11/P	28.38795946	20.15510658	-0.306907086	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 11/P	24.12208474	9.732817786	0.763757992	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 11/P	34.86771523	33.49459248	-1.839708484	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 12/P	29.91776595	30.77846417	-3.402728024	5	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 12/P	25.74700452	23.75857943	-1.916223917	9	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 12/P	23.8269745	20.29698405	-1.318420322	12.61710051	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 12/P	19.8919442	11.98517422	-0.161704446	30.003942	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 12/P	30.43600885	31.70182029	-3.610164835	4.7	5.791779041
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 1/P	37.24467749	39.70166273	-3.595934642	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 1/P	32.22777107	30.50055605	-2.008785887	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 1/P	29.92530649	25.96744187	-1.377364215	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 1/P	25.25789249	15.33208481	-0.16755405	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 1/P	37.8707901	40.90911278	-3.82444375	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 2/P	36.6228894	38.41281511	-3.442507553	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 2/P	31.79904102	29.61157293	-1.932651383	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 2/P	29.57275037	25.1777375	-1.321923907	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 2/P	25.02754737	14.70957437	-0.136880083	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 2/P	37.22354753	39.55427183	-3.65783403	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 3/P	39.43599565	38.6947795	-3.689756409	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 3/P	34.45421594	29.57234605	-2.167116015	9	8.507342339

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 3/P	32.10130996	24.78185437	-1.494366582	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 3/P	27.22103528	13.04215315	-0.335499241	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 3/P	40.04364421	39.74713848	-3.891302064	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 4/P	39.43583458	39.19800717	-3.755186742	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 4/P	34.35402446	29.98628723	-2.196085931	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 4/P	31.96626086	25.18958679	-1.514202	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 4/P	27.04436807	13.45982375	-0.345156623	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 4/P	40.0587519	40.26550622	-3.963126118	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 5/P	41.54479014	37.41727193	-3.080172255	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 5/P	36.64336062	27.81207773	-1.737294273	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 5/P	34.26711488	22.47926914	-1.12740702	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 5/P	29.03858411	10.26079876	-0.238163075	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 5/P	42.13300444	38.48199179	-3.249695218	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 6/P	38.66719425	38.38661335	-3.668126272	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 6/P	33.6859339	29.35520075	-2.135399203	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 6/P	31.34389099	24.64871019	-1.4628965	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 6/P	26.53781139	13.13117331	-0.356945106	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 6/P	39.27791631	39.43286956	-3.872340851	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 7/P	37.24467749	39.70166273	-3.595934642	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 7/P	32.22777107	30.50055605	-2.008785887	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 7/P	29.92530649	25.96744187	-1.377364215	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 7/P	25.25789249	15.33208481	-0.16755405	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 7/P	37.8707901	40.90911278	-3.82444375	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 8/P	41.04117529	37.4978133	-3.07897886	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 8/P	36.10887915	27.97260281	-1.72447001	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 8/P	33.72613612	22.70889826	-1.106074101	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 8/P	28.57246537	10.35829323	-0.256719879	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 8/P	41.63517234	38.56047159	-3.250549855	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 9/P	39.07816698	38.32247847	-3.649616219	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 9/P	34.14213277	29.28265927	-2.138932079	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 9/P	31.8101296	24.53415988	-1.470442848	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 9/P	26.98326844	12.94872561	-0.341090239	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 9/P	39.68027327	39.36519402	-3.849505623	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 10/P	41.07723617	36.96723588	-3.033511993	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 10/P	36.2305775	27.46673434	-1.702491558	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 10/P	33.8791852	22.19011337	-1.095429116	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 10/P	28.7223923	10.11199982	-0.246121337	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 10/P	41.65873836	38.02000204	-3.201403909	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 11/P	40.52244327	36.99040522	-3.027043787	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 11/P	35.65241536	27.5822103	-1.686061607	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 11/P	33.29811344	22.38123985	-1.071267842	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 11/P	28.22145322	10.18746569	-0.265403369	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 11/P	41.10881599	38.03962866	-3.196756457	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 12/P	36.6228894	38.41281511	-3.442507553	5	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 12/P	31.79904102	29.61157293	-1.932651383	9	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 12/P	29.57275037	25.1777375	-1.321923907	12.61710051	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 12/P	25.02754737	14.70957437	-0.136880083	30.003942	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 12/P	37.22354753	39.55427183	-3.65783403	4.7	8.507342339
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 1/P	19.84152092	20.77067359	-2.02565239	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 1/P	17.4363309	15.44127968	-1.106586344	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 1/P	16.30817636	12.75912227	-0.685763889	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 1/P	13.85797533	6.728303829	0.434028446	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 1/P	20.13624406	21.39529958	-2.143379075	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 2/P	20.09870424	20.74437378	-2.011112763	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 2/P	17.70640499	15.41798912	-1.101543725	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 2/P	16.58084357	12.72592556	-0.683504016	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 2/P	14.12985917	6.414227722	0.428343452	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 2/P	20.39209392	21.36816442	-2.129052619	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 3/P	20.73090942	19.64473998	-1.437684441	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 3/P	18.37271825	14.42131141	-0.64613468	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 3/P	17.23551733	11.681302	-0.25047671	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 3/P	14.69947079	5.586164119	0.786857596	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 3/P	21.01583689	20.24029388	-1.534462072	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 4/P	20.41643555	19.6246537	-1.445464603	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 4/P	18.05213265	14.42788276	-0.646830386	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 4/P	16.91406602	11.71301902	-0.246716842	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 4/P	14.38361531	5.611464166	0.80886485	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 4/P	20.70342009	20.22211167	-1.545424245	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 5/P	21.86938228	18.27908926	-0.9800076	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 5/P	19.48587288	12.86816838	-0.255569953	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 5/P	18.24521911	9.932840908	0.221352323	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 5/P	15.07682979	4.311574091	1.66947358	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 5/P	22.15223458	18.87350298	-1.066183711	4.7	8.556695938

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 6/P	19.56872487	18.73362075	-1.374252994	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 6/P	17.29872619	13.75157025	-0.593328997	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 6/P	16.19768502	11.1477773	-0.186561577	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 6/P	13.73602129	5.32101769	0.896439561	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 6/P	19.84296433	19.30467727	-1.469312271	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 7/P	19.12497208	19.95261163	-1.945725511	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 7/P	16.80552108	14.81977881	-1.049792694	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 7/P	15.71478159	12.23422894	-0.634778038	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 7/P	13.34989563	6.416922849	0.453455685	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 7/P	19.40984461	20.5536285	-2.061892668	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 8/P	21.54226035	18.29462547	-0.986343021	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 8/P	19.15366846	12.93537112	-0.254083091	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 8/P	17.84797924	10.0398599	0.362657811	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 8/P	14.7354233	4.260729122	1.777143729	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 8/P	21.82584557	18.88853653	-1.074336872	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 9/P	19.85636315	18.73631608	-1.364106799	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 9/P	17.59393321	13.73640045	-0.59100487	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 9/P	16.4953712	11.11004194	-0.190758932	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 9/P	14.03340121	5.289315166	0.866483219	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 9/P	20.12981151	19.31097953	-1.459817746	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 10/P	20.92719509	17.40934192	-0.918199368	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 10/P	18.63851311	12.22259826	-0.203226704	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 10/P	17.38103641	9.431708011	0.393169787	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 10/P	14.28726489	4.180198633	1.871962868	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 10/P	21.19659298	17.97830475	-0.998981647	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 11/P	20.7110671	17.51456268	-0.928506573	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 11/P	18.40818747	12.35522905	-0.205647741	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 11/P	17.14818767	9.563780308	0.395678719	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 11/P	14.04754951	4.139460779	1.946587079	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 11/P	20.98361227	18.08545298	-1.01277437	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 12/P	19.40333311	19.96315841	-1.935715667	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 12/P	17.09287087	14.82408057	-1.048726694	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 12/P	16.0036909	12.22467885	-0.637688991	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 12/P	13.63177719	6.268988872	0.449476127	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 12/P	19.6855011	20.56429202	-2.048408277	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 1/P	13.30984797	13.17953043	-1.554846878	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 1/P	11.37113765	10.07115906	-0.684951455	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 1/P	10.42493324	8.483365966	-0.222403606	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 1/P	8.399606771	4.688886988	0.822248994	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 1/P	13.55040681	13.54790337	-1.670886102	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 2/P	13.1327713	12.88820278	-1.493354447	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 2/P	11.24588113	9.844791914	-0.645115601	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 2/P	10.31375251	8.279926648	-0.175543552	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 2/P	8.324870184	4.537250203	0.854751583	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 2/P	13.36284639	13.24337256	-1.601696123	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 3/P	13.8469845	13.00446252	-1.118388859	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 3/P	11.95891869	9.810473639	-0.317003038	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 3/P	10.98201206	8.118101696	0.205872478	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 3/P	8.836783473	4.054592096	1.374530847	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 3/P	14.07025485	13.37242573	-1.210854326	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 4/P	14.01979075	13.3100586	-1.170265762	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 4/P	12.08629572	10.0538705	-0.356776718	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 4/P	11.08237716	8.338592039	0.184573698	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 4/P	8.919787047	4.195926112	1.334561966	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 4/P	14.25067909	13.68224108	-1.266275128	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 5/P	14.89071744	13.14120921	-0.524325873	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 5/P	12.99720999	9.577382952	0.30029008	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 5/P	12.12560316	7.627895138	0.592619289	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 5/P	9.507401486	3.467109684	2.491070658	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 5/P	15.1106901	13.53813576	-0.608009786	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 6/P	14.01979075	13.3100586	-1.170265762	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 6/P	12.08629572	10.0538705	-0.356776718	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 6/P	11.08237716	8.338592039	0.184573698	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 6/P	8.919787047	4.195926112	1.334561966	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 6/P	14.25067909	13.68224108	-1.266275128	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 7/P	13.30984797	13.17953043	-1.554846878	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 7/P	11.37113765	10.07115906	-0.684951455	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 7/P	10.42493324	8.483365966	-0.222403606	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 7/P	8.399606771	4.688886988	0.822248994	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 7/P	13.55040681	13.54790337	-1.670886102	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 8/P	15.05970122	13.47285369	-0.568666342	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 8/P	13.11288649	9.85341432	0.280882414	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 8/P	12.22858021	7.880225905	0.56756104	12.61710051	0.926684618

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 8/P	9.588976998	3.579196965	2.467899455	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 8/P	15.28332511	13.87831129	-0.653462651	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 9/P	13.8469845	13.00446252	-1.118388859	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 9/P	11.95891869	9.810473639	-0.317003038	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 9/P	10.98201206	8.118101696	0.205872478	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 9/P	8.836783473	4.054592096	1.374530847	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 9/P	14.07025485	13.37242573	-1.210854326	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 10/P	14.89071744	13.14120921	-0.524325873	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 10/P	12.99720999	9.577382952	0.30029008	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 10/P	12.12560316	7.627895138	0.592619289	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 10/P	9.507401486	3.467109684	2.491070658	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 10/P	15.1106901	13.53813576	-0.608009786	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 11/P	15.05970122	13.47285369	-0.568666342	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 11/P	13.11288649	9.85341432	0.280882414	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 11/P	12.22858021	7.880225905	0.56756104	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 11/P	9.588976998	3.579196965	2.467899455	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 11/P	15.28332511	13.87831129	-0.653462651	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 12/P	13.1327713	12.88820278	-1.493354447	5	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 12/P	11.24588113	9.844791914	-0.645115601	9	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 12/P	10.31375251	8.279926648	-0.175543552	12.61710051	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 12/P	8.324870184	4.537250203	0.854751583	30.003942	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 12/P	13.36284639	13.24337256	-1.601696123	4.7	0.926684618
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 1/P	19.84152092	20.77067359	-2.02565239	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 1/P	17.4363309	15.44127968	-1.106586344	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 1/P	16.30817636	12.75912227	-0.685763889	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 1/P	13.85797533	6.728303829	0.434028446	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 1/P	20.13624406	21.39529958	-2.143379075	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 2/P	20.09870424	20.74437378	-2.011112763	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 2/P	17.70640499	15.41798912	-1.101543725	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 2/P	16.58084357	12.72592556	-0.683504016	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 2/P	14.12985917	6.414227722	0.428343452	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 2/P	20.39209392	21.36816442	-2.129052619	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 3/P	20.73090942	19.64473998	-1.437684441	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 3/P	18.37271825	14.42131141	-0.64613468	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 3/P	17.23551733	11.681302	-0.25047671	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 3/P	14.69947079	5.586164119	0.786857596	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 3/P	21.01583689	20.24029388	-1.534462072	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 4/P	20.41643555	19.6246537	-1.445464603	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 4/P	18.05213265	14.42788276	-0.646830386	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 4/P	16.91406602	11.71301902	-0.246716842	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 4/P	14.38361531	5.611464166	0.80886485	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 4/P	20.70342009	20.22211167	-1.545424245	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 5/P	21.86938228	18.27908926	-0.9800076	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 5/P	19.48587288	12.86816838	-0.255569953	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 5/P	18.24521911	9.932840908	0.221352323	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 5/P	15.07682979	4.311574091	1.66947358	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 5/P	22.15223458	18.87350298	-1.066183711	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 6/P	19.56872487	18.73362075	-1.374252994	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 6/P	17.29872619	13.75157025	-0.593328997	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 6/P	16.19768502	11.1477773	-0.186561577	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 6/P	13.73602129	5.32101769	0.896439561	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 6/P	19.84296433	19.30467727	-1.469312271	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 7/P	19.12497208	19.95261163	-1.945725511	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 7/P	16.80552108	14.81977881	-1.049792694	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 7/P	15.71478159	12.23422894	-0.634778038	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 7/P	13.34989563	6.416922849	0.453455685	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 7/P	19.40984461	20.5536285	-2.061892668	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 8/P	21.54226035	18.29462547	-0.986343021	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 8/P	19.15366846	12.93537112	-0.254083091	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 8/P	17.84797924	10.0398599	0.362657811	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 8/P	14.7354233	4.260729122	1.777143729	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 8/P	21.82584557	18.88853653	-1.074336872	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 9/P	19.85636315	18.73631608	-1.364106799	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 9/P	17.59393321	13.73640045	-0.59100487	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 9/P	16.4953712	11.11004194	-0.190758932	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 9/P	14.03340121	5.289315166	0.866483219	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 9/P	20.12981151	19.31097953	-1.459817746	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 10/P	20.92719509	17.40934192	-0.918199368	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 10/P	18.63851311	12.22259826	-0.203226704	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 10/P	17.38103641	9.431708011	0.393169787	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 10/P	14.28726489	4.180198633	1.871962868	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 10/P	21.19659298	17.97830475	-0.998981647	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 11/P	20.7110671	17.51456268	-0.928506573	5	8.556695938

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 11/P	18.40818747	12.35522905	-0.205647741	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 11/P	17.14818767	9.563780308	0.395678719	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 11/P	14.04754951	4.139460779	1.946587079	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 11/P	20.98361227	18.08545298	-1.01277437	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 12/P	19.40333311	19.96315841	-1.935715667	5	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 12/P	17.09287087	14.82408057	-1.048726694	9	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 12/P	16.0036909	12.22467885	-0.637688991	12.61710051	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 12/P	13.63177719	6.268988872	0.449476127	30.003942	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 12/P	19.6855011	20.56429202	-2.048408277	4.7	8.556695938
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 1/P	1.527865107	0.736243131	2.953966205	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 1/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 1/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 1/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 1/P	1.740423211	0.845674973	2.615420631	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 2/P	1.489448635	0.712443643	3.19807276	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 2/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 2/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 2/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 2/P	1.769330641	0.810539048	2.730289984	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 3/P	1.863721866	1.158497705	2.027021384	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 3/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 3/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 3/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 3/P	1.992306334	1.280179347	1.848637566	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 4/P	1.876300536	1.214269106	1.882285371	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 4/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 4/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 4/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 4/P	1.983312382	1.331897736	1.726383531	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 5/P	1.863058198	1.320887892	1.731219262	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 5/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 5/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 5/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 5/P	1.983843244	1.447237379	1.574217445	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 6/P	1.876300536	1.214269106	1.882285371	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 6/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 6/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 6/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 6/P	1.983312382	1.331897736	1.726383531	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 7/P	1.527865107	0.736243131	2.953966205	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 7/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 7/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 7/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 7/P	1.740423211	0.845674973	2.615420631	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 8/P	1.871618837	1.387824243	1.623976258	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 8/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 8/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 8/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 8/P	1.968223823	1.518778974	1.509503725	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 9/P	1.863721866	1.158497705	2.027021384	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 9/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 9/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 9/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 9/P	1.992306334	1.280179347	1.848637566	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 10/P	1.863058198	1.320887892	1.731219262	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 10/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 10/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 10/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 10/P	1.983843244	1.447237379	1.574217445	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 11/P	1.871618837	1.387824243	1.623976258	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 11/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 11/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 11/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 11/P	1.968223823	1.518778974	1.509503725	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 12/P	1.489448635	0.712443643	3.19807276	5	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 12/P	0	0	0	9	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 12/P	0	0	0	12.61710051	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 12/P	0	0	0	30.003942	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 12/P	1.769330641	0.810539048	2.730289984	4.7	0.114641115
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 1/P	0	0	0	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 1/P	0	0	0	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 1/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 1/P	0	0	0	30.003942	0.127249643

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 1/P	0	0	0	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 2/P	0	0	0	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 2/P	0	0	0	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 2/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 2/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 2/P	0	0	0	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 3/P	0	0	0	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 3/P	0	0	0	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 3/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 3/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 3/P	0	0	0	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 4/P	0	0	0	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 4/P	0	0	0	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 4/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 4/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 4/P	0	0	0	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 5/P	2.927678613	1.744646152	0.926936985	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 5/P	1.163321642	0.509293244	3.489195542	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 5/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 5/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 5/P	3.019782555	1.879208452	0.852887838	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 6/P	0	0	0	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 6/P	0	0	0	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 6/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 6/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 6/P	0	0	0	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 7/P	0	0	0	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 7/P	0	0	0	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 7/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 7/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 7/P	0	0	0	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 8/P	2.929559849	1.844967744	0.868653971	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 8/P	1.42280213	0.624520554	2.959529274	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 8/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 8/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 8/P	3.03621274	1.983211829	0.802886929	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 9/P	0	0	0	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 9/P	0	0	0	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 9/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 9/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 9/P	0	0	0	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 10/P	2.927678613	1.744646152	0.926936985	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 10/P	1.163321642	0.509293244	3.489195542	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 10/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 10/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 10/P	3.019782555	1.879208452	0.852887838	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 11/P	2.929559849	1.844967744	0.868653971	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 11/P	1.42280213	0.624520554	2.959529274	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 11/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 11/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 11/P	3.03621274	1.983211829	0.802886929	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 12/P	0	0	0	5	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 12/P	0	0	0	9	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 12/P	0	0	0	12.61710051	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 12/P	0	0	0	30.003942	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 12/P	0	0	0	4.7	0.127249643
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 1/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 1/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 1/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 1/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 1/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 2/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 2/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 2/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 2/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 2/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 3/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 3/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 3/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 3/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 3/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 4/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 4/P	0	0	0	9	0.123740375

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 4/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 4/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 4/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 5/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 5/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 5/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 5/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 5/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 6/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 6/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 6/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 6/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 6/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 7/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 7/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 7/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 7/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 7/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 8/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 8/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 8/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 8/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 8/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 9/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 9/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 9/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 9/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 9/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 10/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 10/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 10/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 10/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 10/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 11/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 11/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 11/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 11/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 11/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 12/P	0	0	0	5	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 12/P	0	0	0	9	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 12/P	0	0	0	12.61710051	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 12/P	0	0	0	30.003942	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 12/P	0	0	0	4.7	0.123740375
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 1/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 1/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 1/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 1/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 1/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 2/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 2/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 2/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 2/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 2/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 3/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 3/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 3/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 3/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 3/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 4/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 4/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 4/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 4/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 4/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 5/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 5/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 5/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 5/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 5/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 6/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 6/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 6/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 6/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 6/P	0	0	0	4.7	0.01173925

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 7/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 7/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 7/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 7/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 7/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 8/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 8/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 8/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 8/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 8/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 9/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 9/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 9/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 9/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 9/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 10/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 10/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 10/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 10/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 10/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 11/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 11/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 11/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 11/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 11/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 12/P	0	0	0	5	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 12/P	0	0	0	9	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 12/P	0	0	0	12.61710051	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 12/P	0	0	0	30.003942	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 12/P	0	0	0	4.7	0.01173925
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 1/P	5.938033985	5.658323208	-0.265836594	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 1/P	5.031105871	4.022169922	0.354188383	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 1/P	4.547165484	3.189655594	0.739296331	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 1/P	3.04718866	1.511554447	2.77087236	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 1/P	6.054757499	5.851394795	-0.358295455	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 2/P	5.979726291	5.632679898	-0.247516575	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 2/P	5.080251881	4.002589136	0.365267661	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 2/P	4.595686225	3.17370089	0.754365318	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 2/P	3.096080993	1.503045568	2.787298082	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 2/P	6.095942205	5.8242817	-0.340119278	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 3/P	6.297072568	5.474375381	0.122538061	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 3/P	5.397902295	3.807265035	0.685732716	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 3/P	4.825286665	2.951490418	1.221390446	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 3/P	3.073516402	1.717977804	3.807515468	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 3/P	6.395501172	5.660446247	0.071730941	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 4/P	6.227537188	5.480688448	0.11553413	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 4/P	5.328281174	3.818669091	0.674855335	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 4/P	4.757330776	2.963697228	1.205992549	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 4/P	2.984593318	1.697678869	3.835689381	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 4/P	6.327387651	5.66825081	0.062552085	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 5/P	6.923083266	5.231934555	0.375859822	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 5/P	5.849099581	3.430465959	1.188429085	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 5/P	5.11747313	2.53779436	1.974617338	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 5/P	0	0	0	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 5/P	7.029154036	5.433174488	0.319177462	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 6/P	6.151205491	5.408663683	0.120613962	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 6/P	5.255262041	3.765007281	0.686487957	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 6/P	4.685425183	2.920353209	1.221377432	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 6/P	2.92386848	1.686372336	3.863835497	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 6/P	6.247423148	5.593752116	0.073294291	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 7/P	5.871578975	5.592565437	-0.254721372	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 7/P	4.971794235	3.97282046	0.362467006	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 7/P	4.488104344	3.150699277	0.750980148	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 7/P	2.999520013	1.491853034	2.792231892	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 7/P	5.988052733	5.783779129	-0.348069487	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 8/P	5.122284128	4.89302348	3.771210975	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 8/P	4.455523041	3.593921767	3.771210975	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 8/P	4.118539475	2.768296669	3.771210975	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 8/P	0	0	0	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 8/P	5.200011119	5.025945038	3.771210975	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 9/P	6.234720973	5.411501845	0.127034174	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 9/P	5.338413488	3.764288612	0.695120906	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 9/P	4.766498376	2.916840122	1.234220811	12.61710051	0.528650582

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 9/P	3.024206663	1.708696251	3.829456181	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 9/P	6.330485165	5.60065241	0.080267349	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 10/P	6.833294545	5.160211603	0.386625031	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 10/P	5.76371161	3.380652108	1.205351473	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 10/P	5.03351052	2.49998238	1.996244491	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 10/P	0	0	0	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 10/P	6.940426716	5.35912821	0.326067323	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 11/P	6.718324207	5.143596178	0.378653197	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 11/P	5.650911487	3.377791569	1.197898537	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 11/P	4.919944391	2.498261178	1.994863314	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 11/P	0	0	0	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 11/P	6.822433613	5.340668459	0.323779863	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 12/P	5.921517744	5.577602491	-0.233902159	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 12/P	5.029643091	3.961500445	0.372424681	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 12/P	4.5458134	3.135911669	0.76421048	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 12/P	3.055607825	1.486305027	2.805195452	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 12/P	6.037731713	5.767686997	-0.327675009	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 1/P	6.516097999	6.632022146	0.605122158	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 1/P	6.011109915	4.851369461	0.235372569	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 1/P	5.513643252	3.883320736	0.563533337	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 1/P	3.867530273	1.851407534	2.437838397	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 1/P	7.183269661	6.990745523	-0.562399051	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 2/P	7.113186605	6.735357108	-0.46463114	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 2/P	6.073117983	4.830203964	0.243269638	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 2/P	5.574437543	3.856379126	0.577475152	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 2/P	3.930776663	1.840484811	2.45284466	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 2/P	7.234533063	6.961249539	-0.545025162	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 3/P	7.437603982	6.535232587	0.023007965	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 3/P	6.467278066	4.595666081	0.530735072	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 3/P	5.880032331	3.586665704	1.004052115	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 3/P	3.95395187	1.878740504	3.43614368	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 3/P	7.588780673	6.759312095	-0.109349812	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 4/P	7.353104589	6.543053415	0.015230458	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 4/P	6.381239019	4.609517328	0.522726847	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 4/P	5.794659887	3.604159333	0.993022061	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 4/P	3.85005728	1.855865436	3.462215343	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 4/P	7.508136217	6.767072845	-0.125234632	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 5/P	8.165081293	6.250943589	0.264357504	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 5/P	7.042182384	4.139993546	0.961975101	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 5/P	6.28581097	3.091085412	1.686814827	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 5/P	0	0	0	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 5/P	8.280090302	6.484109836	0.216302891	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 6/P	7.243257284	6.438053283	0.02369785	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 6/P	6.278671034	4.531105254	0.535913703	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 6/P	5.694057476	3.540509031	1.012105522	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 6/P	3.766168846	1.840893182	3.496916102	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 6/P	7.385457514	6.656528544	-0.093122359	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 7/P	6.968545128	6.677039936	-0.466274238	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 7/P	5.931168661	4.782388464	0.244443096	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 7/P	5.43391079	3.826121989	0.579410826	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 7/P	3.786562974	1.819756334	2.463742022	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 7/P	7.089068363	6.89680702	-0.547042822	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 8/P	8.036021814	6.24118037	0.260307391	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 8/P	6.917522787	4.146215331	0.953448967	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 8/P	6.159634692	3.091992186	1.686550948	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 8/P	0	0	0	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 8/P	8.150913815	6.472194904	0.212283254	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 9/P	7.347984285	6.45174535	0.032048836	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 9/P	6.384538681	4.533530284	0.541176099	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 9/P	5.79807085	3.536776373	1.020961651	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 9/P	3.886262682	1.866618598	3.463301676	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 9/P	7.49148324	6.672325567	-0.086847801	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 10/P	8.037595984	6.1446485	0.273863859	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 10/P	6.922135046	4.065096985	0.978800609	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 10/P	6.166190908	3.034506229	1.713810129	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 10/P	0	0	0	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 10/P	8.151340825	6.374530949	0.225611284	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 11/P	7.889402358	6.117984695	0.273490385	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 11/P	6.777869991	4.05963596	0.978550111	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 11/P	6.021868497	3.017089393	1.720335608	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 11/P	0	0	0	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 11/P	8.00320754	6.345210889	0.224469439	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 12/P	7.036952798	6.659648142	-0.451685101	5	0.761256814

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 12/P	6.006179495	4.773461274	0.250550161	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 12/P	5.509093882	3.809078745	0.587579826	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 12/P	3.867523654	1.815834312	2.474548315	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 12/P	7.157810243	6.883326534	-0.532247302	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 1/P	17.9752764	20.24096635	2.330577812	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 1/P	15.99173288	15.40525952	2.330577812	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 1/P	15.05634459	12.93838179	2.330577812	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 1/P	13.13048184	7.134945152	2.330577812	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 1/P	18.21576931	20.80322017	2.330577812	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 2/P	20.40614472	21.0928058	-2.029540476	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 2/P	17.9746039	15.69068804	-1.112827878	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 2/P	16.83102764	12.96081191	-0.692057708	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 2/P	14.34293934	6.818605657	0.42643959	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 2/P	20.70353321	21.72607172	-2.14678133	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 3/P	21.05035322	19.9744247	-1.453815811	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 3/P	18.65150519	14.68103799	-0.655337073	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 3/P	17.49671552	11.90324298	-0.259919371	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 3/P	14.87356166	5.720312199	0.876938751	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 3/P	21.34018598	20.57806828	-1.552079635	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 4/P	18.77868409	19.29262635	2.483826719	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 4/P	16.77339099	14.56928706	2.486917031	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 4/P	15.8199319	12.04955551	2.480282434	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 4/P	13.77347188	5.985763272	2.48936496	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 4/P	19.02134619	19.82808011	2.483826719	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 5/P	22.21898716	18.60586279	-1.012107785	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 5/P	19.79435531	13.11641475	-0.281624593	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 5/P	18.55551368	10.12821029	0.154512282	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 5/P	15.3529842	4.372548193	1.582456494	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 5/P	22.50609099	19.2086332	-1.09775018	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 6/P	19.91225818	19.09208594	-1.392647087	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 6/P	17.59899437	14.03283741	-0.605147669	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 6/P	16.47968235	11.38780395	-0.199734062	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 6/P	13.98293523	5.449612494	0.874135485	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 6/P	20.1932628	19.67214055	-1.490511857	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 7/P	19.44766568	20.32174989	-1.968135335	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 7/P	17.08678308	15.10761295	-1.064561631	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 7/P	15.97719494	12.48171335	-0.646863574	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 7/P	13.57292858	6.572364807	0.449465789	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 7/P	19.73666459	20.93209993	-2.083360759	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 8/P	21.91864668	18.65162813	-1.019017216	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 8/P	19.48729144	13.20760007	-0.282027221	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 8/P	18.236083	10.24070635	0.184375886	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 8/P	15.02862634	4.354377222	1.697236511	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 8/P	22.20624349	19.25467161	-1.105359137	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 9/P	20.1793621	19.06982455	-1.379091754	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 9/P	17.87744077	13.99861596	-0.601651281	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 9/P	16.76186353	11.33341357	-0.202898374	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 9/P	14.26640607	5.407469788	0.846344755	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 9/P	20.45787219	19.65284217	-1.476551711	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 10/P	21.29159241	17.74896704	-0.950376034	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 10/P	18.96036512	12.47982426	-0.22880956	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 10/P	17.68095451	9.640595004	0.373120394	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 10/P	14.58038122	4.242315716	1.774762209	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 10/P	21.56682217	18.32689227	-1.033513122	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 11/P	21.09549808	17.87677089	-0.964617025	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 11/P	18.746112	12.62977962	-0.232299114	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 11/P	17.46250671	9.788575547	0.375824602	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 11/P	14.34851577	4.205109464	1.859579502	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 11/P	21.3723881	18.45705462	-1.047878441	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 12/P	19.70630481	20.30667126	-1.952339863	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 12/P	17.35648304	15.09276241	-1.056794861	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 12/P	16.25204437	12.45600116	-0.647955664	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 12/P	13.84310144	6.200662926	0.44673083	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 12/P	19.99444203	20.91701096	-2.06842403	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 1/P	47.51886294	53.65928732	-5.278850113	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 1/P	41.6218621	40.54812378	-3.330666467	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 1/P	38.8986332	34.0861171	-2.496875959	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 1/P	33.42096574	8.377013098	-0.863119522	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 1/P	48.24645431	55.21939632	-5.538036934	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 2/P	47.244945	52.38588334	-5.157727715	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 2/P	41.51422111	39.59728954	-3.268253955	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 2/P	38.85661229	33.25159687	-2.451273117	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 2/P	33.48181452	18.9930781	-0.840794601	30.003942	78.68435669

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 2/P	47.95094213	53.90146651	-5.409243561	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 3/P	46.44337145	47.2105062	-3.672601622	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 3/P	41.09023016	35.48422811	-2.166017082	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 3/P	38.57113551	29.45407495	-1.493659626	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 3/P	33.35849728	15.50326821	-0.17727626	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 3/P	47.09691303	48.57378782	-3.868283701	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 4/P	46.91702853	48.58373871	-3.783319591	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 4/P	41.38894134	36.56191807	-2.231716968	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 4/P	38.79881025	30.42357675	-1.543584634	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 4/P	33.46091973	15.4903943	-0.180906541	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 4/P	47.59188674	49.9874816	-3.986529936	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 5/P	46.33578207	41.69248636	-2.784064659	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 5/P	41.27335128	30.49752017	-1.497045259	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 5/P	38.82783969	24.41202668	-0.901186152	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 5/P	33.60838433	11.12229729	-0.116571788	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 5/P	46.94338726	42.94055786	-2.942030001	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 6/P	43.43357485	44.69144545	-3.443801857	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 6/P	38.32868987	33.58004289	-1.993396502	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 6/P	35.93356876	27.89251571	-1.346744142	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 6/P	31.04515681	14.68645537	-0.178581063	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 6/P	44.05841868	45.98653907	-3.63291037	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 7/P	44.42432381	49.89735819	-4.87811339	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 7/P	38.92380337	37.67157314	-3.048536724	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 7/P	36.38384114	31.63483492	-2.262589643	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 7/P	31.25371937	18.1179634	-0.700820644	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 7/P	45.10256351	51.35099603	-5.120954565	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 8/P	47.09370308	43.23953334	-2.892739692	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 8/P	41.84596374	31.78143359	-1.573766637	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 8/P	39.32179082	25.57822494	-0.959253341	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 8/P	33.97368564	11.7858298	-0.114468574	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 8/P	47.72407016	44.5286976	-3.058487861	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 9/P	42.79535349	43.22280367	-3.32201003	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 9/P	37.87422925	32.42503147	-1.920157405	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 9/P	35.55366356	26.86336783	-1.288573675	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 9/P	30.80640446	13.98798114	-0.17699566	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 9/P	43.39570296	44.47201671	-3.503493092	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 10/P	42.39349934	37.84521729	-2.455146226	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 10/P	37.76738148	27.58444437	-1.260463382	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 10/P	35.51969512	21.99756112	-0.689736757	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 10/P	30.83220371	9.896593153	-0.186507599	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 10/P	42.94796747	38.9889221	-2.602615848	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 11/P	43.42183313	39.57929595	-2.582786954	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 11/P	38.59206515	28.99981951	-1.347080209	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 11/P	36.25812856	23.26066612	-0.761587318	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 11/P	31.40790538	10.49315827	-0.178416739	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 11/P	44.00425049	40.7646192	-2.737728417	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 12/P	43.98257499	48.50268178	-4.741427222	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 12/P	38.65971572	36.62397614	-2.972497611	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 12/P	36.18883219	30.72139968	-2.204915003	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 12/P	31.17633476	17.441552	-0.669006879	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 12/P	44.63763763	49.9091645	-4.97536019	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 1/P	2.261481371	2.132589936	0.376411831	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 1/P	1.591556675	1.328951067	1.062826537	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 1/P	1.023110951	0.881281073	1.665003828	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 1/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 1/P	2.331889652	2.223787969	0.308098502	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 2/P	2.271568176	2.128129845	0.392913883	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 2/P	1.600475832	1.325605743	1.085656517	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 2/P	1.032052344	0.878274859	1.694884678	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 2/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 2/P	2.343379476	2.214723214	0.32153035	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 3/P	2.355968122	2.058070954	0.649073251	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 3/P	1.574853865	1.237464507	1.512383514	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 3/P	0.982251623	0.790801298	2.271153591	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 3/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 3/P	2.42763528	2.149042386	0.583629059	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 4/P	2.33826327	2.061540286	0.632495531	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 4/P	1.559366624	1.23841299	1.486319005	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 4/P	0.965507225	0.787253859	2.24203766	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 4/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 4/P	2.40940117	2.153776711	0.567835368	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 5/P	2.491398438	1.938043493	1.080097297	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 5/P	1.416027508	1.059167987	2.282065259	9	0.084584087

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 5/P	0.885048511	0.666922183	3.313461562	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 5/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 5/P	2.582590675	2.035136688	0.987631156	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 6/P	2.32455531	2.049889332	0.635032768	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 6/P	1.546988836	1.22919044	1.490669039	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 6/P	0.952665579	0.778717636	2.249246068	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 6/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 6/P	2.395342815	2.141836645	0.570560468	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 7/P	2.246794775	2.119599513	0.381536218	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 7/P	1.57781733	1.317711987	1.067056842	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 7/P	1.011129502	0.871654337	1.670671674	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 7/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 7/P	2.31564855	2.210320833	0.316060375	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 8/P	2.462371307	1.938818771	1.060794172	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 8/P	1.405408938	1.063887931	2.260447182	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 8/P	0.829082597	0.652055635	3.339651375	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 8/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 8/P	2.553804967	2.036168571	0.970314371	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 9/P	2.346337874	2.04991606	0.650849823	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 9/P	1.566770727	1.231210272	1.515435626	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 9/P	0.974415245	0.784532196	2.27391029	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 9/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 9/P	2.41775238	2.140791009	0.585542194	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 10/P	2.474917591	1.927548295	1.082884239	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 10/P	1.407264508	1.054369574	2.286523346	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 10/P	0.852022651	0.665978512	3.337900565	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 10/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 10/P	2.567657624	2.024604634	0.990855178	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 11/P	2.443848683	1.925945887	1.064807728	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 11/P	1.395790883	1.056379678	2.266696445	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 11/P	0.812990191	0.639388741	3.348195624	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 11/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 11/P	2.535649678	2.022963869	0.973955295	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 12/P	2.261111567	2.118376664	0.395174274	5	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 12/P	1.58996725	1.317640151	1.088873284	9	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 12/P	1.022937048	0.87103876	1.699243311	12.61710051	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 12/P	0	0	0	30.003942	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 12/P	2.332810689	2.20468813	0.323800697	4.7	0.084584087
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 1/P	5.938033985	5.658323208	-0.265836594	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 1/P	5.031105871	4.022169922	0.354188383	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 1/P	4.547165484	3.189655594	0.739296331	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 1/P	3.04718866	1.511554447	2.77087236	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 1/P	6.054757499	5.851394795	-0.358295455	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 2/P	5.979726291	5.632679898	-0.247516575	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 2/P	5.080251881	4.002589136	0.365267661	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 2/P	4.595686225	3.17370089	0.754365318	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 2/P	3.096080993	1.503045568	2.787298082	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 2/P	6.095942205	5.8242817	-0.340119278	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 3/P	6.297072568	5.474375381	0.122538061	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 3/P	5.397902295	3.807265035	0.685732716	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 3/P	4.825286665	2.951490418	1.221390446	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 3/P	3.073516402	1.717977804	3.807515468	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 3/P	6.395501172	5.660446247	0.071730941	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 4/P	6.227537188	5.480688448	0.11553413	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 4/P	5.328281174	3.818669091	0.674855335	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 4/P	4.757330776	2.963697228	1.205992549	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 4/P	2.984593318	1.697678869	3.835689381	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 4/P	6.327387651	5.66825081	0.062552085	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 5/P	6.923083266	5.231934555	0.375859822	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 5/P	5.849099581	3.430465959	1.188429085	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 5/P	5.11747313	2.53779436	1.974617338	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 5/P	0	0	0	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 5/P	7.029154036	5.433174488	0.319177462	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 6/P	6.151205491	5.408663683	0.120613962	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 6/P	5.255262041	3.765007281	0.686487957	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 6/P	4.685425183	2.920353209	1.221377432	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 6/P	2.92386848	1.686372336	3.863835497	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 6/P	6.247423148	5.593752116	0.073294291	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 7/P	5.871578975	5.592565437	-0.254721372	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 7/P	4.971794235	3.97282046	0.362467006	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 7/P	4.488104344	3.150699277	0.750980148	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 7/P	2.999520013	1.491853034	2.792231892	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 7/P	5.988052733	5.783779129	-0.348069487	4.7	0.528650582

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 8/P	5.122284128	4.89302348	3.771210975	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 8/P	4.455523041	3.593921767	3.771210975	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 8/P	4.118539475	2.768296669	3.771210975	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 8/P	0	0	0	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 8/P	5.200011119	5.025945038	3.771210975	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 9/P	6.234720973	5.411501845	0.127034174	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 9/P	5.338413488	3.764288612	0.695120906	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 9/P	4.766498376	2.916840122	1.234220811	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 9/P	3.024206663	1.708696251	3.829456181	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 9/P	6.330485165	5.60065241	0.080267349	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 10/P	6.833294545	5.160211603	0.386625031	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 10/P	5.76371161	3.380652108	1.205351473	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 10/P	5.03351052	2.49998238	1.996244491	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 10/P	0	0	0	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 10/P	6.940426716	5.35912821	0.326067323	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 11/P	6.718324207	5.143596178	0.378653197	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 11/P	5.650911487	3.377791569	1.197898537	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 11/P	4.919944391	2.498261178	1.994863314	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 11/P	0	0	0	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 11/P	6.822433613	5.340668459	0.323779863	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 12/P	5.921517744	5.577602491	-0.233902159	5	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 12/P	5.029643091	3.961500445	0.372424681	9	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 12/P	4.5458134	3.135911669	0.76421048	12.61710051	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 12/P	3.055607825	1.486305027	2.805195452	30.003942	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 12/P	6.037731713	5.767686997	-0.327675009	4.7	0.528650582
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 1/P	6.516097999	6.632022146	0.605122158	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 1/P	6.011109915	4.851369461	0.235372569	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 1/P	5.513643252	3.883320736	0.563533337	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 1/P	3.867530273	1.851407534	2.437838397	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 1/P	7.183269661	6.990745523	-0.562399051	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 2/P	7.113186605	6.735357108	-0.46463114	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 2/P	6.073117983	4.830203964	0.243269638	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 2/P	5.574437543	3.856379126	0.577475152	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 2/P	3.930776663	1.840484811	2.45284466	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 2/P	7.234533063	6.961249539	-0.545025162	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 3/P	7.437603982	6.535232587	0.023007965	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 3/P	6.467278066	4.595666081	0.530735072	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 3/P	5.880032331	3.586665704	1.004052115	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 3/P	3.95395187	1.878740504	3.43614368	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 3/P	7.588780673	6.759312095	-0.109349812	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 4/P	7.353104589	6.543053415	0.015230458	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 4/P	6.381239019	4.609517328	0.522726847	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 4/P	5.794659887	3.604159333	0.993022061	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 4/P	3.85005728	1.855865436	3.462215343	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 4/P	7.508136217	6.767072845	-0.125234632	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 5/P	8.165081293	6.250943589	0.264357504	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 5/P	7.042182384	4.139993546	0.961975101	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 5/P	6.28581097	3.091085412	1.686814827	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 5/P	0	0	0	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 5/P	8.280090302	6.484109836	0.216302891	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 6/P	7.243257284	6.438053283	0.02369785	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 6/P	6.278671034	4.531105254	0.535913703	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 6/P	5.694057476	3.540509031	1.012105522	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 6/P	3.766168846	1.840893182	3.496916102	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 6/P	7.385457514	6.656528544	-0.093122359	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 7/P	6.968545128	6.677039936	-0.466274238	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 7/P	5.931168661	4.782388464	0.244443096	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 7/P	5.43391079	3.826121989	0.579410826	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 7/P	3.786562974	1.819756334	2.463742022	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 7/P	7.089068363	6.89680702	-0.547042822	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 8/P	8.036021814	6.24118037	0.260307391	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 8/P	6.917522787	4.146215331	0.953448967	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 8/P	6.159634692	3.091992186	1.686550948	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 8/P	0	0	0	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 8/P	8.150913815	6.472194904	0.212283254	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 9/P	7.347984285	6.45174535	0.032048836	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 9/P	6.384538681	4.533530284	0.541176099	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 9/P	5.79807085	3.536776373	1.020961651	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 9/P	3.886262682	1.866618598	3.463301676	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 9/P	7.49148324	6.672325567	-0.086847801	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 10/P	8.037595984	6.1446485	0.273863859	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 10/P	6.922135046	4.065096985	0.978800609	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 10/P	6.166190908	3.034506229	1.713810129	12.61710051	0.761256814

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 10/P	0	0	0	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 10/P	8.151340825	6.374530949	0.225611284	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 11/P	7.889402358	6.117984695	0.273490385	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 11/P	6.777869991	4.05963596	0.978550111	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 11/P	6.021868497	3.017089393	1.720335608	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 11/P	0	0	0	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 11/P	8.00320754	6.345210889	0.224469439	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 12/P	7.036952798	6.659648142	-0.451685101	5	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 12/P	6.006179495	4.773461274	0.250550161	9	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 12/P	5.509093882	3.809078745	0.587579826	12.61710051	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 12/P	3.867523654	1.815834312	2.474548315	30.003942	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 12/P	7.157810243	6.883326534	-0.532247302	4.7	0.761256814
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 1/P	17.9752764	20.24096635	2.330577812	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 1/P	15.99173288	15.40525952	2.330577812	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 1/P	15.05634459	12.93838179	2.330577812	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 1/P	13.13048184	7.134945152	2.330577812	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 1/P	18.21576931	20.80322017	2.330577812	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 2/P	20.40614472	21.0928058	-2.029540476	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 2/P	17.9746039	15.69068804	-1.112827878	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 2/P	16.83102764	12.96081191	-0.692057708	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 2/P	14.34293934	6.818605657	0.42643959	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 2/P	20.70353321	21.72607172	-2.14678133	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 3/P	21.05035322	19.9744247	-1.453815811	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 3/P	18.65150519	14.68103799	-0.655337073	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 3/P	17.49671552	11.90324298	-0.259919371	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 3/P	14.87356166	5.720312199	0.876938751	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 3/P	21.34018598	20.57806828	-1.552079635	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 4/P	18.77868409	19.29262635	2.483826719	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 4/P	16.77339099	14.56928706	2.486917031	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 4/P	15.8199319	12.04955551	2.480282434	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 4/P	13.77347188	5.985763272	2.48936496	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 4/P	19.02134619	19.82808011	2.483826719	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 5/P	22.21898716	18.60586279	-1.012107785	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 5/P	19.79435531	13.11641475	-0.281624593	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 5/P	18.55551368	10.12821029	0.154512282	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 5/P	15.3529842	4.372548193	1.582456494	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 5/P	22.50609099	19.2086332	-1.09775018	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 6/P	19.91225818	19.09208594	-1.392647087	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 6/P	17.59899437	14.03283741	-0.605147669	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 6/P	16.47968235	11.38780395	-0.199734062	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 6/P	13.98293523	5.449612494	0.874135485	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 6/P	20.1932628	19.67214055	-1.490511857	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 7/P	19.44766568	20.32174989	-1.968135335	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 7/P	17.08678308	15.10761295	-1.064561631	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 7/P	15.97719494	12.48171335	-0.646863574	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 7/P	13.57292858	6.572364807	0.449465789	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 7/P	19.73666459	20.93209993	-2.083360759	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 8/P	21.91864668	18.65162813	-1.019017216	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 8/P	19.48729144	13.20760007	-0.282027221	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 8/P	18.236083	10.24070635	0.184375886	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 8/P	15.02862634	4.354377222	1.697236511	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 8/P	22.20624349	19.25467161	-1.105359137	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 9/P	20.1793621	19.06982455	-1.379091754	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 9/P	17.87744077	13.99861596	-0.601651281	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 9/P	16.76186353	11.33341357	-0.202898374	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 9/P	14.26640607	5.407469788	0.846344755	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 9/P	20.45787219	19.65284217	-1.476551711	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 10/P	21.29159241	17.74896704	-0.950376034	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 10/P	18.96036512	12.47982426	-0.22880956	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 10/P	17.68095451	9.640595004	0.373120394	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 10/P	14.58038122	4.242315716	1.774762209	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 10/P	21.56682217	18.32689227	-1.033513122	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 11/P	21.09549808	17.87677089	-0.964617025	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 11/P	18.746112	12.62977962	-0.232299114	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 11/P	17.46250671	9.788575547	0.375824602	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 11/P	14.34851577	4.205109464	1.859579502	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 11/P	21.3723881	18.45705462	-1.047878441	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 12/P	19.70630481	20.30667126	-1.952339863	5	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 12/P	17.35648304	15.09276241	-1.056794861	9	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 12/P	16.25204437	12.45600116	-0.647955664	12.61710051	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 12/P	13.84310144	6.200662926	0.44673083	30.003942	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 12/P	19.99444203	20.91701096	-2.06842403	4.7	8.800128937
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 1/P	47.51886294	53.65928732	-5.278850113	5	78.68435669

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 1/P	41.6218621	40.54812378	-3.330666467	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 1/P	38.8986332	34.0861171	-2.496875959	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 1/P	33.42096574	8.377013098	-0.863119522	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 1/P	48.24645431	55.21939632	-5.538036934	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 2/P	47.244945	52.38588334	-5.157727715	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 2/P	41.51422111	39.59728954	-3.268253955	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 2/P	38.85661229	33.25159687	-2.451273117	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 2/P	33.48181452	18.9930781	-0.840794601	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 2/P	47.95094213	53.90146651	-5.409243561	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 3/P	46.44337145	47.2105062	-3.672601622	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 3/P	41.09023016	35.48422811	-2.166017082	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 3/P	38.57113551	29.45407495	-1.493659626	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 3/P	33.35849728	15.50326821	-0.17727626	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 3/P	47.09691303	48.57378782	-3.868283701	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 4/P	46.91702853	48.58373871	-3.783319591	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 4/P	41.38894134	36.56191807	-2.231716968	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 4/P	38.79881025	30.42357675	-1.543584634	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 4/P	33.46091973	15.4903943	-0.180906541	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 4/P	47.59188674	49.9874816	-3.986529936	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 5/P	46.33578207	41.69248636	-2.784064659	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 5/P	41.27335128	30.49752017	-1.497045259	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 5/P	38.82783969	24.41202668	-0.901186152	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 5/P	33.60838433	11.12229729	-0.116571788	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 5/P	46.94338726	42.94055786	-2.942030001	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 6/P	43.43357485	44.69144545	-3.443801857	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 6/P	38.32868987	33.58004289	-1.993396502	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 6/P	35.93356876	27.89251571	-1.346744142	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 6/P	31.04515681	14.68645537	-0.178581063	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 6/P	44.05841868	45.98653907	-3.63291037	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 7/P	44.42432381	49.89735819	-4.87811339	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 7/P	38.92380337	37.67157314	-3.048536724	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 7/P	36.38384114	31.63483492	-2.262589643	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 7/P	31.25371937	18.1179634	-0.700820644	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 7/P	45.10256351	51.35099603	-5.120954565	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 8/P	47.09370308	43.23953334	-2.892739692	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 8/P	41.84596374	31.78143359	-1.573766637	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 8/P	39.32179082	25.57822494	-0.959253341	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 8/P	33.97368564	11.7858298	-0.114468574	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 8/P	47.72407016	44.5286976	-3.058487861	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 9/P	42.79535349	43.22280367	-3.32201003	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 9/P	37.87422925	32.42503147	-1.920157405	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 9/P	35.55366356	26.86336783	-1.288573675	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 9/P	30.80640446	13.98798114	-0.17699566	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 9/P	43.39570296	44.47201671	-3.503493092	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 10/P	42.39349934	37.84521729	-2.455146226	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 10/P	37.76738148	27.58444437	-1.260463382	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 10/P	35.51969512	21.99756112	-0.689736757	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 10/P	30.83220371	9.896593153	-0.186507599	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 10/P	42.94796747	38.9889221	-2.602615848	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 11/P	43.42183313	39.57929595	-2.582786954	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 11/P	38.59206515	28.99981951	-1.347080209	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 11/P	36.25812856	23.26066612	-0.761587318	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 11/P	31.40790538	10.49315827	-0.178416739	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 11/P	44.00425049	40.7646192	-2.737728417	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 12/P	43.98257499	48.50268178	-4.741427222	5	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 12/P	38.65971572	36.62397614	-2.972497611	9	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 12/P	36.18883219	30.72139968	-2.204915003	12.61710051	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 12/P	31.17633476	17.441552	-0.669006879	30.003942	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 12/P	44.63763763	49.9091645	-4.97536019	4.7	78.68435669
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 1/P	4.10321391	3.59400872	1.841698403	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 1/P	3.194580554	2.122148796	2.534824268	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 1/P	2.747301155	1.327706915	2.926561636	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 1/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 1/P	4.183355688	3.760386399	1.782569833	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 2/P	4.205970134	3.520113779	1.852173876	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 2/P	3.267686226	2.020618094	2.531886103	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 2/P	2.794032178	1.228461264	3.027595955	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 2/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 2/P	4.287538759	3.685759751	1.791935956	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 3/P	4.313636938	3.964238974	1.784953156	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 3/P	3.359344335	2.406122772	2.476135768	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 3/P	2.85540472	1.560729228	2.876571072	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 3/P	0	0	0	30.003942	0.453455865

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 3/P	4.400316946	4.141290041	1.726703441	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 4/P	4.229727022	4.048475671	1.77493942	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 4/P	3.306955172	2.51078752	2.465888274	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 4/P	2.778980305	1.671370573	2.827644376	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 4/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 4/P	4.314091944	4.222804296	1.718939583	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 5/P	4.361044349	4.180085282	1.754910869	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 5/P	3.384179716	2.591325399	2.44282905	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 5/P	2.867329372	1.720079439	2.811022552	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 5/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 5/P	4.450666799	4.358919961	1.698486021	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 6/P	4.229727022	4.048475671	1.77493942	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 6/P	3.306955172	2.51078752	2.465888274	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 6/P	2.778980305	1.671370573	2.827644376	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 6/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 6/P	4.314091944	4.222804296	1.718939583	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 7/P	4.10321391	3.59400872	1.841698403	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 7/P	3.194580554	2.122148796	2.534824268	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 7/P	2.747301155	1.327706915	2.926561636	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 7/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 7/P	4.183355688	3.760386399	1.782569833	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 8/P	4.287858301	4.266246312	1.74626398	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 8/P	3.34271732	2.698130044	2.431243303	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 8/P	2.794224869	1.836602473	2.773733318	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 8/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 8/P	4.376124449	4.444367288	1.691059164	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 9/P	4.313636938	3.964238974	1.784953156	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 9/P	3.359344335	2.406122772	2.476135768	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 9/P	2.85540472	1.560729228	2.876571072	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 9/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 9/P	4.400316946	4.141290041	1.726703441	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 10/P	4.361044349	4.180085282	1.754910869	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 10/P	3.384179716	2.591325399	2.44282905	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 10/P	2.867329372	1.720079439	2.811022552	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 10/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 10/P	4.450666799	4.358919961	1.698486021	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 11/P	4.287858301	4.266246312	1.74626398	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 11/P	3.34271732	2.698130044	2.431243303	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 11/P	2.794224869	1.836602473	2.773733318	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 11/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 11/P	4.376124449	4.444367288	1.691059164	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 12/P	4.205970134	3.520113779	1.852173876	5	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 12/P	3.267686226	2.020618094	2.531886103	9	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 12/P	2.794032178	1.228461264	3.027595955	12.61710051	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 12/P	0	0	0	30.003942	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 12/P	4.287538759	3.685759751	1.791935956	4.7	0.453455865
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 1/P	4.595740439	3.843621694	1.649520413	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 1/P	3.677742532	2.251764173	2.347011774	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 1/P	3.193294969	1.412610061	2.752369569	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 1/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 1/P	4.677699764	4.021690159	1.590492677	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 2/P	4.707105255	3.752584055	1.656750862	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 2/P	3.7523774	2.144842198	2.34531788	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 2/P	3.240550236	1.312238404	2.869621036	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 2/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 2/P	4.791004526	3.937429474	1.595441262	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 3/P	4.705023585	4.237911206	1.575932844	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 3/P	3.691779424	2.555942155	2.27620708	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 3/P	3.156666491	1.644194962	2.671740821	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 3/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 3/P	4.793614587	4.426767797	1.518574693	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 4/P	4.618608057	4.332962515	1.570401859	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 4/P	3.639854214	2.672513411	2.27197119	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 4/P	3.081262597	1.778448862	2.694851374	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 4/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 4/P	4.705590782	4.520775999	1.514268302	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 5/P	4.685276663	4.453989726	1.536630405	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 5/P	3.624263126	2.737496415	2.235756777	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 5/P	3.094322031	1.808515616	2.630421991	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 5/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 5/P	4.780613853	4.647066601	1.481029573	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 6/P	4.618608057	4.332962515	1.570401859	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 6/P	3.639854214	2.672513411	2.27197119	9	0.444981813

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 6/P	3.081262597	1.778448862	2.694851374	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 6/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 6/P	4.705590782	4.520775999	1.514268302	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 7/P	4.595740439	3.843621694	1.649520413	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 7/P	3.677742532	2.251764173	2.347011774	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 7/P	3.193294969	1.412610061	2.752369569	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 7/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 7/P	4.677699764	4.021690159	1.590492677	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 8/P	4.613746589	4.552103629	1.531952394	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 8/P	3.578988454	2.863190763	2.257794595	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 8/P	3.049665114	1.93319763	2.573986117	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 8/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 8/P	4.708401838	4.742638322	1.476202275	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 9/P	4.705023585	4.237911206	1.575932844	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 9/P	3.691779424	2.555942155	2.27620708	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 9/P	3.156666491	1.644194962	2.671740821	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 9/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 9/P	4.793614587	4.426767797	1.518574693	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 10/P	4.685276663	4.453989726	1.536630405	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 10/P	3.624263126	2.737496415	2.235756777	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 10/P	3.094322031	1.808515616	2.630421991	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 10/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 10/P	4.780613853	4.647066601	1.481029573	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 11/P	4.613746589	4.552103629	1.531952394	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 11/P	3.578988454	2.863190763	2.257794595	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 11/P	3.049665114	1.93319763	2.573986117	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 11/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 11/P	4.708401838	4.742638322	1.476202275	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 12/P	4.707105255	3.752584055	1.656750862	5	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 12/P	3.7523774	2.144842198	2.34531788	9	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 12/P	3.240550236	1.312238404	2.869621036	12.61710051	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 12/P	0	0	0	30.003942	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 12/P	4.791004526	3.937429474	1.595441262	4.7	0.444981813
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 1/P	7.45617781	2.670912282	0.228786162	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 1/P	6.732286919	1.314515836	0.951947654	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 1/P	6.344867039	0.657780202	1.339833585	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 1/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 1/P	7.517677332	2.84819867	0.167766218	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 2/P	7.581703447	2.448777464	0.285151915	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 2/P	3.813789403	1.15643526	0.986793238	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 2/P	3.550353301	0.491617808	1.504736071	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 2/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 2/P	7.644313951	2.610462676	0.22110676	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 3/P	7.581703447	2.448777464	0.285151915	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 3/P	3.813789403	1.15643526	0.986793238	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 3/P	3.550353301	0.491617808	1.504736071	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 3/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 3/P	7.644313951	2.610462676	0.22110676	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 4/P	7.45617781	2.670912282	0.228786162	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 4/P	6.732286919	1.314515836	0.951947654	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 4/P	6.344867039	0.657780202	1.339833585	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 4/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 4/P	7.517677332	2.84819867	0.167766218	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 5/P	6.426941469	2.979122864	0.076092844	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 5/P	5.636623604	1.552567015	0.866645013	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 5/P	5.391914614	0.917770245	1.109952017	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 5/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 5/P	6.48515404	3.155810594	0.017596634	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 6/P	7.45617781	2.670912282	0.228786162	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 6/P	6.732286919	1.314515836	0.951947654	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 6/P	6.344867039	0.657780202	1.339833585	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 6/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 6/P	7.517677332	2.84819867	0.167766218	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 7/P	7.45617781	2.670912282	0.228786162	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 7/P	6.732286919	1.314515836	0.951947654	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 7/P	6.344867039	0.657780202	1.339833585	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 7/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 7/P	7.517677332	2.84819867	0.167766218	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 8/P	6.339857276	3.217292417	0.025235976	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 8/P	5.651950525	1.734831443	0.712322947	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 8/P	5.303784264	1.063188623	1.061914773	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 8/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 8/P	6.400001498	3.402366057	-0.034409844	4.7	0.440009445

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 9/P	7.581703447	2.448777464	0.285151915	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 9/P	3.813789403	1.15643526	0.986793238	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 9/P	3.550353301	0.491617808	1.504736071	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 9/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 9/P	7.644313951	2.610462676	0.22110676	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 10/P	6.426941469	2.979122864	0.076092844	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 10/P	5.636623604	1.552567015	0.866645013	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 10/P	5.391914614	0.917770245	1.109952017	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 10/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 10/P	6.48515404	3.155810594	0.017596634	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 11/P	6.339857276	3.217292417	0.025235976	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 11/P	5.651950525	1.734831443	0.712322947	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 11/P	5.303784264	1.063188623	1.061914773	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 11/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 11/P	6.400001498	3.402366057	-0.034409844	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 12/P	7.581703447	2.448777464	0.285151915	5	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 12/P	3.813789403	1.15643526	0.986793238	9	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 12/P	3.550353301	0.491617808	1.504736071	12.61710051	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 12/P	0	0	0	30.003942	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 12/P	7.644313951	2.610462676	0.22110676	4.7	0.440009445
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 1/P	4.137182772	3.634347026	1.844846797	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 1/P	3.231791497	2.154605931	2.538583753	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 1/P	2.785031097	1.356541311	2.914824478	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 1/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 1/P	4.217593923	3.800939529	1.785530409	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 2/P	4.240947924	3.559628946	1.854590907	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 2/P	3.151479865	2.076250101	2.830824213	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 2/P	2.833774481	1.256199261	3.015394283	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 2/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 2/P	4.322490194	3.726660971	1.794664803	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 3/P	4.34734138	4.004974488	1.787593413	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 3/P	3.394050576	2.438628657	2.479996769	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 3/P	2.884355863	1.585734313	2.862143506	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 3/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 3/P	4.433856752	4.183123626	1.730185865	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 4/P	4.262368934	4.08977872	1.778783547	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 4/P	3.338793262	2.543558066	2.471930227	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 4/P	2.830358105	1.70164626	2.815831034	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 4/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 4/P	4.347329261	4.265283571	1.722928816	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 5/P	4.393583692	4.221101659	1.758564683	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 5/P	3.419118489	2.624372802	2.446945838	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 5/P	2.89167704	1.74712386	2.809767538	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 5/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 5/P	4.483415069	4.401089248	1.702330782	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 6/P	4.262368934	4.08977872	1.778783547	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 6/P	3.338793262	2.543558066	2.471930227	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 6/P	2.830358105	1.70164626	2.815831034	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 6/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 6/P	4.347329261	4.265283571	1.722928816	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 7/P	4.137182772	3.634347026	1.844846797	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 7/P	3.231791497	2.154605931	2.538583753	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 7/P	2.785031097	1.356541311	2.914824478	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 7/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 7/P	4.217593923	3.800939529	1.785530409	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 8/P	4.319763261	4.307896359	1.750458499	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 8/P	3.373990552	2.730943847	2.435138058	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 8/P	2.813971615	1.863187353	2.773051522	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 8/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 8/P	4.410797858	4.487191607	1.690354111	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 9/P	4.34734138	4.004974488	1.787593413	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 9/P	3.394050576	2.438628657	2.479996769	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 9/P	2.884355863	1.585734313	2.862143506	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 9/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 9/P	4.433856752	4.183123626	1.730185865	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 10/P	4.393583692	4.221101659	1.758564683	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 10/P	3.419118489	2.624372802	2.446945838	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 10/P	2.89167704	1.74712386	2.809767538	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 10/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 10/P	4.483415069	4.401089248	1.702330782	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 11/P	4.319763261	4.307896359	1.750458499	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 11/P	3.373990552	2.730943847	2.435138058	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 11/P	2.813971615	1.863187353	2.773051522	12.61710051	0.458678603

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 11/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 11/P	4.410797858	4.487191607	1.690354111	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 12/P	4.240947924	3.559628946	1.854590907	5	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 12/P	3.151479865	2.076250101	2.830824213	9	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 12/P	2.833774481	1.256199261	3.015394283	12.61710051	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 12/P	0	0	0	30.003942	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 12/P	4.322490194	3.726660971	1.794664803	4.7	0.458678603
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 1/P	14.15637198	14.36430766	-1.277168226	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 1/P	12.36130043	10.65565199	-0.508897375	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 1/P	11.45372249	8.779926171	-0.028966671	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 1/P	9.533272843	4.535104376	1.030852304	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 1/P	14.37389584	14.79926274	-1.372870469	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 2/P	14.14393836	14.15669422	-1.243582616	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 2/P	12.37843892	10.49634252	-0.486647259	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 2/P	11.47735786	8.635096623	-0.00387369	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 2/P	9.57380178	4.435537822	1.05092474	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 2/P	14.35672901	14.58474599	-1.336549459	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 3/P	14.87191918	13.67001329	-0.876253539	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 3/P	13.04494987	9.997570751	-0.106449427	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 3/P	12.12798023	8.058063107	0.338584536	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 3/P	9.884000113	3.792694538	1.780451786	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 3/P	15.08706932	14.08745779	-0.960076815	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 4/P	14.85317929	13.83976655	-0.905046722	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 4/P	13.00188892	10.14187996	-0.12814455	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 4/P	12.07019779	8.196841116	0.329663938	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 4/P	9.819181454	3.866784493	1.774345406	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 4/P	15.07205836	14.26141813	-0.990940419	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 5/P	16.07668814	13.06200296	-0.69304811	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 5/P	14.14720985	9.08713459	0.128816953	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 5/P	13.21370344	6.902094814	0.468450618	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 5/P	10.24737249	3.560329727	2.292007488	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 5/P	16.294236	13.49753611	-0.769734981	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 6/P	13.31762059	13.15365172	1.653223856	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 6/P	11.88033852	9.890346241	1.655845673	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 6/P	11.19159296	8.098764993	1.6536836	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 6/P	9.603803206	3.781298428	1.822701613	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 6/P	13.48910322	13.51860717	1.653223856	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 7/P	13.94733496	14.1340984	-1.25740247	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 7/P	12.1744832	10.47912685	-0.48882698	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 7/P	11.26970005	8.632154615	0.005305281	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 7/P	9.371638618	4.452875808	1.06124506	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 7/P	14.16156296	14.56205532	-1.350368166	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 8/P	16.04341471	13.2450526	-0.713968813	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 8/P	14.09842134	9.257762455	0.102242719	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 8/P	13.15186695	7.062022746	0.461939127	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 8/P	10.21149922	3.553519442	2.318988071	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 8/P	16.2640469	13.68211734	-0.791818341	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 9/P	14.60432529	13.40310597	-0.85418649	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 9/P	12.80269918	9.795175081	-0.077549813	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 9/P	11.90631826	7.888754048	0.346890398	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 9/P	9.668881423	3.259996722	1.828315061	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 9/P	14.81448766	13.81244046	-0.934650862	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 10/P	15.80162292	12.81644006	-0.670709759	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 10/P	13.85945804	8.913938873	0.228951659	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 10/P	12.98380057	6.757445805	0.478532943	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 10/P	10.05724869	3.522379169	2.330102399	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 10/P	16.01587624	13.24484292	-0.747016371	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 11/P	15.77754455	13.00352006	-0.692154249	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 11/P	13.80993434	9.088143877	0.220875939	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 11/P	12.92598737	6.917674469	0.475326512	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 11/P	9.930355689	3.496974535	2.355235266	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 11/P	15.99490987	13.43391951	-0.769627159	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 12/P	13.94869341	13.94549394	-1.223009474	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 12/P	12.2042019	10.33543192	-0.468023587	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 12/P	11.30324396	8.501857562	0.032451871	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 12/P	9.422228993	4.36114829	1.079857337	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 12/P	14.15785178	14.3666346	-1.31308428	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 1/P	101.5381563	120.3410851	-11.63454334	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 1/P	88.28493671	91.90599249	-7.695299702	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 1/P	82.24327315	78.2585244	-6.154510745	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 1/P	70.15483315	48.17068858	-3.105314762	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 1/P	103.1933523	124.0081542	-12.20012281	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 2/P	98.40267714	113.9068924	-11.02047446	5	1196.275757

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 2/P	85.92449275	87.3221444	-7.339848631	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 2/P	80.20091142	74.30683657	-5.872261472	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 2/P	68.68103535	45.33722513	-2.934866006	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 2/P	99.95440293	117.2364929	-11.54108037	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 3/P	97.53879818	103.5226106	-8.691959725	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 3/P	85.76657533	79.36117545	-5.757359572	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 3/P	80.25893171	67.10258733	-4.487345154	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 3/P	68.93645197	38.49065603	-1.897997367	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 3/P	98.98563459	106.3550393	-9.095345852	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 4/P	100.7172605	109.0919155	-9.175917709	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 4/P	88.2210532	83.66558973	-6.055757277	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 4/P	82.41339991	70.88684639	-4.734243434	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 4/P	70.5480653	41.24762335	-2.046798965	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 4/P	102.261474	112.0936363	-9.614807869	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 5/P	101.5430981	96.52306577	-9.631062882	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 5/P	89.82866367	72.5797496	-6.455979982	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 5/P	84.19490684	59.81180113	-4.939522097	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 5/P	71.97003757	29.98734311	-1.718898839	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 5/P	102.9478255	99.23982778	-10.0133125	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 8/P	104.8918383	101.920862	-10.15890501	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 8/P	92.49309112	76.91221119	-6.833369566	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 8/P	86.56137122	63.69454021	-5.250175712	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 8/P	73.83875466	32.37437095	-1.908546647	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 8/P	106.3835318	104.7800612	-10.562089	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 9/P	93.30227706	98.7539602	-8.20485939	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 9/P	82.05627745	75.66335032	-5.393724295	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 9/P	76.80181015	63.93129559	-4.19074952	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 9/P	65.98838749	36.52058026	-1.734092484	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 9/P	94.68587608	101.4603546	-8.594043827	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 10/P	98.36593507	93.30398624	-9.215911353	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 10/P	87.03871892	70.10713068	-6.163499377	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 10/P	81.58858026	57.72163731	-4.703718034	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 10/P	69.7462483	28.83003525	-1.604108877	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 10/P	99.72299949	95.93504697	-9.583420115	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 11/P	101.6534917	98.56128496	-9.727689037	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 11/P	89.66114458	74.32733914	-6.528675087	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 11/P	83.92162691	61.50184156	-5.005100173	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 11/P	71.59390099	31.13485581	-1.785508419	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 11/P	103.0948785	101.3288599	-10.11256031	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 1/P	7.407886692	8.869199859	9.009995804	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 1/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 1/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 1/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 1/P	9.031709125	11.10206528	7.212317056	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 2/P	5.262844284	6.000273255	11.36002854	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 2/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 2/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 2/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 2/P	7.37655631	8.807508928	9.05761	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 3/P	4.278431233	4.489299267	15.24336653	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 3/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 3/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 3/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 3/P	6.863461411	7.840346519	12.38623273	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 4/P	6.880463755	7.883555937	12.34624374	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 4/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 4/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 4/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 4/P	8.702835073	10.3159671	10.28633141	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 5/P	0	0	0	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 5/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 5/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 5/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 5/P	5.637284085	5.834525738	18.40018951	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 6/P	6.880463755	7.883555937	12.34624374	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 6/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 6/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 6/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 6/P	8.702835073	10.3159671	10.28633141	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 7/P	7.407886692	8.869199859	9.009995804	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 7/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 7/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 7/P	0	0	0	30.003942	2.990689516

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 7/P	9.031709125	11.10206528	7.212317056	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 8/P	5.619870577	5.828416239	18.39088816	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 8/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 8/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 8/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 8/P	8.002371845	8.837512629	15.61176174	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 9/P	4.278431233	4.489299267	15.24336653	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 9/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 9/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 9/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 9/P	6.863461411	7.840346519	12.38623273	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 10/P	0	0	0	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 10/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 10/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 10/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 10/P	5.637284085	5.834525738	18.40018951	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 11/P	5.619870577	5.828416239	18.39088816	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 11/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 11/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 11/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 11/P	8.002371845	8.837512629	15.61176174	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 12/P	5.262844284	6.000273255	11.36002854	5	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 12/P	0	0	0	9	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 12/P	0	0	0	12.61710051	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 12/P	0	0	0	30.003942	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 12/P	7.37655631	8.807508928	9.05761	4.7	2.990689516
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 1/P	311.0630823	378.4719373	-81.42668164	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 1/P	261.5894839	287.0234625	-50.98724299	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 1/P	239.1041747	244.2419999	-38.13706558	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 1/P	194.1130108	154.9490792	-12.65471625	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 1/P	317.2364943	390.0493318	-85.47009107	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 2/P	303.367731	360.1556389	-76.16895662	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 2/P	256.7448703	274.5590571	-47.86627223	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 2/P	235.37419	233.8099846	-35.71761342	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 2/P	192.1055015	147.748087	-10.9868515	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 2/P	309.1498538	370.7075662	-79.88318844	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 3/P	287.7518975	315.9523977	-59.34972315	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 3/P	245.2819702	241.1959645	-35.4287573	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 3/P	225.5346373	204.9280946	-24.84151267	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 3/P	182.2229318	125.6826967	2.670574829	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 3/P	292.9883164	324.9207314	-62.4664035	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 4/P	293.8692023	329.7286019	-63.45003976	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 4/P	249.0314532	251.1420327	-37.89256128	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 4/P	228.374266	213.418422	-26.80291108	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 4/P	183.474565	131.9239131	1.600296458	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 4/P	299.4349773	339.4783741	-66.82624646	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 5/P	281.3200981	280.778182	-49.17504776	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 5/P	242.3813077	212.6601361	-28.49385507	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 5/P	223.8047267	178.2309655	-18.76588709	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 5/P	182.1741994	99.34810153	6.782419305	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 5/P	286.0437735	288.7795859	-51.76977155	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 6/P	303.8311401	341.6365754	-65.52200845	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 6/P	257.5531706	260.3483819	-39.31178924	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 6/P	236.2713862	221.3520521	-28.01067807	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 6/P	191.1973173	137.0492417	-1.315756422	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 6/P	309.5800709	351.8755829	-68.99396312	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 7/P	323.1717154	394.3627613	-84.41488471	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 7/P	271.8272706	299.0897425	-52.98517085	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 7/P	248.5268383	254.6147749	-39.78223835	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 7/P	202.1163626	161.8620929	-13.96694139	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 7/P	329.5855279	406.4077689	-88.60245484	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 8/P	285.9047552	291.9263089	-52.21864026	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 8/P	245.1149423	221.1303371	-30.44607692	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 8/P	225.8305807	185.7741169	-20.39469406	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 8/P	182.84053	105.1997112	6.091263698	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 8/P	290.8821239	300.3069204	-54.9799398	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 9/P	297.451371	327.2475002	-61.28253721	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 9/P	253.6493609	249.9681736	-36.78401151	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 9/P	233.3216768	212.4956065	-26.0133678	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 9/P	188.8203141	130.6478128	1.923672354	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 9/P	302.8577023	336.5218673	-64.48637903	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 10/P	288.4333158	288.315897	-50.50381443	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 10/P	248.5949922	218.5046582	-29.46861812	9	1196.275757

PHMSA QRA Study 200210 (Peakshaver 1.1xPressure)_1 Jet Fires

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 10/P	229.6215345	183.2374599	-19.62989977	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 10/P	186.9535728	102.4921257	6.583317525	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 10/P	293.2705831	296.5189128	-53.15087301	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 11/P	292.8846537	299.5254872	-53.56452016	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 11/P	251.1704194	227.0105836	-31.41832532	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 11/P	231.4793409	190.8163713	-21.24603637	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 11/P	187.5397285	108.383226	5.727493998	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 11/P	297.9757015	308.1123232	-56.37657078	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 12/P	315.2945235	375.2164267	-78.96677552	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 12/P	266.9301602	286.1951701	-49.79107184	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 12/P	244.7909722	243.8332337	-37.32283845	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 12/P	200.1960026	154.4197976	-12.34319928	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 12/P	321.3108196	386.3415816	-82.83278484	4.7	1196.275757

Not included in Export

Not included in Export

PHMSA QRA Study 200210 (Peakshaver 1.1xPressure)_1 Toxic Dispersion

Study	Model	Hole Size	Weather	Height	Time	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 1/P	1	Max Conc	122600	12.58331108	1.001688957	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 2/P	1	Max Conc	122600	12.92796993	1.034887195	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 3/P	1	Max Conc	122600	13.85918522	1.061982989	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 4/P	1	Max Conc	122600	13.47707272	1.028970838	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 5/P	1	Max Conc	122600	14.36857605	1.079512477	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 6/P	1	Max Conc	122600	13.607481	1.036643505	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 7/P	1	Max Conc	122600	12.76028633	1.031901479	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 8/P	1	Max Conc	122600	14.07317638	1.045986772	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 9/P	1	Max Conc	122600	13.94372368	1.070037246	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 10/P	1	Max Conc	122600	14.40015507	1.080191374	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 11/P	1	Max Conc	122600	14.12767124	1.047703624	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 12/P	1	Max Conc	122600	13.16904926	1.065082192	0	13.64766216

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 1/P	1	Max Conc	0.5	22000	40.54234314	2.881969213	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 1/P	1	Max Conc	1	44000	15.80832291	1.41998589	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 2/P	1	Max Conc	0.5	22000	42.77588654	2.976440668	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 2/P	1	Max Conc	1	44000	16.50530052	1.464838982	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 3/P	1	Max Conc	0.5	22000	43.41601944	3.282824993	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 3/P	1	Max Conc	1	44000	17.734375	1.549530864	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 4/P	1	Max Conc	0.5	22000	41.36891937	3.176540136	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 4/P	1	Max Conc	1	44000	17.05514526	1.505450368	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 5/P	1	Max Conc	0.5	22000	43.43907547	3.5093081	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 5/P	1	Max Conc	1	44000	18.58967018	1.605563045	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 6/P	1	Max Conc	0.5	22000	42.19840622	3.486018181	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 6/P	1	Max Conc	1	44000	17.33175278	1.561598897	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 7/P	1	Max Conc	0.5	22000	41.95417404	3.270785809	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 7/P	1	Max Conc	1	44000	16.41610718	1.512940764	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 8/P	1	Max Conc	0.5	22000	41.5186348	3.397883177	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 8/P	1	Max Conc	1	44000	17.87207985	1.556931973	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 9/P	1	Max Conc	0.5	22000	44.3471756	3.602792501	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 9/P	1	Max Conc	1	44000	18.11613846	1.607471824	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 10/P	1	Max Conc	0.5	22000	44.28409576	3.772925377	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 10/P	1	Max Conc	1	44000	18.78506088	1.645925403	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 11/P	1	Max Conc	0.5	22000	42.28322983	3.636681557	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 11/P	1	Max Conc	1	44000	18.07083321	1.593305707	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 12/P	1	Max Conc	0.5	22000	44.28988266	3.383792877	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_25mm	25	Category 12/P	1	Max Conc	1	44000	17.07460213	1.56148684	0	3.946630478
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 1/P	1	Max Conc	0.5	22000	95.8195343	6.26866436	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 1/P	1	Max Conc	1	44000	41.47027206	3.215906143	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 2/P	1	Max Conc	0.5	22000	102.4305801	6.4934659	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 2/P	1	Max Conc	1	44000	43.47450256	3.317195892	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 3/P	1	Max Conc	0.5	22000	97.51540375	7.119305134	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 3/P	1	Max Conc	1	44000	43.21146774	3.510249138	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 4/P	1	Max Conc	0.5	22000	91.33248138	6.854997158	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 4/P	1	Max Conc	1	44000	41.35906982	3.408071756	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 5/P	1	Max Conc	0.5	22000	94.0927887	7.601429462	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 5/P	1	Max Conc	1	44000	42.93672562	3.647252798	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 6/P	1	Max Conc	0.5	22000	91.25177002	7.41774559	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 6/P	1	Max Conc	1	44000	42.2216568	3.644220114	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 7/P	1	Max Conc	0.5	22000	95.02446747	6.939430714	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 7/P	1	Max Conc	1	44000	42.3888092	3.514336824	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 8/P	1	Max Conc	0.5	22000	88.40947723	7.313648224	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 8/P	1	Max Conc	1	44000	41.16077042	3.538208485	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 9/P	1	Max Conc	0.5	22000	97.92783356	7.709425449	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 9/P	1	Max Conc	1	44000	44.08285141	3.762936354	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 10/P	1	Max Conc	0.5	22000	95.27275848	8.100937843	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 10/P	1	Max Conc	1	44000	43.85340118	3.85929203	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 11/P	1	Max Conc	0.5	22000	88.9644165	7.790441036	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 11/P	1	Max Conc	1	44000	42.108078	3.733281136	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 12/P	1	Max Conc	0.5	22000	102.1023407	7.19153738	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_50mm	50	Category 12/P	1	Max Conc	1	44000	44.33694839	3.622014284	0	15.78652191
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 1/P	1	Max Conc	0.5	22000	251.7813416	18.76542664	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 1/P	1	Max Conc	1	44000	147.8994293	10.97196198	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 2/P	1	Max Conc	0.5	22000	279.7093506	19.61085129	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 2/P	1	Max Conc	1	44000	156.8607025	11.31179905	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 3/P	1	Max Conc	0.5	22000	260.6568909	21.31699944	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 3/P	1	Max Conc	1	44000	149.9801178	11.96494389	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 4/P	1	Max Conc	0.5	22000	236.1196594	20.34126854	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 4/P	1	Max Conc	1	44000	141.8432617	11.60017395	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 5/P	1	Max Conc	0.5	22000	247.8583832	22.61743164	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 5/P	1	Max Conc	1	44000	145.6604004	12.42392731	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 6/P	1	Max Conc	0.5	22000	229.8734589	20.69634247	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 6/P	1	Max Conc	1	44000	143.3529968	12.21829319	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 7/P	1	Max Conc	0.5	22000	243.4251404	19.23929787	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 7/P	1	Max Conc	1	44000	148.716095	11.6543417	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 8/P	1	Max Conc	0.5	22000	226.2260132	21.51806831	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 8/P	1	Max Conc	1	44000	138.6360779	12.04344463	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 9/P	1	Max Conc	0.5	22000	254.7817841	21.67443085	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 9/P	1	Max Conc	1	44000	152.5800018	12.59577751	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 10/P	1	Max Conc	0.5	22000	243.919281	22.94415665	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 10/P	1	Max Conc	1	44000	148.9280243	13.01669502	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 11/P	1	Max Conc	0.5	22000	220.6795349	21.82859993	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 11/P	1	Max Conc	1	44000	140.6701355	12.61929321	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 12/P	1	Max Conc	0.5	22000	272.6259766	20.08310699	0	145.8927155
Peakshaver (1.1xOP)	P_INV001_152mm	152	Category 12/P	1	Max Conc	1	44000	158.5259399	12.01453876	0	145.8927155

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 1/P	1	Max Conc	0.5	22000	9.61163044	1.025430918	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 1/P	1	Max Conc	1	44000	5.654230118	0.547565401	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 2/P	1	Max Conc	0.5	22000	9.999508858	1.054090261	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 2/P	1	Max Conc	1	44000	5.805623531	0.56191951	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 3/P	1	Max Conc	0.5	22000	11.92418194	1.145328522	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 3/P	1	Max Conc	1	44000	6.322545052	0.587043583	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 4/P	1	Max Conc	0.5	22000	11.4202919	1.112911105	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 4/P	1	Max Conc	1	44000	6.137048244	0.572593331	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 5/P	1	Max Conc	0.5	22000	13.42384052	1.214315653	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 5/P	1	Max Conc	1	44000	6.699335575	0.604036033	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 6/P	1	Max Conc	0.5	22000	11.9336319	1.185078621	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 6/P	1	Max Conc	1	44000	6.077401638	0.592149556	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 7/P	1	Max Conc	0.5	22000	10.19863605	1.13126719	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 7/P	1	Max Conc	1	44000	5.546355247	0.57811147	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 8/P	1	Max Conc	0.5	22000	12.9025507	1.177166462	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 8/P	1	Max Conc	1	44000	6.520895958	0.58853066	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 9/P	1	Max Conc	0.5	22000	12.44333553	1.218497038	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 9/P	1	Max Conc	1	44000	6.267126083	0.606800497	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 10/P	1	Max Conc	0.5	22000	13.74702072	1.257007241	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 10/P	1	Max Conc	1	44000	6.677043438	0.615771115	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 11/P	1	Max Conc	0.5	22000	13.21933365	1.219237924	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 11/P	1	Max Conc	1	44000	6.497983932	0.599683642	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 12/P	1	Max Conc	0.5	22000	10.67579842	1.162015676	0	0.631460845
Peakshaver (1.1xOP)	P_INV001_10mm	10	Category 12/P	1	Max Conc	1	44000	5.701568127	0.593811512	0	0.631460845
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 1/P	1	Max Conc	0.5	22000	40.54234314	2.881969213	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 1/P	1	Max Conc	1	44000	15.80832291	1.41998589	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 2/P	1	Max Conc	0.5	22000	42.77588654	2.976440668	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 2/P	1	Max Conc	1	44000	16.50530052	1.464838982	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 3/P	1	Max Conc	0.5	22000	43.41601944	3.282824993	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 3/P	1	Max Conc	1	44000	17.734375	1.549530864	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 4/P	1	Max Conc	0.5	22000	41.36891937	3.176540136	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 4/P	1	Max Conc	1	44000	17.05514526	1.505450368	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 5/P	1	Max Conc	0.5	22000	43.43907547	3.5093081	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 5/P	1	Max Conc	1	44000	18.58967018	1.605563045	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 6/P	1	Max Conc	0.5	22000	42.19840622	3.486018181	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 6/P	1	Max Conc	1	44000	17.33175278	1.561598897	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 7/P	1	Max Conc	0.5	22000	41.95417404	3.270785809	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 7/P	1	Max Conc	1	44000	16.41610718	1.512940764	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 8/P	1	Max Conc	0.5	22000	41.5186348	3.397883177	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 8/P	1	Max Conc	1	44000	17.87207985	1.556931973	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 9/P	1	Max Conc	0.5	22000	44.3471756	3.602792501	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 9/P	1	Max Conc	1	44000	18.11613846	1.607471824	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 10/P	1	Max Conc	0.5	22000	44.28409576	3.772925377	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 10/P	1	Max Conc	1	44000	18.78506088	1.645925403	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 11/P	1	Max Conc	0.5	22000	42.28322983	3.636681557	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 11/P	1	Max Conc	1	44000	18.07083321	1.593305707	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 12/P	1	Max Conc	0.5	22000	44.28988266	3.383792877	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_25mm	25	Category 12/P	1	Max Conc	1	44000	17.07460213	1.56148684	0	3.946630478
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 1/P	1	Max Conc	0.5	22000	60.59922409	4.137416363	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 1/P	1	Max Conc	1	44000	24.78042412	2.062686682	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 2/P	1	Max Conc	0.5	22000	64.31044769	4.280826569	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 2/P	1	Max Conc	1	44000	25.97691727	2.12693882	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 3/P	1	Max Conc	0.5	22000	62.8817749	4.697020054	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 3/P	1	Max Conc	1	44000	26.86874771	2.251759052	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 4/P	1	Max Conc	0.5	22000	59.42880249	4.542365551	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 4/P	1	Max Conc	1	44000	25.75981712	2.181892633	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 5/P	1	Max Conc	0.5	22000	61.63754272	5.013289452	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 5/P	1	Max Conc	1	44000	27.2833519	2.343249559	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 6/P	1	Max Conc	0.5	22000	59.9431839	4.966135025	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 6/P	1	Max Conc	1	44000	26.22288513	2.307929993	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 7/P	1	Max Conc	0.5	22000	61.10464859	4.657664776	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 7/P	1	Max Conc	1	44000	25.49653816	2.226952791	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 8/P	1	Max Conc	0.5	22000	58.46211624	4.845956802	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 8/P	1	Max Conc	1	44000	26.25422096	2.269389153	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 9/P	1	Max Conc	0.5	22000	63.52651596	5.133637905	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 9/P	1	Max Conc	1	44000	27.26450539	2.384260654	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 10/P	1	Max Conc	0.5	22000	62.53388214	5.378786087	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 10/P	1	Max Conc	1	44000	27.60287476	2.438892365	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 11/P	1	Max Conc	0.5	22000	59.15428543	5.186360359	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 11/P	1	Max Conc	1	44000	26.60235023	2.36222744	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 12/P	1	Max Conc	0.5	22000	65.03092957	4.817061901	0	7.4293046
Peakshaver (1.1xOP)	P_INV002_50mm	50	Category 12/P	1	Max Conc	1	44000	26.65300751	2.296142578	0	7.4293046

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 1/P	1	Max Conc	0.5	22000	58.86585999	4.086603642	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 1/P	1	Max Conc	1	44000	24.31519699	2.042739868	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 2/P	1	Max Conc	0.5	22000	62.52120209	4.230540752	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 2/P	1	Max Conc	1	44000	25.5423584	2.10730648	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 3/P	1	Max Conc	0.5	22000	61.16604996	4.640779972	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 3/P	1	Max Conc	1	44000	26.44373703	2.227971315	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 4/P	1	Max Conc	0.5	22000	57.93346405	4.485475063	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 4/P	1	Max Conc	1	44000	25.33017159	2.162851572	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 5/P	1	Max Conc	0.5	22000	60.03329086	4.948410511	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 5/P	1	Max Conc	1	44000	26.87860107	2.319058895	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 6/P	1	Max Conc	0.5	22000	58.23596191	4.899476051	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 6/P	1	Max Conc	1	44000	25.77747154	2.281689167	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 7/P	1	Max Conc	0.5	22000	59.18996429	4.597568035	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 7/P	1	Max Conc	1	44000	25.02772331	2.205636024	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 8/P	1	Max Conc	0.5	22000	57.11050415	4.784113884	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 8/P	1	Max Conc	1	44000	25.84477043	2.245370388	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 9/P	1	Max Conc	0.5	22000	61.75132751	5.072808743	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 9/P	1	Max Conc	1	44000	26.8964138	2.361764193	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 10/P	1	Max Conc	0.5	22000	60.87039566	5.299787998	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 10/P	1	Max Conc	1	44000	27.23958397	2.415378809	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 11/P	1	Max Conc	0.5	22000	57.68691254	5.121191025	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 11/P	1	Max Conc	1	44000	26.2297802	2.339820862	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 12/P	1	Max Conc	0.5	22000	63.05204773	4.760123253	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_152mm	152	Category 12/P	1	Max Conc	1	44000	26.24689865	2.274295568	0	7.29421854
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 1/P	1	Max Conc	0.5	22000	9.331179619	1.000457048	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 1/P	1	Max Conc	1	44000	5.538070679	0.535368681	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 2/P	1	Max Conc	0.5	22000	9.705076218	1.029280186	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 2/P	1	Max Conc	1	44000	5.692672729	0.54864043	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 3/P	1	Max Conc	0.5	22000	11.52837944	1.117221832	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 3/P	1	Max Conc	1	44000	6.181922436	0.573846519	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 4/P	1	Max Conc	0.5	22000	11.04408836	1.084669471	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 4/P	1	Max Conc	1	44000	5.992475986	0.55937326	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 5/P	1	Max Conc	0.5	22000	13.02060509	1.182278395	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 5/P	1	Max Conc	1	44000	6.562623978	0.589578569	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 6/P	1	Max Conc	0.5	22000	11.5162611	1.15544796	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 6/P	1	Max Conc	1	44000	5.930512428	0.578617871	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 7/P	1	Max Conc	0.5	22000	9.839522362	1.104120612	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 7/P	1	Max Conc	1	44000	5.428217888	0.56544292	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 8/P	1	Max Conc	0.5	22000	12.53573227	1.148125529	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 8/P	1	Max Conc	1	44000	6.380355358	0.575475454	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 9/P	1	Max Conc	0.5	22000	12.0387125	1.189287663	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 9/P	1	Max Conc	1	44000	6.122754574	0.593358338	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 10/P	1	Max Conc	0.5	22000	13.3344717	1.224288464	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 10/P	1	Max Conc	1	44000	6.539176464	0.601095736	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 11/P	1	Max Conc	0.5	22000	12.79471588	1.187533021	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 11/P	1	Max Conc	1	44000	6.356740952	0.586543918	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 12/P	1	Max Conc	0.5	22000	10.29201317	1.13523078	0	0.602820873
Peakshaver (1.1xOP)	P_INV002_10mm	10	Category 12/P	1	Max Conc	1	44000	5.585758209	0.579699874	0	0.602820873
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 1/P	1	Max Conc	0.5	22000	39.09143066	2.788184404	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 1/P	1	Max Conc	1	44000	15.13264465	1.376114011	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 2/P	1	Max Conc	0.5	22000	41.21510315	2.878440857	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 2/P	1	Max Conc	1	44000	15.85326004	1.414123297	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 3/P	1	Max Conc	0.5	22000	42.04240799	3.176572561	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 3/P	1	Max Conc	1	44000	17.09246635	1.498597145	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 4/P	1	Max Conc	0.5	22000	40.08508682	3.071222067	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 4/P	1	Max Conc	1	44000	16.49098969	1.454432011	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 5/P	1	Max Conc	0.5	22000	42.1265564	3.398869991	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 5/P	1	Max Conc	1	44000	17.91508675	1.549311042	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 6/P	1	Max Conc	0.5	22000	40.96427155	3.374931097	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 6/P	1	Max Conc	1	44000	16.78326416	1.508714676	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 7/P	1	Max Conc	0.5	22000	40.58376312	3.160445213	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 7/P	1	Max Conc	1	44000	15.75940418	1.457386136	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 8/P	1	Max Conc	0.5	22000	40.3463707	3.290767193	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 8/P	1	Max Conc	1	44000	17.23559952	1.507053256	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 9/P	1	Max Conc	0.5	22000	42.94714737	3.489272118	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 9/P	1	Max Conc	1	44000	17.36966133	1.553758264	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 10/P	1	Max Conc	0.5	22000	42.92160416	3.644510269	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 10/P	1	Max Conc	1	44000	18.10575104	1.585312366	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 11/P	1	Max Conc	0.5	22000	41.05866241	3.523388386	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 11/P	1	Max Conc	1	44000	17.38087654	1.535698771	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 12/P	1	Max Conc	0.5	22000	42.78207779	3.27306962	0	3.72516799
Peakshaver (1.1xOP)	P_INV004_25mm	25	Category 12/P	1	Max Conc	1	44000	16.45294571	1.506376863	0	3.72516799

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 1/P	1	Max Conc	0.5	22000	57.12439346	3.88829422	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 1/P	1	Max Conc	1	44000	23.03199005	1.928049684	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 2/P	1	Max Conc	0.5	22000	60.41455841	4.019690514	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 2/P	1	Max Conc	1	44000	23.97525978	1.988694429	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 3/P	1	Max Conc	0.5	22000	59.32556152	4.422887802	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 3/P	1	Max Conc	1	44000	24.93357277	2.107345343	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 4/P	1	Max Conc	0.5	22000	56.3508873	4.272416592	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 4/P	1	Max Conc	1	44000	23.97521019	2.045258522	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 5/P	1	Max Conc	0.5	22000	58.32128143	4.726424694	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 5/P	1	Max Conc	1	44000	25.48285484	2.186748505	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 6/P	1	Max Conc	0.5	22000	56.97714615	4.680211067	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 6/P	1	Max Conc	1	44000	24.30410194	2.152036905	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 7/P	1	Max Conc	0.5	22000	57.84062576	4.384891033	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 7/P	1	Max Conc	1	44000	23.63676262	2.080085516	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 8/P	1	Max Conc	0.5	22000	55.54138184	4.567039013	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 8/P	1	Max Conc	1	44000	24.4478302	2.121654034	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 9/P	1	Max Conc	0.5	22000	60.13182068	4.847531319	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 9/P	1	Max Conc	1	44000	25.39265823	2.220308304	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 10/P	1	Max Conc	0.5	22000	59.31289673	5.0714221	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 10/P	1	Max Conc	1	44000	25.85496902	2.277292252	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 11/P	1	Max Conc	0.5	22000	56.34946442	4.895720482	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 11/P	1	Max Conc	1	44000	24.7891922	2.199027061	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 12/P	1	Max Conc	0.5	22000	61.3624649	4.540218353	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_50mm	50	Category 12/P	1	Max Conc	1	44000	24.57972336	2.147197008	0	6.649505138
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 1/P	1	Max Conc	0.5	22000	55.55258942	3.840685606	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 1/P	1	Max Conc	1	44000	22.64243698	1.90911305	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 2/P	1	Max Conc	0.5	22000	58.75081635	3.96607399	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 2/P	1	Max Conc	1	44000	23.60573959	1.966201186	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 3/P	1	Max Conc	0.5	22000	57.89623642	4.363404751	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 3/P	1	Max Conc	1	44000	24.49204636	2.085536242	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 4/P	1	Max Conc	0.5	22000	54.87570572	4.211458683	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 4/P	1	Max Conc	1	44000	23.59838104	2.02263236	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 5/P	1	Max Conc	0.5	22000	56.99901962	4.661728382	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 5/P	1	Max Conc	1	44000	25.05717659	2.160873652	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 6/P	1	Max Conc	0.5	22000	55.42853928	4.613316536	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 6/P	1	Max Conc	1	44000	23.95985794	2.128974915	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 7/P	1	Max Conc	0.5	22000	56.21099472	4.32379055	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 7/P	1	Max Conc	1	44000	23.26293564	2.055989742	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 8/P	1	Max Conc	0.5	22000	54.15867233	4.501325607	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 8/P	1	Max Conc	1	44000	24.09135437	2.099667072	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 9/P	1	Max Conc	0.5	22000	58.52474213	4.780647755	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 9/P	1	Max Conc	1	44000	24.95484734	2.195277691	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 10/P	1	Max Conc	0.5	22000	57.87020874	4.996695995	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 10/P	1	Max Conc	1	44000	25.41563416	2.247525692	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 11/P	1	Max Conc	0.5	22000	54.91094208	4.823703766	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 11/P	1	Max Conc	1	44000	24.36131859	2.172268867	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 12/P	1	Max Conc	0.5	22000	59.54334259	4.47782135	0	6.513967514
Peakshaver (1.1xOP)	P_INV004_152mm	152	Category 12/P	1	Max Conc	1	44000	24.18026352	2.122985601	0	6.513967514
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 1/P	1	Max Conc	0.5	18694.5131	132.1542511	11.72656631	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 1/P	1	Max Conc	1	37389.0262	58.13572693	4.244884491	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 2/P	1	Max Conc	0.5	18694.5131	141.0733337	11.62101555	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 2/P	1	Max Conc	1	37389.0262	61.68896103	4.073228359	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 3/P	1	Max Conc	0.5	18694.5131	135.3841553	13.40716362	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 3/P	1	Max Conc	1	37389.0262	60.19600296	4.541733742	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 4/P	1	Max Conc	0.5	18694.5131	128.8659973	13.46163654	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 4/P	1	Max Conc	1	37389.0262	57.20011139	4.776493549	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 5/P	1	Max Conc	0.5	18694.5131	127.086525	15.00906944	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 5/P	1	Max Conc	1	37389.0262	58.74423599	4.898303032	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 6/P	1	Max Conc	0.5	18694.5131	129.6915436	23.33602333	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 6/P	1	Max Conc	1	37389.0262	57.82187653	5.57649231	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 7/P	1	Max Conc	0.5	18694.5131	140.3283081	16.24846077	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 7/P	1	Max Conc	1	37389.0262	58.81719589	5.198530197	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 8/P	1	Max Conc	0.5	18694.5131	121.195816	15.31785774	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 8/P	1	Max Conc	1	37389.0262	56.29985809	5.155963421	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 9/P	1	Max Conc	0.5	18694.5131	136.0076447	21.91401482	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 9/P	1	Max Conc	1	37389.0262	60.79826355	5.271138668	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 10/P	1	Max Conc	0.5	18694.5131	126.0682449	24.4391098	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 10/P	1	Max Conc	1	37389.0262	59.73397064	5.520863056	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 11/P	1	Max Conc	0.5	18694.5131	119.9309311	25.61499596	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 11/P	1	Max Conc	1	37389.0262	57.19678879	5.850444794	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 12/P	1	Max Conc	0.5	18694.5131	147.0708923	15.40279102	0	13.64766216
Peakshaver (1.1xOP)	P_INV005_25mm	25	Category 12/P	1	Max Conc	1	37389.0262	62.37348557	4.910952568	0	13.64766216

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 1/P	1	Max Conc	0.5	22000	93.01030731	13.02800083	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 1/P	1	Max Conc	1	44000	23.23349953	2.450297117	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 2/P	1	Max Conc	0.5	22000	99.52079773	13.69784641	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 2/P	1	Max Conc	1	44000	47.30123901	3.78436923	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 3/P	1	Max Conc	0.5	22000	121.7517395	23.5773201	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 3/P	1	Max Conc	1	44000	54.06352997	5.633756161	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 4/P	1	Max Conc	0.5	22000	113.6457291	22.11156082	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 4/P	1	Max Conc	1	44000	28.50259399	3.038327694	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 5/P	1	Max Conc	0.5	22000	150.3796539	39.9035759	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 5/P	1	Max Conc	1	44000	66.79984283	10.9340477	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 6/P	1	Max Conc	0.5	22000	107.1249695	53.2082901	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 6/P	1	Max Conc	1	44000	67.74757385	15.78973103	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 7/P	1	Max Conc	0.5	22000	84.7436142	28.59243202	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 7/P	1	Max Conc	1	44000	56.54790497	10.76498508	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 8/P	1	Max Conc	0.5	22000	136.8729248	36.3997345	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 8/P	1	Max Conc	1	44000	51.11566162	6.776055813	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 9/P	1	Max Conc	0.5	22000	114.8497391	52.36548615	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 9/P	1	Max Conc	1	44000	75.66164398	21.73685837	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 10/P	1	Max Conc	0.5	22000	147.3475952	104.6472015	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 10/P	1	Max Conc	1	44000	88.60006714	33.53649902	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 11/P	1	Max Conc	0.5	22000	138.5251617	102.0567093	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 11/P	1	Max Conc	1	44000	74.30877686	27.69455719	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 12/P	1	Max Conc	0.5	22000	89.70664978	27.96016121	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_25mm (all)	25	Category 12/P	1	Max Conc	1	44000	60.32959366	13.30582047	0	5.287149906
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 1/P	1	Max Conc	0.5	22000	91.97401428	15.32512379	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 1/P	1	Max Conc	1	44000	59.31733322	7.475368023	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 2/P	1	Max Conc	0.5	22000	94.46857452	14.67880154	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 2/P	1	Max Conc	1	44000	61.99324036	8.709161758	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 3/P	1	Max Conc	0.5	22000	120.3851089	20.79136658	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 3/P	1	Max Conc	1	44000	78.85749054	14.60147667	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 4/P	1	Max Conc	0.5	22000	113.3887405	22.90442276	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 4/P	1	Max Conc	1	44000	73.93762207	14.51055241	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 5/P	1	Max Conc	0.5	22000	157.5471649	33.86889267	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 5/P	1	Max Conc	1	44000	102.4929428	24.75814438	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 6/P	1	Max Conc	0.5	22000	250.7155304	41.79457092	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 6/P	1	Max Conc	1	44000	118.7234955	30.46007729	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 7/P	1	Max Conc	0.5	22000	187.0732117	26.52352715	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 7/P	1	Max Conc	1	44000	86.01877594	18.04120064	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 8/P	1	Max Conc	0.5	22000	142.350769	38.78666306	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 8/P	1	Max Conc	1	44000	91.26682281	26.05137444	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 9/P	1	Max Conc	0.5	22000	287.8245544	36.06144333	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 9/P	1	Max Conc	1	44000	143.284729	27.91979408	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 10/P	1	Max Conc	0.5	22000	324.27771	62.14265823	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 10/P	1	Max Conc	1	44000	149.0843964	48.46746826	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 11/P	1	Max Conc	0.5	22000	302.7299194	73.29523468	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 11/P	1	Max Conc	1	44000	142.8189545	53.99761581	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 12/P	1	Max Conc	0.5	22000	227.9516907	23.76867104	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_50mm (all)	50	Category 12/P	1	Max Conc	1	44000	115.5222549	17.40985298	0	6.344521999
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 1/P	1	Max Conc	0.5	22000	76.34269714	14.40689564	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 1/P	1	Max Conc	1	44000	45.88204193	8.345218658	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 2/P	1	Max Conc	0.5	22000	80.49008179	13.69207668	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 2/P	1	Max Conc	1	44000	48.54108047	8.981824875	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 3/P	1	Max Conc	0.5	22000	100.2704697	20.5297718	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 3/P	1	Max Conc	1	44000	59.93069458	14.85816479	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 4/P	1	Max Conc	0.5	22000	95.9983139	22.06072426	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 4/P	1	Max Conc	1	44000	57.85150146	14.74194813	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 5/P	1	Max Conc	0.5	22000	125.1936874	33.02481461	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 5/P	1	Max Conc	1	44000	72.55589294	25.1400795	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 6/P	1	Max Conc	0.5	22000	308.7193298	38.78516769	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 6/P	1	Max Conc	1	44000	167.258255	28.45978165	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 7/P	1	Max Conc	0.5	22000	233.8418732	22.76181984	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 7/P	1	Max Conc	1	44000	123.5580444	16.92638206	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 8/P	1	Max Conc	0.5	22000	123.2503586	34.92853546	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 8/P	1	Max Conc	1	44000	72.55098724	24.91972923	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 9/P	1	Max Conc	0.5	22000	323.348114	33.07208252	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 9/P	1	Max Conc	1	44000	176.2289734	26.20293045	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 10/P	1	Max Conc	0.5	22000	385.7554016	55.43023682	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 10/P	1	Max Conc	1	44000	197.531601	44.36488342	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 11/P	1	Max Conc	0.5	22000	395.4202576	58.93733597	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 11/P	1	Max Conc	1	44000	209.3469391	46.24029922	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 12/P	1	Max Conc	0.5	22000	252.4334869	21.80597305	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (1hr)	102	Category 12/P	1	Max Conc	1	44000	138.8199158	16.6446991	0	6.221832275

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 1/P	1	Max Conc	0.5	22000	75.50701141	11.8428154	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 1/P	1	Max Conc	1	44000	45.74213028	7.215950966	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 2/P	1	Max Conc	0.5	22000	81.10948944	11.28310108	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 2/P	1	Max Conc	1	44000	50.47083282	7.722617626	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 3/P	1	Max Conc	0.5	22000	98.63183594	17.28071213	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 3/P	1	Max Conc	1	44000	60.11660385	12.59048748	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 4/P	1	Max Conc	0.5	22000	93.81892395	17.49118614	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 4/P	1	Max Conc	1	44000	57.49171448	12.21549702	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 5/P	1	Max Conc	0.5	22000	123.0575485	28.00388145	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 5/P	1	Max Conc	1	44000	73.1736145	21.30124855	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 6/P	1	Max Conc	0.5	22000	290.9917603	28.26685524	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 6/P	1	Max Conc	1	44000	159.7019348	22.02224922	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 7/P	1	Max Conc	0.5	22000	222.2220001	19.07465553	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 7/P	1	Max Conc	1	44000	119.4833679	14.18352222	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 8/P	1	Max Conc	0.5	22000	119.7378998	27.14838028	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 8/P	1	Max Conc	1	44000	71.90974426	20.29183006	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 9/P	1	Max Conc	0.5	22000	308.1724854	28.10357857	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 9/P	1	Max Conc	1	44000	170.215744	22.26514053	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 10/P	1	Max Conc	0.5	22000	363.5991516	44.68310165	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 10/P	1	Max Conc	1	44000	187.4591064	36.43172073	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 11/P	1	Max Conc	0.5	22000	369.865509	42.75408554	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 11/P	1	Max Conc	1	44000	198.1977081	34.67097473	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 12/P	1	Max Conc	0.5	22000	243.4559021	18.63788223	0	6.221832275
Peakshaver (1.1xOP)	P_INV006_102mm (2min)	102	Category 12/P	1	Max Conc	1	44000	135.7822266	14.2390213	0	6.221832275
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 1/P	1	Max Conc	0.5	22000	199.6315308	26.21847534	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 1/P	1	Max Conc	1	44000	101.7446823	9.902896881	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 2/P	1	Max Conc	0.5	22000	212.7009277	24.84950256	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 2/P	1	Max Conc	1	44000	110.0378494	9.667179108	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 3/P	1	Max Conc	0.5	22000	241.5353088	32.67609024	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 3/P	1	Max Conc	1	44000	107.3639908	10.87633419	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 4/P	1	Max Conc	0.5	22000	225.0791779	34.01440048	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 4/P	1	Max Conc	1	44000	99.62908936	11.11476517	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 5/P	1	Max Conc	0.5	22000	211.0156403	37.42359161	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 5/P	1	Max Conc	1	44000	103.2697067	11.94157028	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 6/P	1	Max Conc	0.5	22000	235.2669525	55.19855118	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 6/P	1	Max Conc	1	44000	106.5736008	16.25829697	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 7/P	1	Max Conc	0.5	22000	199.9623871	43.44144058	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 7/P	1	Max Conc	1	44000	113.6534576	14.74231625	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 8/P	1	Max Conc	0.5	22000	198.0522461	38.81288528	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 8/P	1	Max Conc	1	44000	96.87901306	12.58207703	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 9/P	1	Max Conc	0.5	22000	250.6161957	49.83971786	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 9/P	1	Max Conc	1	44000	112.996315	14.63561535	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 10/P	1	Max Conc	0.5	22000	216.5569153	52.17737961	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 10/P	1	Max Conc	1	44000	107.7939682	15.65556335	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 11/P	1	Max Conc	0.5	22000	205.3098755	57.61728287	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 11/P	1	Max Conc	1	44000	101.2594757	17.33464813	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 12/P	1	Max Conc	0.5	22000	215.9654388	39.65397263	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_25mm (all)	25	Category 12/P	1	Max Conc	1	44000	120.3852921	13.22590446	0	21.4102211
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 1/P	1	Max Conc	0.5	22000	413.3346558	70.55897522	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 1/P	1	Max Conc	1	44000	244.9565735	29.435009	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 2/P	1	Max Conc	0.5	22000	443.0996399	66.85422516	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 2/P	1	Max Conc	1	44000	262.4822083	27.72856712	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 3/P	1	Max Conc	0.5	22000	495.1956787	85.70272827	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 3/P	1	Max Conc	1	44000	234.4080048	31.02522469	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 4/P	1	Max Conc	0.5	22000	461.2342224	89.46855164	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 4/P	1	Max Conc	1	44000	218.6658325	33.09049988	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 5/P	1	Max Conc	0.5	22000	412.9538269	94.69503021	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 5/P	1	Max Conc	1	44000	214.9725342	33.76851654	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 6/P	1	Max Conc	0.5	22000	483.6068115	128.1197205	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 6/P	1	Max Conc	1	44000	223.0519257	44.79751968	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 7/P	1	Max Conc	0.5	22000	415.6386108	105.5083542	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 7/P	1	Max Conc	1	44000	252.2716064	42.42798996	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 8/P	1	Max Conc	0.5	22000	385.1711731	99.81938171	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 8/P	1	Max Conc	1	44000	201.0614929	35.8823204	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 9/P	1	Max Conc	0.5	22000	511.9245605	115.1442337	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 9/P	1	Max Conc	1	44000	236.6243591	39.99142075	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 10/P	1	Max Conc	0.5	22000	415.3930969	120.4622726	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 10/P	1	Max Conc	1	44000	218.4401093	42.11146164	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 11/P	1	Max Conc	0.5	22000	391.9029236	133.3504028	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 11/P	1	Max Conc	1	44000	204.5383759	46.85205841	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 12/P	1	Max Conc	0.5	22000	451.1859131	96.22144318	0	85.6408844
Peakshaver (1.1xOP)	P_INV008_50mm (all)	50	Category 12/P	1	Max Conc	1	44000	267.9674988	38.12864304	0	85.6408844

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 1/P	1	Max Conc	0.5	22000	412.9813538	104.9325638	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 1/P	1	Max Conc	1	44000	291.4710388	65.3299408	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 2/P	1	Max Conc	0.5	22000	441.0217896	99.79927826	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 2/P	1	Max Conc	1	44000	306.5898132	62.17613983	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 3/P	1	Max Conc	0.5	22000	552.6595459	176.2581482	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 3/P	1	Max Conc	1	44000	363.8297729	87.82846832	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 4/P	1	Max Conc	0.5	22000	511.9898071	184.0536194	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 4/P	1	Max Conc	1	44000	342.5466003	91.5240097	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 5/P	1	Max Conc	0.5	22000	719.3436279	267.9709473	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 5/P	1	Max Conc	1	44000	324.0523682	98.68016815	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 6/P	1	Max Conc	0.5	22000	506.8573914	332.7537231	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 6/P	1	Max Conc	1	44000	350.0791016	188.3605347	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 7/P	1	Max Conc	0.5	22000	391.1360474	179.6608276	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 7/P	1	Max Conc	1	44000	275.5667114	118.7685547	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 8/P	1	Max Conc	0.5	22000	659.0280762	274.6201782	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 8/P	1	Max Conc	1	44000	297.1329956	102.8229904	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 9/P	1	Max Conc	0.5	22000	558.2041016	303.1688843	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 9/P	1	Max Conc	1	44000	372.8733521	168.2956848	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 10/P	1	Max Conc	0.5	22000	778.0374756	532.9516602	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 10/P	1	Max Conc	1	44000	371.0113525	172.9898376	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 11/P	1	Max Conc	0.5	22000	689.3186646	572.9556885	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 11/P	1	Max Conc	1	44000	354.005249	193.9123535	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 12/P	1	Max Conc	0.5	22000	426.3583069	164.2302399	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (1hr)	85	Category 12/P	1	Max Conc	1	44000	290.7098083	108.0416641	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 1/P	1	Max Conc	0.5	22000	251.7891693	111.581604	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 1/P	1	Max Conc	1	44000	147.4737244	90.68491364	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 2/P	1	Max Conc	0.5	22000	266.2352905	109.2570572	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 2/P	1	Max Conc	1	44000	155.2755737	90.0838623	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 3/P	1	Max Conc	0.5	22000	320.5136108	151.8769379	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 3/P	1	Max Conc	1	44000	176.495163	128.3844604	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 4/P	1	Max Conc	0.5	22000	324.6056824	152.6600189	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 4/P	1	Max Conc	1	44000	187.8164063	127.9470062	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 5/P	1	Max Conc	0.5	22000	402.2381287	227.9219666	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 5/P	1	Max Conc	1	44000	214.4278107	195.4086456	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 6/P	1	Max Conc	0.5	22000	1044.069702	211.8761749	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 6/P	1	Max Conc	1	44000	559.37146	183.4063263	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 7/P	1	Max Conc	0.5	22000	813.076416	151.0113373	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 7/P	1	Max Conc	1	44000	442.6615295	128.6293793	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 8/P	1	Max Conc	0.5	22000	409.541748	222.5159149	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 8/P	1	Max Conc	1	44000	228.4076538	189.982666	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 9/P	1	Max Conc	0.5	22000	1056.320435	214.0257416	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 9/P	1	Max Conc	1	44000	547.3637695	186.0693359	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 10/P	1	Max Conc	0.5	22000	1196.939453	324.7257385	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 10/P	1	Max Conc	1	44000	544.2699585	284.4950867	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 11/P	1	Max Conc	0.5	22000	1290.529297	347.54245	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 11/P	1	Max Conc	1	44000	635.9934082	290.3390808	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 12/P	1	Max Conc	0.5	22000	864.2763672	148.5444641	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (1hr)	254	Category 12/P	1	Max Conc	1	44000	473.5822754	127.5813599	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 1/P	1	Max Conc	0.5	22000	65.62879181	5.987747669	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 1/P	1	Max Conc	1	44000	29.39285851	2.248345137	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 2/P	1	Max Conc	0.5	22000	72.60852814	5.979578018	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 2/P	1	Max Conc	1	44000	32.0733757	2.209750652	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 3/P	1	Max Conc	0.5	22000	71.06890869	7.536336422	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 3/P	1	Max Conc	1	44000	33.93481064	2.713309765	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 4/P	1	Max Conc	0.5	22000	64.46537018	7.468778133	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 4/P	1	Max Conc	1	44000	31.18808746	2.745954514	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 5/P	1	Max Conc	0.5	22000	71.92347717	8.769649506	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 5/P	1	Max Conc	1	44000	34.4875679	3.075706244	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 6/P	1	Max Conc	0.5	22000	78.45148468	11.95493698	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 6/P	1	Max Conc	1	44000	32.35030746	3.471305847	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 7/P	1	Max Conc	0.5	22000	67.18040466	9.258389473	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 7/P	1	Max Conc	1	44000	31.35944176	3.07343173	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 8/P	1	Max Conc	0.5	22000	67.24224854	8.592918396	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 8/P	1	Max Conc	1	44000	31.808218	3.097177029	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 9/P	1	Max Conc	0.5	22000	82.47711945	11.06423759	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 9/P	1	Max Conc	1	44000	35.07968903	3.376305342	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 10/P	1	Max Conc	0.5	22000	79.37708282	12.75583839	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 10/P	1	Max Conc	1	44000	35.59753799	3.662992954	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 11/P	1	Max Conc	0.5	22000	75.56774902	13.79047203	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 11/P	1	Max Conc	1	44000	32.8655014	3.732565403	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 12/P	1	Max Conc	0.5	22000	72.36473083	9.245744705	0	3.425635099
Peakshaver (1.1xOP)	P_INV008_10mm (all)	10	Category 12/P	1	Max Conc	1	44000	34.06255341	2.958752155	0	3.425635099

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 1/P	1	Max Conc	0.5	22000	412.9813538	104.9325638	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 1/P	1	Max Conc	1	44000	291.4710388	65.3299408	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 2/P	1	Max Conc	0.5	22000	441.0217896	99.79927826	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 2/P	1	Max Conc	1	44000	306.5898132	62.17613983	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 3/P	1	Max Conc	0.5	22000	552.6636963	176.2374268	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 3/P	1	Max Conc	1	44000	363.8297729	87.82846832	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 4/P	1	Max Conc	0.5	22000	511.9898071	184.0536194	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 4/P	1	Max Conc	1	44000	342.5466003	91.5240097	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 5/P	1	Max Conc	0.5	22000	616.6118774	273.0576782	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 5/P	1	Max Conc	1	44000	382.1660156	118.5034256	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 6/P	1	Max Conc	0.5	22000	502.9031982	332.7444458	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 6/P	1	Max Conc	1	44000	382.5941772	190.08078	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 7/P	1	Max Conc	0.5	22000	391.1360474	179.6608276	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 7/P	1	Max Conc	1	44000	275.5667114	118.7685547	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 8/P	1	Max Conc	0.5	22000	583.2314453	273.6976929	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 8/P	1	Max Conc	1	44000	360.2666321	110.9500504	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 9/P	1	Max Conc	0.5	22000	531.28479	303.1421509	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 9/P	1	Max Conc	1	44000	398.2963867	187.4886169	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 10/P	1	Max Conc	0.5	22000	538.0650635	378.3122864	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 10/P	1	Max Conc	1	44000	370.7779846	175.2554169	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 11/P	1	Max Conc	0.5	22000	506.2344971	425.0262451	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 11/P	1	Max Conc	1	44000	350.4373474	193.8757782	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 12/P	1	Max Conc	0.5	22000	426.3583069	164.2302399	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_85mm (2min)	85	Category 12/P	1	Max Conc	1	44000	290.7098083	108.0416641	0	96.88350677
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 1/P	1	Max Conc	0.5	22000	267.1582031	78.06124878	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 1/P	1	Max Conc	1	44000	161.3269043	65.20580292	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 2/P	1	Max Conc	0.5	22000	273.5786133	75.67630005	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 2/P	1	Max Conc	1	44000	162.084671	63.8710022	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 3/P	1	Max Conc	0.5	22000	326.4359131	114.0874557	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 3/P	1	Max Conc	1	44000	182.7888641	97.4848175	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 4/P	1	Max Conc	0.5	22000	332.0140686	113.9218292	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 4/P	1	Max Conc	1	44000	194.0856628	96.78596497	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 5/P	1	Max Conc	0.5	22000	405.002594	185.0570221	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 5/P	1	Max Conc	1	44000	221.4521484	159.5412445	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 6/P	1	Max Conc	0.5	22000	1051.283081	166.4579926	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 6/P	1	Max Conc	1	44000	565.6960449	144.7282257	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 7/P	1	Max Conc	0.5	22000	827.1940308	113.7371368	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 7/P	1	Max Conc	1	44000	454.1352539	97.66616821	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 8/P	1	Max Conc	0.5	22000	412.9986877	175.3973236	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 8/P	1	Max Conc	1	44000	232.9436646	150.7018127	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 9/P	1	Max Conc	0.5	22000	1043.112549	169.7228546	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 9/P	1	Max Conc	1	44000	547.9434204	148.1538086	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 10/P	1	Max Conc	0.5	22000	1147.460693	270.9518738	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 10/P	1	Max Conc	1	44000	522.3182373	239.1608124	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 11/P	1	Max Conc	0.5	22000	1238.757324	250.4070129	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 11/P	1	Max Conc	1	44000	615.0910034	219.181427	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 12/P	1	Max Conc	0.5	22000	873.1439209	113.7617798	0	98.73004913
Peakshaver (1.1xOP)	P_INV008_254mm (2min)	254	Category 12/P	1	Max Conc	1	44000	480.5787354	98.43222046	0	98.73004913
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 1/P	1	Max Conc	0.5	22000	48.9476738	3.275599957	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 1/P	1	Max Conc	1	44000	18.71597862	1.608742952	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 2/P	1	Max Conc	0.5	22000	51.60835648	3.384209394	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 2/P	1	Max Conc	1	44000	19.54517365	1.655896068	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 3/P	1	Max Conc	0.5	22000	51.45978928	3.737740755	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 3/P	1	Max Conc	1	44000	20.63869667	1.754621387	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 4/P	1	Max Conc	0.5	22000	49.15404129	3.61699152	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 4/P	1	Max Conc	1	44000	19.99832916	1.701920748	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 5/P	1	Max Conc	0.5	22000	50.82386017	4.000824451	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 5/P	1	Max Conc	1	44000	21.41240501	1.817654729	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 6/P	1	Max Conc	0.5	22000	50.05349731	3.978947878	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 6/P	1	Max Conc	1	44000	20.21106911	1.776048899	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 7/P	1	Max Conc	0.5	22000	50.55205536	3.724786043	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 7/P	1	Max Conc	1	44000	19.36304855	1.717482209	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 8/P	1	Max Conc	0.5	22000	48.71165466	3.874766827	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 8/P	1	Max Conc	1	44000	20.57393646	1.763924241	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 9/P	1	Max Conc	0.5	22000	52.60947418	4.115543365	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 9/P	1	Max Conc	1	44000	21.05857658	1.83247292	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 10/P	1	Max Conc	0.5	22000	51.8973999	4.308298588	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 10/P	1	Max Conc	1	44000	21.64577866	1.87721014	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 11/P	1	Max Conc	0.5	22000	49.62035751	4.162053108	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 11/P	1	Max Conc	1	44000	20.78691673	1.812865138	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 12/P	1	Max Conc	0.5	22000	53.34391403	3.852503538	0	4.90948534
Peakshaver (1.1xOP)	P_INV009_25mm	25	Category 12/P	1	Max Conc	1	44000	20.1108799	1.774794936	0	4.90948534

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 1/P	1	Max Conc	0.5	22000	117.9581146	7.12716198	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 1/P	1	Max Conc	1	44000	48.6236763	3.644890785	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 2/P	1	Max Conc	0.5	22000	126.3468704	7.373674393	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 2/P	1	Max Conc	1	44000	50.63873672	3.760462523	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 3/P	1	Max Conc	0.5	22000	118.4076996	8.104576111	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 3/P	1	Max Conc	1	44000	49.84045029	3.984396219	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 4/P	1	Max Conc	0.5	22000	111.0082474	7.81576395	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 4/P	1	Max Conc	1	44000	48.09143829	3.865948439	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 5/P	1	Max Conc	0.5	22000	113.0019302	8.672991753	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 5/P	1	Max Conc	1	44000	49.14616394	4.1366539	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 6/P	1	Max Conc	0.5	22000	112.2737885	8.44798851	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 6/P	1	Max Conc	1	44000	48.90291595	4.145760536	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 7/P	1	Max Conc	0.5	22000	118.2699051	7.87626791	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 7/P	1	Max Conc	1	44000	49.48229599	3.990911245	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 8/P	1	Max Conc	0.5	22000	106.4872513	8.35177803	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 8/P	1	Max Conc	1	44000	47.64041138	4.016930103	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 9/P	1	Max Conc	0.5	22000	120.4616928	8.772078514	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 9/P	1	Max Conc	1	44000	50.971138	4.273479939	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 10/P	1	Max Conc	0.5	22000	115.8341064	9.251882553	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 10/P	1	Max Conc	1	44000	50.42533112	4.378568172	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 11/P	1	Max Conc	0.5	22000	108.4094772	8.904272079	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 11/P	1	Max Conc	1	44000	48.57279587	4.249643803	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 12/P	1	Max Conc	0.5	22000	127.9457169	8.149151802	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_50mm	50	Category 12/P	1	Max Conc	1	44000	51.71589279	4.114233494	0	19.63794136
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 1/P	1	Max Conc	0.5	22000	90.84288788	5.59370327	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 1/P	1	Max Conc	1	44000	36.32968521	2.803232908	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 2/P	1	Max Conc	0.5	22000	96.70608521	5.78476572	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 2/P	1	Max Conc	1	44000	37.87226868	2.890429974	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 3/P	1	Max Conc	0.5	22000	91.76452637	6.354584694	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 3/P	1	Max Conc	1	44000	38.10581589	3.064932823	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 4/P	1	Max Conc	0.5	22000	86.62718964	6.149087429	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 4/P	1	Max Conc	1	44000	36.59377289	2.967395544	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 5/P	1	Max Conc	0.5	22000	88.14573669	6.795830727	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 5/P	1	Max Conc	1	44000	37.96543884	3.189407349	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 6/P	1	Max Conc	0.5	22000	87.92900848	6.705680847	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 6/P	1	Max Conc	1	44000	37.26299286	3.174638033	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 7/P	1	Max Conc	0.5	22000	91.86665344	6.258912563	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 7/P	1	Max Conc	1	44000	37.12063599	3.05453825	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 8/P	1	Max Conc	0.5	22000	83.65189362	6.57478714	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 8/P	1	Max Conc	1	44000	36.59862137	3.088385582	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 9/P	1	Max Conc	0.5	22000	93.53361511	6.931331635	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 9/P	1	Max Conc	1	44000	38.70886993	3.28145051	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 10/P	1	Max Conc	0.5	22000	90.30267334	7.29008007	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 10/P	1	Max Conc	1	44000	38.61674881	3.36111331	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 11/P	1	Max Conc	0.5	22000	85.35552216	7.04214716	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 11/P	1	Max Conc	1	44000	37.27651978	3.255464315	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 12/P	1	Max Conc	0.5	22000	98.43560028	6.47102356	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_40mm	40	Category 12/P	1	Max Conc	1	44000	38.63802338	3.15586257	0	12.56828117
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 1/P	1	Max Conc	0.5	22000	246.4152527	16.28085136	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 1/P	1	Max Conc	1	44000	127.9461746	9.122374535	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 2/P	1	Max Conc	0.5	22000	275.447937	16.9494133	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 2/P	1	Max Conc	1	44000	134.0912018	9.391234398	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 3/P	1	Max Conc	0.5	22000	254.5018158	18.54495621	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 3/P	1	Max Conc	1	44000	128.1948547	9.935522079	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 4/P	1	Max Conc	0.5	22000	230.5339203	17.7646389	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 4/P	1	Max Conc	1	44000	122.2135773	9.654492378	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 5/P	1	Max Conc	0.5	22000	242.6016541	19.79501915	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 5/P	1	Max Conc	1	44000	124.3817368	10.31935883	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 6/P	1	Max Conc	0.5	22000	227.2231598	18.29668236	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 6/P	1	Max Conc	1	44000	125.167244	10.24419403	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 7/P	1	Max Conc	0.5	22000	241.4722748	16.927948	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 7/P	1	Max Conc	1	44000	129.9529419	9.785255432	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 8/P	1	Max Conc	0.5	22000	220.0300446	18.90808487	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 8/P	1	Max Conc	1	44000	118.9663925	10.0282135	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 9/P	1	Max Conc	0.5	22000	253.2103577	19.11313438	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 9/P	1	Max Conc	1	44000	131.5193329	10.53900909	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 10/P	1	Max Conc	0.5	22000	242.411911	20.32263756	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 10/P	1	Max Conc	1	44000	128.2086487	10.88239193	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 11/P	1	Max Conc	0.5	22000	217.6569061	19.39224243	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 11/P	1	Max Conc	1	44000	122.1255798	10.56638432	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 12/P	1	Max Conc	0.5	22000	272.2503357	17.62397766	0	101.8980942
Peakshaver (1.1xOP)	P_INV009_135mm	135	Category 12/P	1	Max Conc	1	44000	136.5404205	10.06689644	0	101.8980942

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 1/P	1	Max Conc	0.5	22000	218.067215	15.74962616	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 1/P	1	Max Conc	1	44000	121.7772217	9.012742996	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 2/P	1	Max Conc	0.5	22000	239.978775	16.43808556	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 2/P	1	Max Conc	1	44000	128.8539429	9.294078827	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 3/P	1	Max Conc	0.5	22000	224.4030762	17.89707184	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 3/P	1	Max Conc	1	44000	123.2836533	9.830321312	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 4/P	1	Max Conc	0.5	22000	203.5371857	17.0975914	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 4/P	1	Max Conc	1	44000	117.338623	9.530977249	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 5/P	1	Max Conc	0.5	22000	214.1017914	19.01266098	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 5/P	1	Max Conc	1	44000	119.859169	10.20661163	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 6/P	1	Max Conc	0.5	22000	198.580658	17.59649277	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 6/P	1	Max Conc	1	44000	118.956749	10.10412025	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 7/P	1	Max Conc	0.5	22000	210.170639	16.37395668	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 7/P	1	Max Conc	1	44000	122.9509964	9.658724785	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 8/P	1	Max Conc	0.5	22000	195.4398346	18.11426544	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 8/P	1	Max Conc	1	44000	114.6740036	9.894733429	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 9/P	1	Max Conc	0.5	22000	219.9627075	18.39253426	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 9/P	1	Max Conc	1	44000	125.883461	10.41883183	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 10/P	1	Max Conc	0.5	22000	210.688324	19.4574337	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 10/P	1	Max Conc	1	44000	123.0235443	10.74624443	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 11/P	1	Max Conc	0.5	22000	191.4649506	18.54956436	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 11/P	1	Max Conc	1	44000	116.882225	10.4217453	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 12/P	1	Max Conc	0.5	22000	234.1022491	17.06045151	0	100.1203308
Peakshaver (1.1xOP)	P_INV009_406mm	406	Category 12/P	1	Max Conc	1	44000	130.5410614	9.95628643	0	100.1203308
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 1/P	1	Max Conc	0.5	22000	97.8975296	14.09584713	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 1/P	1	Max Conc	1	44000	31.75175858	3.130918503	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 2/P	1	Max Conc	0.5	22000	105.5976486	14.58085632	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 2/P	1	Max Conc	1	44000	54.80227661	4.761073589	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 3/P	1	Max Conc	0.5	22000	129.0946808	25.23715973	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 3/P	1	Max Conc	1	44000	64.06812286	7.212340355	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 4/P	1	Max Conc	0.5	22000	119.5325546	24.16251564	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 4/P	1	Max Conc	1	44000	40.77349854	4.416350365	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 5/P	1	Max Conc	0.5	22000	157.8513794	42.16709518	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 5/P	1	Max Conc	1	44000	71.86981201	12.25950909	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 6/P	1	Max Conc	0.5	22000	113.6870728	56.38509369	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 6/P	1	Max Conc	1	44000	73.19261932	19.03766251	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 7/P	1	Max Conc	0.5	22000	89.71910095	30.41310692	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 7/P	1	Max Conc	1	44000	60.07956696	12.25370121	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 8/P	1	Max Conc	0.5	22000	144.1082306	39.3839798	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 8/P	1	Max Conc	1	44000	57.98493958	9.019643784	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 9/P	1	Max Conc	0.5	22000	119.7314606	54.93080902	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 9/P	1	Max Conc	1	44000	79.86349487	23.63554573	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 10/P	1	Max Conc	0.5	22000	155.4191437	110.3367081	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 10/P	1	Max Conc	1	44000	93.85413361	34.72044754	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 11/P	1	Max Conc	0.5	22000	144.1959839	109.5132828	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 11/P	1	Max Conc	1	44000	80.43402863	30.27052307	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 12/P	1	Max Conc	0.5	22000	94.51422119	29.47894669	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_25mm (all)	25	Category 12/P	1	Max Conc	1	44000	64.2172699	14.27989864	0	5.791779041
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 1/P	1	Max Conc	0.5	22000	112.5761414	19.53569794	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 1/P	1	Max Conc	1	44000	74.1071167	10.56124592	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 2/P	1	Max Conc	0.5	22000	115.4876099	19.07653046	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 2/P	1	Max Conc	1	44000	78.77709961	11.57310104	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 3/P	1	Max Conc	0.5	22000	141.1855316	29.26018715	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 3/P	1	Max Conc	1	44000	94.32301331	19.59004402	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 4/P	1	Max Conc	0.5	22000	133.3077087	30.87389374	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 4/P	1	Max Conc	1	44000	89.65705109	19.03460884	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 5/P	1	Max Conc	0.5	22000	176.020752	53.64315796	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 5/P	1	Max Conc	1	44000	120.2076035	34.8392601	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 6/P	1	Max Conc	0.5	22000	242.9790955	58.21430588	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 6/P	1	Max Conc	1	44000	107.3165436	40.96826172	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 7/P	1	Max Conc	0.5	22000	185.8820801	34.64786148	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 7/P	1	Max Conc	1	44000	80.24106598	23.49333382	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 8/P	1	Max Conc	0.5	22000	162.7924194	56.75992966	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 8/P	1	Max Conc	1	44000	110.0485153	34.67256546	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 9/P	1	Max Conc	0.5	22000	286.6012878	52.97196579	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 9/P	1	Max Conc	1	44000	136.3774567	38.89632797	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 10/P	1	Max Conc	0.5	22000	314.8869324	97.35241699	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 10/P	1	Max Conc	1	44000	145.770813	71.29975891	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 11/P	1	Max Conc	0.5	22000	288.8110962	108.2614136	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 11/P	1	Max Conc	1	44000	129.1418457	76.66086578	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 12/P	1	Max Conc	0.5	22000	226.1552277	32.48914337	0	8.507342339
Peakshaver (1.1xOP)	P_INV010_50mm (all)	50	Category 12/P	1	Max Conc	1	44000	105.4957809	23.01255989	0	8.507342339

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 1/P	1	Max Conc	0.5	22000	87.59275818	18.79767799	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 1/P	1	Max Conc	1	44000	53.34813309	11.71538162	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 2/P	1	Max Conc	0.5	22000	91.43516541	18.37597275	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 2/P	1	Max Conc	1	44000	55.16363144	12.06180954	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 3/P	1	Max Conc	0.5	22000	116.0865555	25.77694321	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 3/P	1	Max Conc	1	44000	69.16848755	19.31447411	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 4/P	1	Max Conc	0.5	22000	110.6582489	27.870821	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 4/P	1	Max Conc	1	44000	67.3715744	19.35040092	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 5/P	1	Max Conc	0.5	22000	148.1390533	40.99956512	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 5/P	1	Max Conc	1	44000	86.43077087	32.11592484	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 6/P	1	Max Conc	0.5	22000	357.1838989	48.13146973	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 6/P	1	Max Conc	1	44000	194.1200104	36.36263657	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 7/P	1	Max Conc	0.5	22000	270.0570984	28.17763138	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 7/P	1	Max Conc	1	44000	143.6229858	21.60068703	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 8/P	1	Max Conc	0.5	22000	144.79776	44.07616425	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 8/P	1	Max Conc	1	44000	85.49933624	32.29125595	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 9/P	1	Max Conc	0.5	22000	374.4220276	39.82719421	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 9/P	1	Max Conc	1	44000	204.4185791	32.30036163	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 10/P	1	Max Conc	0.5	22000	443.8910828	70.78722382	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 10/P	1	Max Conc	1	44000	224.5757294	57.45473862	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 11/P	1	Max Conc	0.5	22000	457.1657104	74.36974335	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 11/P	1	Max Conc	1	44000	241.2723236	59.23867416	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 12/P	1	Max Conc	0.5	22000	294.4832764	26.75242805	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (1hr)	102	Category 12/P	1	Max Conc	1	44000	163.3100586	20.98349762	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 1/P	1	Max Conc	0.5	22000	19.99226952	2.322151899	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 1/P	1	Max Conc	1	44000	11.71648216	1.179743528	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 2/P	1	Max Conc	0.5	22000	27.54774475	2.733230352	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 2/P	1	Max Conc	1	44000	13.86193943	1.280531764	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 3/P	1	Max Conc	0.5	22000	21.15598679	2.700664997	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 3/P	1	Max Conc	1	44000	12.10916042	1.379188418	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 4/P	1	Max Conc	0.5	22000	13.93160248	2.009233713	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 4/P	1	Max Conc	1	44000	9.94435215	1.170407057	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 5/P	1	Max Conc	0.5	22000	23.06550217	2.668130159	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 5/P	1	Max Conc	1	44000	10.29337692	1.18050015	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 6/P	1	Max Conc	0.5	22000	15.7594614	2.021885157	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 6/P	1	Max Conc	1	44000	8.853384018	1.22860229	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 7/P	1	Max Conc	0.5	22000	17.47447586	2.876643896	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 7/P	1	Max Conc	1	44000	10.30191135	1.553886652	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 8/P	1	Max Conc	0.5	22000	11.24356651	1.546443939	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 8/P	1	Max Conc	1	44000	8.711117744	0.949268758	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 9/P	1	Max Conc	0.5	22000	34.89735413	4.554378986	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 9/P	1	Max Conc	1	44000	11.7144804	1.549321175	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 10/P	1	Max Conc	0.5	22000	38.50710297	7.869720459	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 10/P	1	Max Conc	1	44000	9.769860268	1.169632196	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 11/P	1	Max Conc	0.5	22000	13.66446686	1.296493292	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 11/P	1	Max Conc	1	44000	7.872079849	0.929032564	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 12/P	1	Max Conc	0.5	22000	29.86603165	4.088749886	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_10mm (all)	10	Category 12/P	1	Max Conc	1	44000	13.24994946	1.84502852	0	0.926684618
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 1/P	1	Max Conc	0.5	22000	86.9638443	14.64340401	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 1/P	1	Max Conc	1	44000	53.47668076	9.796769142	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 2/P	1	Max Conc	0.5	22000	92.36780548	14.07588005	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 2/P	1	Max Conc	1	44000	57.71282196	10.07927322	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 3/P	1	Max Conc	0.5	22000	114.7447128	21.2678318	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 3/P	1	Max Conc	1	44000	70.04669189	16.05075836	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 4/P	1	Max Conc	0.5	22000	109.4148407	21.37224388	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 4/P	1	Max Conc	1	44000	67.34458923	15.69006824	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 5/P	1	Max Conc	0.5	22000	144.5848236	33.25478363	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 5/P	1	Max Conc	1	44000	85.87223816	26.16411972	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 6/P	1	Max Conc	0.5	22000	339.6273804	33.64826965	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 6/P	1	Max Conc	1	44000	186.749527	26.89223862	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 7/P	1	Max Conc	0.5	22000	258.7861328	23.02430916	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 7/P	1	Max Conc	1	44000	140.5922699	17.71568298	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 8/P	1	Max Conc	0.5	22000	142.0633545	32.25944519	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 8/P	1	Max Conc	1	44000	85.07985687	25.04046249	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 9/P	1	Max Conc	0.5	22000	356.5318298	33.26334763	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 9/P	1	Max Conc	1	44000	197.5319672	27.06726837	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 10/P	1	Max Conc	0.5	22000	412.4714355	53.56576157	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 10/P	1	Max Conc	1	44000	207.9728088	44.47083664	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 11/P	1	Max Conc	0.5	22000	421.3948669	51.50527573	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 11/P	1	Max Conc	1	44000	223.3904572	42.40666962	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 12/P	1	Max Conc	0.5	22000	284.4393921	22.33120537	0	8.556695938
Peakshaver (1.1xOP)	P_INV010_102mm (2min)	102	Category 12/P	1	Max Conc	1	44000	159.6889801	17.56056976	0	8.556695938

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 1/P	1	Max Conc	0.5	22000	5.141946793	0.521993399	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 1/P	1	Max Conc	1	44000	3.192644119	0.293806136	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 2/P	1	Max Conc	0.5	22000	5.261202335	0.536338985	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 2/P	1	Max Conc	1	44000	3.273792744	0.302256972	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 3/P	1	Max Conc	0.5	22000	6.02276659	0.59959197	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 3/P	1	Max Conc	1	44000	3.582688332	0.324396878	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 4/P	1	Max Conc	0.5	22000	5.880965233	0.584038317	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 4/P	1	Max Conc	1	44000	3.498128653	0.31546998	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 5/P	1	Max Conc	0.5	22000	6.826447487	0.652440906	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 5/P	1	Max Conc	1	44000	3.86281085	0.340644389	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 6/P	1	Max Conc	0.5	22000	5.634269238	0.645825684	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 6/P	1	Max Conc	1	44000	3.41665864	0.334259421	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 7/P	1	Max Conc	0.5	22000	4.775185585	0.603169322	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 7/P	1	Max Conc	1	44000	3.056936026	0.321265846	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 8/P	1	Max Conc	0.5	22000	6.660580635	0.635565579	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 8/P	1	Max Conc	1	44000	3.771080256	0.331320941	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 9/P	1	Max Conc	0.5	22000	5.773071766	0.662540019	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 9/P	1	Max Conc	1	44000	3.496650457	0.343546718	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 10/P	1	Max Conc	0.5	22000	6.700123787	0.694549143	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 10/P	1	Max Conc	1	44000	3.818930626	0.352404833	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 11/P	1	Max Conc	0.5	22000	6.528440952	0.677072525	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 11/P	1	Max Conc	1	44000	3.725662947	0.342874914	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 12/P	1	Max Conc	0.5	22000	4.887664795	0.619629383	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_25mm	25	Category 12/P	1	Max Conc	1	44000	3.127536297	0.33047688	0	0.114641115
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 1/P	1	Max Conc	0.5	22000	6.127773285	0.691550195	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 1/P	1	Max Conc	1	44000	4.148294449	0.424607158	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 2/P	1	Max Conc	0.5	22000	6.265377522	0.711842358	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 2/P	1	Max Conc	1	44000	4.243200302	0.436730325	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 3/P	1	Max Conc	0.5	22000	7.42218256	0.852294207	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 3/P	1	Max Conc	1	44000	4.890397549	0.498874575	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 4/P	1	Max Conc	0.5	22000	7.248074055	0.829547286	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 4/P	1	Max Conc	1	44000	4.780026436	0.485292166	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 5/P	1	Max Conc	0.5	22000	8.886257172	0.996574998	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 5/P	1	Max Conc	1	44000	5.605469704	0.552826464	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 6/P	1	Max Conc	0.5	22000	6.73177433	1.001567483	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 6/P	1	Max Conc	1	44000	4.465342999	0.549898803	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 7/P	1	Max Conc	0.5	22000	5.339997768	0.876641691	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 7/P	1	Max Conc	1	44000	3.737327099	0.504303336	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 8/P	1	Max Conc	0.5	22000	8.641682625	0.968210042	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 8/P	1	Max Conc	1	44000	5.474649906	0.538389802	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 9/P	1	Max Conc	0.5	22000	6.965031624	1.029420614	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 9/P	1	Max Conc	1	44000	4.57793951	0.564979553	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 10/P	1	Max Conc	0.5	22000	9.481935501	1.143361926	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 10/P	1	Max Conc	1	44000	5.425733089	0.600136876	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 11/P	1	Max Conc	0.5	22000	8.946484566	1.10857594	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 11/P	1	Max Conc	1	44000	5.287780285	0.584146559	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 12/P	1	Max Conc	0.5	22000	5.475141048	0.899921954	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_50mm	50	Category 12/P	1	Max Conc	1	44000	3.824123621	0.518101931	0	0.127249643
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 1/P	1	Max Conc	0.5	22000	6.529371262	0.758295059	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 1/P	1	Max Conc	1	44000	4.514848232	0.492765874	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 2/P	1	Max Conc	0.5	22000	6.674870968	0.77969116	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 2/P	1	Max Conc	1	44000	4.620104313	0.506765425	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 3/P	1	Max Conc	0.5	22000	7.855228424	0.972649574	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 3/P	1	Max Conc	1	44000	5.433731079	0.609318674	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 4/P	1	Max Conc	0.5	22000	7.678794861	0.946224928	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 4/P	1	Max Conc	1	44000	5.318129539	0.592773914	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 5/P	1	Max Conc	0.5	22000	9.723704338	1.201554775	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 5/P	1	Max Conc	1	44000	6.401208878	0.713652432	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 6/P	1	Max Conc	0.5	22000	7.177758217	1.226843476	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 6/P	1	Max Conc	1	44000	4.737667084	0.720091045	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 7/P	1	Max Conc	0.5	22000	5.314287663	1.01922214	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 7/P	1	Max Conc	1	44000	3.825495005	0.626965702	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 8/P	1	Max Conc	0.5	22000	9.355721474	1.170613885	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 8/P	1	Max Conc	1	44000	6.272502899	0.694553316	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 9/P	1	Max Conc	0.5	22000	7.532975674	1.260035276	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 9/P	1	Max Conc	1	44000	4.844944	0.740184724	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 10/P	1	Max Conc	0.5	22000	11.03721905	1.477231026	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 10/P	1	Max Conc	1	44000	6.011283398	0.823132694	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 11/P	1	Max Conc	0.5	22000	10.27426529	1.438349485	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 11/P	1	Max Conc	1	44000	5.852667809	0.801282585	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 12/P	1	Max Conc	0.5	22000	5.442825794	1.047566772	0	0.123740375
Peakshaver (1.1xOP)	P_INV011_76mm	76	Category 12/P	1	Max Conc	1	44000	3.903759003	0.645372391	0	0.123740375

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 1/P	1	Max Conc	0.5	22000	1.944668651	0.166686282	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 1/P	1	Max Conc	1	44000	1.145253539	0.094310515	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 2/P	1	Max Conc	0.5	22000	1.990926027	0.171332821	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 2/P	1	Max Conc	1	44000	1.172291398	0.096888661	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 3/P	1	Max Conc	0.5	22000	2.199924469	0.191556692	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 3/P	1	Max Conc	1	44000	1.242825389	0.104092397	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 4/P	1	Max Conc	0.5	22000	2.14721179	0.186447173	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 4/P	1	Max Conc	1	44000	1.211842179	0.101201549	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 5/P	1	Max Conc	0.5	22000	2.40299201	0.208186686	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 5/P	1	Max Conc	1	44000	1.298444986	0.109209947	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 6/P	1	Max Conc	0.5	22000	2.037409544	0.206058875	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 6/P	1	Max Conc	1	44000	1.174501419	0.107250452	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 7/P	1	Max Conc	0.5	22000	1.786500812	0.192458838	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 7/P	1	Max Conc	1	44000	1.083686233	0.103187755	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 8/P	1	Max Conc	0.5	22000	2.343564034	0.202745318	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 8/P	1	Max Conc	1	44000	1.267947316	0.106300026	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 9/P	1	Max Conc	0.5	22000	2.088281631	0.211627319	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 9/P	1	Max Conc	1	44000	1.202346802	0.110272743	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 10/P	1	Max Conc	0.5	22000	2.336152792	0.221600026	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 10/P	1	Max Conc	1	44000	1.277962923	0.112959906	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 11/P	1	Max Conc	0.5	22000	2.277779818	0.215911686	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 11/P	1	Max Conc	1	44000	1.246871948	0.109985657	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 12/P	1	Max Conc	0.5	22000	1.829823256	0.197695762	0	0.01173925
Peakshaver (1.1xOP)	P_INV011_8mm	8	Category 12/P	1	Max Conc	1	44000	1.109442592	0.105935007	0	0.01173925
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 1/P	1	Max Conc	0.5	22000	19.53398514	1.640069008	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 1/P	1	Max Conc	1	44000	5.238064766	0.746571124	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 2/P	1	Max Conc	0.5	22000	20.30365944	1.698711991	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 2/P	1	Max Conc	1	44000	10.46179581	0.828247309	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 3/P	1	Max Conc	0.5	22000	31.40361404	2.707037687	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 3/P	1	Max Conc	1	44000	0.784790397	0.149832562	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 4/P	1	Max Conc	0.5	22000	0.893158019	0.171246961	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 4/P	1	Max Conc	1	44000	0.752466917	0.143938527	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 5/P	1	Max Conc	0.5	22000	46.63956451	4.869962692	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 5/P	1	Max Conc	1	44000	0.647409022	0.112262636	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 6/P	1	Max Conc	0.5	22000	79.99942017	5.842134476	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 6/P	1	Max Conc	1	44000	0.602921963	0.100545742	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 7/P	1	Max Conc	0.5	22000	43.05143738	2.075139999	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 7/P	1	Max Conc	1	44000	0.818394005	0.173622981	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 8/P	1	Max Conc	0.5	22000	41.73033524	4.605723858	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 8/P	1	Max Conc	1	44000	0.602140248	0.089219451	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 9/P	1	Max Conc	0.5	22000	92.69884491	5.566855431	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 9/P	1	Max Conc	1	44000	47.19668579	2.777173281	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 10/P	1	Max Conc	0.5	22000	109.3050003	9.567380905	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 10/P	1	Max Conc	1	44000	53.23316193	5.413209915	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 11/P	1	Max Conc	0.5	22000	102.7475204	9.623643875	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 11/P	1	Max Conc	1	44000	47.78889847	4.701006413	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 12/P	1	Max Conc	0.5	22000	70.66960144	3.430417299	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (1hr)	25	Category 12/P	1	Max Conc	1	44000	28.45736313	0.760857522	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 1/P	1	Max Conc	0.5	22000	27.07702827	2.068547249	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 1/P	1	Max Conc	1	44000	4.64976263	0.920090437	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 2/P	1	Max Conc	0.5	22000	27.7458744	2.340840816	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 2/P	1	Max Conc	1	44000	15.39200306	1.054226637	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 3/P	1	Max Conc	0.5	22000	39.62915421	3.908994913	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 3/P	1	Max Conc	1	44000	0.8198241	0.158392414	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 4/P	1	Max Conc	0.5	22000	35.606987	2.918129444	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 4/P	1	Max Conc	1	44000	0.793015897	0.153337687	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 5/P	1	Max Conc	0.5	22000	55.26674652	6.642226219	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 5/P	1	Max Conc	1	44000	31.28680801	2.792165041	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 6/P	1	Max Conc	0.5	22000	101.3142853	8.023024559	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 6/P	1	Max Conc	1	44000	46.7767334	2.812767506	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 7/P	1	Max Conc	0.5	22000	67.12447357	4.687428951	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 7/P	1	Max Conc	1	44000	0.837722957	0.181945443	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 8/P	1	Max Conc	0.5	22000	51.23920822	6.63960886	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 8/P	1	Max Conc	1	44000	0.626611888	0.106501803	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 9/P	1	Max Conc	0.5	22000	115.1875305	7.509333134	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 9/P	1	Max Conc	1	44000	61.18667603	4.349048138	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 10/P	1	Max Conc	0.5	22000	133.0927734	12.64186382	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 10/P	1	Max Conc	1	44000	69.36128998	7.658835411	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 11/P	1	Max Conc	0.5	22000	128.3821716	12.82944107	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 11/P	1	Max Conc	1	44000	63.0566597	7.604032993	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 12/P	1	Max Conc	0.5	22000	83.7428894	4.878050804	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (1hr)	30	Category 12/P	1	Max Conc	1	44000	35.80485535	1.174485564	0	0.761256814

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 1/P	1	Max Conc	0.5	22000	88.61711121	15.83840179	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 1/P	1	Max Conc	1	44000	54.37713242	10.46050262	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 2/P	1	Max Conc	0.5	22000	93.73573303	14.99402237	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 2/P	1	Max Conc	1	44000	58.29494476	10.74524498	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 3/P	1	Max Conc	0.5	22000	117.4765701	22.48125076	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 3/P	1	Max Conc	1	44000	71.4900589	17.03821754	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 4/P	1	Max Conc	0.5	22000	112.041687	23.4417572	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 4/P	1	Max Conc	1	44000	68.4903717	16.68789482	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 5/P	1	Max Conc	0.5	22000	148.3688507	35.16761017	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 5/P	1	Max Conc	1	44000	87.49816895	27.74440193	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 6/P	1	Max Conc	0.5	22000	347.7055054	39.85592651	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 6/P	1	Max Conc	1	44000	191.3451843	30.83035851	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 7/P	1	Max Conc	0.5	22000	266.934906	24.96705246	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 7/P	1	Max Conc	1	44000	144.7516785	18.77881813	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 8/P	1	Max Conc	0.5	22000	145.2001953	34.58463287	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 8/P	1	Max Conc	1	44000	86.7628479	26.62213516	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 9/P	1	Max Conc	0.5	22000	366.0113525	35.008461	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 9/P	1	Max Conc	1	44000	201.8634491	28.59420013	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 10/P	1	Max Conc	0.5	22000	424.2752686	56.40779114	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 10/P	1	Max Conc	1	44000	214.1743317	46.90781021	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 11/P	1	Max Conc	0.5	22000	435.2198486	57.7659111	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 11/P	1	Max Conc	1	44000	230.5948944	46.9251442	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 12/P	1	Max Conc	0.5	22000	291.346405	23.55559349	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (1hr)	102	Category 12/P	1	Max Conc	1	44000	163.8105927	18.58691788	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 1/P	1	Max Conc	0.5	22000	211.5400391	48.20230484	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 1/P	1	Max Conc	1	44000	127.7440796	39.85593796	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 2/P	1	Max Conc	0.5	22000	231.2623291	49.49432755	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 2/P	1	Max Conc	1	44000	140.6496277	41.41319275	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 3/P	1	Max Conc	0.5	22000	253.7874603	69.57476044	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 3/P	1	Max Conc	1	44000	151.5940247	58.26823425	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 4/P	1	Max Conc	0.5	22000	259.1080017	73.9364624	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 4/P	1	Max Conc	1	44000	156.4972076	61.85256195	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 5/P	1	Max Conc	0.5	22000	372.6118469	144.5808716	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 5/P	1	Max Conc	1	44000	214.1773834	122.730835	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 6/P	1	Max Conc	0.5	22000	817.199646	126.2871704	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 6/P	1	Max Conc	1	44000	446.5348511	108.5684662	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 7/P	1	Max Conc	0.5	22000	638.286438	75.54216766	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 7/P	1	Max Conc	1	44000	354.7762146	64.24300385	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 8/P	1	Max Conc	0.5	22000	359.5348511	129.8653259	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 8/P	1	Max Conc	1	44000	211.5844574	109.9474258	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 9/P	1	Max Conc	0.5	22000	847.5206909	134.4344635	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 9/P	1	Max Conc	1	44000	457.2994385	115.8137665	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 10/P	1	Max Conc	0.5	22000	922.7645264	212.2833405	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 10/P	1	Max Conc	1	44000	445.8841553	184.111496	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 11/P	1	Max Conc	0.5	22000	988.2158813	195.7826538	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 11/P	1	Max Conc	1	44000	513.9404907	169.5590668	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 12/P	1	Max Conc	0.5	22000	612.34552	55.97004318	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (1hr)	305	Category 12/P	1	Max Conc	1	44000	340.7209167	47.10303497	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 1/P	1	Max Conc	0.5	22000	2.489938974	0.440966129	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 1/P	1	Max Conc	1	44000	2.441107273	0.243482888	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 2/P	1	Max Conc	0.5	22000	2.486408472	0.452018708	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 2/P	1	Max Conc	1	44000	2.442550659	0.251063436	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 3/P	1	Max Conc	0.5	22000	1.437598825	0.148957148	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 3/P	1	Max Conc	1	44000	0.688933074	0.101337038	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 4/P	1	Max Conc	0.5	22000	4.733438969	0.386771441	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 4/P	1	Max Conc	1	44000	0.609297633	0.078011513	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 5/P	1	Max Conc	0.5	22000	0.597023785	0.082214579	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 5/P	1	Max Conc	1	44000	0.498100489	0.068849869	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 6/P	1	Max Conc	0.5	22000	0.578400016	0.088609584	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 6/P	1	Max Conc	1	44000	0.508788049	0.076035112	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 7/P	1	Max Conc	0.5	22000	11.13024998	0.662248433	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 7/P	1	Max Conc	1	44000	2.681084871	0.251818269	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 8/P	1	Max Conc	0.5	22000	0.576845944	0.077813484	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 8/P	1	Max Conc	1	44000	0.4926624	0.066132687	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 9/P	1	Max Conc	0.5	22000	0.602351248	0.093612917	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 9/P	1	Max Conc	1	44000	0.509582937	0.08075738	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 10/P	1	Max Conc	0.5	22000	0.487648666	0.064624168	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 10/P	1	Max Conc	1	44000	0.447449267	0.060532749	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 11/P	1	Max Conc	0.5	22000	0.480035454	0.063451909	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 11/P	1	Max Conc	1	44000	0.434006751	0.057219394	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 12/P	1	Max Conc	0.5	22000	1.871487737	0.536734104	0	0.084584087
Peakshaver (1.1xOP)	P_INV012_10mm (all)	10	Category 12/P	1	Max Conc	1	44000	1.796160936	0.215420365	0	0.084584087

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 1/P	1	Max Conc	0.5	22000	19.40763092	1.636838436	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 1/P	1	Max Conc	1	44000	5.232380867	0.740633965	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 2/P	1	Max Conc	0.5	22000	20.34599113	1.701619983	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 2/P	1	Max Conc	1	44000	10.50230122	0.835297406	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 3/P	1	Max Conc	0.5	22000	31.35071754	2.682315111	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 3/P	1	Max Conc	1	44000	0.784790397	0.149832562	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 4/P	1	Max Conc	0.5	22000	2.344670534	0.214889273	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 4/P	1	Max Conc	1	44000	0.752466917	0.143938527	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 5/P	1	Max Conc	0.5	22000	46.73506546	4.822984695	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 5/P	1	Max Conc	1	44000	22.5310688	0.394753009	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 6/P	1	Max Conc	0.5	22000	79.90422821	5.800477982	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 6/P	1	Max Conc	1	44000	0.602921963	0.100545742	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 7/P	1	Max Conc	0.5	22000	42.84805298	2.024421692	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 7/P	1	Max Conc	1	44000	2.454368591	0.503569603	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 8/P	1	Max Conc	0.5	22000	41.27897263	4.462117195	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 8/P	1	Max Conc	1	44000	0.602140248	0.089219451	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 9/P	1	Max Conc	0.5	22000	92.09516144	5.459165096	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 9/P	1	Max Conc	1	44000	46.83293915	2.751837254	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 10/P	1	Max Conc	0.5	22000	108.2026291	8.05689621	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 10/P	1	Max Conc	1	44000	51.34577179	5.325684071	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 11/P	1	Max Conc	0.5	22000	102.3886032	9.523126602	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 11/P	1	Max Conc	1	44000	45.55551147	4.685011387	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 12/P	1	Max Conc	0.5	22000	70.27828217	3.367013216	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_25mm (10min)	25	Category 12/P	1	Max Conc	1	44000	29.13165665	1.100339174	0	0.528650582
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 1/P	1	Max Conc	0.5	22000	26.57478523	2.047822237	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 1/P	1	Max Conc	1	44000	4.647862911	0.905100346	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 2/P	1	Max Conc	0.5	22000	27.31849289	2.294108629	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 2/P	1	Max Conc	1	44000	15.11903381	1.042752147	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 3/P	1	Max Conc	0.5	22000	39.0344429	3.733312368	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 3/P	1	Max Conc	1	44000	0.8198241	0.158392414	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 4/P	1	Max Conc	0.5	22000	35.59989548	2.866335154	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 4/P	1	Max Conc	1	44000	0.793015897	0.153337687	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 5/P	1	Max Conc	0.5	22000	54.92818451	6.400805473	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 5/P	1	Max Conc	1	44000	31.26055908	2.743241549	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 6/P	1	Max Conc	0.5	22000	99.32355499	7.711075783	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 6/P	1	Max Conc	1	44000	45.07647705	2.521187544	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 7/P	1	Max Conc	0.5	22000	66.83278656	4.582357407	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 7/P	1	Max Conc	1	44000	0.837722957	0.181945443	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 8/P	1	Max Conc	0.5	22000	51.26617813	6.539517403	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 8/P	1	Max Conc	1	44000	0.626611888	0.106501803	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 9/P	1	Max Conc	0.5	22000	112.5304413	7.266850471	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 9/P	1	Max Conc	1	44000	59.86397171	4.196675777	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 10/P	1	Max Conc	0.5	22000	137.5736389	12.13904476	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 10/P	1	Max Conc	1	44000	69.70613861	7.417131424	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 11/P	1	Max Conc	0.5	22000	129.6731567	12.35277939	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 11/P	1	Max Conc	1	44000	63.30742645	7.634513855	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 12/P	1	Max Conc	0.5	22000	83.01026154	4.766395092	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_30mm (10min)	30	Category 12/P	1	Max Conc	1	44000	35.52519989	1.144338012	0	0.761256814
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 1/P	1	Max Conc	0.5	22000	40.98918152	3.410203218	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 1/P	1	Max Conc	1	44000	2.365462542	0.986567855	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 2/P	1	Max Conc	0.5	22000	44.34288025	4.159199238	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 2/P	1	Max Conc	1	44000	2.376156569	1.321404696	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 3/P	1	Max Conc	0.5	22000	62.27576447	6.019749641	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 3/P	1	Max Conc	1	44000	39.22063446	3.011324406	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 4/P	1	Max Conc	0.5	22000	54.62272644	6.002398491	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 4/P	1	Max Conc	1	44000	1.1826998	0.332732052	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 5/P	1	Max Conc	0.5	22000	80.92282867	8.97860527	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 5/P	1	Max Conc	1	44000	52.56489182	5.480585575	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 6/P	1	Max Conc	0.5	22000	120.314476	11.35126019	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 6/P	1	Max Conc	1	44000	57.28581619	6.052625179	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 7/P	1	Max Conc	0.5	22000	94.81135559	7.571012497	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 7/P	1	Max Conc	1	44000	41.79665375	2.538011789	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 8/P	1	Max Conc	0.5	22000	72.06788635	9.78361702	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 8/P	1	Max Conc	1	44000	43.02820969	2.56750679	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 9/P	1	Max Conc	0.5	22000	138.8475494	9.631635666	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 9/P	1	Max Conc	1	44000	70.71395874	6.790185928	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 10/P	1	Max Conc	0.5	22000	157.8343048	16.22878647	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 10/P	1	Max Conc	1	44000	72.14067078	11.51480293	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 11/P	1	Max Conc	0.5	22000	131.2293854	18.85072136	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 11/P	1	Max Conc	1	44000	64.30264282	10.93564034	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 12/P	1	Max Conc	0.5	22000	115.1124191	7.144408703	0	8.800128937
Peakshaver (1.1xOP)	P_INV012_102mm (2min)	102	Category 12/P	1	Max Conc	1	44000	60.84009171	4.352688789	0	8.800128937

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 1/P	1	Max Conc	0.5	22000	88.61413574	12.21365547	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 1/P	1	Max Conc	1	44000	58.2768364	7.356885433	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 2/P	1	Max Conc	0.5	22000	92.3969574	11.57264709	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 2/P	1	Max Conc	1	44000	60.48208618	7.89224577	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 3/P	1	Max Conc	0.5	22000	112.0101166	15.17362022	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 3/P	1	Max Conc	1	44000	74.31251526	10.90419769	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 4/P	1	Max Conc	0.5	22000	105.3023987	16.4691143	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 4/P	1	Max Conc	1	44000	69.37738037	10.80739021	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 5/P	1	Max Conc	0.5	22000	129.2844086	24.32878685	13.233	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 5/P	1	Max Conc	1	44000	85.61841583	16.60072136	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 6/P	1	Max Conc	0.5	22000	210.5018921	29.23424339	13.2	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 6/P	1	Max Conc	1	44000	100.6705093	20.55132294	0.10734	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 7/P	1	Max Conc	0.5	22000	190.1928253	19.85502052	1.75743	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 7/P	1	Max Conc	1	44000	93.99039459	13.89513206	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 8/P	1	Max Conc	0.5	22000	118.3130035	26.98995399	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 8/P	1	Max Conc	1	44000	77.36788177	15.89667988	0	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 9/P	1	Max Conc	0.5	22000	240.4744568	25.65133286	10.2218	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 9/P	1	Max Conc	1	44000	120.1114044	19.43610764	17.2218	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 10/P	1	Max Conc	0.5	22000	239.9759827	42.3826828	9.39466	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 10/P	1	Max Conc	1	44000	107.6497879	30.95679665	11.0724	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 11/P	1	Max Conc	0.5	22000	204.4133453	47.74789047	11.2263	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 11/P	1	Max Conc	1	44000	86.79533386	32.18010712	14.8804	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 12/P	1	Max Conc	0.5	22000	223.4839935	17.40397644	1.81014	78.68435669
Peakshaver (1.1xOP)	P_INV012_305mm (2min)	305	Category 12/P	1	Max Conc	1	44000	120.761673	13.25048256	0	78.68435669
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 1/P	1	Max Conc	0.5	22000	8.064558983	0.864440978	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 1/P	1	Max Conc	1	44000	4.824249744	0.465764314	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 2/P	1	Max Conc	0.5	22000	8.293404579	0.888899684	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 2/P	1	Max Conc	1	44000	4.966149807	0.477823943	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 3/P	1	Max Conc	0.5	22000	9.548561096	0.961915612	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 3/P	1	Max Conc	1	44000	5.371628761	0.498965919	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 4/P	1	Max Conc	0.5	22000	9.224773407	0.934467971	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 4/P	1	Max Conc	1	44000	5.199774265	0.486301899	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 5/P	1	Max Conc	0.5	22000	10.83430958	1.015258312	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 5/P	1	Max Conc	1	44000	5.6865592	0.51342988	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 6/P	1	Max Conc	0.5	22000	9.434034348	0.995028615	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 6/P	1	Max Conc	1	44000	5.142540455	0.502702773	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 7/P	1	Max Conc	0.5	22000	7.998766422	0.952978075	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 7/P	1	Max Conc	1	44000	4.723081112	0.492116213	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 8/P	1	Max Conc	0.5	22000	10.43652439	0.988061666	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 8/P	1	Max Conc	1	44000	5.521527767	0.50070411	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 9/P	1	Max Conc	0.5	22000	9.817417145	1.023560643	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 9/P	1	Max Conc	1	44000	5.316193104	0.516057134	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 10/P	1	Max Conc	0.5	22000	11.05642223	1.051987648	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 10/P	1	Max Conc	1	44000	5.664993286	0.523248613	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 11/P	1	Max Conc	0.5	22000	10.63562584	1.022643328	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 11/P	1	Max Conc	1	44000	5.499329567	0.510441959	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 12/P	1	Max Conc	0.5	22000	8.332455635	0.979397774	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_25mm	25	Category 12/P	1	Max Conc	1	44000	4.868769169	0.504592299	0	0.453455865
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 1/P	1	Max Conc	0.5	22000	8.205568314	0.90708071	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 1/P	1	Max Conc	1	44000	4.97893095	0.494240403	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 2/P	1	Max Conc	0.5	22000	8.442251205	0.932055891	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 2/P	1	Max Conc	1	44000	5.121520042	0.506397605	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 3/P	1	Max Conc	0.5	22000	9.944406509	1.018786907	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 3/P	1	Max Conc	1	44000	5.605884075	0.532586336	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 4/P	1	Max Conc	0.5	22000	9.541635513	0.99089241	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 4/P	1	Max Conc	1	44000	5.436223507	0.519403636	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 5/P	1	Max Conc	0.5	22000	11.42492867	1.086649179	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 5/P	1	Max Conc	1	44000	5.983081818	0.550101399	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 6/P	1	Max Conc	0.5	22000	9.885987282	1.064175487	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 6/P	1	Max Conc	1	44000	5.37059164	0.539990664	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 7/P	1	Max Conc	0.5	22000	8.279172897	1.011715651	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 7/P	1	Max Conc	1	44000	4.862052917	0.526013851	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 8/P	1	Max Conc	0.5	22000	10.96274662	1.054862499	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 8/P	1	Max Conc	1	44000	5.792804718	0.536462545	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 9/P	1	Max Conc	0.5	22000	10.33516121	1.093269706	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 9/P	1	Max Conc	1	44000	5.542580605	0.553445339	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 10/P	1	Max Conc	0.5	22000	11.71439075	1.132189393	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 10/P	1	Max Conc	1	44000	5.952218056	0.562596917	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 11/P	1	Max Conc	0.5	22000	11.24374104	1.099897385	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 11/P	1	Max Conc	1	44000	5.768355846	0.548408985	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 12/P	1	Max Conc	0.5	22000	8.635515213	1.038909197	0	0.444981813
Peakshaver (1.1xOP)	P_INV013_50mm	50	Category 12/P	1	Max Conc	1	44000	5.007226467	0.538974941	0	0.444981813

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 1/P	1	Max Conc	0.5	22000	9.602584839	1.376062632	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 1/P	1	Max Conc	1	44000	6.486409664	0.871498108	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 2/P	1	Max Conc	0.5	22000	10.19212437	1.419216037	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 2/P	1	Max Conc	1	44000	6.695510864	0.895434141	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 3/P	1	Max Conc	0.5	22000	11.94550705	1.700770259	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 3/P	1	Max Conc	1	44000	7.758707047	1.035354018	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 4/P	1	Max Conc	0.5	22000	11.09197617	1.642419219	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 4/P	1	Max Conc	1	44000	7.472963333	1.007565737	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 5/P	1	Max Conc	0.5	22000	12.37323093	1.889976859	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 5/P	1	Max Conc	1	44000	8.70843029	1.146692395	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 6/P	1	Max Conc	0.5	22000	10.59244251	1.971469164	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 6/P	1	Max Conc	1	44000	7.175134659	1.169504881	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 7/P	1	Max Conc	0.5	22000	9.947623253	1.767055631	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 7/P	1	Max Conc	1	44000	5.86990118	1.061836123	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 8/P	1	Max Conc	0.5	22000	11.6888876	1.798995376	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 8/P	1	Max Conc	1	44000	8.258992195	1.110674381	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 9/P	1	Max Conc	0.5	22000	11.48353195	2.049911737	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 9/P	1	Max Conc	1	44000	7.501093388	1.201693654	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 10/P	1	Max Conc	0.5	22000	11.9299612	2.096393824	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 10/P	1	Max Conc	1	44000	8.634141922	1.264227033	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 11/P	1	Max Conc	0.5	22000	11.08829117	1.997021079	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 11/P	1	Max Conc	1	44000	8.143383026	1.224973679	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 12/P	1	Max Conc	0.5	22000	10.74447823	1.819781542	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_152mm	152	Category 12/P	1	Max Conc	1	44000	6.116533279	1.093431354	0	0.440009445
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 1/P	1	Max Conc	0.5	22000	8.134946823	0.868798673	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 1/P	1	Max Conc	1	44000	4.871660233	0.467464864	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 2/P	1	Max Conc	0.5	22000	8.359707832	0.893123209	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 2/P	1	Max Conc	1	44000	5.008516312	0.479415566	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 3/P	1	Max Conc	0.5	22000	9.640681267	0.966780186	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 3/P	1	Max Conc	1	44000	5.4217906	0.500902653	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 4/P	1	Max Conc	0.5	22000	9.295054436	0.9395805	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 4/P	1	Max Conc	1	44000	5.25553894	0.487887353	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 5/P	1	Max Conc	0.5	22000	10.94811058	1.021115422	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 5/P	1	Max Conc	1	44000	5.734232903	0.51514405	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 6/P	1	Max Conc	0.5	22000	9.54249382	1.000369191	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 6/P	1	Max Conc	1	44000	5.198469162	0.504732192	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 7/P	1	Max Conc	0.5	22000	8.100516319	0.957707286	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 7/P	1	Max Conc	1	44000	4.770102024	0.493847221	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 8/P	1	Max Conc	0.5	22000	10.55323696	0.992477417	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 8/P	1	Max Conc	1	44000	5.57429409	0.502525806	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 9/P	1	Max Conc	0.5	22000	9.926580429	1.028682232	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 9/P	1	Max Conc	1	44000	5.366373539	0.518036604	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 10/P	1	Max Conc	0.5	22000	11.15135002	1.057963133	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 10/P	1	Max Conc	1	44000	5.712745667	0.525012553	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 11/P	1	Max Conc	0.5	22000	10.73056412	1.027085185	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 11/P	1	Max Conc	1	44000	5.552030563	0.512287498	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 12/P	1	Max Conc	0.5	22000	8.409628868	0.983848631	0	0.458678603
Peakshaver (1.1xOP)	P_INV013_10mm	10	Category 12/P	1	Max Conc	1	44000	4.910831928	0.506226003	0	0.458678603
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 1/P	1	Max Conc	0.5	22000	60.95391846	8.207752228	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 1/P	1	Max Conc	1	44000	2.869455814	0.7408126	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 2/P	1	Max Conc	0.5	22000	61.85523987	8.083898544	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 2/P	1	Max Conc	1	44000	36.77557755	3.500014782	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 3/P	1	Max Conc	0.5	22000	79.11667633	11.72210979	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 3/P	1	Max Conc	1	44000	48.39399338	7.544332981	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 4/P	1	Max Conc	0.5	22000	75.7287674	12.2596159	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 4/P	1	Max Conc	1	44000	45.81927109	6.99495554	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 5/P	1	Max Conc	0.5	22000	102.2214737	17.58771133	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 5/P	1	Max Conc	1	44000	62.81945419	12.71678066	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 6/P	1	Max Conc	0.5	22000	210.9044952	20.13533783	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 6/P	1	Max Conc	1	44000	109.1353226	14.65625381	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 7/P	1	Max Conc	0.5	22000	155.5426788	13.77109528	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 7/P	1	Max Conc	1	44000	79.19173431	9.043035507	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 8/P	1	Max Conc	0.5	22000	98.39400482	18.4222374	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 8/P	1	Max Conc	1	44000	60.50049591	12.74094296	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 9/P	1	Max Conc	0.5	22000	231.9561615	18.58506775	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 9/P	1	Max Conc	1	44000	125.082428	14.08205509	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 10/P	1	Max Conc	0.5	22000	249.3284912	29.75435448	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 10/P	1	Max Conc	1	44000	114.9084702	23.49437332	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 11/P	1	Max Conc	0.5	22000	253.7268829	32.02531433	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 11/P	1	Max Conc	1	44000	122.8591003	24.61921501	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 12/P	1	Max Conc	0.5	22000	177.3548279	12.7256279	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (1m)	50	Category 12/P	1	Max Conc	1	44000	95.95847321	9.015349388	0	2.990689516

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 1/P	1	Max Conc	0.5	22000	9199.123047	4193.211914	-569.84	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 1/P	1	Max Conc	1	44000	5360.515625	3461.470459	-490.87	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 2/P	1	Max Conc	0.5	22000	9250.708008	3062.05127	-579.91	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 2/P	1	Max Conc	1	44000	4669.934082	2483.654297	-501.69	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 3/P	1	Max Conc	0.5	22000	14576.56445	6215.026367	-856.41	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 3/P	1	Max Conc	1	44000	7101.484863	5516.777832	-723.77	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 4/P	1	Max Conc	0.5	22000	14127.81934	6177.376953	-803.3	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 4/P	1	Max Conc	1	44000	6974.929688	5459.467285	-676.41	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 5/P	1	Max Conc	0.5	22000	12988.86914	5141.527344	-1764.2	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 5/P	1	Max Conc	1	44000	5257.740234	4547.741699	-1478.3	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 6/P	1	Max Conc	0.5	22000	49881.54297	7138.447754	-1149.2	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 6/P	1	Max Conc	1	44000	26109.42969	6363.41748	-940.13	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 7/P	1	Max Conc	0.5	22000	37609.66406	5033.553711	-678.63	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 7/P	1	Max Conc	1	44000	16242.50586	4392.404297	-582.87	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 8/P	1	Max Conc	0.5	22000	13058.8916	5187.407227	-1743.1	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 8/P	1	Max Conc	1	44000	5663.186035	4563.853027	-1445.2	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 9/P	1	Max Conc	0.5	22000	49137.47656	7402.722656	-1193.2	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 9/P	1	Max Conc	1	44000	20539.66992	6617.274902	-982.5	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 10/P	1	Max Conc	0.5	22000	45050.76172	6226.380371	-2408.9	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 10/P	1	Max Conc	1	44000	12603.06934	5474.413086	-2048.1	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 11/P	1	Max Conc	0.5	22000	44145.02734	6445.100098	-2376.8	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 11/P	1	Max Conc	1	44000	12682.31445	5696.745117	-2017.5	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 12/P	1	Max Conc	0.5	22000	38524.74609	4868.328613	-708.39	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (1m)		Category 12/P	1	Max Conc	1	44000	19888.87695	4260.164551	-612.65	67776677.85
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 1/P	1	Max Conc	0.5	22000	767.4211426	589.9561157	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 1/P	1	Max Conc	1	44000	422.1624146	517.1433716	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 2/P	1	Max Conc	0.5	22000	780.8624878	581.8317261	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 2/P	1	Max Conc	1	44000	409.2111511	511.2692566	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 3/P	1	Max Conc	0.5	22000	942.7596436	604.6866455	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 3/P	1	Max Conc	1	44000	429.126709	532.9879761	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 4/P	1	Max Conc	0.5	22000	938.7290649	612.6017456	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 4/P	1	Max Conc	1	44000	491.329895	522.1080933	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 5/P	1	Max Conc	0.5	22000	1369.623779	965.6253052	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 5/P	1	Max Conc	1	44000	678.0722656	837.5822754	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 8/P	1	Max Conc	0.5	22000	1387.82959	1067.621216	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 8/P	1	Max Conc	1	44000	724.3098755	920.2206421	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 9/P	1	Max Conc	0.5	22000	3799.372559	714.37146	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 9/P	1	Max Conc	1	44000	1858.655884	632.8275146	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 10/P	1	Max Conc	0.5	22000	3249.892334	1450.765869	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 10/P	1	Max Conc	1	44000	1205.36499	1272.093506	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 11/P	1	Max Conc	0.5	22000	3622.383789	1534.133545	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 11/P	1	Max Conc	1	44000	1520.376221	1340.217651	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 1/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 1/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 2/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 2/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 3/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 3/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 4/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 4/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 5/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 5/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 6/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 6/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 7/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 7/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 8/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 8/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 9/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 9/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 10/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 10/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 11/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 11/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 12/P	1	Max Conc	0.5	22000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_50mm (2/3H)	50	Category 12/P	1	Max Conc	1	44000	0	0	0	2.990689516
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 1/P	1	Max Conc	0.5	22000	7930.394531	4203.268555	-482.91	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 1/P	1	Max Conc	1	44000	4345.260742	3468.540771	-406.26	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 2/P	1	Max Conc	0.5	22000	9259.624023	3062.043213	-496.33	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 2/P	1	Max Conc	1	44000	4338.755371	2482.992188	-405.87	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 3/P	1	Max Conc	0.5	22000	14005.72363	6228.387695	-700.84	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 3/P	1	Max Conc	1	44000	7675.647949	5527.808594	-576.54	67776677.85

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 4/P	1	Max Conc	0.5	22000	12533.8584	6181.42334	-657.77	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 4/P	1	Max Conc	1	44000	5900.432617	5462.31543	-540.41	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 5/P	1	Max Conc	0.5	22000	14486.22852	4739.644531	-1382.5	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 5/P	1	Max Conc	1	44000	6171.605469	4193.613281	-1114.8	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 6/P	1	Max Conc	0.5	22000	50166.28516	7141.894531	-959.92	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 6/P	1	Max Conc	1	44000	24519.06836	6366.049805	-805.61	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 7/P	1	Max Conc	0.5	22000	44389.10938	5032.122559	-694.96	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 7/P	1	Max Conc	1	44000	23403.60742	4390.602051	-577.55	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 8/P	1	Max Conc	0.5	22000	14885.68652	4876.756348	-1311.3	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 8/P	1	Max Conc	1	44000	6832.050781	4325.010254	-1051.3	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 9/P	1	Max Conc	0.5	22000	49456.43359	7417.47168	-1045.8	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 9/P	1	Max Conc	1	44000	19505.69727	6630.583984	-860.25	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 10/P	1	Max Conc	0.5	22000	45863.06641	6113.723145	-2124.9	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 10/P	1	Max Conc	1	44000	13171.39941	5418.680664	-1791.2	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 11/P	1	Max Conc	0.5	22000	47349.05078	6076.960938	-2026.8	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 11/P	1	Max Conc	1	44000	14618.43457	5437.921875	-1699.3	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 12/P	1	Max Conc	0.5	22000	38559.37109	4868.158203	-706.15	67776677.85
Peakshaver (1.1xOP)	P_INV014_Rupture (2/3H)		Category 12/P	1	Max Conc	1	44000	18633.76953	4259.701172	-592.25	67776677.85
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 1/P	1	Max Conc	0.5	22000	1086.841797	350.6793518	6.92167	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 1/P	1	Max Conc	1	44000	681.8425293	289.4908142	6.92167	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 2/P	1	Max Conc	0.5	22000	1155.046265	321.6958923	6.94071	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 2/P	1	Max Conc	1	44000	704.5090332	269.7563477	6.94071	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 3/P	1	Max Conc	0.5	22000	1328.998169	505.3195496	13.1138	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 3/P	1	Max Conc	1	44000	757.5957642	432.7635803	13.1138	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 4/P	1	Max Conc	0.5	22000	1245.443115	551.3400879	13.3054	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 4/P	1	Max Conc	1	44000	720.1777344	466.3117065	13.3054	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 5/P	1	Max Conc	0.5	22000	1480.815063	839.3490601	14.3344	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 5/P	1	Max Conc	1	44000	787.350708	717.8585815	14.3344	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 6/P	1	Max Conc	0.5	22000	2818.675049	829.8424683	-12.246	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 6/P	1	Max Conc	1	44000	1214.584106	698.6071777	13.0739	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 7/P	1	Max Conc	0.5	22000	2440.734131	546.6651001	3.9289	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 7/P	1	Max Conc	1	44000	1176.520752	451.1656189	12.3984	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 8/P	1	Max Conc	0.5	22000	1289.828247	937.5440674	14.3354	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 8/P	1	Max Conc	1	44000	681.3598633	794.5690918	14.3354	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 9/P	1	Max Conc	0.5	22000	3136.662109	729.9718628	-11.656	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 9/P	1	Max Conc	1	44000	1327.154541	622.0579834	13.0269	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 10/P	1	Max Conc	0.5	22000	3484.405518	1212.060547	13.1791	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 10/P	1	Max Conc	1	44000	1345.308472	1042.756104	13.1791	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 11/P	1	Max Conc	0.5	22000	2624.879639	1402.611816	13.1869	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 11/P	1	Max Conc	1	44000	863.2915649	1197.12207	13.1869	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 12/P	1	Max Conc	0.5	22000	2889.780029	484.6913452	3.98815	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (2/3H)	1000	Category 12/P	1	Max Conc	1	44000	1443.590454	405.2301636	-2.0943	1196.275757

Not included in Export

Study	Model	Holesize	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 6/P	100.7172605	109.0919155	-9.175917709	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 6/P	88.2210532	83.66558973	-6.055757277	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 6/P	82.41339991	70.88684639	-4.734243434	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 6/P	70.5480653	41.24762335	-2.046798965	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 6/P	102.261474	112.0936363	-9.614807869	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 7/P	99.03920544	117.1632321	-11.28035675	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 7/P	86.1254952	89.48544515	-7.439588188	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 7/P	80.23865552	76.18112197	-5.938195579	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 7/P	68.463952	46.82472852	-2.978617477	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 7/P	100.6507182	120.7360678	-11.82979317	4.7	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 12/P	98.40267714	113.9068924	-11.02047446	5	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 12/P	85.92449275	87.3221444	-7.339848631	9	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 12/P	80.20091142	74.30683657	-5.872261472	12.61710051	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 12/P	68.68103535	45.33722513	-2.934866006	30.003942	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 12/P	99.95440293	117.2364929	-11.54108037	4.7	1196.275757

Not included in Export

Not included in Export

PHMSA QRA Study 200210 (Peakshaver 1.1xPressure)_2 Toxic Dispersion

Study	Model	Caselist	Case	Holesize	Weather	Height	Time	Concentra	Max Distar	Max Width	Min Distar	Release Ra	Path

PHMSA QRA Study 200210 (Peakshaver 1.1xPressure)_2 Flammable Dispersion

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 6/P	1	Max Conc	0.5	22000	938.7290649	612.6017456	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 6/P	1	Max Conc	1	44000	491.329895	522.1080933	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 7/P	1	Max Conc	0.5	22000	1189.344849	642.1456909	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 7/P	1	Max Conc	1	44000	641.1655273	565.7942505	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 12/P	1	Max Conc	0.5	22000	780.8624878	581.8317261	0	1196.275757
Peakshaver (1.1xOP)	P_INV014_1000mm (1m)	1000	Category 12/P	1	Max Conc	1	44000	409.2111511	511.2692566	0	1196.275757

Not included in Export

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 12/E	19.25310731	23.93709575	3.246306862	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 12/E	16.55927308	17.46182842	4.605035139	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 12/E	15.24234798	14.28447471	5.258044285	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 12/E	12.12942953	7.361412693	6.643681425	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 12/E	19.57738737	24.70427449	3.078535478	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 11/E	19.19385189	24.46441895	3.166848859	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 11/E	16.43556539	17.90140432	4.591823013	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 11/E	15.09750746	14.70474334	5.27027486	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 11/E	12.03915346	7.773881138	6.697962021	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 11/E	19.52465866	25.24485758	2.996041393	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 10/E	19.29138468	24.70198594	2.445685972	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 10/E	15.77139016	18.247783	4.454267951	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 10/E	14.18826006	15.11014022	5.129875297	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 10/E	10.16228341	8.068070009	6.545036943	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 10/E	19.77247016	25.48849401	2.081548495	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 9/E	19.11046921	24.09492173	3.161816144	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 9/E	16.15857614	17.71869227	4.525949434	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 9/E	14.71068684	14.56286727	5.175088958	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 9/E	11.05031857	7.539620659	6.558928943	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 9/E	19.45879299	24.8500223	2.999510848	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 8/E	19.11413626	24.15645741	2.772772001	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 8/E	15.78712702	17.82607935	4.470509006	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 8/E	14.22365279	14.70225536	5.118229457	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 8/E	10.47004155	7.664428719	6.490204077	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 8/E	19.56521439	24.92694017	2.456885182	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 7/E	19.11051187	24.61108566	3.082441103	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 7/E	16.09320113	18.1482977	4.510064147	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 7/E	14.62262713	14.98058687	5.186420216	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 7/E	11.02229658	7.978702375	6.61570552	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 7/E	19.47690907	25.38130961	2.898292605	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 6/E	19.11051187	24.61108566	3.082441103	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 6/E	16.09320113	18.1482977	4.510064147	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 6/E	14.62262713	14.98058687	5.186420216	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 6/E	11.02229658	7.978702375	6.61570552	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 6/E	19.47690907	25.38130961	2.898292605	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 5/E	19.19385189	24.46441895	3.166848859	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 5/E	16.43556539	17.90140432	4.591823013	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 5/E	15.09750746	14.70474334	5.27027486	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 5/E	12.03915346	7.773881138	6.697962021	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 5/E	19.52465866	25.24485758	2.996041393	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 4/E	19.11413626	24.15645741	2.772772001	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 4/E	15.78712702	17.82607935	4.470509006	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 4/E	14.22365279	14.70225536	5.118229457	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 4/E	10.47004155	7.664428719	6.490204077	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 4/E	19.56521439	24.92694017	2.456885182	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 3/E	19.25310731	23.93709575	3.246306862	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 3/E	16.55927308	17.46182842	4.605035139	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 3/E	15.24234798	14.28447471	5.258044285	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 3/E	12.12942953	7.361412693	6.643681425	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 3/E	19.57738737	24.70427449	3.078535478	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 2/E	19.11046921	24.09492173	3.161816144	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 2/E	16.15857614	17.71869227	4.525949434	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 2/E	14.71068684	14.56286727	5.175088958	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 2/E	11.05031857	7.539620659	6.558928943	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 2/E	19.45879299	24.8500223	2.999510848	4.7	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 1/E	19.29138468	24.70198594	2.445685972	5	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 1/E	15.77139016	18.247783	4.454267951	9	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 1/E	14.18826006	15.11014022	5.129875297	12.61710051	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 1/E	10.16228341	8.068070009	6.545036943	30.003942	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 1/E	19.77247016	25.48849401	2.081548495	4.7	5.944300652
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 12/E	39.80493877	50.76889553	1.614310972	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 12/E	33.0585311	37.65365033	6.239681832	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 12/E	30.10994632	31.35673863	7.869859676	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 12/E	23.76966488	17.89639531	11.11984426	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 12/E	40.66910611	52.35085837	0.950498783	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 11/E	40.30036978	52.27533303	0.828076506	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 11/E	33.17277583	38.7979534	5.983462309	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 11/E	30.10805991	32.3851036	7.75781703	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 11/E	23.69096082	18.81344294	11.17084084	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 11/E	41.21112015	53.90775625	0.101674955	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 10/E	43.15333093	52.28008898	-5.518761499	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 10/E	33.31041289	38.78796412	2.973998347	9	23.77720261

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 10/E	28.90842128	32.40154806	6.327220861	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 10/E	19.96220836	18.82211528	11.12928628	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 10/E	44.37985066	53.91468106	-6.635473652	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 9/E	40.89889352	50.75279352	-1.090264237	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 9/E	32.6980861	37.66371842	5.318659976	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 9/E	29.07961496	31.41687173	7.693694294	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 9/E	21.58888073	17.96427246	11.07357634	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 9/E	41.93372592	52.33527589	-1.968765565	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 8/E	42.09343913	50.75875322	-4.112074981	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 8/E	32.70256001	37.63623849	3.750299405	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 8/E	28.4883211	31.3768104	6.807829993	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 8/E	19.95263398	17.8662261	11.06970783	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 8/E	43.26592081	52.34484014	-5.158816792	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 7/E	41.7066924	52.26537044	-2.224902027	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 7/E	33.08270349	38.80339863	4.77168043	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 7/E	29.27996726	32.43160276	7.428354605	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 7/E	21.78817178	18.92100464	11.12386847	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 7/E	42.79525155	53.90261626	-3.171348254	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 6/E	41.7066924	52.26537044	-2.224902027	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 6/E	33.08270349	38.80339863	4.77168043	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 6/E	29.27996726	32.43160276	7.428354605	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 6/E	21.78817178	18.92100464	11.12386847	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 6/E	42.79525155	53.90261626	-3.171348254	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 5/E	40.30036978	52.27533303	0.828076506	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 5/E	33.17277583	38.7979534	5.983462309	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 5/E	30.10805991	32.3851036	7.75781703	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 5/E	23.69096082	18.81344294	11.17084084	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 5/E	41.21112015	53.90775625	0.101674955	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 4/E	42.09343913	50.75875322	-4.112074981	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 4/E	32.70256001	37.63623849	3.750299405	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 4/E	28.4883211	31.3768104	6.807829993	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 4/E	19.95263398	17.8662261	11.06970783	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 4/E	43.26592081	52.34484014	-5.158816792	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 3/E	39.80493877	50.76889553	1.614310972	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 3/E	33.0585311	37.65365033	6.239681832	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 3/E	30.10994632	31.35673863	7.869859676	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 3/E	23.76966488	17.89639531	11.11984426	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 3/E	40.66910611	52.35085837	0.950498783	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 2/E	40.89889352	50.75279352	-1.090264237	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 2/E	32.6980861	37.66371842	5.318659976	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 2/E	29.07961496	31.41687173	7.693694294	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 2/E	21.58888073	17.96427246	11.07357634	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 2/E	41.93372592	52.33527589	-1.968765565	4.7	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 1/E	43.15333093	52.28008898	-5.518761499	5	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 1/E	33.31041289	38.78796412	2.973998347	9	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 1/E	28.90842128	32.40154806	6.327220861	12.61710051	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 1/E	19.96220836	18.82211528	11.12928628	30.003942	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 1/E	44.37985066	53.91468106	-6.635473652	4.7	23.77720261
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 12/E	340.2170873	361.4989488	-140.5781228	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 12/E	259.501786	275.0318728	-61.90563206	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 12/E	221.8059021	234.1461264	-25.89736166	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 12/E	146.0772053	150.9186107	42.42479103	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 12/E	350.0140054	371.9251683	-150.2147958	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 11/E	357.9436988	375.9863114	-159.5804873	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 11/E	271.7386777	285.6961951	-75.0169645	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 11/E	231.615016	243.2198295	-36.28952182	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 11/E	151.7091686	157.4716834	37.51446998	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 11/E	368.4275096	386.9077166	-169.935702	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 10/E	368.3308648	372.0442056	-191.2413295	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 10/E	272.8302458	278.472719	-97.8110897	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 10/E	230.2273941	234.0383521	-54.38700346	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 10/E	147.6353824	143.0417183	29.0308933	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 10/E	379.8143352	383.2708375	-202.5812439	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 9/E	349.4789366	359.1244268	-160.9476297	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 9/E	262.7789339	271.2089016	-76.59907521	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 9/E	221.7602226	229.3218449	-37.75106373	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 9/E	143.8932841	144.050801	36.35246714	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 9/E	359.9379153	369.6914565	-171.2308703	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 8/E	350.2230357	356.5108515	-171.7270761	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 8/E	259.4135349	266.8980484	-83.55968997	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 8/E	219.4838653	224.1555473	-42.65386489	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 8/E	140.9949718	135.9474716	35.33429529	30.003942	1567.735474

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 8/E	361.1017627	367.219035	-182.4213339	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 7/E	367.4227656	374.0605583	-180.1557061	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 7/E	275.5453243	282.2720794	-90.136967	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 7/E	232.2738132	238.7794767	-48.60588014	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 7/E	149.3036702	150.5922372	30.9357747	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 7/E	378.5341379	385.1298981	-191.1299707	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 6/E	367.4227656	374.0605583	-180.1557061	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 6/E	275.5453243	282.2720794	-90.136967	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 6/E	232.2738132	238.7794767	-48.60588014	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 6/E	149.3036702	150.5922372	30.9357747	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 6/E	378.5341379	385.1298981	-191.1299707	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 5/E	357.9436988	375.9863114	-159.5804873	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 5/E	271.7386777	285.6961951	-75.0169645	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 5/E	231.615016	243.2198295	-36.28952182	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 5/E	151.7091686	157.4716834	37.51446998	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 5/E	368.4275096	386.9077166	-169.935702	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 4/E	350.2230357	356.5108515	-171.7270761	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 4/E	259.4135349	266.8980484	-83.55968997	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 4/E	219.4838653	224.1555473	-42.65386489	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 4/E	140.9949718	135.9474716	35.33429529	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 4/E	361.1017627	367.219035	-182.4213339	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 3/E	340.2170873	361.4989488	-140.5781228	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 3/E	259.501786	275.0318728	-61.90563206	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 3/E	221.8059021	234.1461264	-25.89736166	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 3/E	146.0772053	150.9186107	42.42479103	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 3/E	350.0140054	371.9251683	-150.2147958	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 2/E	349.4789366	359.1244268	-160.9476297	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 2/E	262.7789339	271.2089016	-76.59907521	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 2/E	221.7602226	229.3218449	-37.75106373	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 2/E	143.8932841	144.050801	36.35246714	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 2/E	359.9379153	369.6914565	-171.2308703	4.7	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 1/E	368.3308648	372.0442056	-191.2413295	5	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 1/E	272.8302458	278.472719	-97.8110897	9	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 1/E	230.2273941	234.0383521	-54.38700346	12.61710051	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 1/E	147.6353824	143.0417183	29.0308933	30.003942	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 1/E	379.8143352	383.2708375	-202.5812439	4.7	1567.735474
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 12/E	970.1314683	945.7357292	-456.5631036	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 12/E	737.2477529	727.9332753	-226.1553127	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 12/E	626.7158891	624.0569409	-117.9628454	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 12/E	399.6222284	410.2927453	96.45776178	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 12/E	998.1175295	971.8513305	-484.3653558	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 11/E	1031.33245	991.596865	-521.5370488	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 11/E	780.6893889	761.1473554	-272.6028287	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 11/E	662.3724616	651.9451726	-155.9558657	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 11/E	421.0617678	428.9357868	74.80776531	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 11/E	1061.554374	1019.346064	-551.6315382	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 10/E	1011.775631	995.1222879	-542.0492484	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 10/E	765.806704	747.2309888	-286.4449093	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 10/E	648.1030418	627.6441031	-165.3106997	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 10/E	406.5293834	378.9810937	74.55725007	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 10/E	1041.215378	1024.677247	-572.7411685	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 9/E	958.3454813	944.412435	-474.3932995	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 9/E	718.9081989	717.3764995	-239.2672149	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 9/E	615.1647776	609.3455462	-128.4029498	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 9/E	404.193333	385.9222087	90.01401224	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 9/E	986.9188355	971.4473695	-502.6791643	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 8/E	954.1481614	941.0269027	-482.003231	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 8/E	723.929421	706.999941	-242.8526722	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 8/E	613.2201155	593.4191491	-129.5091088	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 8/E	385.3951806	357.067116	92.4713176	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 8/E	981.5980984	968.8029446	-510.6651725	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 7/E	1015.703853	994.6403664	-535.7496734	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 7/E	760.392422	754.3321873	-283.522346	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 7/E	649.5919428	640.5777952	-164.7446074	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 7/E	425.3686135	406.4997176	69.8825061	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 7/E	1046.310562	1023.39008	-566.1537548	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 6/E	1015.703853	994.6403664	-535.7496734	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 6/E	760.392422	754.3321873	-283.522346	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 6/E	649.5919428	640.5777952	-164.7446074	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 6/E	425.3686135	406.4997176	69.8825061	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 6/E	1046.310562	1023.39008	-566.1537548	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 5/E	1031.33245	991.596865	-521.5370488	5	14132.79785

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 5/E	780.6893889	761.1473554	-272.6028287	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 5/E	662.3724616	651.9451726	-155.9558657	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 5/E	421.0617678	428.9357868	74.80776531	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 5/E	1061.554374	1019.346064	-551.6315382	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 4/E	954.1481614	941.0269027	-482.003231	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 4/E	723.929421	706.999941	-242.8526722	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 4/E	613.2201155	593.4191491	-129.5091088	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 4/E	385.3951806	357.067116	92.4713176	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 4/E	981.5980984	968.8029446	-510.6651725	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 3/E	970.1314683	945.7357292	-456.5631036	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 3/E	737.2477529	727.9332753	-226.1553127	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 3/E	626.7158891	624.0569409	-117.9628454	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 3/E	399.6222284	410.2927453	96.45776178	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 3/E	998.1175295	971.8513305	-484.3653558	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 2/E	958.3454813	944.412435	-474.3932995	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 2/E	718.9081989	717.3764995	-239.2672149	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 2/E	615.1647776	609.3455462	-128.4029498	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 2/E	404.193333	385.9222087	90.01401224	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 2/E	986.9188355	971.4473695	-502.6791643	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 1/E	1011.775631	995.1222879	-542.0492484	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 1/E	765.806704	747.2309888	-286.4449093	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 1/E	648.1030418	627.6441031	-165.3106997	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 1/E	406.5293834	378.9810937	74.55725007	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 1/E	1041.215378	1024.677247	-572.7411685	4.7	14132.79785
Export (1.1xOP)	E_INV001_10mm	10	Category 12/E	6.878303791	6.910033396	2.123123409	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 12/E	5.912754143	4.607460383	2.662409686	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 12/E	5.314305981	3.425697533	3.010475349	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 12/E	3.024099475	0.331276633	5.1526751	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 12/E	6.985110348	7.171802771	2.064383063	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 11/E	6.77935382	7.01922804	2.13670575	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 11/E	5.816941768	4.727870433	2.678157277	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 11/E	5.242595433	3.550250979	3.012396519	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 11/E	3.372997044	0.809147878	4.52205524	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 11/E	6.88839567	7.285728882	2.077175611	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 10/E	6.793183922	7.618577669	2.102795402	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 10/E	5.685927383	5.267733937	2.630602564	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 10/E	5.028632137	4.041879974	2.94599779	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 10/E	3.192558507	1.073443382	4.219670975	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 10/E	6.916186862	7.887855318	2.046566678	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 9/E	6.875468157	7.273134205	2.100862267	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 9/E	5.830589501	4.928667301	2.634346628	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 9/E	5.181414299	3.70832354	2.966389103	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 9/E	3.092014439	0.770755159	4.657853548	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 9/E	6.991273664	7.538319457	2.04317649	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 8/E	6.856812368	7.505770935	2.088996905	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 8/E	5.745109464	5.142617287	2.614527242	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 8/E	5.066126738	3.902434521	2.939479219	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 8/E	3.008633492	0.853441227	4.461964684	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 8/E	6.980018385	7.772277177	2.032095383	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 7/E	6.796031395	7.38455396	2.114382054	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 7/E	5.754523086	5.051078406	2.65106916	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 7/E	5.132241501	3.843653445	2.972042226	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 7/E	3.308407979	0.973247297	4.312567579	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 7/E	6.911828001	7.654212659	2.055796243	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 6/E	6.796031395	7.38455396	2.114382054	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 6/E	5.754523086	5.051078406	2.65106916	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 6/E	5.132241501	3.843653445	2.972042226	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 6/E	3.308407979	0.973247297	4.312567579	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 6/E	6.911828001	7.654212659	2.055796243	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 5/E	6.77935382	7.01922804	2.13670575	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 5/E	5.816941768	4.727870433	2.678157277	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 5/E	5.242595433	3.550250979	3.012396519	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 5/E	3.372997044	0.809147878	4.52205524	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 5/E	6.88839567	7.285728882	2.077175611	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 4/E	6.856812368	7.505770935	2.088996905	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 4/E	5.745109464	5.142617287	2.614527242	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 4/E	5.066126738	3.902434521	2.939479219	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 4/E	3.008633492	0.853441227	4.461964684	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 4/E	6.980018385	7.772277177	2.032095383	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 3/E	6.878303791	6.910033396	2.123123409	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 3/E	5.912754143	4.607460383	2.662409686	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 3/E	5.314305981	3.425697533	3.010475349	12.61710051	0.951088071

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV001_10mm	10	Category 3/E	3.024099475	0.331276633	5.1526751	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 3/E	6.985110348	7.171802771	2.064383063	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 2/E	6.875468157	7.273134205	2.100862267	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 2/E	5.830589501	4.928667301	2.634346628	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 2/E	5.181414299	3.70832354	2.966389103	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 2/E	3.092014439	0.770755159	4.657853548	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 2/E	6.991273664	7.538319457	2.04317649	4.7	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 1/E	6.793183922	7.618577669	2.102795402	5	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 1/E	5.685927383	5.267733937	2.630602564	9	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 1/E	5.028632137	4.041879974	2.94599779	12.61710051	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 1/E	3.192558507	1.073443382	4.219670975	30.003942	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 1/E	6.916186862	7.887855318	2.046566678	4.7	0.951088071
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 12/E	970.1314683	945.7357292	-456.5631036	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 12/E	737.2477529	727.9332753	-226.1553127	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 12/E	626.7158891	624.0569409	-117.9628454	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 12/E	399.6222284	410.2927453	96.45776178	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 12/E	998.1175295	971.8513305	-484.3653558	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 11/E	1031.33245	991.596865	-521.5370488	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 11/E	780.6893889	761.1473554	-272.6028287	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 11/E	662.3724616	651.9451726	-155.9558657	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 11/E	421.0617678	428.9357868	74.80776531	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 11/E	1061.554374	1019.346064	-551.6315382	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 10/E	1011.775631	995.1222879	-542.0492484	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 10/E	765.806704	747.2309888	-286.4449093	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 10/E	648.1030418	627.6441031	-165.3106997	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 10/E	406.5293834	378.9810937	74.55725007	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 10/E	1041.215378	1024.677247	-572.7411685	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 9/E	958.3454813	944.412435	-474.3932995	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 9/E	718.9081989	717.3764995	-239.2672149	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 9/E	615.1647776	609.3455462	-128.4029498	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 9/E	404.193333	385.9222087	90.01401224	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 9/E	986.9188355	971.4473695	-502.6791643	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 8/E	954.1481614	941.0269027	-482.003231	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 8/E	723.929421	706.999941	-242.8526722	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 8/E	613.2201155	593.4191491	-129.5091088	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 8/E	385.3951806	357.067116	92.4713176	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 8/E	981.5980984	968.8029446	-510.6651725	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 7/E	1015.703853	994.6403664	-535.7496734	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 7/E	760.392422	754.3321873	-283.522346	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 7/E	649.5919428	640.5777952	-164.7446074	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 7/E	425.3686135	406.4997176	69.8825061	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 7/E	1046.310562	1023.39008	-566.1537548	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 6/E	1015.703853	994.6403664	-535.7496734	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 6/E	760.392422	754.3321873	-283.522346	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 6/E	649.5919428	640.5777952	-164.7446074	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 6/E	425.3686135	406.4997176	69.8825061	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 6/E	1046.310562	1023.39008	-566.1537548	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 5/E	1031.33245	991.596865	-521.5370488	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 5/E	780.6893889	761.1473554	-272.6028287	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 5/E	662.3724616	651.9451726	-155.9558657	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 5/E	421.0617678	428.9357868	74.80776531	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 5/E	1061.554374	1019.346064	-551.6315382	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 4/E	954.1481614	941.0269027	-482.003231	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 4/E	723.929421	706.999941	-242.8526722	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 4/E	613.2201155	593.4191491	-129.5091088	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 4/E	385.3951806	357.067116	92.4713176	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 4/E	981.5980984	968.8029446	-510.6651725	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 3/E	970.1314683	945.7357292	-456.5631036	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 3/E	737.2477529	727.9332753	-226.1553127	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 3/E	626.7158891	624.0569409	-117.9628454	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 3/E	399.6222284	410.2927453	96.45776178	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 3/E	998.1175295	971.8513305	-484.3653558	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 2/E	958.3454813	944.412435	-474.3932995	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 2/E	718.9081989	717.3764995	-239.2672149	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 2/E	615.1647776	609.3455462	-128.4029498	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 2/E	404.193333	385.9222087	90.01401224	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 2/E	986.9188355	971.4473695	-502.6791643	4.7	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 1/E	1011.775631	995.1222879	-542.0492484	5	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 1/E	765.806704	747.2309888	-286.4449093	9	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 1/E	648.1030418	627.6441031	-165.3106997	12.61710051	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 1/E	406.5293834	378.9810937	74.55725007	30.003942	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 1/E	1041.215378	1024.677247	-572.7411685	4.7	14132.79785

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV002_25mm	25	Category 12/E	18.12110166	22.40300934	3.228498698	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 12/E	15.60559516	16.30562654	4.489686693	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 12/E	14.37117236	13.30872425	5.100821833	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 12/E	11.37606125	6.766691578	6.421978687	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 12/E	18.42310848	23.12470424	3.073495434	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 11/E	18.05135189	22.88393466	3.161381108	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 11/E	15.47781335	16.70974608	4.48278981	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 11/E	14.22601172	13.69588303	5.116440124	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 11/E	11.31298642	7.153916192	6.472605795	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 11/E	18.35817651	23.61763294	3.003781802	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 10/E	18.01855761	23.13421196	2.73070425	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 10/E	14.8598035	17.08714062	4.34246928	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 10/E	13.37707842	14.12374129	4.972016389	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 10/E	9.587132042	7.456254118	6.309672574	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 10/E	18.44933809	23.86865776	2.427887854	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 9/E	17.98909807	22.58707693	3.14496869	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 9/E	15.23164885	16.57675087	4.409538571	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 9/E	13.87370575	13.59797746	5.016847681	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 9/E	10.42775087	6.953689968	6.330850848	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 9/E	18.31468806	23.29841246	2.993256832	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 8/E	17.90068024	22.64432112	2.962814258	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 8/E	14.88602501	16.69833069	4.352378353	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 8/E	13.41944883	13.74516229	4.957424329	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 8/E	9.805506402	7.067701154	6.2594669	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 8/E	18.29909251	23.36356715	2.714245419	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 7/E	17.97458564	23.05881755	3.077918959	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 7/E	15.15905153	16.97233537	4.400209988	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 7/E	13.78174498	13.98309812	5.031379081	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 7/E	10.31297115	7.350356717	6.382706749	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 7/E	18.30982306	23.78197507	2.919931406	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 6/E	17.97458564	23.05881755	3.077918959	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 6/E	15.15905153	16.97233537	4.400209988	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 6/E	13.78174498	13.98309812	5.031379081	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 6/E	10.31297115	7.350356717	6.382706749	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 6/E	18.30982306	23.78197507	2.919931406	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 5/E	18.05135189	22.88393466	3.161381108	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 5/E	15.47781335	16.70974608	4.48278981	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 5/E	14.22601172	13.69588303	5.116440124	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 5/E	11.31298642	7.153916192	6.472605795	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 5/E	18.35817651	23.61763294	3.003781802	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 4/E	17.90068024	22.64432112	2.962814258	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 4/E	14.88602501	16.69833069	4.352378353	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 4/E	13.41944883	13.74516229	4.957424329	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 4/E	9.805506402	7.067701154	6.2594669	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 4/E	18.29909251	23.36356715	2.714245419	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 3/E	18.12110166	22.40300934	3.228498698	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 3/E	15.60559516	16.30562654	4.489686693	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 3/E	14.37117236	13.30872425	5.100821833	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 3/E	11.37606125	6.766691578	6.421978687	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 3/E	18.42310848	23.12470424	3.073495434	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 2/E	17.98909807	22.58707693	3.14496869	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 2/E	15.23164885	16.57675087	4.409538571	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 2/E	13.87370575	13.59797746	5.016847681	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 2/E	10.42775087	6.953689968	6.330850848	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 2/E	18.31468806	23.29841246	2.993256832	4.7	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 1/E	18.01855761	23.13421196	2.73070425	5	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 1/E	14.8598035	17.08714062	4.34246928	9	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 1/E	13.37707842	14.12374129	4.972016389	12.61710051	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 1/E	9.587132042	7.456254118	6.309672574	30.003942	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 1/E	18.44933809	23.86865776	2.427887854	4.7	5.318684101
Export (1.1xOP)	E_INV002_50mm	50	Category 12/E	37.58799548	47.98094488	2.045944947	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 12/E	31.37920176	35.56255999	6.124457084	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 12/E	28.61441131	29.58172149	7.634511805	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 12/E	22.65133164	16.77824491	10.6542876	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 12/E	38.38974541	49.4787419	1.442516121	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 11/E	38.00584233	49.37950511	1.353441485	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 11/E	31.43501536	36.62764589	5.944853899	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 11/E	28.58799209	30.54517197	7.540259998	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 11/E	22.55959807	17.64397914	10.70837232	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 11/E	38.85199594	50.92422835	0.689655862	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 10/E	40.58090196	49.42021194	-4.471792045	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 10/E	31.41235604	36.64716639	3.346696836	9	21.2747364

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV002_50mm	50	Category 10/E	27.32297902	30.59921441	6.40042424	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 10/E	19.01367718	17.70092383	10.64370246	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 10/E	41.72540735	50.96779203	-5.506594829	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 9/E	38.53775768	47.98299918	-0.386754247	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 9/E	30.92613858	35.58781024	5.441013673	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 9/E	27.5927737	29.66615966	7.532632579	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 9/E	20.57988109	16.8679839	10.59923981	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 9/E	39.50095095	49.48097448	-1.192669646	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 8/E	39.62481836	48.00362516	-3.18389801	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 8/E	30.88003417	35.57455691	4.039866377	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 8/E	26.96669031	29.64303801	6.813265671	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 8/E	19.01693415	16.7973912	10.58202976	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 8/E	40.71961012	49.50626558	-4.152743951	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 7/E	39.25477148	49.38942061	-1.416653261	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 7/E	31.24541095	36.6484053	4.969896657	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 7/E	27.73825942	30.61377361	7.33257431	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 7/E	20.75337641	17.7733463	10.65558894	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 7/E	40.2676141	50.93944026	-2.286907388	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 6/E	39.25477148	49.38942061	-1.416653261	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 6/E	31.24541095	36.6484053	4.969896657	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 6/E	27.73825942	30.61377361	7.33257431	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 6/E	20.75337641	17.7733463	10.65558894	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 6/E	40.2676141	50.93944026	-2.286907388	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 5/E	38.00584233	49.37950511	1.353441485	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 5/E	31.43501536	36.62764589	5.944853899	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 5/E	28.58799209	30.54517197	7.540259998	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 5/E	22.55959807	17.64397914	10.70837232	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 5/E	38.85199594	50.92422835	0.689655862	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 4/E	39.62481836	48.00362516	-3.18389801	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 4/E	30.88003417	35.57455691	4.039866377	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 4/E	26.96669031	29.64303801	6.813265671	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 4/E	19.01693415	16.7973912	10.58202976	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 4/E	40.71961012	49.50626558	-4.152743951	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 3/E	37.58799548	47.98094488	2.045944947	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 3/E	31.37920176	35.56255999	6.124457084	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 3/E	28.61441131	29.58172149	7.634511805	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 3/E	22.65133164	16.77824491	10.6542876	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 3/E	38.38974541	49.4787419	1.442516121	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 2/E	38.53775768	47.98299918	-0.386754247	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 2/E	30.92613858	35.58781024	5.441013673	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 2/E	27.5927737	29.66615966	7.532632579	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 2/E	20.57988109	16.8679839	10.59923981	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 2/E	39.50095095	49.48097448	-1.192669646	4.7	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 1/E	40.58090196	49.42021194	-4.471792045	5	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 1/E	31.41235604	36.64716639	3.346696836	9	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 1/E	27.32297902	30.59921441	6.40042424	12.61710051	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 1/E	19.01367718	17.70092383	10.64370246	30.003942	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 1/E	41.72540735	50.96779203	-5.506594829	4.7	21.2747364
Export (1.1xOP)	E_INV002_237mm	237	Category 12/E	121.7282954	144.4862179	-31.48851999	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 12/E	94.68816348	108.7299458	-6.333151317	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 12/E	82.33835307	91.85115478	4.615792723	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 12/E	58.02367727	57.31188927	23.90566164	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 12/E	125.0551717	148.8069409	-34.65580434	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 11/E	126.0674154	149.6923919	-36.66191722	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 11/E	97.47565309	112.6047912	-9.682030116	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 11/E	84.43541306	95.18250851	2.117093507	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 11/E	59.02311383	59.8396606	23.07571299	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 11/E	129.5843388	154.1904055	-40.04336824	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 10/E	137.3232895	147.8476962	-57.08761961	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 10/E	102.3762089	110.6454812	-23.45419464	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 10/E	86.01265177	92.98887353	-8.299609091	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 10/E	54.83587731	56.56853866	19.28585533	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 10/E	141.5653566	152.3340156	-61.23322353	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 9/E	128.0076023	143.5542435	-42.26429034	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 9/E	97.25237267	107.826022	-13.21010264	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 9/E	82.99391991	90.88424662	-0.382451551	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 9/E	53.86805701	55.81059	22.55221246	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 9/E	131.7619757	147.8635762	-45.88434515	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 8/E	131.758814	142.6774279	-50.78621966	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 8/E	98.38679566	106.7418277	-19.00935797	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 8/E	82.70733814	89.58609482	-4.781554236	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 8/E	53.35893397	53.92098056	20.84926859	30.003942	208.2308044

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV002_237mm	237	Category 8/E	135.8029629	146.9963372	-54.71339334	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 7/E	133.1104111	148.7183959	-48.15661853	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 7/E	100.7537659	111.6889242	-17.23270025	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 7/E	85.79102914	94.22272772	-3.487584094	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 7/E	55.57559296	58.42600962	21.28202023	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 7/E	137.0625839	153.1969856	-51.9967761	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 6/E	133.1104111	148.7183959	-48.15661853	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 6/E	100.7537659	111.6889242	-17.23270025	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 6/E	85.79102914	94.22272772	-3.487584094	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 6/E	55.57559296	58.42600962	21.28202023	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 6/E	137.0625839	153.1969856	-51.9967761	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 5/E	126.0674154	149.6923919	-36.66191722	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 5/E	97.47565309	112.6047912	-9.682030116	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 5/E	84.43541306	95.18250851	2.117093507	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 5/E	59.02311383	59.8396606	23.07571299	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 5/E	129.5843388	154.1904055	-40.04336824	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 4/E	131.758814	142.6774279	-50.78621966	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 4/E	98.38679566	106.7418277	-19.00935797	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 4/E	82.70733814	89.58609482	-4.781554236	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 4/E	53.35893397	53.92098056	20.84926859	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 4/E	135.8029629	146.9963372	-54.71339334	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 3/E	121.7282954	144.4862179	-31.48851999	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 3/E	94.68816348	108.7299458	-6.333151317	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 3/E	82.33835307	91.85115478	4.615792723	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 3/E	58.02367727	57.31188927	23.90566164	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 3/E	125.0551717	148.8069409	-34.65580434	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 2/E	128.0076023	143.5542435	-42.26429034	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 2/E	97.25237267	107.826022	-13.21010264	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 2/E	82.99391991	90.88424662	-0.382451551	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 2/E	53.86805701	55.81059	22.55221246	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 2/E	131.7619757	147.8635762	-45.88434515	4.7	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 1/E	137.3232895	147.8476962	-57.08761961	5	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 1/E	102.3762089	110.6454812	-23.45419464	9	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 1/E	86.01265177	92.98887353	-8.299609091	12.61710051	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 1/E	54.83587731	56.56853866	19.28585533	30.003942	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 1/E	141.5653566	152.3340156	-61.23322353	4.7	208.2308044
Export (1.1xOP)	E_INV002_711mm	711	Category 12/E	120.2946107	142.9573742	-30.77912163	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 12/E	93.61107724	107.563983	-5.984865076	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 12/E	81.42836908	90.8560919	4.796503937	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 12/E	57.45054967	56.65831623	23.76096706	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 12/E	123.5779656	147.2342291	-33.90197998	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 11/E	124.5554772	148.101861	-35.86560367	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 11/E	96.34369243	111.3934385	-9.271161082	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 11/E	83.48095252	94.14906148	2.348223642	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 11/E	58.42326736	59.15953758	22.95832547	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 11/E	128.0269788	152.5540435	-39.20146011	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 10/E	135.724924	146.291982	-56.13869749	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 10/E	101.2013238	109.4767511	-22.92683774	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 10/E	85.04111949	92.00503692	-7.971618242	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 10/E	54.21713956	55.95806038	19.22150038	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 10/E	139.915949	150.7317629	-60.23307414	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 9/E	126.5045943	142.0440667	-41.45429364	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 9/E	96.13680184	106.6806408	-12.78753925	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 9/E	82.06296787	89.91238527	-0.142271501	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 9/E	53.29929477	55.19159468	22.43968	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 9/E	130.2123621	146.309532	-45.02752591	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 8/E	130.2422564	141.1853662	-49.9248908	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 8/E	97.27376231	105.62007	-18.54815604	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 8/E	81.7889507	88.64272449	-4.509384982	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 8/E	52.77300012	53.33900947	20.75306008	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 8/E	134.2380885	145.4594616	-53.80372906	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 7/E	131.5254729	147.1465075	-47.25784121	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 7/E	99.57800783	110.498014	-16.74425312	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 7/E	84.8095201	93.21200592	-3.192418688	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 7/E	54.99403863	57.78116879	21.19998175	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 7/E	135.4283379	151.5791346	-51.0484788	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 6/E	131.5254729	147.1465075	-47.25784121	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 6/E	99.57800783	110.498014	-16.74425312	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 6/E	84.8095201	93.21200592	-3.192418688	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 6/E	54.99403863	57.78116879	21.19998175	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 6/E	135.4283379	151.5791346	-51.0484788	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 5/E	124.5554772	148.101861	-35.86560367	5	203.5370483

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV002_711mm	711	Category 5/E	96.34369243	111.3934385	-9.271161082	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 5/E	83.48095252	94.14906148	2.348223642	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 5/E	58.42326736	59.15953758	22.95832547	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 5/E	128.0269788	152.5540435	-39.20146011	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 4/E	130.2422564	141.1853662	-49.9248908	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 4/E	97.27376231	105.62007	-18.54815604	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 4/E	81.7889507	88.64272449	-4.509384982	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 4/E	52.77300012	53.33900947	20.75306008	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 4/E	134.2380885	145.4594616	-53.80372906	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 3/E	120.2946107	142.9573742	-30.77912163	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 3/E	93.61107724	107.563983	-5.984865076	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 3/E	81.42836908	90.8560919	4.796503937	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 3/E	57.45054967	56.65831623	23.76096706	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 3/E	123.5779656	147.2342291	-33.90197998	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 2/E	126.5045943	142.0440667	-41.45429364	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 2/E	96.13680184	106.6806408	-12.78753925	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 2/E	82.06296787	89.91238527	-0.142271501	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 2/E	53.29929477	55.19159468	22.43968	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 2/E	130.2123621	146.309532	-45.02752591	4.7	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 1/E	135.724924	146.291982	-56.13869749	5	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 1/E	101.2013238	109.4767511	-22.92683774	9	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 1/E	85.04111949	92.00503692	-7.971618242	12.61710051	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 1/E	54.21713956	55.95806038	19.22150038	30.003942	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 1/E	139.915949	150.7317629	-60.23307414	4.7	203.5370483
Export (1.1xOP)	E_INV002_10mm	10	Category 12/E	6.435078045	6.32656762	2.058878192	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 12/E	5.503330496	4.16631646	2.600944435	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 12/E	4.85174494	3.048445211	2.994458711	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 12/E	0	0	0	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 12/E	6.537744005	6.576084204	2.003093186	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 11/E	6.340550313	6.426366033	2.07142935	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 11/E	5.416393663	4.277668699	2.611562554	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 11/E	4.826563583	3.170042764	2.976850415	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 11/E	2.028646439	0.456255399	6.028134743	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 11/E	6.443444458	6.675707537	2.014891258	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 10/E	6.371830773	7.026854187	2.033321871	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 10/E	5.314399157	4.812384567	2.55548031	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 10/E	4.663945386	3.650538375	2.889173838	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 10/E	2.526773179	0.746327253	4.670579261	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 10/E	6.49022223	7.281967717	1.974153035	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 9/E	6.443494642	6.682084676	2.034410334	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 9/E	5.438316568	4.482946718	2.566478876	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 9/E	4.783430738	3.328855657	2.934217465	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 9/E	1.570801803	0.365301286	6.395374867	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 9/E	6.552989115	6.936419237	1.97795166	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 8/E	6.434260683	6.922455182	2.020208079	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 8/E	5.367852207	4.697062212	2.546113546	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 8/E	4.680759902	3.516534624	2.894639202	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 8/E	1.866753055	0.472286539	5.621167519	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 8/E	6.551432049	7.173083847	1.963161502	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 7/E	6.366472696	6.790378421	2.046148033	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 7/E	5.36879713	4.596979036	2.577895438	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 7/E	4.737046198	3.45456186	2.924794159	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 7/E	2.455918558	0.644118121	5.049840489	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 7/E	6.478234403	7.043484576	1.989076584	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 6/E	6.366472696	6.790378421	2.046148033	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 6/E	5.36879713	4.596979036	2.577895438	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 6/E	4.737046198	3.45456186	2.924794159	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 6/E	2.455918558	0.644118121	5.049840489	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 6/E	6.478234403	7.043484576	1.989076584	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 5/E	6.340550313	6.426366033	2.07142935	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 5/E	5.416393663	4.277668699	2.611562554	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 5/E	4.826563583	3.170042764	2.976850415	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 5/E	2.028646439	0.456255399	6.028134743	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 5/E	6.443444458	6.675707537	2.014891258	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 4/E	6.434260683	6.922455182	2.020208079	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 4/E	5.367852207	4.697062212	2.546113546	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 4/E	4.680759902	3.516534624	2.894639202	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 4/E	1.866753055	0.472286539	5.621167519	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 4/E	6.551432049	7.173083847	1.963161502	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 3/E	6.435078045	6.32656762	2.058878192	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 3/E	5.503330496	4.16631646	2.600944435	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 3/E	4.85174494	3.048445211	2.994458711	12.61710051	0.850989401

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV002_10mm	10	Category 3/E	0	0	0	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 3/E	6.537744005	6.576084204	2.003093186	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 2/E	6.443494642	6.682084676	2.034410334	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 2/E	5.438316568	4.482946718	2.566478876	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 2/E	4.783430738	3.328855657	2.934217465	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 2/E	1.570801803	0.365301286	6.395374867	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 2/E	6.552989115	6.936419237	1.97795166	4.7	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 1/E	6.371830773	7.026854187	2.033321871	5	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 1/E	5.314399157	4.812384567	2.55548031	9	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 1/E	4.663945386	3.650538375	2.889173838	12.61710051	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 1/E	2.526773179	0.746327253	4.670579261	30.003942	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 1/E	6.49022223	7.281967717	1.974153035	4.7	0.850989401
Export (1.1xOP)	E_INV004_25mm	25	Category 12/E	17.60474413	21.69955149	3.213987542	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 12/E	15.16614899	15.77523147	4.436665705	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 12/E	13.96927687	12.86108787	5.029257316	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 12/E	11.02037046	6.493224454	6.323436295	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 12/E	17.89444684	22.39999201	3.069198512	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 11/E	17.52809303	22.15920735	3.157192605	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 11/E	15.03833841	16.16331905	4.43237817	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 11/E	13.8242288	13.23408089	5.046268937	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 11/E	10.97092204	6.869482209	6.374171949	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 11/E	17.82511032	22.87145247	3.004512849	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 10/E	17.44791902	22.4182187	2.835808249	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 10/E	14.44142454	16.55447386	4.291277027	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 10/E	13.00435672	13.67096169	4.900125128	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 10/E	9.495431335	7.20450297	6.206582157	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 10/E	17.8533834	23.12811584	2.565729637	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 9/E	17.47585637	21.8950608	3.134927021	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 9/E	14.80597449	16.04493803	4.356108533	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 9/E	13.4861194	13.15406005	4.94498002	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 9/E	10.14323004	6.686380123	6.233566832	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 9/E	17.79067981	22.58620874	2.988832096	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 8/E	17.35573645	21.95311857	3.026849765	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 8/E	14.47215496	16.1804871	4.298308915	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 8/E	13.04938533	13.30558859	4.884499706	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 8/E	9.547068363	6.801937262	6.158439984	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 8/E	17.73140172	22.64924751	2.806452521	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 7/E	17.45467487	22.34673045	3.074042996	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 7/E	14.73041157	16.43281698	4.34953437	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 7/E	13.39521943	13.5254312	4.960678399	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 7/E	10.01585767	7.067269288	6.281528509	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 7/E	17.77920319	23.04918183	2.921011298	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 6/E	17.45467487	22.34673045	3.074042996	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 6/E	14.73041157	16.43281698	4.34953437	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 6/E	13.39521943	13.5254312	4.960678399	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 6/E	10.01585767	7.067269288	6.281528509	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 6/E	17.77920319	23.04918183	2.921011298	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 5/E	17.52809303	22.15920735	3.157192605	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 5/E	15.03833841	16.16331905	4.43237817	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 5/E	13.8242288	13.23408089	5.046268937	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 5/E	10.97092204	6.869482209	6.374171949	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 5/E	17.82511032	22.87145247	3.004512849	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 4/E	17.35573645	21.95311857	3.026849765	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 4/E	14.47215496	16.1804871	4.298308915	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 4/E	13.04938533	13.30558859	4.884499706	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 4/E	9.547068363	6.801937262	6.158439984	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 4/E	17.73140172	22.64924751	2.806452521	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 3/E	17.60474413	21.69955149	3.213987542	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 3/E	15.16614899	15.77523147	4.436665705	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 3/E	13.96927687	12.86108787	5.029257316	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 3/E	11.02037046	6.493224454	6.323436295	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 3/E	17.89444684	22.39999201	3.069198512	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 2/E	17.47585637	21.8950608	3.134927021	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 2/E	14.80597449	16.04493803	4.356108533	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 2/E	13.4861194	13.15406005	4.94498002	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 2/E	10.14323004	6.686380123	6.233566832	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 2/E	17.79067981	22.58620874	2.988832096	4.7	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 1/E	17.44791902	22.4182187	2.835808249	5	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 1/E	14.44142454	16.55447386	4.291277027	9	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 1/E	13.00435672	13.67096169	4.900125128	12.61710051	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 1/E	9.495431335	7.20450297	6.206582157	30.003942	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 1/E	17.8533834	23.12811584	2.565729637	4.7	5.044268608

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV004_50mm	50	Category 12/E	36.57339488	46.69907288	2.227788489	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 12/E	30.60555509	34.60110559	6.064657055	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 12/E	27.92424213	28.76583127	7.52163328	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 12/E	22.13177691	16.26603822	10.43886296	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 12/E	37.34431216	48.1575519	1.656747636	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 11/E	36.95832766	48.04850712	1.57426597	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 11/E	30.64236793	35.63137308	5.901748204	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 11/E	27.88656226	29.6994895	7.436301977	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 11/E	22.03264026	17.10819427	10.4985934	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 11/E	37.77111944	49.55196732	0.946877517	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 10/E	39.40582354	48.10501008	-4.00815037	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 10/E	30.54218286	35.66279588	3.508043192	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 10/E	26.59856738	29.77108637	6.418549446	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 10/E	18.57447979	17.18330765	10.42025722	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 10/E	40.51467184	49.61285625	-5.00905515	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 9/E	37.45946796	46.70928598	-0.081617336	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 9/E	30.11444537	34.63375723	5.484241146	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 9/E	26.91122727	28.86161576	7.447590727	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 9/E	20.11069864	16.36608858	10.38031497	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 9/E	38.38744543	48.16810573	-0.850431642	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 8/E	38.49608848	46.73640392	-2.773213642	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 8/E	30.04326362	34.62648015	4.164273756	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 8/E	26.26864886	28.8460765	6.805330735	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 8/E	18.58170642	16.30699335	10.36264615	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 8/E	39.55550666	48.200553	-3.706446982	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 7/E	38.13431282	48.07202	-1.062247923	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 7/E	30.40638745	35.65837824	5.043638663	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 7/E	27.03264484	29.77908143	7.271274527	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 7/E	20.27186462	17.24458288	10.43754541	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 7/E	39.1127987	49.57685273	-1.898032039	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 6/E	38.13431282	48.07202	-1.062247923	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 6/E	30.40638745	35.65837824	5.043638663	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 6/E	27.03264484	29.77908143	7.271274527	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 6/E	20.27186462	17.24458288	10.43754541	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 6/E	39.1127987	49.57685273	-1.898032039	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 5/E	36.95832766	48.04850712	1.57426597	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 5/E	30.64236793	35.63137308	5.901748204	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 5/E	27.88656226	29.6994895	7.436301977	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 5/E	22.03264026	17.10819427	10.4985934	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 5/E	37.77111944	49.55196732	0.946877517	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 4/E	38.49608848	46.73640392	-2.773213642	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 4/E	30.04326362	34.62648015	4.164273756	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 4/E	26.26864886	28.8460765	6.805330735	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 4/E	18.58170642	16.30699335	10.36264615	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 4/E	39.55550666	48.200553	-3.706446982	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 3/E	36.57339488	46.69907288	2.227788489	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 3/E	30.60555509	34.60110559	6.064657055	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 3/E	27.92424213	28.76583127	7.52163328	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 3/E	22.13177691	16.26603822	10.43886296	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 3/E	37.34431216	48.1575519	1.656747636	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 2/E	37.45946796	46.70928598	-0.081617336	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 2/E	30.11444537	34.63375723	5.484241146	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 2/E	26.91122727	28.86161576	7.447590727	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 2/E	20.11069864	16.36608858	10.38031497	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 2/E	38.38744543	48.16810573	-0.850431642	4.7	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 1/E	39.40582354	48.10501008	-4.00815037	5	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 1/E	30.54218286	35.66279588	3.508043192	9	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 1/E	26.59856738	29.77108637	6.418549446	12.61710051	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 1/E	18.57447979	17.18330765	10.42025722	30.003942	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 1/E	40.51467184	49.61285625	-5.00905515	4.7	20.17707443
Export (1.1xOP)	E_INV004_237mm	237	Category 12/E	115.263001	137.5706817	-28.30359767	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 12/E	89.83270104	103.4566326	-4.77909618	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 12/E	78.23609998	87.33937602	5.414364906	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 12/E	55.44973914	54.35603738	23.21852475	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 12/E	118.3952052	141.6930388	-31.27381235	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 11/E	119.2521619	142.4983308	-33.0886523	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 11/E	92.36531875	107.1269241	-7.845503963	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 11/E	80.13299443	90.50891827	3.143694759	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 11/E	56.32038866	56.76397716	22.52922594	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 11/E	122.5621494	146.7887954	-36.26026407	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 10/E	130.0991008	140.8111885	-52.79976349	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 10/E	97.06788741	105.3586702	-21.07542402	9	187.4739075

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV004_237mm	237	Category 10/E	81.61125423	88.53753893	-6.822651373	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 10/E	52.04557959	53.80555701	18.98908671	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 10/E	134.1114535	145.0873533	-56.71580854	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 9/E	121.223583	136.7229428	-38.61774268	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 9/E	92.21805719	102.644859	-11.31317618	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 9/E	78.79300912	86.48783886	0.691374511	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 9/E	51.30870565	53.00972249	22.02954628	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 9/E	124.7668272	140.8337822	-42.02506248	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 8/E	124.9044163	135.9225303	-46.89529409	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 8/E	93.35975878	101.6667761	-16.93366739	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 8/E	78.55786243	85.3173848	-3.556577686	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 8/E	50.71572679	51.28663816	20.40950554	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 8/E	128.7307059	140.0437831	-50.60509078	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 7/E	125.9557347	141.6085696	-44.10622011	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 7/E	95.45036902	106.3020654	-15.03753568	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 7/E	81.3620156	89.65080769	-2.164721264	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 7/E	52.95169928	55.50771902	20.90028549	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 7/E	129.6857857	145.8793168	-47.72384099	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 6/E	125.9557347	141.6085696	-44.10622011	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 6/E	95.45036902	106.3020654	-15.03753568	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 6/E	81.3620156	89.65080769	-2.164721264	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 6/E	52.95169928	55.50771902	20.90028549	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 6/E	129.6857857	145.8793168	-47.72384099	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 5/E	119.2521619	142.4983308	-33.0886523	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 5/E	92.36531875	107.1269241	-7.845503963	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 5/E	80.13299443	90.50891827	3.143694759	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 5/E	56.32038866	56.76397716	22.52922594	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 5/E	122.5621494	146.7887954	-36.26026407	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 4/E	124.9044163	135.9225303	-46.89529409	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 4/E	93.35975878	101.6667761	-16.93366739	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 4/E	78.55786243	85.3173848	-3.556577686	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 4/E	50.71572679	51.28663816	20.40950554	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 4/E	128.7307059	140.0437831	-50.60509078	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 3/E	115.263001	137.5706817	-28.30359767	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 3/E	89.83270104	103.4566326	-4.77909618	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 3/E	78.23609998	87.33937602	5.414364906	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 3/E	55.44973914	54.35603738	23.21852475	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 3/E	118.3952052	141.6930388	-31.27381235	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 2/E	121.223583	136.7229428	-38.61774268	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 2/E	92.21805719	102.644859	-11.31317618	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 2/E	78.79300912	86.48783886	0.691374511	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 2/E	51.30870565	53.00972249	22.02954628	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 2/E	124.7668272	140.8337822	-42.02506248	4.7	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 1/E	130.0991008	140.8111885	-52.79976349	5	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 1/E	97.06788741	105.3586702	-21.07542402	9	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 1/E	81.61125423	88.53753893	-6.822651373	12.61710051	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 1/E	52.04557959	53.80555701	18.98908671	30.003942	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 1/E	134.1114535	145.0873533	-56.71580854	4.7	187.4739075
Export (1.1xOP)	E_INV004_711mm	711	Category 12/E	113.8349121	136.0354823	-27.60549164	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 12/E	88.75807708	102.2860916	-4.437067805	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 12/E	77.3303562	86.34084194	5.584820934	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 12/E	54.89031558	53.69991005	23.0434303	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 12/E	116.9236981	140.1137313	-30.53136906	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 11/E	117.7473196	140.9014343	-32.30506634	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 11/E	91.23927491	105.9110411	-7.445719496	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 11/E	79.18342567	89.4718196	3.364254012	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 11/E	55.72425198	56.08148572	22.40205071	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 11/E	121.0130389	145.1459344	-35.43320009	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 10/E	128.4979229	139.2493611	-51.85049046	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 10/E	95.89172539	104.1849281	-20.54995232	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 10/E	80.63375116	87.54902606	-6.49736358	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 10/E	51.42921617	53.19163187	18.92103261	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 10/E	132.4593197	143.4789207	-55.71558706	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 9/E	119.7221748	135.206296	-37.8132826	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 9/E	91.10454378	101.4945977	-10.89706936	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 9/E	77.86407278	85.51175516	0.92507887	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 9/E	50.74247963	52.38764591	21.91155741	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 9/E	123.2187463	139.2730674	-41.17365656	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 8/E	123.3848197	134.4237933	-46.03356073	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 8/E	92.24509756	100.539782	-16.47389117	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 8/E	77.63845247	84.36921488	-3.287031076	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 8/E	50.1340381	50.70094187	20.3051534	30.003942	183.0305328

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV004_711mm	711	Category 8/E	127.1636204	138.5000963	-49.69680156	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 7/E	124.371985	140.0302992	-43.21121965	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 7/E	94.27699576	105.106301	-14.55552505	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 7/E	80.382885	88.63585827	-1.876087185	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 7/E	52.37459098	54.85960058	20.81161523	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 7/E	128.0541858	144.2550077	-46.78222364	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 6/E	124.371985	140.0302992	-43.21121965	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 6/E	94.27699576	105.106301	-14.55552505	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 6/E	80.382885	88.63585827	-1.876087185	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 6/E	52.37459098	54.85960058	20.81161523	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 6/E	128.0541858	144.2550077	-46.78222364	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 5/E	117.7473196	140.9014343	-32.30506634	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 5/E	91.23927491	105.9110411	-7.445719496	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 5/E	79.18342567	89.4718196	3.364254012	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 5/E	55.72425198	56.08148572	22.40205071	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 5/E	121.0130389	145.1459344	-35.43320009	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 4/E	123.3848197	134.4237933	-46.03356073	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 4/E	92.24509756	100.539782	-16.47389117	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 4/E	77.63845247	84.36921488	-3.287031076	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 4/E	50.1340381	50.70094187	20.3051534	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 4/E	127.1636204	138.5000963	-49.69680156	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 3/E	113.8349121	136.0354823	-27.60549164	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 3/E	88.75807708	102.2860916	-4.437067805	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 3/E	77.3303562	86.34084194	5.584820934	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 3/E	54.89031558	53.69991005	23.0434303	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 3/E	116.9236981	140.1137313	-30.53136906	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 2/E	119.7221748	135.206296	-37.8132826	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 2/E	91.10454378	101.4945977	-10.89706936	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 2/E	77.86407278	85.51175516	0.92507887	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 2/E	50.74247963	52.38764591	21.91155741	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 2/E	123.2187463	139.2730674	-41.17365656	4.7	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 1/E	128.4979229	139.2493611	-51.85049046	5	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 1/E	95.89172539	104.1849281	-20.54995232	9	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 1/E	80.63375116	87.54902606	-6.49736358	12.61710051	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 1/E	51.42921617	53.19163187	18.92103261	30.003942	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 1/E	132.4593197	143.4789207	-55.71558706	4.7	183.0305328
Export (1.1xOP)	E_INV005_25mm	25	Category 12/E	33.20830564	38.58614083	-3.149391258	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 12/E	28.49923208	29.42007841	-1.461181371	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 12/E	26.40004431	25.25208608	-0.87870682	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 12/E	22.13686143	16.0451193	0.397367282	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 12/E	33.81523524	39.73693362	-3.42558692	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 11/E	33.67640156	39.57222296	-3.312208509	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 11/E	28.81002186	30.06712634	-1.527715395	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 11/E	26.65312847	25.81320807	-0.926509575	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 11/E	22.29292377	16.46071158	0.376586408	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 11/E	34.27043313	40.74766774	-3.531707581	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 10/E	39.38971396	40.83051248	-0.42420033	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 10/E	35.20120821	30.40125279	0.523184898	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 10/E	33.28030086	25.06661245	0.859191202	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 10/E	29.10360882	9.039010798	2.009509829	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 10/E	39.89138812	42.04057402	-0.526516199	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 9/E	34.63988846	38.96139116	-1.858382854	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 9/E	30.31836097	29.85870081	-0.698171547	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 9/E	28.32273508	25.34975436	-0.219090763	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 9/E	24.25723277	15.15367779	0.828580133	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 9/E	35.16948989	40.06880748	-2.00711757	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 8/E	39.01164859	39.8065014	-0.369796234	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 8/E	34.90969514	29.599627	0.598102567	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 8/E	32.31663869	24.41337554	2.361959589	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 8/E	28.93995734	12.56788811	2.057162037	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 8/E	39.49732766	40.98446488	-0.469486374	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 7/E	35.05856026	39.91066118	-1.95587207	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 7/E	30.60729425	30.56134431	-0.746692852	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 7/E	28.56260189	25.95963562	-0.259155848	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 7/E	24.40896664	15.61211972	0.805555678	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 7/E	35.60691271	41.12327348	-2.114744292	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 6/E	35.05856026	39.91066118	-1.95587207	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 6/E	30.60729425	30.56134431	-0.746692852	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 6/E	28.56260189	25.95963562	-0.259155848	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 6/E	24.40896664	15.61211972	0.805555678	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 6/E	35.60691271	41.12327348	-2.114744292	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 5/E	33.67640156	39.57222296	-3.312208509	5	13.64766216

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV005_25mm	25	Category 5/E	28.81002186	30.06712634	-1.527715395	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 5/E	26.65312847	25.81320807	-0.926509575	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 5/E	22.29292377	16.46071158	0.376586408	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 5/E	34.27043313	40.74766774	-3.531707581	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 4/E	39.01164859	39.8065014	-0.369796234	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 4/E	34.90969514	29.599627	0.598102567	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 4/E	32.31663869	24.41337554	2.361959589	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 4/E	28.93995734	12.56788811	2.057162037	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 4/E	39.49732766	40.98446488	-0.469486374	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 3/E	33.20830564	38.58614083	-3.149391258	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 3/E	28.49923208	29.42007841	-1.461181371	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 3/E	26.40004431	25.25208608	-0.87870682	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 3/E	22.13686143	16.0451193	0.397367282	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 3/E	33.81523524	39.73693362	-3.42558692	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 2/E	34.63988846	38.96139116	-1.858382854	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 2/E	30.31836097	29.85870081	-0.698171547	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 2/E	28.32273508	25.34975436	-0.219090763	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 2/E	24.25723277	15.15367779	0.828580133	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 2/E	35.16948989	40.06880748	-2.00711757	4.7	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 1/E	39.38971396	40.83051248	-0.42420033	5	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 1/E	35.20120821	30.40125279	0.523184898	9	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 1/E	33.28030086	25.06661245	0.859191202	12.61710051	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 1/E	29.10360882	9.039010798	2.009509829	30.003942	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 1/E	39.89138812	42.04057402	-0.526516199	4.7	13.64766216
Export (1.1xOP)	E_INV005_68mm	68	Category 12/E	81.8116926	98.93549475	-7.295664031	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 12/E	69.9422742	75.233059	-3.186539099	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 12/E	64.81800537	65.00464009	-2.115678606	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 12/E	54.81409244	42.64583425	-0.442199516	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 12/E	83.61982755	101.9508028	-8.528839006	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 11/E	83.45672189	102.1485605	-8.088401351	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 11/E	70.91327044	77.3450157	-3.340442457	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 11/E	65.60667721	66.73910902	-2.211931989	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 11/E	55.30058578	43.93183978	-0.485495319	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 11/E	85.51990931	105.3698821	-9.742836285	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 10/E	96.59224747	105.458068	-0.824242175	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 10/E	86.54830481	79.75565875	0.273965909	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 10/E	81.85635462	66.67969058	0.728180921	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 10/E	72.22090825	36.7973369	1.855067555	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 10/E	97.81970604	108.4532145	-0.978749402	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 9/E	84.88371511	99.95974277	-3.742541162	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 9/E	74.30156799	76.813276	-1.590066576	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 9/E	69.48543006	65.78272569	-0.866636275	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 9/E	59.92164832	41.03037023	0.381255443	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 9/E	86.21795166	102.900307	-4.106596269	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 8/E	92.09170418	101.1095583	5.903101697	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 8/E	82.91386819	76.90511014	5.903101697	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 8/E	78.58571726	64.48942263	5.903101697	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 8/E	69.75156017	35.83343602	5.903101697	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 8/E	93.20153945	103.9140882	5.903101697	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 7/E	86.1993815	103.1873703	-3.982404565	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 7/E	75.20746892	79.00834137	-1.685621267	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 7/E	70.22985748	67.68405114	-0.931483402	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 7/E	60.38865334	42.46066822	0.345638724	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 7/E	87.59562669	106.2385437	-4.382042331	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 6/E	86.1993815	103.1873703	-3.982404565	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 6/E	75.20746892	79.00834137	-1.685621267	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 6/E	70.22985748	67.68405114	-0.931483402	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 6/E	60.38865334	42.46066822	0.345638724	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 6/E	87.59562669	106.2385437	-4.382042331	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 5/E	83.45672189	102.1485605	-8.088401351	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 5/E	70.91327044	77.3450157	-3.340442457	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 5/E	65.60667721	66.73910902	-2.211931989	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 5/E	55.30058578	43.93183978	-0.485495319	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 5/E	85.51990931	105.3698821	-9.742836285	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 4/E	92.09170418	101.1095583	5.903101697	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 4/E	82.91386819	76.90511014	5.903101697	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 4/E	78.58571726	64.48942263	5.903101697	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 4/E	69.75156017	35.83343602	5.903101697	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 4/E	93.20153945	103.9140882	5.903101697	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 3/E	81.8116926	98.93549475	-7.295664031	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 3/E	69.9422742	75.233059	-3.186539099	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 3/E	64.81800537	65.00464009	-2.115678606	12.61710051	100.970871

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV005_68mm	68	Category 3/E	54.81409244	42.64583425	-0.442199516	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 3/E	83.61982755	101.9508028	-8.528839006	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 2/E	84.88371511	99.95974277	-3.742541162	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 2/E	74.30156799	76.813276	-1.590066576	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 2/E	69.48543006	65.78272569	-0.866636275	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 2/E	59.92164832	41.03037023	0.381255443	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 2/E	86.21795166	102.900307	-4.106596269	4.7	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 1/E	96.59224747	105.458068	-0.824242175	5	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 1/E	86.54830481	79.75565875	0.273965909	9	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 1/E	81.85635462	66.67969058	0.728180921	12.61710051	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 1/E	72.22090825	36.7973369	1.855067555	30.003942	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 1/E	97.81970604	108.4532145	-0.978749402	4.7	100.970871
Export (1.1xOP)	E_INV005_203mm	203	Category 12/E	225.4547816	276.5351472	-34.93303711	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 12/E	185.6974049	208.9458862	-8.953892495	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 12/E	171.7962184	180.0603778	-6.229258022	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 12/E	144.8519759	121.3301412	-2.396382896	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 12/E	230.2465257	284.6821713	-38.03027793	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 11/E	232.8695672	288.7124104	-40.8857871	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 11/E	189.134471	216.9125471	-9.468696688	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 11/E	174.5707021	186.0901592	-6.516578659	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 11/E	146.5605401	125.6598255	-2.523095926	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 11/E	239.3137304	297.885775	-46.96639451	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 10/E	255.4934626	293.187075	-1.781611017	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 10/E	228.1793832	224.692463	0.494822483	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 10/E	215.4497909	190.2634134	1.354928109	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 10/E	189.8426326	112.0082846	2.922346646	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 10/E	258.8358098	301.2161891	-2.126498595	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 9/E	225.3838929	276.5660392	-10.45457788	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 9/E	196.3696137	212.4815762	-4.319492185	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 9/E	183.3760256	183.2616102	-2.679045504	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 9/E	157.658472	118.7939822	-0.023950629	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 9/E	229.7956094	284.7781657	-12.99397159	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 8/E	251.3245882	282.0169617	-1.536853678	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 8/E	225.2024766	216.1070445	0.620033385	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 8/E	212.9767293	182.7254116	1.451974794	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 8/E	188.2545884	106.4460136	2.977168636	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 8/E	254.5109037	289.7046566	-1.858006967	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 7/E	230.6000786	288.1673427	-12.37199498	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 7/E	199.5575482	220.095713	-4.587899163	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 7/E	185.9974807	189.8075469	-2.861030504	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 7/E	159.2969703	123.6093785	-0.116717053	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 7/E	235.9136832	297.0818941	-16.4122391	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 6/E	230.6000786	288.1673427	-12.37199498	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 6/E	199.5575482	220.095713	-4.587899163	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 6/E	185.9974807	189.8075469	-2.861030504	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 6/E	159.2969703	123.6093785	-0.116717053	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 6/E	235.9136832	297.0818941	-16.4122391	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 5/E	232.8695672	288.7124104	-40.8857871	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 5/E	189.134471	216.9125471	-9.468696688	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 5/E	174.5707021	186.0901592	-6.516578659	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 5/E	146.5605401	125.6598255	-2.523095926	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 5/E	239.3137304	297.885775	-46.96639451	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 4/E	251.3245882	282.0169617	-1.536853678	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 4/E	225.2024766	216.1070445	0.620033385	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 4/E	212.9767293	182.7254116	1.451974794	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 4/E	188.2545884	106.4460136	2.977168636	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 4/E	254.5109037	289.7046566	-1.858006967	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 3/E	225.4547816	276.5351472	-34.93303711	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 3/E	185.6974049	208.9458862	-8.953892495	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 3/E	171.7962184	180.0603778	-6.229258022	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 3/E	144.8519759	121.3301412	-2.396382896	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 3/E	230.2465257	284.6821713	-38.03027793	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 2/E	225.3838929	276.5660392	-10.45457788	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 2/E	196.3696137	212.4815762	-4.319492185	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 2/E	183.3760256	183.2616102	-2.679045504	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 2/E	157.658472	118.7939822	-0.023950629	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 2/E	229.7956094	284.7781657	-12.99397159	4.7	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 1/E	255.4934626	293.187075	-1.781611017	5	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 1/E	228.1793832	224.692463	0.494822483	9	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 1/E	215.4497909	190.2634134	1.354928109	12.61710051	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 1/E	189.8426326	112.0082846	2.922346646	30.003942	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 1/E	258.8358098	301.2161891	-2.126498595	4.7	899.8503418

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 12/E	44.08139797	47.99685694	-3.583754173	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 12/E	38.15305347	36.9484043	-1.843649357	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 12/E	35.45514269	31.70607575	-1.20833359	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 12/E	30.02916513	19.51410691	-0.042528227	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 12/E	44.83093563	49.41443002	-3.857539912	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 11/E	44.702571	49.27148243	-3.746606142	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 11/E	38.57592837	37.79594871	-1.914182498	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 11/E	35.80217264	32.45260253	-1.256705849	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 11/E	30.25150809	20.10892377	-0.070638127	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 11/E	45.48144231	50.73100412	-4.040450879	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 10/E	52.7451705	51.2820838	-0.444227595	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 10/E	47.53637424	37.75248386	0.349088986	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 10/E	44.96440435	30.66993356	0.914845836	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 10/E	39.65701322	14.93147582	1.927334383	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 10/E	53.37536513	52.82622051	-0.543390595	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 9/E	46.24570625	48.79962955	-2.130518064	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 9/E	40.74615451	37.4254771	-0.935508371	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 9/E	38.19123429	31.62384776	-0.452451884	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 9/E	32.82991129	18.00202482	0.764098178	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 9/E	46.9242253	50.12929977	-2.302237289	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 8/E	52.2362084	49.89843503	-0.39220547	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 8/E	47.1639325	36.63643257	0.389854433	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 8/E	44.65441198	29.67442006	0.943696086	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 8/E	39.42670166	14.3650548	1.981424269	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 8/E	52.84686258	51.40805308	-0.486008143	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 7/E	46.81227515	50.00517537	-2.230280506	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 7/E	41.14485073	38.36267962	-0.986200075	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 7/E	38.5225383	32.45653645	-0.491158732	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 7/E	33.04416422	18.63899069	0.743474344	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 7/E	47.51235771	51.37259451	-2.408417183	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 6/E	46.81227515	50.00517537	-2.230280506	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 6/E	41.14485073	38.36267962	-0.986200075	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 6/E	38.5225383	32.45653645	-0.491158732	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 6/E	33.04416422	18.63899069	0.743474344	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 6/E	47.51235771	51.37259451	-2.408417183	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 5/E	44.702571	49.27148243	-3.746606142	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 5/E	38.57592837	37.79594871	-1.914182498	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 5/E	35.80217264	32.45260253	-1.256705849	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 5/E	30.25150809	20.10892377	-0.070638127	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 5/E	45.48144231	50.73100412	-4.040450879	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 4/E	52.2362084	49.89843503	-0.39220547	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 4/E	47.1639325	36.63643257	0.389854433	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 4/E	44.65441198	29.67442006	0.943696086	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 4/E	39.42670166	14.3650548	1.981424269	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 4/E	52.84686258	51.40805308	-0.486008143	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 3/E	44.08139797	47.99685694	-3.583754173	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 3/E	38.15305347	36.9484043	-1.843649357	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 3/E	35.45514269	31.70607575	-1.20833359	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 3/E	30.02916513	19.51410691	-0.042528227	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 3/E	44.83093563	49.41443002	-3.857539912	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 2/E	46.24570625	48.79962955	-2.130518064	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 2/E	40.74615451	37.4254771	-0.935508371	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 2/E	38.19123429	31.62384776	-0.452451884	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 2/E	32.82991129	18.00202482	0.764098178	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 2/E	46.9242253	50.12929977	-2.302237289	4.7	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 1/E	52.7451705	51.2820838	-0.444227595	5	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 1/E	47.53637424	37.75248386	0.349088986	9	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 1/E	44.96440435	30.66993356	0.914845836	12.61710051	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 1/E	39.65701322	14.93147582	1.927334383	30.003942	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 1/E	53.37536513	52.82622051	-0.543390595	4.7	18.23570442
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 12/E	59.58770964	65.91505061	-4.788831449	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 12/E	51.53149926	50.70074491	-2.503727911	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 12/E	47.87943987	43.63586009	-1.698381577	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 12/E	40.57219238	27.32664161	-0.278941614	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 12/E	60.61407848	67.84170254	-5.166895875	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 11/E	60.50596717	67.79098674	-5.026894337	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 11/E	52.15405198	51.94113578	-2.59895936	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 11/E	48.39113269	44.72185105	-1.767926945	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 11/E	40.89864598	28.19146602	-0.312353232	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 11/E	61.57814407	69.7871522	-5.439495204	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 10/E	71.15543044	70.65733044	-0.615118768	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 10/E	64.1297928	52.4065432	0.25486217	9	35.74197769

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 10/E	60.79823968	42.86622298	0.664910354	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 10/E	53.75473563	21.36132427	1.714519715	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 10/E	72.00674553	72.74460967	-0.730019866	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 9/E	62.42461743	66.85957877	-2.797982239	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 9/E	54.97920989	51.49526233	-1.305092188	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 9/E	51.52925881	43.69531875	-0.722847619	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 9/E	44.50374138	25.38784611	0.392155653	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 9/E	63.34456948	68.6618339	-3.017523448	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 8/E	70.40786603	68.63504808	-0.551331205	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 8/E	63.58968585	50.78295277	0.296979179	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 8/E	60.34261471	41.4069828	0.703531283	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 8/E	53.44635911	20.48419758	1.735621386	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 8/E	71.23348578	70.66990395	-0.660896517	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 7/E	63.25575594	68.62877069	-2.929735934	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 7/E	55.56490895	52.86481378	-1.372645069	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 7/E	52.0133637	44.90895656	-0.772072823	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 7/E	44.82370398	26.3327473	0.362731381	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 7/E	64.20850275	70.59424031	-3.16045901	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 6/E	63.25575594	68.62877069	-2.929735934	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 6/E	55.56490895	52.86481378	-1.372645069	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 6/E	52.0133637	44.90895656	-0.772072823	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 6/E	44.82370398	26.3327473	0.362731381	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 6/E	64.20850275	70.59424031	-3.16045901	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 5/E	60.50596717	67.79098674	-5.026894337	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 5/E	52.15405198	51.94113578	-2.59895936	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 5/E	48.39113269	44.72185105	-1.767926945	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 5/E	40.89864598	28.19146602	-0.312353232	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 5/E	61.57814407	69.7871522	-5.439495204	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 4/E	70.40786603	68.63504808	-0.551331205	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 4/E	63.58968585	50.78295277	0.296979179	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 4/E	60.34261471	41.4069828	0.703531283	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 4/E	53.44635911	20.48419758	1.735621386	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 4/E	71.23348578	70.66990395	-0.660896517	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 3/E	59.58770964	65.91505061	-4.788831449	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 3/E	51.53149926	50.70074491	-2.503727911	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 3/E	47.87943987	43.63586009	-1.698381577	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 3/E	40.57219238	27.32664161	-0.278941614	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 3/E	60.61407848	67.84170254	-5.166895875	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 2/E	62.42461743	66.85957877	-2.797982239	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 2/E	54.97920989	51.49526233	-1.305092188	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 2/E	51.52925881	43.69531875	-0.722847619	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 2/E	44.50374138	25.38784611	0.392155653	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 2/E	63.34456948	68.6618339	-3.017523448	4.7	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 1/E	71.15543044	70.65733044	-0.615118768	5	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 1/E	64.1297928	52.4065432	0.25486217	9	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 1/E	60.79823968	42.86622298	0.664910354	12.61710051	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 1/E	53.75473563	21.36132427	1.714519715	30.003942	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 1/E	72.00674553	72.74460967	-0.730019866	4.7	35.74197769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 12/E	82.02552921	92.14843183	-6.66861098	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 12/E	70.83723956	70.80747031	-3.521197181	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 12/E	65.78951535	61.10187631	-2.464622965	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 12/E	55.72487047	38.90120816	-0.626760496	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 12/E	83.46960547	94.82703271	-7.228031966	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 11/E	83.42326238	94.986452	-7.044057472	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 11/E	71.77511264	72.66289003	-3.655541489	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 11/E	66.56146092	62.72284052	-2.562569556	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 11/E	56.21385472	40.18178751	-0.676205915	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 11/E	84.95043428	97.77245694	-7.682436405	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 10/E	97.64565502	99.06673136	-0.840934483	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 10/E	87.93119696	74.01115398	0.209733438	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 10/E	83.35395356	60.97509834	0.663226155	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 10/E	73.73401699	31.24895796	1.8704469	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 10/E	98.82650135	101.9463238	-0.983729332	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 9/E	85.75732325	93.22867946	-3.804765726	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 9/E	75.46332539	72.09010661	-1.850063504	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 9/E	70.69777283	61.41740326	-1.104120856	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 9/E	61.05315264	36.49622962	0.278733645	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 9/E	87.03078045	95.92819381	-4.097854563	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 8/E	96.51862429	96.04126707	-0.755997657	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 8/E	87.11994221	71.59307098	0.26194469	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 8/E	82.67442458	58.80390239	0.705032623	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 8/E	73.27943961	29.86573401	1.886330175	30.003942	72.94281769

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 8/E	97.65934992	98.83496082	-0.892084554	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 7/E	87.010309	96.12412976	-3.992706642	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 7/E	76.34270154	74.13300142	-1.938920166	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 7/E	71.42681073	63.22612065	-1.170784632	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 7/E	61.52600846	37.90818266	0.23805454	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 7/E	88.33497317	98.98413817	-4.305810764	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 6/E	87.010309	96.12412976	-3.992706642	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 6/E	76.34270154	74.13300142	-1.938920166	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 6/E	71.42681073	63.22612065	-1.170784632	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 6/E	61.52600846	37.90818266	0.23805454	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 6/E	88.33497317	98.98413817	-4.305810764	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 5/E	83.42326238	94.986452	-7.044057472	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 5/E	71.77511264	72.66289003	-3.655541489	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 5/E	66.56146092	62.72284052	-2.562569556	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 5/E	56.21385472	40.18178751	-0.676205915	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 5/E	84.95043428	97.77245694	-7.682436405	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 4/E	96.51862429	96.04126707	-0.755997657	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 4/E	87.11994221	71.59307098	0.26194469	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 4/E	82.67442458	58.80390239	0.705032623	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 4/E	73.27943961	29.86573401	1.886330175	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 4/E	97.65934992	98.83496082	-0.892084554	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 3/E	82.02552921	92.14843183	-6.66861098	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 3/E	70.83723956	70.80747031	-3.521197181	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 3/E	65.78951535	61.10187631	-2.464622965	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 3/E	55.72487047	38.90120816	-0.626760496	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 3/E	83.46960547	94.82703271	-7.228031966	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 2/E	85.75732325	93.22867946	-3.804765726	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 2/E	75.46332539	72.09010661	-1.850063504	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 2/E	70.69777283	61.41740326	-1.104120856	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 2/E	61.05315264	36.49622962	0.278733645	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 2/E	87.03078045	95.92819381	-4.097854563	4.7	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 1/E	97.64565502	99.06673136	-0.840934483	5	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 1/E	87.93119696	74.01115398	0.209733438	9	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 1/E	83.35395356	60.97509834	0.663226155	12.61710051	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 1/E	73.73401699	31.24895796	1.8704469	30.003942	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 1/E	98.82650135	101.9463238	-0.983729332	4.7	72.94281769
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 12/E	134.2642755	147.2943287	-16.34450308	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 12/E	115.4530923	113.4830192	-10.39766705	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 12/E	106.9670187	98.29473489	-8.372195786	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 12/E	89.70242198	63.19733463	-4.303521402	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 12/E	136.7143837	151.5361747	-17.41714395	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 11/E	136.9343856	152.3180809	-17.15798564	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 11/E	117.2332563	116.7164082	-10.69198426	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 11/E	108.4434013	101.1370669	-8.60318967	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 11/E	90.65907669	65.48000998	-4.448927654	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 11/E	139.5683609	156.7736268	-18.43777443	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 10/E	158.0166994	158.5502652	-3.959199328	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 10/E	141.4450256	119.8284857	-1.836826736	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 10/E	133.614415	99.50327828	-0.936253175	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 10/E	117.2752973	51.9179296	0.856864912	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 10/E	160.0281114	162.9793875	-4.242599345	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 9/E	140.789281	148.1864755	-11.16380606	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 9/E	123.0731833	115.2860417	-7.182746173	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 9/E	114.8257752	98.85626984	-5.597029239	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 9/E	97.83138826	59.58517504	-2.373114812	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 9/E	142.9874966	152.483882	-11.76771172	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 8/E	155.8500321	153.3391598	-3.769929304	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 8/E	139.8733686	115.6218666	-1.71760613	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 8/E	132.2947992	95.68950394	-0.841706666	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 8/E	116.3692853	49.38345803	0.917930892	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 8/E	157.7835306	157.6315825	-4.042108461	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 7/E	143.2363218	153.3172058	-11.59753567	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 7/E	124.7959644	118.7696959	-7.397579988	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 7/E	116.2662426	101.9757037	-5.777118895	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 7/E	98.78483094	62.12171738	-2.486137365	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 7/E	145.5368545	157.7761264	-12.24950837	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 6/E	143.2363218	153.3172058	-11.59753567	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 6/E	124.7959644	118.7696959	-7.397579988	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 6/E	116.2662426	101.9757037	-5.777118895	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 6/E	98.78483094	62.12171738	-2.486137365	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 6/E	145.5368545	157.7761264	-12.24950837	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 5/E	136.9343856	152.3180809	-17.15798564	5	172.025238

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 5/E	117.2332563	116.7164082	-10.69198426	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 5/E	108.4434013	101.1370669	-8.60318967	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 5/E	90.65907669	65.48000998	-4.448927654	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 5/E	139.5683609	156.7736268	-18.43777443	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 4/E	155.8500321	153.3391598	-3.769929304	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 4/E	139.8733686	115.6218666	-1.71760613	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 4/E	132.2947992	95.68950394	-0.841706666	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 4/E	116.3692853	49.38345803	0.917930892	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 4/E	157.7835306	157.6315825	-4.042108461	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 3/E	134.2642755	147.2943287	-16.34450308	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 3/E	115.4530923	113.4830192	-10.39766705	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 3/E	106.9670187	98.29473489	-8.372195786	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 3/E	89.70242198	63.19733463	-4.303521402	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 3/E	136.7143837	151.5361747	-17.41714395	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 2/E	140.789281	148.1864755	-11.16380606	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 2/E	123.0731833	115.2860417	-7.182746173	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 2/E	114.8257752	98.85626984	-5.597029239	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 2/E	97.83138826	59.58517504	-2.373114812	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 2/E	142.9874966	152.483882	-11.76771172	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 1/E	158.0166994	158.5502652	-3.959199328	5	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 1/E	141.4450256	119.8284857	-1.836826736	9	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 1/E	133.614415	99.50327828	-0.936253175	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 1/E	117.2752973	51.9179296	0.856864912	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 1/E	160.0281114	162.9793875	-4.242599345	4.7	172.025238
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 12/E	62.99843906	68.0212614	-5.593428288	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 12/E	55.28130366	52.08126548	-3.441476302	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 12/E	51.70198079	44.07683275	-2.545930209	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 12/E	44.4344224	9.184373338	-0.835808923	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 12/E	63.94867287	69.89854009	-5.887507966	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 11/E	63.44982004	69.40986604	-5.722549494	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 11/E	55.53378675	53.13909143	-3.507465917	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 11/E	51.8750798	45.01687125	-2.594811152	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 11/E	44.48369275	26.37120359	-0.859741547	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 11/E	64.42690881	71.33561402	-6.0271399	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 10/E	72.17185787	60.24797432	-6.628236577	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 10/E	64.04481026	42.86470832	-4.170885077	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 10/E	59.97402897	33.23285118	-2.952248439	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 10/E	49.46117028	14.41383963	-0.021783851	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 10/E	73.13149775	62.14344586	-6.922107632	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 9/E	63.99483835	62.72923413	-4.958626743	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 9/E	56.55770814	47.55965353	-3.070802066	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 9/E	53.04666514	39.57362933	-2.260801074	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 9/E	45.59443398	20.61184376	-0.585067532	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 9/E	64.89862336	64.46788898	-5.205324299	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 8/E	71.29258307	58.45724243	-6.446713594	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 8/E	63.36701768	41.31857439	-4.034367296	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 8/E	59.37547351	31.87674141	-2.837235377	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 8/E	48.8512378	14.14058181	0.075279242	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 8/E	72.22365089	60.32002416	-6.731915986	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 7/E	64.6063947	64.1932694	-5.077299338	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 7/E	56.96849734	48.74340677	-3.141695144	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 7/E	53.37590818	40.66242	-2.314261175	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 7/E	45.80161159	21.38258898	-0.620952043	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 7/E	65.5371124	65.97274804	-5.331925152	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 6/E	67.23156719	66.98339361	-5.345565899	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 6/E	59.27444244	50.90272071	-3.337106888	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 6/E	55.53261669	42.50263388	-2.482874878	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 6/E	47.64907452	22.45671527	-0.713468711	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 6/E	68.20046018	68.83645102	-5.608072535	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 5/E	66.7965973	73.31732608	-6.083847837	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 5/E	58.44648953	56.16536152	-3.75477086	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 5/E	54.58884679	47.61926397	-2.797958301	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 5/E	46.81305113	28.01021339	-1.00276303	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 5/E	67.82943609	75.35069683	-6.40842806	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 4/E	69.6249785	56.97519937	-6.232361977	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 4/E	61.89185847	40.21884201	-3.888024339	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 4/E	57.99414755	30.99053081	-2.7236318	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 4/E	47.66124079	13.77075306	0.114699207	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 4/E	70.53309864	58.79529209	-6.509303114	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 3/E	66.48204228	72.02741581	-5.964743072	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 3/E	58.32346292	55.18760851	-3.698036419	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 3/E	54.54192747	46.74357782	-2.759470627	12.61710051	172.5023804

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 3/E	46.88196857	27.28795416	-0.982948195	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 3/E	67.48703616	74.01247552	-6.275336362	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 2/E	66.71160493	65.57279509	-5.234414824	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 2/E	58.95093014	49.75913053	-3.272116576	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 2/E	55.28994649	41.44516191	-2.433674699	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 2/E	47.51930758	21.6904156	-0.680019916	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 2/E	67.65476282	67.38657635	-5.490842395	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 1/E	70.7385759	58.94996886	-6.441157858	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 1/E	62.7786695	41.89698106	-4.040477091	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 1/E	58.79070595	32.56659173	-2.852560485	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 1/E	48.44772159	14.17274635	0.014404137	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 1/E	71.67774653	60.80827157	-6.727156434	4.7	172.5023804
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 12/E	19.3638994	20.12578922	-1.727191477	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 12/E	16.71480163	15.47474963	-0.738982499	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 12/E	15.46783324	13.14169562	-0.276455869	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 12/E	12.87138857	7.68869732	0.730779007	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 12/E	19.69418346	20.71800594	-1.865994318	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 11/E	19.58462222	20.54635655	-1.800111065	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 11/E	16.86826674	15.77628374	-0.778333355	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 11/E	15.59144528	13.40715182	-0.303317117	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 11/E	12.9540904	7.894412923	0.707130472	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 11/E	19.91912412	21.17678813	-1.939022893	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 10/E	23.10655574	21.22426229	0.102296251	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 10/E	20.74775554	15.27800592	0.734562003	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 10/E	19.58049004	12.15519472	1.11369816	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 10/E	16.54856374	5.685209228	2.975676722	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 10/E	23.4083349	21.90277373	-0.009267097	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 9/E	20.34186934	20.55494892	-1.009872656	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 9/E	17.82565273	15.53143089	-0.152621413	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 9/E	16.58966812	12.95191555	0.337909477	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 9/E	14.00912323	6.961452241	1.378260156	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 9/E	20.64516197	21.1397109	-1.114102451	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 8/E	22.91504393	20.73707088	0.155764021	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 8/E	20.6161761	14.88566839	0.757901856	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 8/E	19.46392033	11.80901055	1.145317971	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 8/E	16.45197905	5.519960139	3.025167607	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 8/E	23.21355667	21.40302877	0.039126002	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 7/E	20.54288046	20.98014519	-1.061511758	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 7/E	17.97225563	15.86065694	-0.192407726	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 7/E	16.70468724	13.24977771	0.320287985	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 7/E	14.09940604	7.169266101	1.338613256	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 7/E	20.85529179	21.57757271	-1.169592936	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 6/E	20.54288046	20.98014519	-1.061511758	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 6/E	17.97225563	15.86065694	-0.192407726	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 6/E	16.70468724	13.24977771	0.320287985	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 6/E	14.09940604	7.169266101	1.338613256	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 6/E	20.85529179	21.57757271	-1.169592936	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 5/E	19.58462222	20.54635655	-1.800111065	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 5/E	16.86826674	15.77628374	-0.778333355	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 5/E	15.59144528	13.40715182	-0.303317117	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 5/E	12.9540904	7.894412923	0.707130472	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 5/E	19.91912412	21.17678813	-1.939022893	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 4/E	22.91504393	20.73707088	0.155764021	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 4/E	20.6161761	14.88566839	0.757901856	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 4/E	19.46392033	11.80901055	1.145317971	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 4/E	16.45197905	5.519960139	3.025167607	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 4/E	23.21355667	21.40302877	0.039126002	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 3/E	19.3638994	20.12578922	-1.727191477	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 3/E	16.71480163	15.47474963	-0.738982499	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 3/E	15.46783324	13.14169562	-0.276455869	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 3/E	12.87138857	7.68869732	0.730779007	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 3/E	19.69418346	20.71800594	-1.865994318	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 2/E	20.34186934	20.55494892	-1.009872656	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 2/E	17.82565273	15.53143089	-0.152621413	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 2/E	16.58966812	12.95191555	0.337909477	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 2/E	14.00912323	6.961452241	1.378260156	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 2/E	20.64516197	21.1397109	-1.114102451	4.7	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 1/E	23.10655574	21.22426229	0.102296251	5	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 1/E	20.74775554	15.27800592	0.734562003	9	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 1/E	19.58049004	12.15519472	1.11369816	12.61710051	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 1/E	16.54856374	5.685209228	2.975676722	30.003942	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 1/E	23.4083349	21.90277373	-0.009267097	4.7	2.91771245

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 12/E	134.2642755	147.2943287	-16.34450308	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 12/E	115.4530923	113.4830192	-10.39766705	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 12/E	106.9670187	98.29473489	-8.372195786	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 12/E	89.70242198	63.19733463	-4.303521402	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 12/E	136.7143837	151.5361747	-17.41714395	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 11/E	136.9343856	152.3180809	-17.15798564	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 11/E	117.2332563	116.7164082	-10.69198426	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 11/E	108.4434013	101.1370669	-8.60318967	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 11/E	90.65907669	65.48000998	-4.448927654	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 11/E	139.5683609	156.7736268	-18.43777443	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 10/E	158.0166994	158.5502652	-3.959199328	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 10/E	141.4450256	119.8284857	-1.836826736	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 10/E	133.614415	99.50327828	-0.936253175	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 10/E	117.2752973	51.9179296	0.856864912	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 10/E	160.0281114	162.9793875	-4.242599345	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 9/E	140.789281	148.1864755	-11.16380606	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 9/E	123.0731833	115.2860417	-7.182746173	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 9/E	114.8257752	98.85626984	-5.597029239	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 9/E	97.83138826	59.58517504	-2.373114812	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 9/E	142.9874966	152.483882	-11.76771172	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 8/E	155.8500321	153.3391598	-3.769929304	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 8/E	139.8733686	115.6218666	-1.71760613	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 8/E	132.2947992	95.68950394	-0.841706666	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 8/E	116.3692853	49.38345803	0.917930892	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 8/E	157.7835306	157.6315825	-4.042108461	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 7/E	143.2363218	153.3172058	-11.59753567	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 7/E	124.7959644	118.7696959	-7.397579988	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 7/E	116.2662426	101.9757037	-5.777118895	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 7/E	98.78483094	62.12171738	-2.486137365	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 7/E	145.5368545	157.7761264	-12.24950837	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 6/E	143.2363218	153.3172058	-11.59753567	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 6/E	124.7959644	118.7696959	-7.397579988	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 6/E	116.2662426	101.9757037	-5.777118895	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 6/E	98.78483094	62.12171738	-2.486137365	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 6/E	145.5368545	157.7761264	-12.24950837	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 5/E	136.9343856	152.3180809	-17.15798564	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 5/E	117.2332563	116.7164082	-10.69198426	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 5/E	108.4434013	101.1370669	-8.60318967	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 5/E	90.65907669	65.48000998	-4.448927654	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 5/E	139.5683609	156.7736268	-18.43777443	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 4/E	155.8500321	153.3391598	-3.769929304	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 4/E	139.8733686	115.6218666	-1.71760613	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 4/E	132.2947992	95.68950394	-0.841706666	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 4/E	116.3692853	49.38345803	0.917930892	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 4/E	157.7835306	157.6315825	-4.042108461	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 3/E	134.2642755	147.2943287	-16.34450308	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 3/E	115.4530923	113.4830192	-10.39766705	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 3/E	106.9670187	98.29473489	-8.372195786	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 3/E	89.70242198	63.19733463	-4.303521402	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 3/E	136.7143837	151.5361747	-17.41714395	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 2/E	140.789281	148.1864755	-11.16380606	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 2/E	123.0731833	115.2860417	-7.182746173	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 2/E	114.8257752	98.85626984	-5.597029239	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 2/E	97.83138826	59.58517504	-2.373114812	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 2/E	142.9874966	152.483882	-11.76771172	4.7	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 1/E	158.0166994	158.5502652	-3.959199328	5	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 1/E	141.4450256	119.8284857	-1.836826736	9	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 1/E	133.614415	99.50327828	-0.936253175	12.61710051	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 1/E	117.2752973	51.9179296	0.856864912	30.003942	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 1/E	160.0281114	162.9793875	-4.242599345	4.7	172.025238
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 12/E	62.99843906	68.0212614	-5.593428288	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 12/E	55.28130366	52.08126548	-3.441476302	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 12/E	51.70198079	44.07683275	-2.545930209	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 12/E	44.4344224	9.184373338	-0.835808923	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 12/E	63.94867287	69.89854009	-5.887507966	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 11/E	63.44982004	69.40986604	-5.722549494	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 11/E	55.53378675	53.13909143	-3.507465917	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 11/E	51.8750798	45.01687125	-2.594811152	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 11/E	44.48369275	26.37120359	-0.859741547	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 11/E	64.42690881	71.33561402	-6.0271399	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 10/E	72.17185787	60.24797432	-6.628236577	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 10/E	64.04481026	42.86470832	-4.170885077	9	172.5023804

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 10/E	59.97402897	33.23285118	-2.952248439	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 10/E	49.46117028	14.41383963	-0.021783851	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 10/E	73.13149775	62.14344586	-6.922107632	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 9/E	63.99483835	62.72923413	-4.958626743	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 9/E	56.55770814	47.55965353	-3.070802066	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 9/E	53.04666514	39.57362933	-2.260801074	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 9/E	45.59443398	20.61184376	-0.585067532	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 9/E	64.89862336	64.46788898	-5.205324299	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 8/E	71.29258307	58.45724243	-6.446713594	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 8/E	63.36701768	41.31857439	-4.034367296	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 8/E	59.37547351	31.87674141	-2.837235377	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 8/E	48.8512378	14.14058181	0.075279242	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 8/E	72.22365089	60.32002416	-6.731915986	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 7/E	64.6063947	64.1932694	-5.077299338	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 7/E	56.96849734	48.74340677	-3.141695144	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 7/E	53.37590818	40.66242	-2.314261175	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 7/E	45.80161159	21.38258898	-0.620952043	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 7/E	65.5371124	65.97274804	-5.331925152	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 6/E	67.23156719	66.98339361	-5.345565899	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 6/E	59.27444244	50.90272071	-3.337106888	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 6/E	55.53261669	42.50263388	-2.482874878	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 6/E	47.64907452	22.45671527	-0.713468711	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 6/E	68.20046018	68.83645102	-5.608072535	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 5/E	66.7965973	73.31732608	-6.083847837	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 5/E	58.44648953	56.16536152	-3.75477086	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 5/E	54.58884679	47.61926397	-2.797958301	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 5/E	46.81305113	28.01021339	-1.00276303	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 5/E	67.82943609	75.35069683	-6.40842806	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 4/E	69.6249785	56.97519937	-6.232361977	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 4/E	61.89185847	40.21884201	-3.888024339	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 4/E	57.99414755	30.99053081	-2.7236318	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 4/E	47.66124079	13.77075306	0.114699207	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 4/E	70.53309864	58.79529209	-6.509303114	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 3/E	66.48204228	72.02741581	-5.964743072	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 3/E	58.32346292	55.18760851	-3.698036419	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 3/E	54.54192747	46.74357782	-2.759470627	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 3/E	46.88196857	27.28795416	-0.982948195	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 3/E	67.48703616	74.01247552	-6.275336362	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 2/E	66.71160493	65.57279509	-5.234414824	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 2/E	58.95093014	49.75913053	-3.272116576	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 2/E	55.28994649	41.44516191	-2.433674699	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 2/E	47.51930758	21.6904156	-0.680019916	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 2/E	67.65476282	67.38657635	-5.490842395	4.7	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 1/E	70.7385759	58.94996886	-6.441157858	5	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 1/E	62.7786695	41.89698106	-4.040477091	9	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 1/E	58.79070595	32.56659173	-2.852560485	12.61710051	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 1/E	48.44772159	14.17274635	0.014404137	30.003942	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 1/E	71.67774653	60.80827157	-6.727156434	4.7	172.5023804
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 12/E	35.9246434	37.13316856	-3.49575622	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 12/E	31.03305304	28.72987456	-1.923128081	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 12/E	28.78226987	24.59364737	-1.302688116	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 12/E	24.17933774	14.64385698	-0.126515738	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 12/E	36.53388989	38.23557615	-3.725617364	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 11/E	36.40069711	38.05486222	-3.624946066	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 11/E	31.36403595	29.34607605	-1.985757807	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 11/E	29.05452457	25.14375306	-1.348626095	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 11/E	24.35577924	15.10220788	-0.148836189	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 11/E	37.03373457	39.18722	-3.868948657	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 10/E	41.62123886	39.40190168	1.965206981	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 10/E	37.68515663	29.00342352	1.965206981	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 10/E	35.80011115	23.37151914	1.960206981	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 10/E	31.71567105	10.84108483	1.969058999	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 10/E	42.09335822	40.56509929	1.965206981	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 9/E	37.86653097	37.77673641	-2.284380905	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 9/E	33.24573163	28.9835831	-1.126192114	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 9/E	31.076043	24.38306255	-0.638830232	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 9/E	26.41008356	13.25827831	0.60663252	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 9/E	38.43419798	38.79148392	-2.445715619	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 8/E	42.53209024	38.67199137	-0.602512998	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 8/E	38.31953333	28.12282974	0.150555473	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 8/E	36.19680494	22.49631558	0.705569689	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 8/E	31.63104264	10.44255448	1.801368954	30.003942	9.457866669

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 8/E	43.03722091	39.85430962	-0.692158958	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 7/E	38.31155706	38.62787722	-2.369155454	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 7/E	33.56065834	29.66334159	-1.172932754	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 7/E	31.33856879	25.00193973	-0.672577077	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 7/E	26.51499932	13.75217366	0.732127407	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 7/E	38.89665715	39.66807466	-2.536113441	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 6/E	38.31155706	38.62787722	-2.369155454	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 6/E	33.56065834	29.66334159	-1.172932754	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 6/E	31.33856879	25.00193973	-0.672577077	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 6/E	26.51499932	13.75217366	0.732127407	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 6/E	38.89665715	39.66807466	-2.536113441	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 5/E	36.40069711	38.05486222	-3.624946066	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 5/E	31.36403595	29.34607605	-1.985757807	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 5/E	29.05452457	25.14375306	-1.348626095	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 5/E	24.35577924	15.10220788	-0.148836189	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 5/E	37.03373457	39.18722	-3.868948657	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 4/E	42.53209024	38.67199137	-0.602512998	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 4/E	38.31953333	28.12282974	0.150555473	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 4/E	36.19680494	22.49631558	0.705569689	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 4/E	31.63104264	10.44255448	1.801368954	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 4/E	43.03722091	39.85430962	-0.692158958	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 3/E	35.9246434	37.13316856	-3.49575622	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 3/E	31.03305304	28.72987456	-1.923128081	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 3/E	28.78226987	24.59364737	-1.302688116	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 3/E	24.17933774	14.64385698	-0.126515738	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 3/E	36.53388989	38.23557615	-3.725617364	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 2/E	37.86653097	37.77673641	-2.284380905	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 2/E	33.24573163	28.9835831	-1.126192114	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 2/E	31.076043	24.38306255	-0.638830232	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 2/E	26.41008356	13.25827831	0.60663252	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 2/E	38.43419798	38.79148392	-2.445715619	4.7	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 1/E	41.62123886	39.40190168	1.965206981	5	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 1/E	37.68515663	29.00342352	1.965206981	9	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 1/E	35.80011115	23.37151914	1.960206981	12.61710051	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 1/E	31.71567105	10.84108483	1.969058999	30.003942	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 1/E	42.09335822	40.56509929	1.965206981	4.7	9.457866669
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 12/E	48.53906288	51.05863652	-4.757086329	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 12/E	41.90004589	39.45964188	-2.6844494	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 12/E	38.85448082	33.9039513	-1.891544044	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 12/E	32.64878178	20.6744397	-0.37669889	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 12/E	49.3732028	52.55688733	-5.070674626	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 11/E	49.24435222	52.41562854	-4.944536784	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 11/E	42.3842246	40.35610982	-2.772135203	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 11/E	39.25369207	34.70233426	-1.954802018	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 11/E	32.90973666	21.3336081	-0.412634721	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 11/E	50.10937857	53.95971109	-5.27670467	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 10/E	57.84646514	54.74121019	-0.936636527	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 10/E	52.02965817	40.33009062	-0.069213065	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 10/E	49.25226087	32.6535764	0.337754379	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 10/E	43.2312227	15.55831878	1.378334833	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 10/E	58.54895013	56.37252131	-1.048175575	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 9/E	51.09142317	51.77476753	-3.100836542	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 9/E	44.8305532	39.92946898	-1.618843711	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 9/E	41.90576372	33.7765019	-1.014028862	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 9/E	35.83008764	18.86709528	0.188380765	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 9/E	51.86073536	53.14815788	-3.306963962	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 8/E	57.26472435	53.26402124	-0.877479154	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 8/E	51.60711109	39.11876414	-0.030987315	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 8/E	48.89482534	31.55605684	0.371195572	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 8/E	42.97364884	14.96462005	1.405805241	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 8/E	57.94752276	54.85844016	-0.98557187	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 7/E	51.74697304	53.02316774	-3.217962837	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 7/E	45.29508204	40.91657759	-1.683266133	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 7/E	42.29181956	34.67304785	-1.06092435	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 7/E	36.0873906	19.57254943	0.163095886	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 7/E	52.5399519	54.43525274	-3.43352884	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 6/E	51.74697304	53.02316774	-3.217962837	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 6/E	45.29508204	40.91657759	-1.683266133	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 6/E	42.29181956	34.67304785	-1.06092435	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 6/E	36.0873906	19.57254943	0.163095886	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 6/E	52.5399519	54.43525274	-3.43352884	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 5/E	49.24435222	52.41562854	-4.944536784	5	18.53741837

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 5/E	42.3842246	40.35610982	-2.772135203	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 5/E	39.25369207	34.70233426	-1.954802018	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 5/E	32.90973666	21.3336081	-0.412634721	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 5/E	50.10937857	53.95971109	-5.27670467	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 4/E	57.26472435	53.26402124	-0.877479154	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 4/E	51.60711109	39.11876414	-0.030987315	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 4/E	48.89482534	31.55605684	0.371195572	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 4/E	42.97364884	14.96462005	1.405805241	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 4/E	57.94752276	54.85844016	-0.98557187	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 3/E	48.53906288	51.05863652	-4.757086329	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 3/E	41.90004589	39.45964188	-2.6844494	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 3/E	38.85448082	33.9039513	-1.891544044	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 3/E	32.64878178	20.6744397	-0.37669889	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 3/E	49.3732028	52.55688733	-5.070674626	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 2/E	51.09142317	51.77476753	-3.100836542	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 2/E	44.8305532	39.92946898	-1.618843711	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 2/E	41.90576372	33.7765019	-1.014028862	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 2/E	35.83008764	18.86709528	0.188380765	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 2/E	51.86073536	53.14815788	-3.306963962	4.7	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 1/E	57.84646514	54.74121019	-0.936636527	5	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 1/E	52.02965817	40.33009062	-0.069213065	9	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 1/E	49.25226087	32.6535764	0.337754379	12.61710051	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 1/E	43.2312227	15.55831878	1.378334833	30.003942	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 1/E	58.54895013	56.37252131	-1.048175575	4.7	18.53741837
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 12/E	134.6912656	147.7172451	-16.4733309	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 12/E	115.827776	113.8185141	-10.51220498	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 12/E	107.3114405	98.58007953	-8.46955362	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 12/E	89.98084349	63.3665937	-4.36044725	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 12/E	137.147812	151.9712259	-17.54803089	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 11/E	137.3709789	152.7593061	-17.28986529	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 11/E	117.6141712	117.0647876	-10.8071859	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 11/E	108.7941286	101.4340453	-8.703199063	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 11/E	90.94166302	65.65815261	-4.507599058	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 11/E	140.0094337	157.2265084	-18.56721772	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 10/E	158.5549436	158.9764115	-4.038360681	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 10/E	141.9120308	120.1602524	-1.897326208	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 10/E	134.0510405	99.77830337	-0.994785045	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 10/E	117.6308418	52.04462179	0.826397479	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 10/E	160.5721952	163.4164937	-4.324189284	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 9/E	141.277394	148.5870507	-11.30417777	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 9/E	123.494999	115.609206	-7.299688194	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 9/E	115.2105198	99.13292384	-5.693215061	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 9/E	98.13600275	59.73610911	-2.427432651	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 9/E	143.4845574	152.8967367	-11.91301984	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 8/E	156.3752121	153.7517521	-3.847245762	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 8/E	140.3326447	115.9406031	-1.776874009	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 8/E	132.722268	95.95139129	-0.894516155	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 8/E	116.7195637	49.50367248	0.888289419	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 8/E	158.3165422	158.0537015	-4.12171629	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 7/E	143.7358331	153.7344383	-11.74154893	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 7/E	125.2264202	119.1047019	-7.517697509	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 7/E	116.6569859	102.2629515	-5.872911522	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 7/E	99.09471622	62.28279048	-2.542176496	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 7/E	146.0451541	158.2052332	-12.39749561	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 6/E	143.7358331	153.7344383	-11.74154893	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 6/E	125.2264202	119.1047019	-7.517697509	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 6/E	116.6569859	102.2629515	-5.872911522	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 6/E	99.09471622	62.28279048	-2.542176496	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 6/E	146.0451541	158.2052332	-12.39749561	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 5/E	137.3709789	152.7593061	-17.28986529	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 5/E	117.6141712	117.0647876	-10.8071859	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 5/E	108.7941286	101.4340453	-8.703199063	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 5/E	90.94166302	65.65815261	-4.507599058	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 5/E	140.0094337	157.2265084	-18.56721772	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 4/E	156.3752121	153.7517521	-3.847245762	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 4/E	140.3326447	115.9406031	-1.776874009	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 4/E	132.722268	95.95139129	-0.894516155	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 4/E	116.7195637	49.50367248	0.888289419	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 4/E	158.3165422	158.0537015	-4.12171629	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 3/E	134.6912656	147.7172451	-16.4733309	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 3/E	115.827776	113.8185141	-10.51220498	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 3/E	107.3114405	98.58007953	-8.46955362	12.61710051	172.7689209

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 3/E	89.98084349	63.3665937	-4.36044725	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 3/E	137.147812	151.9712259	-17.54803089	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 2/E	141.277394	148.5870507	-11.30417777	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 2/E	123.494999	115.609206	-7.299688194	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 2/E	115.2105198	99.13292384	-5.693215061	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 2/E	98.13600275	59.73610911	-2.427432651	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 2/E	143.4845574	152.8967367	-11.91301984	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 1/E	158.5549436	158.9764115	-4.038360681	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 1/E	141.9120308	120.1602524	-1.897326208	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 1/E	134.0510405	99.77830337	-0.994785045	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 1/E	117.6308418	52.04462179	0.826397479	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 1/E	160.5721952	163.4164937	-4.324189284	4.7	172.7689209
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 12/E	57.49228542	61.71224055	-5.02276571	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 12/E	50.47119838	47.19458929	-3.048842599	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 12/E	47.20826066	39.88469666	-2.219023221	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 12/E	40.5704765	22.9979451	-0.611642711	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 12/E	58.35562291	63.4246097	-5.290242639	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 11/E	58.03567227	63.11780172	-5.153682306	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 11/E	50.81909572	48.26535524	-3.11961034	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 11/E	47.4825561	40.83233854	-2.276781275	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 11/E	40.71453335	23.73902893	-0.641388724	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 11/E	58.92614523	64.8727681	-5.433068738	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 10/E	64.05621952	52.91731522	-5.586475866	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 10/E	56.87828494	37.40375567	-3.456646526	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 10/E	53.26982117	28.81078984	-2.398405487	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 10/E	43.67691681	12.58714225	0.243594231	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 10/E	64.90161791	54.60287243	-5.839145406	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 9/E	57.66249461	56.12543078	-4.328936663	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 9/E	50.97663267	42.45107577	-2.610802357	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 9/E	47.81021379	35.2344173	-1.857453001	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 9/E	41.09798361	18.13083415	-0.357672697	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 9/E	58.47389161	57.69268862	-4.552723338	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 8/E	63.07865634	51.17636506	-5.407359374	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 8/E	56.09719791	35.92148681	-3.321959245	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 8/E	52.56666274	27.53592746	-2.288250728	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 8/E	43.01919199	12.20380551	0.23842331	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 8/E	63.89844966	52.8291405	-5.653724563	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 7/E	58.34648015	57.56927805	-4.449021997	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 7/E	51.46930337	43.61858087	-2.687552518	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 7/E	48.2213509	36.29766764	-1.914205611	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 7/E	41.38367203	18.85160698	-0.392305007	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 7/E	59.18382759	59.17249207	-4.679998354	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 6/E	61.17165825	60.55627762	-4.727833151	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 6/E	53.9515019	45.92787139	-2.887017163	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 6/E	50.5476186	38.26358551	-2.087679933	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 6/E	43.38107673	19.98623708	-0.496371568	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 6/E	62.05099605	62.23881371	-4.969297949	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 5/E	61.83859735	67.5391243	-5.554063653	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 5/E	54.13313993	51.68742942	-3.392985749	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 5/E	50.56973028	43.76993489	-2.500746837	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 5/E	43.36453205	25.58350013	-0.793955928	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 5/E	62.78999092	69.41423899	-5.851634773	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 4/E	61.75795974	50.01193505	-5.243893459	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 4/E	54.92785302	35.05948087	-3.210673251	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 4/E	51.4710548	26.84633924	-2.20177373	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 4/E	42.10579191	11.90540764	0.214390059	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 4/E	62.55948373	51.63092541	-5.483374018	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 3/E	61.43045609	66.22745844	-5.431688351	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 3/E	53.91295112	50.68858616	-3.330593509	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 3/E	50.42553012	42.88047194	-2.454797529	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 3/E	43.33682472	24.86649021	-0.771646779	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 3/E	62.35580473	68.05674298	-5.718179963	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 2/E	60.56395151	59.1532625	-4.612799102	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 2/E	53.53692885	44.79203798	-2.819123436	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 2/E	50.2112408	37.21945466	-2.03656161	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 2/E	43.16314862	19.26234844	-0.461135284	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 2/E	61.41904882	60.79607895	-4.847093034	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 1/E	62.70372278	51.70250813	-5.416020957	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 1/E	55.68359927	36.50104097	-3.340586167	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 1/E	52.15157923	28.08261374	-2.308052602	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 1/E	42.73709506	12.21799528	0.219342604	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 1/E	63.53056899	53.35315699	-5.662666037	4.7	172.8658752

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 12/E	134.6912656	147.7172451	-16.4733309	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 12/E	115.827776	113.8185141	-10.51220498	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 12/E	107.3114405	98.58007953	-8.46955362	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 12/E	89.98084349	63.3665937	-4.36044725	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 12/E	137.147812	151.9712259	-17.54803089	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 11/E	137.3709789	152.7593061	-17.28986529	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 11/E	117.6141712	117.0647876	-10.8071859	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 11/E	108.7941286	101.4340453	-8.703199063	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 11/E	90.94166302	65.65815261	-4.507599058	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 11/E	140.0094337	157.2265084	-18.56721772	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 10/E	158.5549436	158.9764115	-4.038360681	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 10/E	141.9120308	120.1602524	-1.897326208	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 10/E	134.0510405	99.77830337	-0.994785045	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 10/E	117.6308418	52.04462179	0.826397479	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 10/E	160.5721952	163.4164937	-4.324189284	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 9/E	141.277394	148.5870507	-11.30417777	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 9/E	123.494999	115.609206	-7.299688194	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 9/E	115.2105198	99.13292384	-5.693215061	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 9/E	98.13600275	59.73610911	-2.427432651	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 9/E	143.4845574	152.8967367	-11.91301984	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 8/E	156.3752121	153.7517521	-3.847245762	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 8/E	140.3326447	115.9406031	-1.776874009	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 8/E	132.722268	95.95139129	-0.894516155	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 8/E	116.7195637	49.50367248	0.888289419	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 8/E	158.3165422	158.0537015	-4.12171629	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 7/E	143.7358331	153.7344383	-11.74154893	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 7/E	125.2264202	119.1047019	-7.517697509	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 7/E	116.6569859	102.2629515	-5.872911522	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 7/E	99.09471622	62.28279048	-2.542176496	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 7/E	146.0451541	158.2052332	-12.39749561	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 6/E	143.7358331	153.7344383	-11.74154893	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 6/E	125.2264202	119.1047019	-7.517697509	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 6/E	116.6569859	102.2629515	-5.872911522	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 6/E	99.09471622	62.28279048	-2.542176496	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 6/E	146.0451541	158.2052332	-12.39749561	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 5/E	137.3709789	152.7593061	-17.28986529	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 5/E	117.6141712	117.0647876	-10.8071859	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 5/E	108.7941286	101.4340453	-8.703199063	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 5/E	90.94166302	65.65815261	-4.507599058	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 5/E	140.0094337	157.2265084	-18.56721772	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 4/E	156.3752121	153.7517521	-3.847245762	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 4/E	140.3326447	115.9406031	-1.776874009	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 4/E	132.722268	95.95139129	-0.894516155	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 4/E	116.7195637	49.50367248	0.888289419	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 4/E	158.3165422	158.0537015	-4.12171629	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 3/E	134.6912656	147.7172451	-16.4733309	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 3/E	115.827776	113.8185141	-10.51220498	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 3/E	107.3114405	98.58007953	-8.46955362	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 3/E	89.98084349	63.3665937	-4.36044725	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 3/E	137.147812	151.9712259	-17.54803089	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 2/E	141.277394	148.5870507	-11.30417777	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 2/E	123.494999	115.609206	-7.299688194	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 2/E	115.2105198	99.13292384	-5.693215061	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 2/E	98.13600275	59.73610911	-2.427432651	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 2/E	143.4845574	152.8967367	-11.91301984	4.7	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 1/E	158.5549436	158.9764115	-4.038360681	5	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 1/E	141.9120308	120.1602524	-1.897326208	9	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 1/E	134.0510405	99.77830337	-0.994785045	12.61710051	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 1/E	117.6308418	52.04462179	0.826397479	30.003942	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 1/E	160.5721952	163.4164937	-4.324189284	4.7	172.7689209
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 12/E	57.49228542	61.71224055	-5.02276571	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 12/E	50.47119838	47.19458929	-3.048842599	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 12/E	47.20826066	39.88469666	-2.219023221	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 12/E	40.5704765	22.9979451	-0.611642711	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 12/E	58.35562291	63.4246097	-5.290242639	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 11/E	58.03567227	63.11780172	-5.153682306	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 11/E	50.81909572	48.26535524	-3.11961034	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 11/E	47.4825561	40.83233854	-2.276781275	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 11/E	40.71453335	23.73902893	-0.641388724	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 11/E	58.92614523	64.8727681	-5.433068738	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 10/E	64.05621952	52.91731522	-5.586475866	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 10/E	56.87828494	37.40375567	-3.456646526	9	172.8658752

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 10/E	53.26982117	28.81078984	-2.398405487	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 10/E	43.67691681	12.58714225	0.243594231	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 10/E	64.90161791	54.60287243	-5.839145406	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 9/E	57.66249461	56.12543078	-4.328936663	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 9/E	50.97663267	42.45107577	-2.610802357	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 9/E	47.81021379	35.2344173	-1.857453001	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 9/E	41.09798361	18.13083415	-0.357672697	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 9/E	58.47389161	57.69268862	-4.552723338	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 8/E	63.07865634	51.17636506	-5.407359374	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 8/E	56.09719791	35.92148681	-3.321959245	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 8/E	52.56666274	27.53592746	-2.288250728	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 8/E	43.01919199	12.20380551	0.23842331	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 8/E	63.89844966	52.8291405	-5.653724563	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 7/E	58.34648015	57.56927805	-4.449021997	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 7/E	51.46930337	43.61858087	-2.687552518	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 7/E	48.2213509	36.29766764	-1.914205611	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 7/E	41.38367203	18.85160698	-0.392305007	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 7/E	59.18382759	59.17249207	-4.679998354	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 6/E	61.17165825	60.55627762	-4.727833151	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 6/E	53.9515019	45.92787139	-2.887017163	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 6/E	50.5476186	38.26358551	-2.087679933	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 6/E	43.38107673	19.98623708	-0.496371568	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 6/E	62.05099605	62.23881371	-4.969297949	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 5/E	61.83859735	67.5391243	-5.554063653	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 5/E	54.13313993	51.68742942	-3.392985749	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 5/E	50.56973028	43.76993489	-2.500746837	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 5/E	43.36453205	25.58350013	-0.793955928	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 5/E	62.78999092	69.41423899	-5.851634773	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 4/E	61.75795974	50.01193505	-5.243893459	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 4/E	54.92785302	35.05948087	-3.210673251	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 4/E	51.4710548	26.84633924	-2.20177373	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 4/E	42.10579191	11.90540764	0.214390059	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 4/E	62.55948373	51.63092541	-5.483374018	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 3/E	61.43045609	66.22745844	-5.431688351	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 3/E	53.91295112	50.68858616	-3.330593509	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 3/E	50.42553012	42.88047194	-2.454797529	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 3/E	43.33682472	24.86649021	-0.771646779	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 3/E	62.35580473	68.05674298	-5.718179963	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 2/E	60.56395151	59.1532625	-4.612799102	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 2/E	53.53692885	44.79203798	-2.819123436	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 2/E	50.2112408	37.21945466	-2.03656161	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 2/E	43.16314862	19.26234844	-0.461135284	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 2/E	61.41904882	60.79607895	-4.847093034	4.7	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 1/E	62.70372278	51.70250813	-5.416020957	5	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 1/E	55.68359927	36.50104097	-3.340586167	9	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 1/E	52.15157923	28.08261374	-2.308052602	12.61710051	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 1/E	42.73709506	12.21799528	0.219342604	30.003942	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 1/E	63.53056899	53.35315699	-5.662666037	4.7	172.8658752
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 12/E	33.08967408	33.67101709	-3.360312352	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 12/E	28.59374772	26.09392868	-1.874070812	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 12/E	26.51303428	22.27844559	-1.272226767	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 12/E	22.23125749	13.03604401	-0.112131097	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 12/E	33.64990397	34.67976225	-3.573769379	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 11/E	33.5170902	34.49331486	-3.476950812	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 11/E	28.88975969	26.64372664	-1.932847605	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 11/E	26.75821626	22.7773895	-1.316182334	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 11/E	22.39376358	13.44495307	-0.135923458	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 11/E	34.09318628	35.52541073	-3.700473488	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 10/E	39.70927151	35.9015506	-0.709003177	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 10/E	35.67773823	26.07038913	0.050824389	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 10/E	33.6757255	20.78263353	0.536614832	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 10/E	29.21610267	9.485713165	1.708817188	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 10/E	40.19348124	37.00111316	-0.800542694	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 9/E	35.01837089	34.26072619	-2.28770605	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 9/E	30.71432247	26.24885623	-1.155954817	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 9/E	28.68361491	22.01088561	-0.66519809	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 9/E	24.26644537	11.68843558	0.575783339	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 9/E	35.54545708	35.18092679	-2.444297154	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 8/E	39.35044294	35.00438773	-0.664369287	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 8/E	35.41250326	25.32293797	0.08334079	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 8/E	33.42586703	20.11365891	0.611904987	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 8/E	29.02910947	9.176553144	1.764058986	30.003942	7.477133751

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 8/E	39.82058146	36.08410669	-0.753467158	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 7/E	33.4895866	34.00055307	1.495811051	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 7/E	29.65317812	26.54505523	1.495811051	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 7/E	27.82465673	22.51006457	1.495811051	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 7/E	23.96151452	12.25319056	1.495811051	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 7/E	33.95192998	34.94732329	1.495811051	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 6/E	33.4895866	34.00055307	1.495811051	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 6/E	29.65317812	26.54505523	1.495811051	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 6/E	27.82465673	22.51006457	1.495811051	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 6/E	23.96151452	12.25319056	1.495811051	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 6/E	33.95192998	34.94732329	1.495811051	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 5/E	33.5170902	34.49331486	-3.476950812	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 5/E	28.88975969	26.64372664	-1.932847605	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 5/E	26.75821626	22.7773895	-1.316182334	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 5/E	22.39376358	13.44495307	-0.135923458	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 5/E	34.09318628	35.52541073	-3.700473488	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 4/E	39.35044294	35.00438773	-0.664369287	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 4/E	35.41250326	25.32293797	0.08334079	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 4/E	33.42586703	20.11365891	0.611904987	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 4/E	29.02910947	9.176553144	1.764058986	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 4/E	39.82058146	36.08410669	-0.753467158	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 3/E	33.08967408	33.67101709	-3.360312352	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 3/E	28.59374772	26.09392868	-1.874070812	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 3/E	26.51303428	22.27844559	-1.272226767	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 3/E	22.23125749	13.03604401	-0.112131097	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 3/E	33.64990397	34.67976225	-3.573769379	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 2/E	35.01837089	34.26072619	-2.28770605	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 2/E	30.71432247	26.24885623	-1.155954817	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 2/E	28.68361491	22.01088561	-0.66519809	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 2/E	24.26644537	11.68843558	0.575783339	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 2/E	35.54545708	35.18092679	-2.444297154	4.7	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 1/E	39.70927151	35.9015506	-0.709003177	5	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 1/E	35.67773823	26.07038913	0.050824389	9	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 1/E	33.6757255	20.78263353	0.536614832	12.61710051	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 1/E	29.21610267	9.485713165	1.708817188	30.003942	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 1/E	40.19348124	37.00111316	-0.800542694	4.7	7.477133751
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 12/E	61.51211587	64.90283208	-6.542813595	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 12/E	53.07068507	50.18047586	-3.905775043	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 12/E	49.20348941	43.1782548	-2.901798308	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 12/E	41.36089	26.52875659	-1.072351824	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 12/E	62.57092016	66.79688343	-6.939749194	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 11/E	62.46219802	66.72329411	-6.791084298	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 11/E	53.72640762	51.37829316	-4.021418507	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 11/E	49.74327293	44.24625558	-2.986807369	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 11/E	41.7134477	27.4139556	-1.118260241	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 11/E	63.56650481	68.68061442	-7.220650565	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 10/E	73.3112106	69.59265739	-1.508164954	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 10/E	65.8159721	51.58668803	-0.412255012	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 10/E	62.2441939	41.96154374	0.080326976	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 10/E	54.60277186	20.18286744	1.115593295	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 10/E	74.21725448	71.62853655	-1.65111023	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 9/E	64.895042	65.55369269	-4.47382593	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 9/E	56.84633352	50.76482671	-2.547505371	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 9/E	53.07836577	43.06995993	-1.751784003	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 9/E	45.25602573	24.31041218	-0.212290755	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 9/E	65.88398289	67.26807446	-4.742896581	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 8/E	72.51536333	67.64218267	-1.432360676	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 8/E	65.23747542	49.97575752	-0.364451039	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 8/E	61.75576988	40.49708357	0.119319145	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 8/E	54.25074936	19.36708446	1.143916389	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 8/E	73.39465086	69.62960287	-1.572041938	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 7/E	65.79011379	67.20022947	-4.632728827	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 7/E	57.48101256	52.07311368	-2.633693327	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 7/E	53.60852818	44.25868224	-1.81848977	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 7/E	45.61217897	25.2620979	-0.24990455	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 7/E	66.81350366	69.06562772	-4.917332169	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 6/E	65.79011379	67.20022947	-4.632728827	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 6/E	57.48101256	52.07311368	-2.633693327	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 6/E	53.60852818	44.25868224	-1.81848977	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 6/E	45.61217897	25.2620979	-0.24990455	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 6/E	66.81350366	69.06562772	-4.917332169	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 5/E	62.46219802	66.72329411	-6.791084298	5	29.908535

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 5/E	53.72640762	51.37829316	-4.021418507	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 5/E	49.74327293	44.24625558	-2.986807369	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 5/E	41.7134477	27.4139556	-1.118260241	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 5/E	63.56650481	68.68061442	-7.220650565	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 4/E	72.51536333	67.64218267	-1.432360676	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 4/E	65.23747542	49.97575752	-0.364451039	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 4/E	61.75576988	40.49708357	0.119319145	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 4/E	54.25074936	19.36708446	1.143916389	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 4/E	73.39465086	69.62960287	-1.572041938	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 3/E	61.51211587	64.90283208	-6.542813595	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 3/E	53.07068507	50.18047586	-3.905775043	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 3/E	49.20348941	43.1782548	-2.901798308	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 3/E	41.36089	26.52875659	-1.072351824	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 3/E	62.57092016	66.79688343	-6.939749194	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 2/E	64.895042	65.55369269	-4.47382593	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 2/E	56.84633352	50.76482671	-2.547505371	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 2/E	53.07836577	43.06995993	-1.751784003	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 2/E	45.25602573	24.31041218	-0.212290755	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 2/E	65.88398289	67.26807446	-4.742896581	4.7	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 1/E	73.3112106	69.59265739	-1.508164954	5	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 1/E	65.8159721	51.58668803	-0.412255012	9	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 1/E	62.2441939	41.96154374	0.080326976	12.61710051	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 1/E	54.60277186	20.18286744	1.115593295	30.003942	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 1/E	74.21725448	71.62853655	-1.65111023	4.7	29.908535
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 12/E	76.43423451	83.42627385	-7.006541775	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 12/E	66.98968305	64.07281046	-4.415655909	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 12/E	62.61511127	54.39255382	-3.34944335	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 12/E	53.7833013	32.15086481	-1.360265764	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 12/E	77.60024023	85.71255591	-7.36714516	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 11/E	77.88072962	86.21270918	-7.264550584	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 11/E	68.06673194	66.20189488	-4.563636577	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 11/E	63.53952233	56.26119684	-3.466340525	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 11/E	54.4399146	33.53878831	-1.428594615	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 11/E	79.09813031	88.64754594	-7.648345778	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 10/E	89.45052495	76.08977115	-8.914003354	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 10/E	79.27972865	54.75395244	-5.738904538	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 10/E	74.21351712	42.94172497	-4.180715574	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 10/E	61.6863326	19.27154125	-0.531982716	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 10/E	90.65378287	78.43982115	-9.291770427	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 9/E	78.38515391	77.7935102	-6.53879227	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 9/E	69.22196697	59.24632968	-4.26595287	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 9/E	64.87798002	49.53662781	-3.242367541	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 9/E	55.7014611	26.41805521	-1.116359125	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 9/E	79.50089667	79.92633831	-6.839552501	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 8/E	87.69345258	73.21629599	-8.580211353	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 8/E	77.85954388	52.34480137	-5.497427061	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 8/E	72.93775499	40.82516966	-3.974445167	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 8/E	60.51614295	18.49939106	-0.347636913	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 8/E	88.85291488	75.49706908	-8.946806019	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 7/E	79.91978132	80.47538319	-6.770057642	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 7/E	70.40574628	61.38716927	-4.416647475	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 7/E	65.91311243	51.45180743	-3.370710644	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 7/E	56.48286347	27.74719454	-1.194822878	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 7/E	81.0838945	82.6837101	-7.087954107	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 6/E	82.51952543	83.26441018	-7.061372203	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 6/E	72.68665013	63.55020994	-4.634871615	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 6/E	68.04042527	53.29905224	-3.547498698	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 6/E	58.2958564	28.84935332	-1.287095863	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 6/E	83.72268128	85.54632587	-7.388990583	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 5/E	81.61155388	90.60537841	-7.692891214	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 5/E	71.30753283	69.60823103	-4.860365452	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 5/E	66.55743935	59.19092467	-3.714743561	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 5/E	57.01201303	35.40971882	-1.582257722	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 5/E	82.88901661	93.21433812	-8.093900803	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 4/E	86.28700094	71.94919406	-8.38805144	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 4/E	76.61751736	51.39847818	-5.365734122	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 4/E	71.77591731	40.05624679	-3.872282367	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 4/E	59.52748203	18.1316768	-0.308954019	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 4/E	87.4269949	74.19391008	-8.747610367	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 3/E	79.82443275	87.35423035	-7.385960568	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 3/E	69.9471602	67.12362262	-4.682752062	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 3/E	65.37507934	57.02071072	-3.57619335	12.61710051	526.6993408

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 3/E	56.14274947	33.81486463	-1.498838346	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 3/E	81.0452108	89.7459254	-7.764890427	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 2/E	80.98821606	80.54188612	-6.82313055	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 2/E	71.51502666	61.378157	-4.482508869	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 2/E	67.02189859	51.35465037	-3.421976963	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 2/E	57.53417237	27.487612	-1.211780976	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 2/E	82.14433944	82.74855636	-7.13794883	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 1/E	88.02792646	74.78267547	-8.716459169	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 1/E	78.02654001	53.77344537	-5.603150194	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 1/E	73.03969167	42.13956526	-4.069842659	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 1/E	60.6888841	18.88726235	-0.490154613	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 1/E	89.21100222	77.095673	-9.086925943	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	77.88072962	86.21270918	-7.264550584	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	68.06673194	66.20189488	-4.563636577	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	63.53952233	56.26119684	-3.466340525	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	54.4399146	33.53878831	-1.428594615	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	79.09813031	88.64754594	-7.648345778	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 10/E	89.45052495	76.08977115	-8.914003354	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 10/E	79.27972865	54.75395244	-5.738904538	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 10/E	74.21351712	42.94172497	-4.180715574	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 10/E	61.6863326	19.27154125	-0.531982716	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 10/E	90.65378287	78.43982115	-9.291770427	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	78.38515391	77.7935102	-6.53879227	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	69.22196697	59.24632968	-4.26595287	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	64.87798002	49.53662781	-3.242367541	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	55.7014611	26.41805521	-1.116359125	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	79.50089667	79.92633831	-6.839552501	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 8/E	87.69345258	73.21629599	-8.580211353	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 8/E	77.85954388	52.34480137	-5.497427061	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 8/E	72.93775499	40.82516966	-3.974445167	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 8/E	60.51614295	18.49939106	-0.347636913	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 8/E	88.85291488	75.49706908	-8.946806019	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 7/E	79.91978132	80.47538319	-6.770057642	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 7/E	70.40574628	61.38716927	-4.416647475	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 7/E	65.91311243	51.45180743	-3.370710644	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 7/E	56.48286347	27.74719454	-1.194822878	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 7/E	81.0838945	82.6837101	-7.087954107	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 6/E	82.51952543	83.26441018	-7.061372203	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 6/E	72.68665013	63.55020994	-4.634871615	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 6/E	68.04042527	53.29905224	-3.547498698	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 6/E	58.2958564	28.84935332	-1.287095863	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 6/E	83.72268128	85.54632587	-7.388990583	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 5/E	81.61155388	90.60537841	-7.692891214	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 5/E	71.30753283	69.60823103	-4.860365452	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 5/E	66.55743935	59.19092467	-3.714743561	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 5/E	57.01201303	35.40971882	-1.582257722	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 5/E	82.88901661	93.21433812	-8.093900803	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 4/E	86.28700094	71.94919406	-8.38805144	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 4/E	76.61751736	51.39847818	-5.365734122	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 4/E	71.77591731	40.05624679	-3.872282367	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 4/E	59.52748203	18.1316768	-0.308954019	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 4/E	87.4269949	74.19391008	-8.747610367	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	79.82443275	87.35423035	-7.385960568	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	69.9471602	67.12362262	-4.682752062	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	65.37507934	57.02071072	-3.57619335	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	56.14274947	33.81486463	-1.498838346	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	81.0452108	89.7459254	-7.764890427	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 2/E	80.98821606	80.54188612	-6.82313055	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 2/E	71.51502666	61.378157	-4.482508869	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 2/E	67.02189859	51.35465037	-3.421976963	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 2/E	57.53417237	27.487612	-1.211780976	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 2/E	82.14433944	82.74855636	-7.13794883	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 1/E	88.02792646	74.78267547	-8.716459169	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 1/E	78.02654001	53.77344537	-5.603150194	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 1/E	73.03969167	42.13956526	-4.069842659	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 1/E	60.6888841	18.88726235	-0.490154613	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 1/E	89.21100222	77.095673	-9.086925943	4.7	526.6993408
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 12/E	215.909576	241.1263669	-30.0363132	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 12/E	185.1734818	185.4785733	-19.70060248	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 12/E	171.286642	160.9972261	-16.05812954	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 12/E	143.121523	105.5071771	-8.760941292	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 12/E	220.4675133	248.2684837	-32.97613764	4.7	493.0002747

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 11/E	221.2978777	191.4246808	-32.49844743	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 11/E	188.4608586	191.4246808	-20.28325066	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 11/E	174.0224235	166.1855046	-16.54106241	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 11/E	144.8822827	109.5534892	-9.064315309	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 11/E	226.9916865	258.5680421	-37.4126934	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 10/E	252.1130381	259.5852668	-7.956745059	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 10/E	225.1888072	198.0033101	-4.592384726	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 10/E	212.4219665	165.9402255	-3.034704412	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 10/E	185.9533172	90.54764125	0.139036437	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 10/E	255.3811797	266.6708104	-8.409218077	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 9/E	225.5552795	242.3919908	-20.69388398	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 9/E	196.8373348	188.4848507	-14.10675122	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 9/E	183.3538834	162.3255059	-11.23117207	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 9/E	155.7046499	100.8271932	-5.426841706	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 9/E	229.1461175	249.3059871	-21.74612074	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 8/E	248.1146345	250.1315076	-7.607777148	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 8/E	222.2896059	190.4246469	-4.357819896	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 8/E	209.9902082	159.1308083	-2.840830892	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 8/E	184.3108907	85.73463735	0.261958006	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 8/E	251.2392304	256.9596591	-8.039484789	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 7/E	230.0945029	251.8093653	-21.56129524	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 7/E	200.0320947	194.8189316	-14.55665406	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 7/E	186.019657	167.9421341	-11.60458042	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 7/E	157.4632249	105.3499982	-5.663563736	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 7/E	233.8937281	259.0398463	-22.74101935	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 6/E	230.0945029	251.8093653	-21.56129524	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 6/E	200.0320947	194.8189316	-14.55665406	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 6/E	186.019657	167.9421341	-11.60458042	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 6/E	157.4632249	105.3499982	-5.663563736	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 6/E	233.8937281	259.0398463	-22.74101935	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 5/E	221.2978777	191.4246808	-32.49844743	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 5/E	188.4608586	191.4246808	-20.28325066	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 5/E	174.0224235	166.1855046	-16.54106241	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 5/E	144.8822827	109.5534892	-9.064315309	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 5/E	226.9916865	258.5680421	-37.4126934	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 4/E	248.1146345	250.1315076	-7.607777148	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 4/E	222.2896059	190.4246469	-4.357819896	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 4/E	209.9902082	159.1308083	-2.840830892	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 4/E	184.3108907	85.73463735	0.261958006	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 4/E	251.2392304	256.9596591	-8.039484789	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 3/E	215.909576	241.1263669	-30.0363132	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 3/E	185.1734818	185.4785733	-19.70060248	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 3/E	171.286642	160.9972261	-16.05812954	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 3/E	143.121523	105.5071771	-8.760941292	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 3/E	220.4675133	248.2684837	-32.97613764	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 2/E	225.5552795	242.3919908	-20.69388398	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 2/E	196.8373348	188.4848507	-14.10675122	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 2/E	183.3538834	162.3255059	-11.23117207	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 2/E	155.7046499	100.8271932	-5.426841706	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 2/E	229.1461175	249.3059871	-21.74612074	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 1/E	252.1130381	259.5852668	-7.956745059	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 1/E	225.1888072	198.0033101	-4.592384726	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 1/E	212.4219665	165.9402255	-3.034704412	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 1/E	185.9533172	90.54764125	0.139036437	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 1/E	255.3811797	266.6708104	-8.409218077	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 12/E	215.909576	241.1263669	-30.0363132	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 12/E	185.1734818	185.4785733	-19.70060248	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 12/E	171.286642	160.9972261	-16.05812954	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 12/E	143.121523	105.5071771	-8.760941292	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 12/E	220.4675133	248.2684837	-32.97613764	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 11/E	221.2978777	191.4246808	-32.49844743	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 11/E	188.4608586	191.4246808	-20.28325066	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 11/E	174.0224235	166.1855046	-16.54106241	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 11/E	144.8822827	109.5534892	-9.064315309	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 11/E	226.9916865	258.5680421	-37.4126934	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 10/E	252.1130381	259.5852668	-7.956745059	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 10/E	225.1888072	198.0033101	-4.592384726	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 10/E	212.4219665	165.9402255	-3.034704412	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 10/E	185.9533172	90.54764125	0.139036437	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 10/E	255.3811797	266.6708104	-8.409218077	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 9/E	225.5552795	242.3919908	-20.69388398	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 9/E	196.8373348	188.4848507	-14.10675122	9	493.0002747

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 9/E	183.3538834	162.3255059	-11.23117207	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 9/E	155.7046499	100.8271932	-5.426841706	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 9/E	229.1461175	249.3059871	-21.74612074	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 8/E	248.1146345	250.1315076	-7.607777148	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 8/E	222.2896059	190.4246469	-4.357819896	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 8/E	209.9902082	159.1308083	-2.840830892	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 8/E	184.3108907	85.73463735	0.261958006	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 8/E	251.2392304	256.9596591	-8.039484789	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 7/E	230.0945029	251.8093653	-21.56129524	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 7/E	200.0320947	194.8189316	-14.55665406	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 7/E	186.019657	167.9421341	-11.60458042	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 7/E	157.4632249	105.3499982	-5.663563736	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 7/E	233.8937281	259.0398463	-22.74101935	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 6/E	230.0945029	251.8093653	-21.56129524	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 6/E	200.0320947	194.8189316	-14.55665406	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 6/E	186.019657	167.9421341	-11.60458042	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 6/E	157.4632249	105.3499982	-5.663563736	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 6/E	233.8937281	259.0398463	-22.74101935	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 5/E	221.2978777	191.4246808	-32.49844743	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 5/E	188.4608586	191.4246808	-20.28325066	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 5/E	174.0224235	166.1855046	-16.54106241	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 5/E	144.8822827	109.5534892	-9.064315309	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 5/E	226.9916865	258.5680421	-37.4126934	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 4/E	248.1146345	250.1315076	-7.607777148	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 4/E	222.2896059	190.4246469	-4.357819896	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 4/E	209.9902082	159.1308083	-2.840830892	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 4/E	184.3108907	85.73463735	0.261958006	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 4/E	251.2392304	256.9596591	-8.039484789	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 3/E	215.909576	241.1263669	-30.0363132	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 3/E	185.1734818	185.4785733	-19.70060248	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 3/E	171.286642	160.9972261	-16.05812954	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 3/E	143.121523	105.5071771	-8.760941292	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 3/E	220.4675133	248.2684837	-32.97613764	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 2/E	225.5552795	242.3919908	-20.69388398	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 2/E	196.8373348	188.4848507	-14.10675122	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 2/E	183.3538834	162.3255059	-11.23117207	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 2/E	155.7046499	100.8271932	-5.426841706	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 2/E	229.1461175	249.3059871	-21.74612074	4.7	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 1/E	252.1130381	259.5852668	-7.956745059	5	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 1/E	225.1888072	198.0033101	-4.592384726	9	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 1/E	212.4219665	165.9402255	-3.034704412	12.61710051	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 1/E	185.9533172	90.54764125	0.139036437	30.003942	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 1/E	255.3811797	266.6708104	-8.409218077	4.7	493.0002747
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 12/E	27.86574469	27.80590474	-2.932524552	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 12/E	24.12552956	21.46742773	-1.643328838	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 12/E	22.38032282	18.20411582	-1.097081698	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 12/E	18.74354477	10.23922564	-0.010089878	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 12/E	28.32773251	28.54362231	-3.11039078	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 11/E	28.20139729	28.37362883	-3.026451032	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 11/E	24.36153966	21.91645308	-1.693570682	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 11/E	22.57545855	18.60799625	-1.135686425	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 11/E	18.874437	10.56377608	-0.032908262	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 11/E	28.67709995	29.17333043	-3.211277757	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 10/E	33.93894269	29.27961299	-0.808813867	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 10/E	29.84882766	21.04483198	1.067140381	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 10/E	28.63296629	16.42970423	0.413348286	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 10/E	24.41637169	7.188689784	1.693793321	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 10/E	34.35789544	30.19589923	-0.896704614	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 9/E	29.78099842	28.18584236	-2.210796755	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 9/E	26.08840631	21.44643695	-1.133488111	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 9/E	24.33067889	17.81953381	-0.653730701	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 9/E	20.41986083	8.973506034	0.536461248	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 9/E	30.23031418	28.94967612	-2.351835768	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 8/E	33.6392609	28.56853504	-0.768277561	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 8/E	30.19227169	20.37106875	-0.032055019	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 8/E	28.42320759	15.89731945	0.47324699	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 8/E	24.24271187	6.982002547	1.742852991	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 8/E	34.04928479	29.47288132	-0.853231518	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 7/E	30.10843197	28.77491951	-2.280502888	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 7/E	26.32293131	21.93318671	-1.174727193	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 7/E	24.52739903	18.27174926	-0.686035611	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 7/E	20.55330871	9.280857352	0.534473137	30.003942	4.728972912

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 7/E	30.56975182	29.55496728	-2.424326373	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 6/E	30.10843197	28.77491951	-2.280502888	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 6/E	26.32293131	21.93318671	-1.174727193	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 6/E	24.52739903	18.27174926	-0.686035611	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 6/E	20.55330871	9.280857352	0.534473137	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 6/E	30.56975182	29.55496728	-2.424326373	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 5/E	28.20139729	28.37362883	-3.026451032	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 5/E	24.36153966	21.91645308	-1.693570682	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 5/E	22.57545855	18.60799625	-1.135686425	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 5/E	18.874437	10.56377608	-0.032908262	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 5/E	28.67709995	29.17333043	-3.211277757	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 4/E	33.6392609	28.56853504	-0.768277561	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 4/E	30.19227169	20.37106875	-0.032055019	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 4/E	28.42320759	15.89731945	0.47324699	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 4/E	24.24271187	6.982002547	1.742852991	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 4/E	34.04928479	29.47288132	-0.853231518	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 3/E	27.86574469	27.80590474	-2.932524552	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 3/E	24.12552956	21.46742773	-1.643328838	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 3/E	22.38032282	18.20411582	-1.097081698	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 3/E	18.74354477	10.23922564	-0.010089878	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 3/E	28.32773251	28.54362231	-3.11039078	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 2/E	29.78099842	28.18584236	-2.210796755	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 2/E	26.08840631	21.44643695	-1.133488111	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 2/E	24.33067889	17.81953381	-0.653730701	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 2/E	20.41986083	8.973506034	0.536461248	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 2/E	30.23031418	28.94967612	-2.351835768	4.7	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 1/E	33.93894269	29.27961299	-0.808813867	5	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 1/E	29.84882766	21.04483198	1.067140381	9	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 1/E	28.63296629	16.42970423	0.413348286	12.61710051	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 1/E	24.41637169	7.188689784	1.693793321	30.003942	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 1/E	34.35789544	30.19589923	-0.896704614	4.7	4.728972912
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 12/E	51.73822743	53.46266664	-5.763314394	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 12/E	44.74599721	41.43076492	-3.514790362	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 12/E	41.51446825	35.46226261	-2.6127444	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 12/E	34.9046699	21.13168851	-0.924847569	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 12/E	52.6094006	55.04808798	-6.086781308	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 11/E	52.48093054	54.9128863	-5.953120901	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 11/E	45.26347232	42.39949382	-3.61235167	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 11/E	41.94280959	36.33181841	-2.686024961	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 11/E	35.1867385	21.84735949	-0.965280383	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 11/E	53.38201211	56.54558697	-6.292832703	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 10/E	62.62684901	56.91118379	-1.802466626	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 10/E	56.08302324	41.83298292	-0.661787664	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 10/E	52.92552116	33.60970941	-0.124281371	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 10/E	46.13836958	15.42304765	0.662024083	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 10/E	63.41329721	58.59299554	-1.948987922	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 9/E	55.19802012	54.05009556	-4.492626119	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 9/E	48.32133473	41.66810219	-2.671599011	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 9/E	45.07717653	35.11930678	-1.894141254	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 9/E	38.23879214	18.94415259	-0.397167937	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 9/E	56.03934522	55.47158662	-4.738801943	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 8/E	61.96714992	55.38396675	-1.727425864	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 8/E	55.60021931	40.54357509	-0.612418159	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 8/E	52.51422533	32.42739672	-0.085193639	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 8/E	45.82974051	14.85168554	0.682392293	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 8/E	62.73019139	57.03151382	-1.865958918	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 7/E	55.92266056	55.34277115	-4.632640277	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 7/E	48.83786683	42.71463849	-2.750901068	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 7/E	45.5116158	36.07893907	-1.957121665	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 7/E	38.53930658	19.6875757	-0.433316123	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 7/E	56.79062864	56.79958223	-4.888755811	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 6/E	55.92266056	55.34277115	-4.632640277	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 6/E	48.83786683	42.71463849	-2.750901068	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 6/E	45.5116158	36.07893907	-1.957121665	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 6/E	38.53930658	19.6875757	-0.433316123	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 6/E	56.79062864	56.79958223	-4.888755811	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 5/E	52.48093054	54.9128863	-5.953120901	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 5/E	45.26347232	42.39949382	-3.61235167	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 5/E	41.94280959	36.33181841	-2.686024961	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 5/E	35.1867385	21.84735949	-0.965280383	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 5/E	53.38201211	56.54558697	-6.292832703	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 4/E	61.96714992	55.38396675	-1.727425864	5	18.91589165

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 4/E	55.60021931	40.54357509	-0.612418159	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 4/E	52.51422533	32.42739672	-0.085193639	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 4/E	45.82974051	14.85168554	0.682392293	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 4/E	62.73019139	57.03151382	-1.865958918	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 3/E	51.73822743	53.46266664	-5.763314394	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 3/E	44.74599721	41.43076492	-3.514790362	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 3/E	41.51446825	35.46226261	-2.6127444	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 3/E	34.9046699	21.13168851	-0.924847569	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 3/E	52.6094006	55.04808798	-6.086781308	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 2/E	55.19802012	54.05009556	-4.492626119	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 2/E	48.32133473	41.66810219	-2.671599011	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 2/E	45.07717653	35.11930678	-1.894141254	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 2/E	38.23879214	18.94415259	-0.397167937	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 2/E	56.03934522	55.47158662	-4.738801943	4.7	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 1/E	62.62684901	56.91118379	-1.802466626	5	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 1/E	56.08302324	41.83298292	-0.661787664	9	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 1/E	52.92552116	33.60970941	-0.124281371	12.61710051	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 1/E	46.13836958	15.42304765	0.662024083	30.003942	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 1/E	63.41329721	58.59299554	-1.948987922	4.7	18.91589165
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 10/E	133.4564721	117.7512243	-14.62954679	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 10/E	117.9879836	86.5141712	-9.703696281	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 10/E	110.3752178	69.33140983	-7.307586622	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 10/E	92.55191385	32.27808599	-1.90470106	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 10/E	135.2962234	121.2179696	-15.21999407	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 8/E	130.4733021	112.9626111	-14.03728799	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 8/E	115.6016218	82.53253292	-9.273941809	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 8/E	108.2359721	30.68984496	-6.945548528	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 8/E	90.70170057	30.68984496	-1.661247597	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 8/E	132.2346454	116.3210145	-14.60522703	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 7/E	117.9745421	120.961928	-12.30949968	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 7/E	103.4959439	92.95936726	-8.493423141	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 7/E	96.62269884	78.54007511	-6.692226504	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 7/E	82.3091103	18.54012039	-2.990161411	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 7/E	119.7225641	124.2060252	-12.77266276	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 6/E	119.1694138	122.255982	-12.47779795	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 6/E	104.5357778	93.96468684	-8.614048381	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 6/E	97.5895435	79.40237702	-6.790607622	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 6/E	83.12730277	44.99746558	-3.043226667	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 6/E	120.935854	125.5341068	-12.94632147	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 5/E	113.1233042	127.5369635	-11.24123929	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 5/E	98.45318378	98.08769774	-7.266420931	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 5/E	91.73860621	83.90177981	-5.756276765	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 5/E	78.16983319	51.67367238	-2.745331564	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 5/E	114.9549808	131.3344624	-11.83105838	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 4/E	129.6499942	112.2004491	-13.91656975	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 4/E	114.8763526	81.95616059	-9.190091302	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 4/E	107.5585332	30.45093928	-6.880024557	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 4/E	90.12580659	30.45093928	-1.633485269	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 4/E	131.399639	115.5377676	-14.48008653	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	110.5993577	122.5153399	-10.78055636	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	96.57261169	94.59611296	-7.019989214	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	90.11753214	80.85266845	-5.558543967	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	77.00950009	49.38981315	-2.625245047	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	112.343753	126.1512118	-11.33129989	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 2/E	116.5035938	117.7350014	-12.04092517	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 2/E	102.4675662	90.39536925	-8.300633875	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 2/E	95.78070952	76.22105425	-6.53150286	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 2/E	81.77039766	42.46683475	-2.876925985	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 2/E	118.1910298	120.893253	-12.4917345	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 1/E	132.5991185	116.941267	-14.50156884	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 1/E	117.2350024	85.89960735	-9.614600208	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 1/E	109.67248	68.82064264	-7.237173305	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 1/E	91.9563174	32.02005779	-1.874040928	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 1/E	134.4240265	120.3863434	-15.08752538	4.7	1454.520142
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 12/E	243.501937	271.5458941	-38.09534941	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 12/E	209.4260567	181.2946292	-26.77005088	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 12/E	193.5936161	181.2946292	-21.9431874	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 12/E	161.4418009	118.0572507	-12.25457125	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 12/E	247.9802616	279.3345341	-40.19211607	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 11/E	240.148006	271.748935	-38.15514557	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 11/E	205.5690739	208.2761807	-26.29636059	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 11/E	189.7151206	180.3453699	-21.54854471	12.61710051	703.8603516

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 11/E	157.6796941	117.9863157	-12.04711905	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 11/E	244.8906693	279.7136545	-40.70778591	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 10/E	279.1304917	280.0155513	-14.83379252	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 10/E	248.2955948	213.9084209	-9.574108631	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 10/E	233.5972053	179.2291831	-7.093583835	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 10/E	202.7847343	96.8052154	-1.999950851	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 10/E	282.8404517	287.5756251	-15.46818846	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 9/E	254.6128457	268.1019932	-31.24755327	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 9/E	221.6551883	208.8950017	-22.15557846	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 9/E	206.0191149	179.6627944	-17.88324618	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 9/E	173.7697693	110.7471838	-9.208961563	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 9/E	258.5840741	275.7418516	-32.34988336	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 8/E	284.3058894	279.9341445	-15.0295933	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 8/E	253.6180289	213.528628	-9.685322204	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 8/E	238.9324211	178.4363767	-7.164579723	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 8/E	207.9175371	95.46050731	-1.969223442	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 8/E	287.9880609	287.4917199	-15.67289577	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 7/E	250.5033383	268.3058011	-30.74291632	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 7/E	217.3971392	208.0349723	-21.78640628	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 7/E	201.7493285	179.0669431	-17.58593176	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 7/E	169.6615098	111.2981674	-9.08524584	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 7/E	254.5625027	276.0046389	-31.951736	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 6/E	257.361199	276.0116103	-31.83725781	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 6/E	223.3084577	213.9864811	-22.57925402	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 6/E	207.2140105	184.2266473	-18.23749225	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 6/E	174.2219926	114.6945427	-9.453891108	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 6/E	261.5326174	283.9241859	-33.07850382	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 5/E	246.7414318	279.5207516	-39.49928966	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 5/E	211.1649114	214.2043628	-27.23123814	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 5/E	194.8584134	185.4961495	-22.32438747	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 5/E	161.9145131	121.4726434	-12.50726052	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 5/E	251.6577072	287.7278472	-42.20737182	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 4/E	277.1681889	272.5540476	-14.49975439	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 4/E	247.2848176	207.7959308	-9.324625548	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 4/E	232.9809858	173.5543121	-6.88025523	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 4/E	202.7565639	92.61786745	-1.8417021	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 4/E	280.7534817	279.9162646	-15.12243433	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 3/E	249.8892628	278.9469446	-39.36267132	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 3/E	214.8875742	215.0615916	-27.68169358	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 3/E	198.6240413	186.2438657	-22.69952907	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 3/E	165.6030764	121.3979558	-12.70286301	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 3/E	254.5021443	286.9493181	-41.54837626	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 2/E	261.3956017	275.5681514	-32.32880022	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 2/E	227.5263521	214.6997884	-22.94033398	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 2/E	211.4580875	184.6956949	-18.5281442	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 2/E	178.3277213	114.0377686	-9.572824817	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 2/E	265.47503	283.4138467	-33.46524084	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 1/E	271.8734344	272.3363837	-14.29212364	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 1/E	241.8739204	207.9476847	-9.199538059	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 1/E	227.5784712	174.1423236	-6.802425405	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 1/E	197.5861823	93.80670962	-1.872784569	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 1/E	275.4800226	279.6980668	-14.9064462	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 12/E	243.501937	271.5458941	-38.09534941	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 12/E	209.4260567	181.2946292	-26.77005088	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 12/E	193.5936161	181.2946292	-21.9431874	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 12/E	161.4418009	118.0572507	-12.25457125	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 12/E	247.9802616	279.3345341	-40.19211607	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 11/E	240.148006	271.748935	-38.15514557	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 11/E	205.5690739	208.2761807	-26.29636059	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 11/E	189.7151206	180.3453699	-21.54854471	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 11/E	157.6796941	117.9863157	-12.04711905	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 11/E	244.8906693	279.7136545	-40.70778591	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 10/E	279.1304917	280.0155513	-14.83379252	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 10/E	248.2955948	213.9084209	-9.574108631	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 10/E	233.5972053	179.2291831	-7.093583835	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 10/E	202.7847343	96.8052154	-1.999950851	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 10/E	282.8404517	287.5756251	-15.46818846	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 9/E	254.6128457	268.1019932	-31.24755327	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 9/E	221.6551883	208.8950017	-22.15557846	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 9/E	206.0191149	179.6627944	-17.88324618	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 9/E	173.7697693	110.7471838	-9.208961563	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 9/E	258.5840741	275.7418516	-32.34988336	4.7	703.8603516

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 8/E	284.3058894	279.9341445	-15.0295933	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 8/E	253.6180289	213.528628	-9.685322204	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 8/E	238.9324211	178.4363767	-7.164579723	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 8/E	207.9175371	95.46050731	-1.969223442	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 8/E	287.9880609	287.4917199	-15.67289577	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 7/E	250.5033383	268.3058011	-30.74291632	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 7/E	217.3971392	208.0349723	-21.78640628	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 7/E	201.7493285	179.0669431	-17.58593176	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 7/E	169.6615098	111.2981674	-9.08524584	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 7/E	254.5625027	276.0046389	-31.951736	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 6/E	257.361199	276.0116103	-31.83725781	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 6/E	223.3084577	213.9864811	-22.57925402	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 6/E	207.2140105	184.2266473	-18.23749225	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 6/E	174.2219926	114.6945427	-9.453891108	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 6/E	261.5326174	283.9241859	-33.07850382	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 5/E	246.7414318	279.5207516	-39.49928966	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 5/E	211.1649114	214.2043628	-27.23123814	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 5/E	194.8584134	185.4961495	-22.32438747	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 5/E	161.9145131	121.4726434	-12.50726052	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 5/E	251.6577072	287.7278472	-42.20737182	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 4/E	277.1681889	272.5540476	-14.49975439	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 4/E	247.2848176	207.7959308	-9.324625548	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 4/E	232.9809858	173.5543121	-6.88025523	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 4/E	202.7565639	92.61786745	-1.8417021	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 4/E	280.7534817	279.9162646	-15.12243433	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 3/E	249.8892628	278.9469446	-39.36267132	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 3/E	214.8875742	215.0615916	-27.68169358	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 3/E	198.6240413	186.2438657	-22.69952907	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 3/E	165.6030764	121.3979558	-12.70286301	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 3/E	254.5021443	286.9493181	-41.54837626	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 2/E	261.3956017	275.5681514	-32.32880022	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 2/E	227.5263521	214.6997884	-22.94033398	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 2/E	211.4580875	184.6956949	-18.5281442	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 2/E	178.3277213	114.0377686	-9.572824817	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 2/E	265.47503	283.4138467	-33.46524084	4.7	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 1/E	271.8734344	272.3363837	-14.29212364	5	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 1/E	241.8739204	207.9476847	-9.199538059	9	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 1/E	227.5784712	174.1423236	-6.802425405	12.61710051	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 1/E	197.5861823	93.80670962	-1.872784569	30.003942	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 1/E	275.4800226	279.6980668	-14.9064462	4.7	703.8603516
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	109.2252374	120.8963266	-10.61435293	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	95.37747742	93.34790571	-6.899615917	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	89.00586696	79.775713	-5.457694698	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	76.06695496	48.69139699	-2.567703501	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	110.9466052	124.4855639	-11.15681535	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	111.7624018	125.9014979	-11.07290296	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	97.27531371	96.83368094	-7.147264543	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	90.64562956	82.81915609	-5.654981883	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	77.24597248	50.96755561	-2.687988599	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	113.5705879	129.6518634	-11.65414139	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 10/E	133.4564721	117.7512243	-14.62954679	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 10/E	117.9879836	86.5141712	-9.703696281	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 10/E	110.3752178	69.33140983	-7.307586622	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 10/E	92.55191385	32.27808599	-1.90470106	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 10/E	135.2962234	121.2179696	-15.21999407	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	115.3052806	116.4591457	-11.87390933	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	101.4214066	89.40363945	-8.181388485	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	94.80635323	75.37166808	-6.434513552	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	80.94314545	41.94978492	-2.824783285	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	116.9749254	119.5842775	-12.32013369	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 8/E	130.4733021	112.9626111	-14.03728799	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 8/E	115.6016218	82.53253292	-9.273941809	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 8/E	108.2359721	30.68984496	-6.945548528	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 8/E	90.70170057	30.68984496	-1.661247597	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 8/E	132.2346454	116.3210145	-14.60522703	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 7/E	117.9745421	120.961928	-12.30949968	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 7/E	103.4959439	92.95936726	-8.493423141	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 7/E	96.62269884	78.54007511	-6.692226504	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 7/E	82.3091103	18.54012039	-2.990161411	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 7/E	119.7225641	124.2060252	-12.77266276	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 6/E	119.1694138	122.255982	-12.47779795	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 6/E	104.5357778	93.96468684	-8.614048381	9	1454.520142

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 6/E	97.5895435	79.40237702	-6.790607622	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 6/E	83.12730277	44.99746558	-3.043226667	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 6/E	120.935854	125.5341068	-12.94632147	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 5/E	113.1233042	127.5369635	-11.24123929	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 5/E	98.45318378	98.08769774	-7.266420931	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 5/E	91.73860621	83.90177981	-5.756276765	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 5/E	78.16983319	51.67367238	-2.745331564	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 5/E	114.9549808	131.3344624	-11.83105838	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 4/E	129.6499942	112.2004491	-13.91656975	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 4/E	114.8763526	81.95616059	-9.190091302	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 4/E	107.5585332	30.45093928	-6.880024557	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 4/E	90.12580659	30.45093928	-1.633485269	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 4/E	131.399639	115.5377676	-14.48008653	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	110.5993577	122.5153399	-10.78055636	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	96.57261169	94.59611296	-7.019989214	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	90.11753214	80.85266845	-5.558543967	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	77.00950009	49.38981315	-2.625245047	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	112.343753	126.1512118	-11.33129989	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 2/E	116.5035938	117.7350014	-12.04092517	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 2/E	102.4675662	90.39536925	-8.300633875	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 2/E	95.78070952	76.22105425	-6.53150286	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 2/E	81.77039766	42.46683475	-2.876925985	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 2/E	118.1910298	120.893253	-12.4917345	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 1/E	132.5991185	116.941267	-14.50156884	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 1/E	117.2350024	85.89960735	-9.614600208	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 1/E	109.67248	68.82064264	-7.237173305	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 1/E	91.9563174	32.02005779	-1.874040928	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 1/E	134.4240265	120.3863434	-15.08752538	4.7	1454.520142
Export (1.1xOP)	E_INV011_25mm	25	Category 12/E	3.037002723	0.436636067	0	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 12/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 12/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 12/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 12/E	3.079551918	0.633359724	0	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 11/E	2.984376935	0.513588861	0	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 11/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 11/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 11/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 11/E	3.02660007	0.693690465	0	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 10/E	1.833150309	1.401450506	1.591440271	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 10/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 10/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 10/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 10/E	1.932562208	1.536068534	1.47837255	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 9/E	1.85376883	1.195150925	1.959824849	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 9/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 9/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 9/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 9/E	1.979358749	1.321611157	1.792894002	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 8/E	1.816363118	1.341297467	1.672703664	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 8/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 8/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 8/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 8/E	1.92635947	1.479010608	1.54243195	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 7/E	2.799262053	0.912726394	0	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 7/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 7/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 7/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 7/E	2.838262224	1.073689446	0	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 6/E	2.799262053	0.912726394	0	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 6/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 6/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 6/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 6/E	2.838262224	1.073689446	0	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 5/E	2.984376935	0.513588861	0	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 5/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 5/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 5/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 5/E	3.02660007	0.693690465	0	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 4/E	1.816363118	1.341297467	1.672703664	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 4/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 4/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 4/E	0	0	0	30.003942	0.114641115

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV011_25mm	25	Category 4/E	1.92635947	1.479010608	1.54243195	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 3/E	3.037002723	0.436636067	0	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 3/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 3/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 3/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 3/E	3.079551918	0.633359724	0	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 2/E	1.85376883	1.195150925	1.959824849	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 2/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 2/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 2/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 2/E	1.979358749	1.321611157	1.792894002	4.7	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 1/E	1.833150309	1.401450506	1.591440271	5	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 1/E	0	0	0	9	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 1/E	0	0	0	12.61710051	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 1/E	0	0	0	30.003942	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 1/E	1.932562208	1.536068534	1.47837255	4.7	0.114641115
Export (1.1xOP)	E_INV011_50mm	50	Category 12/E	6.479769788	4.871127303	1.08168279	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 12/E	5.558800219	2.908256948	1.814090688	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 12/E	4.912826023	1.903842635	2.191406657	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 12/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 12/E	6.569137023	5.09992468	1.020573411	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 11/E	6.394698316	4.975663988	1.063336284	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 11/E	5.471476019	3.008254992	1.812924525	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 11/E	4.835871653	1.989822706	2.146072877	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 11/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 11/E	6.483410248	5.206537501	1.003197628	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 10/E	5.688331643	5.72389497	0.95776073	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 10/E	4.373699307	3.545245832	1.540133377	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 10/E	3.787294306	2.383668197	2.010699252	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 10/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 10/E	5.812277209	5.961325094	0.903025355	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 9/E	6.095793526	5.38977702	1.005388843	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 9/E	4.895559208	3.274771201	1.726004169	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 9/E	4.32283508	2.15283648	2.081347341	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 9/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 9/E	6.203597333	5.62649499	0.948167015	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 8/E	5.710624502	5.610581069	0.97173538	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 8/E	4.306668251	3.404537248	1.610753305	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 8/E	3.807118181	2.237545301	2.030855376	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 8/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 8/E	5.835123003	5.849947758	0.918667832	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 7/E	6.043355628	5.499675403	0.98855636	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 7/E	4.901013824	3.394714744	1.662051056	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 7/E	4.272650122	2.271943813	2.050959008	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 7/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 7/E	6.150381077	5.736067532	0.931695441	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 6/E	6.043355628	5.499675403	0.98855636	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 6/E	4.901013824	3.394714744	1.662051056	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 6/E	4.272650122	2.271943813	2.050959008	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 6/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 6/E	6.150381077	5.736067532	0.931695441	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 5/E	6.394698316	4.975663988	1.063336284	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 5/E	5.471476019	3.008254992	1.812924525	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 5/E	4.835871653	1.989822706	2.146072877	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 5/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 5/E	6.483410248	5.206537501	1.003197628	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 4/E	5.710624502	5.610581069	0.97173538	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 4/E	4.306668251	3.404537248	1.610753305	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 4/E	3.807118181	2.237545301	2.030855376	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 4/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 4/E	5.835123003	5.849947758	0.918667832	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 3/E	6.479769788	4.871127303	1.08168279	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 3/E	5.558800219	2.908256948	1.814090688	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 3/E	4.912826023	1.903842635	2.191406657	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 3/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 3/E	6.569137023	5.09992468	1.020573411	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 2/E	6.095793526	5.38977702	1.005388843	5	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 2/E	4.895559208	3.274771201	1.726004169	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 2/E	4.32283508	2.15283648	2.081347341	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 2/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 2/E	6.203597333	5.62649499	0.948167015	4.7	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 1/E	5.688331643	5.72389497	0.95776073	5	0.45856446

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV011_50mm	50	Category 1/E	4.373699307	3.545245832	1.540133377	9	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 1/E	3.787294306	2.383668197	2.010699252	12.61710051	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 1/E	0	0	0	30.003942	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 1/E	5.812277209	5.961325094	0.903025355	4.7	0.45856446
Export (1.1xOP)	E_INV011_610mm	610	Category 12/E	43.77361042	47.1947328	-8.057057592	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 12/E	40.37362207	32.87675559	-4.657069237	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 12/E	38.78701166	26.03602352	-3.070458828	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 12/E	35.61824266	12.96093423	0.098310166	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 12/E	44.18721747	48.9020773	-8.470664645	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 11/E	43.67782929	49.1571502	-8.51458235	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 11/E	40.12502112	34.43265954	-4.961774185	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 11/E	38.46831308	27.39259222	-3.305066138	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 11/E	35.17350392	13.75042913	-0.010256983	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 11/E	44.11239733	50.91536045	-8.949150387	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 10/E	41.75800478	50.79070385	-14.30935936	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 10/E	33.44891624	36.79464865	-7.870922689	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 10/E	29.51194774	30.07177609	-5.272571583	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 10/E	21.878276	16.17131369	-1.259420459	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 10/E	42.77023976	52.46814848	-15.15770554	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 9/E	39.54187251	48.84570734	-9.385945244	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 9/E	35.82909421	35.00718338	-5.67316694	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 9/E	34.10228585	28.37404961	-3.946358588	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 9/E	30.67037464	15.06924654	-0.514447374	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 9/E	39.99215369	50.49708442	-9.836226428	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 8/E	40.93782607	49.00191813	-13.35835713	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 8/E	32.89213208	35.39192211	-7.317707813	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 8/E	29.01868047	28.81792418	-4.885984098	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 8/E	21.55938781	15.25144409	-1.118544064	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 8/E	41.90985921	50.63603846	-14.15840932	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 7/E	39.63492233	50.6758962	-9.898992911	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 7/E	35.75284518	36.44608855	-6.016915762	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 7/E	33.95183445	29.63767639	-4.215905025	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 7/E	30.37945483	15.91199661	-0.643525411	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 7/E	40.10819554	52.38349057	-10.37226612	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 6/E	39.63492233	50.6758962	-9.898992911	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 6/E	35.75284518	36.44608855	-6.016915762	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 6/E	33.95183445	29.63767639	-4.215905025	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 6/E	30.37945483	15.91199661	-0.643525411	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 6/E	40.10819554	52.38349057	-10.37226612	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 5/E	43.67782929	49.1571502	-8.51458235	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 5/E	40.12502112	34.43265954	-4.961774185	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 5/E	38.46831308	27.39259222	-3.305066138	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 5/E	35.17350392	13.75042913	-0.010256983	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 5/E	44.11239733	50.91536045	-8.949150387	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 4/E	40.93782607	49.00191813	-13.35835713	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 4/E	32.89213208	35.39192211	-7.317707813	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 4/E	29.01868047	28.81792418	-4.885984098	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 4/E	21.55938781	15.25144409	-1.118544064	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 4/E	41.90985921	50.63603846	-14.15840932	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 3/E	43.77361042	47.1947328	-8.057057592	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 3/E	40.37362207	32.87675559	-4.657069237	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 3/E	38.78701166	26.03602352	-3.070458828	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 3/E	35.61824266	12.96093423	0.098310166	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 3/E	44.18721747	48.9020773	-8.470664645	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 2/E	39.54187251	48.84570734	-9.385945244	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 2/E	35.82909421	35.00718338	-5.67316694	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 2/E	34.10228585	28.37404961	-3.946358588	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 2/E	30.67037464	15.06924654	-0.514447374	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 2/E	39.99215369	50.49708442	-9.836226428	4.7	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 1/E	41.75800478	50.79070385	-14.30935936	5	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 1/E	33.44891624	36.79464865	-7.870922689	9	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 1/E	29.51194774	30.07177609	-5.272571583	12.61710051	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 1/E	21.878276	16.17131369	-1.259420459	30.003942	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 1/E	42.77023976	52.46814848	-15.15770554	4.7	15.29050255
Export (1.1xOP)	E_INV011_203mm	203	Category 12/E	24.75624748	30.9424077	-0.711527006	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 12/E	21.6605159	22.49995511	1.261439057	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 12/E	20.18499279	18.41509171	2.187290228	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 12/E	17.08860196	9.856080127	4.067587346	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 12/E	25.12984792	31.94856656	-0.950179848	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 11/E	24.7666269	31.75731197	-0.907538215	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 11/E	21.58615617	23.14339582	1.15103919	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 11/E	20.07598434	18.99389082	2.116129755	12.61710051	7.558792114

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV011_203mm	203	Category 11/E	16.9233446	10.31053245	4.0728131	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 11/E	25.1513162	32.78674505	-1.157844608	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 10/E	27.2362447	32.59815162	-5.160997938	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 10/E	20.73504144	23.85586038	0.046759038	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 10/E	17.77060175	19.62396481	1.92025284	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 10/E	12.64519955	10.13971904	4.091629323	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 10/E	28.04815812	33.65160431	-5.873201768	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 9/E	25.31776686	31.53035193	-1.143107746	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 9/E	21.0141199	23.20929554	1.308801054	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 9/E	19.03730225	19.13678336	2.201571241	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 9/E	14.21982639	10.06536663	4.029913724	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 9/E	25.88415666	32.52975644	-1.546005755	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 8/E	26.64236228	31.7355826	-4.396035758	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 8/E	20.37635151	23.17142763	0.437191957	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 8/E	17.46998546	18.99208947	2.139460954	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 8/E	12.57904383	9.505003838	4.092307636	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 8/E	27.42406174	32.76226119	-5.065578446	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 7/E	25.59638892	32.34854321	-1.561325526	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 7/E	21.08705888	23.84635952	1.193483254	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 7/E	19.08031664	19.71987451	2.124326725	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 7/E	14.15700437	10.60114465	4.025827525	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 7/E	26.1896837	33.37594871	-2.002664488	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 6/E	25.59638892	32.34854321	-1.561325526	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 6/E	21.08705888	23.84635952	1.193483254	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 6/E	19.08031664	19.71987451	2.124326725	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 6/E	14.15700437	10.60114465	4.025827525	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 6/E	26.1896837	33.37594871	-2.002664488	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 5/E	24.7666269	31.75731197	-0.907538215	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 5/E	21.58615617	23.14339582	1.15103919	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 5/E	20.07598434	18.99389082	2.116129755	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 5/E	16.9233446	10.31053245	4.0728131	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 5/E	25.1513162	32.78674505	-1.157844608	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 4/E	26.64236228	31.7355826	-4.396035758	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 4/E	20.37635151	23.17142763	0.437191957	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 4/E	17.46998546	18.99208947	2.139460954	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 4/E	12.57904383	9.505003838	4.092307636	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 4/E	27.42406174	32.76226119	-5.065578446	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 3/E	24.75624748	30.9424077	-0.711527006	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 3/E	21.6605159	22.49995511	1.261439057	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 3/E	20.18499279	18.41509171	2.187290228	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 3/E	17.08860196	9.856080127	4.067587346	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 3/E	25.12984792	31.94856656	-0.950179848	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 2/E	25.31776686	31.53035193	-1.143107746	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 2/E	21.0141199	23.20929554	1.308801054	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 2/E	19.03730225	19.13678336	2.201571241	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 2/E	14.21982639	10.06536663	4.029913724	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 2/E	25.88415666	32.52975644	-1.546005755	4.7	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 1/E	27.2362447	32.59815162	-5.160997938	5	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 1/E	20.73504144	23.85586038	0.046759038	9	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 1/E	17.77060175	19.62396481	1.92025284	12.61710051	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 1/E	12.64519955	10.13971904	4.091629323	30.003942	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 1/E	28.04815812	33.65160431	-5.873201768	4.7	7.558792114
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 12/E	6.014325077	5.519908146	-0.05390993	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 12/E	5.159807775	3.902184589	0.466198225	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 12/E	4.650494714	3.070821488	0.901551984	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 12/E	3.082343063	1.438083136	3.106611893	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 12/E	6.149620715	5.710023261	-0.18078913	4.7	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 11/E	5.96145355	5.517056171	-0.072618854	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 11/E	5.101050363	3.90275402	0.459277049	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 11/E	4.592934246	3.073515701	0.890832756	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 11/E	3.035736251	1.43511968	3.081319876	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 11/E	6.093675909	5.706589439	-0.192764474	4.7	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 10/E	7.489962695	4.789594391	0.461422747	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 10/E	6.183390351	2.850096608	1.586786224	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 10/E	5.141228203	2.475225949	2.747691223	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 10/E	0	0	0	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 10/E	7.604289116	5.016554382	0.404816179	4.7	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 9/E	6.494279702	5.349452284	0.230221864	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 9/E	5.544017121	3.652772877	0.87485718	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 9/E	4.925873892	2.792050045	1.490310097	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 9/E	3.132851198	1.931676182	4.234810322	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 9/E	6.591863184	5.538352403	0.183532657	4.7	0.528650582

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 8/E	7.606236467	4.805141158	0.479106847	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 8/E	6.305719376	2.855975123	1.577470732	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 8/E	5.281333313	2.504192454	2.704382635	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 8/E	0	0	0	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 8/E	7.693320011	5.039303761	0.476837744	4.7	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 7/E	6.411084965	5.331572901	0.223005542	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 7/E	5.46016383	3.64751746	0.871051577	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 7/E	4.848142215	2.788717683	1.476679263	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 7/E	3.047588559	1.910180721	4.245728598	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 7/E	6.508776441	5.519525504	0.175688147	4.7	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 6/E	6.487076144	5.399552247	0.218038827	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 6/E	5.534092458	3.697089364	0.857068075	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 6/E	4.916132274	2.829175443	1.468573592	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 6/E	3.098595497	1.923073726	4.23920552	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 6/E	6.584788127	5.589417566	0.172227228	4.7	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 5/E	6.016003829	5.566675262	-0.087396705	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 5/E	5.147677964	3.9375012	0.452623671	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 5/E	4.638907282	3.103740297	0.881425973	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 5/E	3.073319323	1.449654383	3.064629012	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 5/E	6.147751044	5.757584096	-0.205489032	4.7	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 4/E	7.535998378	4.748961328	0.471889296	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 4/E	6.22501188	2.823462184	1.604458113	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 4/E	5.214625314	2.492032563	2.731212099	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 4/E	0	0	0	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 4/E	7.623519688	4.981073112	0.467167366	4.7	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 3/E	6.061136203	5.559780427	-0.071541281	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 3/E	5.192623054	3.93151967	0.470519402	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 3/E	4.687564816	3.094759196	0.893886903	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 3/E	3.11248861	1.449662417	3.09379688	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 3/E	6.193299483	5.75058766	-0.191257689	4.7	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 2/E	6.555881285	5.403027149	0.224029693	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 2/E	5.601965713	3.691853703	0.865577088	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 2/E	4.980029116	2.823735697	1.48387118	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 2/E	3.173731597	1.941884698	4.229547981	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 2/E	6.654087866	5.59352643	0.177307806	4.7	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 1/E	7.388055886	4.721762667	0.481299566	5	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 1/E	6.08519837	2.808109425	1.615846476	9	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 1/E	5.056789308	2.46053685	2.784640738	12.61710051	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 1/E	0	0	0	30.003942	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 1/E	7.505762692	4.945189829	0.41593611	4.7	0.528650582
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 12/E	11.26599595	10.66801092	-0.871686222	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 12/E	9.834599703	7.752045603	-0.115141552	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 12/E	9.12663338	6.257305224	0.290583848	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 12/E	7.331958681	3.032207234	1.728975652	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 12/E	11.4302524	11.00222006	-0.947848042	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 11/E	11.1175823	10.62790611	-0.878171191	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 11/E	9.683791323	7.727672995	-0.109994143	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 11/E	8.979684381	6.244849936	0.291759441	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 11/E	7.191338579	3.030463409	1.731841422	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 11/E	11.28395143	10.96205531	-0.956919464	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 10/E	13.50900583	9.197765382	-0.259274374	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 10/E	11.87821972	5.678452338	0.465174296	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 10/E	10.93532378	4.025793514	0.947541141	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 10/E	0	0	0	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 10/E	13.69099526	9.585343781	-0.335207011	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 9/E	11.97730228	10.2353255	-0.439960442	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 9/E	10.49476901	7.241085256	0.315812863	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 9/E	9.791136951	5.641633422	0.641795734	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 9/E	7.43851825	2.675742611	2.865652359	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 9/E	12.14884436	10.57563747	-0.521991146	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 8/E	13.81040713	9.27425797	-0.275610049	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 8/E	12.15839228	5.712625261	0.454012247	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 8/E	11.22384777	4.061981754	0.891368534	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 8/E	0	0	0	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 8/E	13.99273185	9.667922186	-0.348711237	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 7/E	11.75468463	10.1426183	-0.439640711	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 7/E	10.27972249	7.188339257	0.318839677	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 7/E	9.579058684	5.610251274	0.649931289	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 7/E	7.231629879	2.635806166	2.901521728	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 7/E	11.92671627	10.47954957	-0.52051524	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 6/E	12.05625089	10.42503429	-0.469659179	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 6/E	10.54691712	7.398757967	0.30193367	9	2.114602327

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 6/E	9.840083466	5.780376619	0.620109145	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 6/E	7.484429443	2.677652516	2.830566995	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 6/E	12.23218252	10.77070482	-0.551695553	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 5/E	11.31207539	10.83033923	-0.897264863	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 5/E	9.867902997	7.880637468	-0.146431119	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 5/E	9.144590569	6.372408071	0.276197535	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 5/E	7.352647868	3.095700916	1.687781878	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 5/E	11.48267993	11.17119021	-0.980934049	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 4/E	13.49807639	9.037512707	-0.245616597	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 4/E	11.87914274	5.553291076	0.472851448	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 4/E	10.93225049	3.950855113	0.961837899	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 4/E	0	0	0	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 4/E	13.67612085	9.423226046	-0.316527815	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 3/E	11.42887913	10.8347728	-0.889581051	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 3/E	9.987665267	7.877689136	-0.144707773	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 3/E	9.261976508	6.362338624	0.282024277	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 3/E	7.466495087	3.085487245	1.692513975	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 3/E	11.59597186	11.17431812	-0.968514043	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 2/E	12.2376472	10.4756865	-0.468128696	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 2/E	10.72407862	7.419470236	0.302269658	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 2/E	10.01433859	5.785386968	0.617772314	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 2/E	7.655301477	2.711586962	2.805325559	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 2/E	12.41038694	10.82259672	-0.547322889	4.7	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 1/E	13.19782639	8.959336293	-0.227821399	5	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 1/E	11.5997497	5.517334743	0.486361022	9	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 1/E	10.64590898	3.915841354	1.018404352	12.61710051	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 1/E	0	0	0	30.003942	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 1/E	13.37724178	9.338508482	-0.305005892	4.7	2.114602327
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 12/E	33.12777608	34.47173921	-3.079036707	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 12/E	29.26006607	25.86026732	-1.817532434	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 12/E	27.44876498	21.49430748	-1.254578099	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 12/E	23.70828818	11.54413222	-0.101415441	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 12/E	33.59999629	35.47934728	-3.244992742	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 11/E	32.9652954	34.72404206	-3.110345751	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 11/E	29.05744318	26.05801836	-1.830797299	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 11/E	27.23266915	21.68472707	-1.266081535	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 11/E	23.48089467	11.71502028	-0.111340567	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 11/E	33.44273965	35.74175714	-3.277521139	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 10/E	37.17826663	28.81452613	-2.33262575	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 10/E	33.16805299	19.4809241	-1.211403739	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 10/E	31.11264293	14.48945376	-0.652789179	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 10/E	0	0	0	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 10/E	37.64690186	29.82064197	-2.467765986	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 9/E	33.62086742	31.58745719	-2.128662354	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 9/E	29.90220959	23.33951068	-1.09147425	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 9/E	28.12683202	18.96249572	-0.614713447	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 9/E	24.28771667	9.116147904	0.40069361	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 9/E	34.06907598	32.52741789	-2.257894011	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 8/E	37.03151341	28.1991722	-2.292959746	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 8/E	33.0783123	18.93800566	-1.180696705	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 8/E	31.03767922	14.05768773	-0.626525054	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 8/E	0	0	0	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 8/E	37.49329028	29.19855648	-2.426397177	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 7/E	31.98410054	31.493122	1.092251416	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 7/E	28.73802088	23.63788846	1.092251416	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 7/E	27.18323772	19.39519725	1.092251416	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 7/E	23.83421849	9.411088746	1.092251416	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 7/E	32.3743557	32.37916884	1.092251416	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 6/E	35.5631771	34.02267497	-2.315854913	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 6/E	31.56674098	25.23595216	-1.21369456	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 6/E	29.66542414	20.59574933	-0.708499616	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 6/E	25.59988197	10.0083567	0.338756105	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 6/E	36.04705572	35.02555926	-2.455999793	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 5/E	34.75613832	36.77773503	-3.298638705	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 5/E	30.63335523	27.62721933	-1.961667864	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 5/E	28.70561232	23.01473306	-1.366770999	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 5/E	24.75137789	12.507387	-0.162842962	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 5/E	35.26317578	37.85344928	-3.473918649	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 4/E	35.07273547	26.55357981	-2.083558865	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 4/E	31.32825144	17.7593185	-1.032393349	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 4/E	29.39307666	13.14589502	-0.510891187	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 4/E	0	0	0	30.003942	34.85625839

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 4/E	35.50874136	27.50232313	-2.208311104	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 3/E	35.09130885	36.68552839	-3.286847758	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 3/E	30.98825277	27.5529964	-1.956649678	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 3/E	29.06561004	22.92998711	-1.364154322	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 3/E	25.10723392	11.92891913	-0.15700078	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 3/E	35.59265992	37.75545356	-3.462324517	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 2/E	35.71956218	33.73661307	-2.289705725	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 2/E	31.76353514	24.97720689	-1.19746004	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 2/E	29.87420438	20.33760843	-0.692062116	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 2/E	25.8180219	9.849098574	0.34645098	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 2/E	36.19820037	34.73505141	-2.428206692	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 1/E	35.33636831	27.23784972	-2.135607248	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 1/E	31.52577094	13.6058677	-1.07052236	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 1/E	29.56679482	13.6058677	-0.53779011	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 1/E	0	0	0	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 1/E	35.78535345	28.19599989	-2.267667235	4.7	34.85625839
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 12/E	61.0883316	66.58571088	-6.35329328	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 12/E	53.82254456	50.4809602	-4.124684708	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 12/E	50.44632081	42.42708111	-3.166156334	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 12/E	43.60311196	24.16367659	-1.318168371	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 12/E	61.98022163	68.48613952	-6.648752584	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 11/E	62.11353448	68.75082172	-6.558994498	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 11/E	54.59052138	52.12952924	-4.251988211	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 11/E	51.10350497	43.86425685	-3.266379388	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 11/E	44.07212397	25.18590298	-1.379582994	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 11/E	63.0394676	70.71853489	-6.866927497	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 10/E	67.16428039	55.23308865	-5.878102754	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 10/E	59.78381985	38.83946069	-3.650828981	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 10/E	56.08311309	29.86351638	-2.547476884	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 10/E	46.42560461	13.04209405	0.117241135	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 10/E	68.03330782	57.02294369	-6.141748398	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 9/E	59.98938406	59.07769423	-4.415625865	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 9/E	53.26052834	44.37294758	-2.689257414	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 9/E	50.08055521	36.68905414	-1.927674097	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 9/E	43.38512294	18.86593275	-0.398735337	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 9/E	60.80643259	60.76810951	-4.638093061	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 8/E	65.73865396	53.00602656	-5.639780786	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 8/E	58.61050296	37.00273889	-3.479253037	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 8/E	55.01386572	27.58469411	-2.40474958	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 8/E	45.36412084	12.64599063	0.301123033	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 8/E	66.57600614	54.74854041	-5.894631295	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 7/E	61.08460771	61.10090257	-4.574396332	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 7/E	54.11118852	45.97675982	-2.792344144	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 7/E	50.82706765	38.11720523	-2.010001305	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 7/E	43.96086897	19.78998484	-0.451196158	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 7/E	61.93282255	62.84217449	-4.804268476	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 6/E	66.26136869	66.68941607	-5.08759185	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 6/E	58.67845996	50.26825735	-3.164792175	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 6/E	55.11361764	41.75811909	-2.334586881	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 6/E	47.65764593	21.88614091	-0.637205203	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 6/E	67.18404787	68.58288515	-5.335204004	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 5/E	69.62380104	77.69299482	-7.553724596	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 5/E	61.15607139	58.99590053	-4.976730068	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 5/E	57.24347777	49.720221	-3.896764419	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 5/E	49.32789783	28.8181455	-1.759278741	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 5/E	70.66618389	79.90892062	-7.898151351	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 4/E	63.34515332	50.89955284	-5.341552463	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 4/E	56.48734201	35.45340984	-3.277065301	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 4/E	53.02202154	27.02285998	-2.247837448	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 4/E	43.69518824	12.01698959	0.257210787	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 4/E	64.15109908	52.58002666	-5.586293703	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 3/E	68.58979943	75.36106023	-7.336457182	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 3/E	60.40329335	57.22393205	-4.84421263	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 3/E	56.6087743	48.17552323	-3.793789796	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 3/E	48.893825	27.70366216	-1.694152283	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 3/E	69.59549507	77.50320111	-7.668136626	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 2/E	65.16787781	64.57313858	-4.920259736	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 2/E	57.84161865	48.59291812	-3.057807415	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 2/E	54.38596521	40.26103302	-2.249564692	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 2/E	47.11336431	20.90154522	-0.584584549	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 2/E	66.05754064	66.41252998	-5.160006758	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 1/E	64.44906493	52.7942481	-5.535580278	5	314.7374268

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 1/E	57.37992372	37.03576122	-3.416654463	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 1/E	53.83016368	28.41284076	-2.365417961	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 1/E	44.48375796	12.34576444	0.18018255	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 1/E	65.28143872	54.5127621	-5.785936013	4.7	314.7374268
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 12/E	2.294040272	2.093572133	0.476919668	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 12/E	1.589826818	1.291244879	1.226372934	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 12/E	1.015499144	0.844686728	1.876962631	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 12/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 12/E	2.361757718	2.18367468	0.415889811	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 11/E	2.279596023	2.095440876	0.465310451	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 11/E	1.590757592	1.290749181	1.182537257	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 11/E	1.005658426	0.843555519	1.851232864	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 11/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 11/E	2.347387559	2.185234346	0.404067485	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 10/E	2.668644685	1.771334331	1.544368166	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 10/E	1.812168055	1.471851292	3.257321426	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 10/E	0	0	0	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 10/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 10/E	2.756602834	1.867349706	1.413719112	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 9/E	2.407938977	2.012156769	0.802222271	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 9/E	1.55460587	1.185334615	1.773294555	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 9/E	0.955405844	0.747982469	2.623513833	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 9/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 9/E	2.486725873	2.10535547	0.729166053	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 8/E	2.698776743	1.773529714	1.562488525	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 8/E	1.85610514	1.490751617	3.247831732	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 8/E	0	0	0	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 8/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 8/E	2.791716466	1.870257599	1.430951036	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 7/E	2.383648597	2.009904382	0.78911713	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 7/E	1.535997104	1.181712408	1.74976866	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 7/E	0.937685657	0.740919301	2.595702527	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 7/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 7/E	2.462774448	2.102585952	0.715647956	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 6/E	2.396433761	2.019299891	0.78611367	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 6/E	1.548464082	1.189439496	1.746410659	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 6/E	0.948967173	0.748077516	2.5906867	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 6/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 6/E	2.475369576	2.112234138	0.713259499	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 5/E	2.291179701	2.104372877	0.459499838	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 5/E	1.596796602	1.298277175	1.186766658	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 5/E	1.014352037	0.850116845	1.847123746	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 5/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 5/E	2.357276702	2.194270331	0.401884756	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 4/E	2.690630735	1.767931484	1.565763562	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 4/E	1.847402929	1.488289495	3.252219173	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 4/E	0	0	0	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 4/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 4/E	2.779797906	1.86262057	1.434108896	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 3/E	2.298661595	2.097842744	0.476179084	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 3/E	1.597076275	1.294424125	1.219836789	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 3/E	1.019798172	0.847869055	1.874981817	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 3/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 3/E	2.366544662	2.188055926	0.414938109	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 2/E	2.417453761	2.019294395	0.800447124	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 2/E	1.561892157	1.190661878	1.770357538	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 2/E	0.963081664	0.753094551	2.619620051	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 2/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 2/E	2.496379534	2.112683154	0.727328672	4.7	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 1/E	2.655525695	1.762029971	1.549453524	5	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 1/E	1.797684443	1.467878143	3.265136027	9	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 1/E	0	0	0	12.61710051	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 1/E	0	0	0	30.003942	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 1/E	2.735603791	1.856187964	1.418989527	4.7	0.084584087
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 12/E	33.12777608	34.47173921	-3.079036707	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 12/E	29.26006607	25.86026732	-1.817532434	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 12/E	27.44876498	21.49430748	-1.254578099	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 12/E	23.70828818	11.54413222	-0.101415441	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 12/E	33.59999629	35.47934728	-3.244992742	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 11/E	32.9652954	34.72404206	-3.110345751	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 11/E	29.05744318	26.05801836	-1.830797299	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 11/E	27.23266915	21.68472707	-1.266081535	12.61710051	34.85625839

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 11/E	23.48089467	11.71502028	-0.111340567	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 11/E	33.44273965	35.74175714	-3.277521139	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 10/E	37.17826663	28.81452613	-2.33262575	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 10/E	33.16805299	19.4809241	-1.211403739	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 10/E	31.11264293	14.48945376	-0.652789179	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 10/E	0	0	0	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 10/E	37.64690186	29.82064197	-2.467765986	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 9/E	33.62086742	31.58745719	-2.128662354	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 9/E	29.90220959	23.33951068	-1.09147425	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 9/E	28.12683202	18.96249572	-0.614713447	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 9/E	24.28771667	9.116147904	0.40069361	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 9/E	34.06907598	32.52741789	-2.257894011	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 8/E	37.03151341	28.1991722	-2.292959746	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 8/E	33.0783123	18.93800566	-1.180696705	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 8/E	31.03767922	14.05768773	-0.626525054	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 8/E	0	0	0	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 8/E	37.49329028	29.19855648	-2.426397177	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 7/E	31.98410054	31.493122	1.092251416	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 7/E	28.73802088	23.63788846	1.092251416	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 7/E	27.18323772	19.39519725	1.092251416	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 7/E	23.83421849	9.411088746	1.092251416	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 7/E	32.3743557	32.37916884	1.092251416	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 6/E	35.5631771	34.02267497	-2.315854913	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 6/E	31.56674098	25.23595216	-1.21369456	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 6/E	29.66542414	20.59574933	-0.708499616	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 6/E	25.59988197	10.0083567	0.338756105	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 6/E	36.04705572	35.02555926	-2.455999793	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 5/E	34.75613832	36.77773503	-3.298638705	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 5/E	30.63335523	27.62721933	-1.961667864	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 5/E	28.70561232	23.01473306	-1.366770999	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 5/E	24.75137789	12.507387	-0.162842962	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 5/E	35.26317578	37.85344928	-3.473918649	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 4/E	35.07273547	26.55357981	-2.083558865	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 4/E	31.32825144	17.7593185	-1.032393349	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 4/E	29.39307666	13.14589502	-0.510891187	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 4/E	0	0	0	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 4/E	35.50874136	27.50232313	-2.208311104	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 3/E	35.09130885	36.68552839	-3.286847758	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 3/E	30.98825277	27.5529964	-1.956649678	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 3/E	29.06561004	22.92998711	-1.364154322	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 3/E	25.10723392	11.92891913	-0.15700078	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 3/E	35.59265992	37.75545356	-3.462324517	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 2/E	35.71956218	33.73661307	-2.289705725	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 2/E	31.76353514	24.97720689	-1.19746004	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 2/E	29.87420438	20.33760843	-0.692062116	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 2/E	25.8180219	9.849098574	0.34645098	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 2/E	36.19820037	34.73505141	-2.428206692	4.7	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 1/E	35.33636831	27.23784972	-2.135607248	5	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 1/E	31.52577094	13.6058677	-1.07052236	9	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 1/E	29.56679482	13.6058677	-0.53779011	12.61710051	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 1/E	0	0	0	30.003942	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 1/E	35.78535345	28.19599989	-2.267667235	4.7	34.85625839
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 12/E	61.0883316	66.58571088	-6.35329328	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 12/E	53.82254456	50.4809602	-4.124684708	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 12/E	50.44632081	42.42708111	-3.166156334	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 12/E	43.60311196	24.16367659	-1.318168371	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 12/E	61.98022163	68.48613952	-6.648752584	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 11/E	62.11353448	68.75082172	-6.558994498	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 11/E	54.59052138	52.12952924	-4.251988211	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 11/E	51.10350497	43.86425685	-3.266379388	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 11/E	44.07212397	25.18590298	-1.379582994	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 11/E	63.0394676	70.71853489	-6.866927497	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 10/E	67.16428039	55.23308865	-5.878102754	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 10/E	59.78381985	38.83946069	-3.650828981	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 10/E	56.08311309	29.86351638	-2.547476884	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 10/E	46.42560461	13.04209405	0.117241135	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 10/E	68.03330782	57.02294369	-6.141748398	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 9/E	59.98938406	59.07769423	-4.415625865	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 9/E	53.26052834	44.37294758	-2.689257414	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 9/E	50.08055521	36.68905414	-1.927674097	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 9/E	43.38512294	18.86593275	-0.398735337	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 9/E	60.80643259	60.76810951	-4.638093061	4.7	314.7374268

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 8/E	65.73865396	53.00602656	-5.639780786	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 8/E	58.61050296	37.00273889	-3.479253037	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 8/E	55.01386572	27.58469411	-2.40474958	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 8/E	45.36412084	12.64599063	0.301123033	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 8/E	66.57600614	54.74854041	-5.894631295	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 7/E	61.08460771	61.10090257	-4.574396332	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 7/E	54.11118852	45.97675982	-2.792344144	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 7/E	50.82706765	38.11720523	-2.010001305	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 7/E	43.96086897	19.78998484	-0.451196158	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 7/E	61.93282255	62.84217449	-4.804268476	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 6/E	66.26136869	66.68941607	-5.08759185	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 6/E	58.67845996	50.26825735	-3.164792175	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 6/E	55.11361764	41.75811909	-2.334586881	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 6/E	47.65764593	21.88614091	-0.637205203	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 6/E	67.18404787	68.58288515	-5.335204004	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 5/E	69.62380104	77.69299482	-7.553724596	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 5/E	61.15607139	58.99590053	-4.976730068	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 5/E	57.24347777	49.720221	-3.896764419	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 5/E	49.32789783	28.8181455	-1.759278741	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 5/E	70.66618389	79.90892062	-7.898151351	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 4/E	63.34515332	50.89955284	-5.341552463	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 4/E	56.48734201	35.45340984	-3.277065301	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 4/E	53.02202154	27.02285998	-2.247837448	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 4/E	43.69518824	12.01698959	0.257210787	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 4/E	64.15109908	52.58002666	-5.586293703	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 3/E	68.58979943	75.36106023	-7.336457182	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 3/E	60.40329335	57.22393205	-4.84421263	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 3/E	56.6087743	48.17552323	-3.793789796	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 3/E	48.893825	27.70366216	-1.694152283	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 3/E	69.59549507	77.50320111	-7.668136626	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 2/E	65.16787781	64.57313858	-4.920259736	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 2/E	57.84161865	48.59291812	-3.057807415	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 2/E	54.38596521	40.26103302	-2.249564692	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 2/E	47.11336431	20.90154522	-0.584584549	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 2/E	66.05754064	66.41252998	-5.160006758	4.7	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 1/E	64.44906493	52.7942481	-5.535580278	5	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 1/E	57.37992372	37.03576122	-3.416654463	9	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 1/E	53.83016368	28.41284076	-2.365417961	12.61710051	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 1/E	44.48375796	12.34576444	0.18018255	30.003942	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 1/E	65.28143872	54.5127621	-5.785936013	4.7	314.7374268
Export (1.1xOP)	E_INV013_25mm	25	Category 12/E	12.84675541	15.20084986	3.016889066	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 12/E	11.14984256	10.87690861	3.811172517	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 12/E	10.2928121	8.725533121	4.211520856	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 12/E	8.059496224	3.992444679	5.125479884	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 12/E	13.04746619	15.7085406	2.921248279	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 11/E	12.73268192	15.48172355	3.020501326	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 11/E	11.01035646	11.12954193	3.844017788	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 11/E	10.14892322	8.976534913	4.253191132	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 11/E	7.882582076	4.233447943	5.183009559	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 11/E	12.93535904	15.9945038	2.926808906	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 10/E	12.61624081	15.91328224	2.932587614	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 10/E	10.55581448	11.62537515	3.825244321	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 10/E	9.528171171	9.482443665	4.240265503	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 10/E	7.029931735	4.598211657	5.158250699	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 10/E	12.85934931	16.41895326	2.826146305	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 9/E	12.73552456	15.48800966	3.012119815	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 9/E	10.86970108	11.19271586	3.813551623	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 9/E	9.929256729	9.04190224	4.204065482	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 9/E	7.565797886	4.194891172	5.110846967	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 9/E	12.95700658	15.99189106	2.913035909	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 8/E	12.64808233	15.63161697	2.951472608	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 8/E	10.62092688	11.37233206	3.802728513	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 8/E	9.597306302	9.230195961	4.203767862	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 8/E	7.150418457	4.31855382	5.103121078	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 8/E	12.88550736	16.13580218	2.85143258	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 7/E	12.67024855	15.76786371	2.995334052	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 7/E	10.76911948	11.44271637	3.842766694	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 7/E	9.82155824	9.294740843	4.246546048	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 7/E	7.42330466	4.459113928	5.168756973	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 7/E	12.89699101	16.27812008	2.89003491	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 6/E	12.67024855	15.76786371	2.995334052	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 6/E	10.76911948	11.44271637	3.842766694	9	2.866741419

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV013_25mm	25	Category 6/E	9.82155824	9.294740843	4.246546048	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 6/E	7.42330466	4.459113928	5.168756973	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 6/E	12.89699101	16.27812008	2.89003491	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 5/E	12.73268192	15.48172355	3.020501326	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 5/E	11.01035646	11.12954193	3.844017788	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 5/E	10.14892322	8.976534913	4.253191132	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 5/E	7.882582076	4.233447943	5.183009559	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 5/E	12.93535904	15.9945038	2.926808906	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 4/E	12.64808233	15.63161697	2.951472608	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 4/E	10.62092688	11.37233206	3.802728513	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 4/E	9.597306302	9.230195961	4.203767862	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 4/E	7.150418457	4.31855382	5.103121078	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 4/E	12.88550736	16.13580218	2.85143258	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 3/E	12.84675541	15.20084986	3.016889066	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 3/E	11.14984256	10.87690861	3.811172517	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 3/E	10.2928121	8.725533121	4.211520856	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 3/E	8.059496224	3.992444679	5.125479884	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 3/E	13.04746619	15.7085406	2.921248279	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 2/E	12.73552456	15.48800966	3.012119815	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 2/E	10.86970108	11.19271586	3.813551623	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 2/E	9.929256729	9.04190224	4.204065482	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 2/E	7.565797886	4.194891172	5.110846967	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 2/E	12.95700658	15.99189106	2.913035909	4.7	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 1/E	12.61624081	15.91328224	2.932587614	5	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 1/E	10.55581448	11.62537515	3.825244321	9	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 1/E	9.528171171	9.482443665	4.240265503	12.61710051	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 1/E	7.029931735	4.598211657	5.158250699	30.003942	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 1/E	12.85934931	16.41895326	2.826146305	4.7	2.866741419
Export (1.1xOP)	E_INV013_50mm	50	Category 12/E	27.27113625	34.6934082	3.255094153	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 12/E	23.25709406	25.57068425	5.377450799	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 12/E	21.32528324	21.12730233	6.377831107	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 12/E	17.05564155	11.53311013	8.401508371	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 12/E	27.76358354	35.78124393	2.97432109	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 11/E	27.3396802	35.58181381	3.017652517	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 11/E	23.18310609	26.29072211	5.303005794	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 11/E	21.20784814	21.78323982	6.350949908	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 11/E	16.92399386	12.14920839	8.468870803	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 11/E	27.86687307	36.69943485	2.685271632	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 10/E	7.409559203	29.90803658	-0.19952975	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 10/E	5.027690394	19.79316956	4.563061954	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 10/E	4.222125193	14.78922593	6.174400918	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 10/E	3.14199789	6.03979321	8.334344298	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 10/E	7.740554655	31.08699945	-0.861520656	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 9/E	27.51734177	34.76163582	2.256037383	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 9/E	22.66695932	25.71334823	5.315965469	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 9/E	20.54315251	21.33194255	6.306898189	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 9/E	15.49021007	11.68767716	8.326182939	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 9/E	28.14877036	35.85946322	1.784299944	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 8/E	28.10030937	34.84165153	0.567353672	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 8/E	22.31710933	25.74824984	4.878420036	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 8/E	19.82953172	21.38985533	6.264295493	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 8/E	14.34899763	11.73271716	8.271696556	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 8/E	28.8375495	35.94109061	-0.044827752	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 7/E	27.83149895	35.67239948	1.713383515	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 7/E	22.69119051	26.40632059	5.213678554	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 7/E	20.50954019	21.97355977	6.280317501	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 7/E	15.58156544	12.34715398	8.389426004	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 7/E	28.4990829	36.79737571	1.187409528	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 6/E	27.83149895	35.67239948	1.713383515	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 6/E	22.69119051	26.40632059	5.213678554	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 6/E	20.50954019	21.97355977	6.280317501	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 6/E	15.58156544	12.34715398	8.389426004	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 6/E	28.4990829	36.79737571	1.187409528	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 5/E	27.3396802	35.58181381	3.017652517	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 5/E	23.18310609	26.29072211	5.303005794	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 5/E	21.20784814	21.78323982	6.350949908	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 5/E	16.92399386	12.14920839	8.468870803	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 5/E	27.86687307	36.69943485	2.685271632	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 4/E	28.10030937	34.84165153	0.567353672	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 4/E	22.31710933	25.74824984	4.878420036	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 4/E	19.82953172	21.38985533	6.264295493	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 4/E	14.34899763	11.73271716	8.271696556	30.003942	11.46696568

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV013_50mm	50	Category 4/E	28.8375495	35.94109061	-0.044827752	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 3/E	27.27113625	34.6934082	3.255094153	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 3/E	23.25709406	25.57068425	5.377450799	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 3/E	21.32528324	21.12730233	6.377831107	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 3/E	17.05564155	11.53311013	8.401508371	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 3/E	27.76358354	35.78124393	2.97432109	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 2/E	27.51734177	34.76163582	2.256037383	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 2/E	22.66695932	25.71334823	5.315965469	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 2/E	20.54315251	21.33194255	6.306898189	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 2/E	15.49021007	11.68767716	8.326182939	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 2/E	28.14877036	35.85946322	1.784299944	4.7	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 1/E	7.409559203	29.90803658	-0.19952975	5	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 1/E	5.027690394	19.79316956	4.563061954	9	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 1/E	4.222125193	14.78922593	6.174400918	12.61710051	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 1/E	3.14199789	6.03979321	8.334344298	30.003942	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 1/E	7.740554655	31.08699945	-0.861520656	4.7	11.46696568
Export (1.1xOP)	E_INV013_85mm	85	Category 12/E	37.1818696	47.46838053	2.119867554	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 12/E	31.06987771	35.17814414	6.100931728	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 12/E	28.33838609	29.25547093	7.59010492	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 12/E	22.44393138	16.57334799	10.56825154	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 12/E	37.97120059	48.95044941	1.529542529	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 11/E	37.58637462	48.84723521	1.443839408	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 11/E	31.11491797	36.22925412	5.931744067	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 11/E	28.30794395	30.20696696	7.498955729	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 11/E	22.35058553	17.42943017	10.62262743	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 11/E	38.4180869	50.3752374	0.796791183	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 10/E	40.11065918	48.89435603	-4.285131514	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 10/E	31.06508199	36.2536668	3.410476198	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 10/E	27.03226436	30.26790926	6.410404899	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 10/E	18.83829526	17.4947963	10.5543602	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 10/E	41.24243078	50.42636864	-5.309455484	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 9/E	38.10611819	47.47379177	-0.263718793	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 9/E	30.60126633	35.20630259	5.459321349	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 9/E	27.32001618	29.34445665	7.499420335	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 9/E	20.39249745	16.66742874	10.51176665	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 9/E	39.0561219	48.95624257	-1.056481864	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 8/E	39.17292839	47.49695169	-3.018431345	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 8/E	30.54607665	35.19560782	4.088717665	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 8/E	26.68737685	29.32437405	6.811000208	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 8/E	18.84408102	16.60120353	10.49232052	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 8/E	40.2534867	48.98421916	-3.973008489	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 7/E	38.80641299	48.86067564	-1.273627567	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 7/E	30.90976461	36.25248353	5.000463879	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 7/E	27.45706151	30.27983535	7.308928123	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 7/E	20.55990541	17.56214072	10.56804258	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 7/E	39.80549168	50.39463606	-2.130067506	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 6/E	38.80641299	48.86067564	-1.273627567	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 6/E	30.90976461	36.25248353	5.000463879	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 6/E	27.45706151	30.27983535	7.308928123	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 6/E	20.55990541	17.56214072	10.56804258	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 6/E	39.80549168	50.39463606	-2.130067506	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 5/E	37.58637462	48.84723521	1.443839408	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 5/E	31.11491797	36.22925412	5.931744067	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 5/E	28.30794395	30.20696696	7.498955729	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 5/E	22.35058553	17.42943017	10.62262743	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 5/E	38.4180869	50.3752374	0.796791183	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 4/E	39.17292839	47.49695169	-3.018431345	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 4/E	30.54607665	35.19560782	4.088717665	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 4/E	26.68737685	29.32437405	6.811000208	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 4/E	18.84408102	16.60120353	10.49232052	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 4/E	40.2534867	48.98421916	-3.973008489	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 3/E	37.1818696	47.46838053	2.119867554	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 3/E	31.06987771	35.17814414	6.100931728	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 3/E	28.33838609	29.25547093	7.59010492	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 3/E	22.44393138	16.57334799	10.56825154	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 3/E	37.97120059	48.95044941	1.529542529	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 2/E	38.10611819	47.47379177	-0.263718793	5	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 2/E	30.60126633	35.20630259	5.459321349	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 2/E	27.32001618	29.34445665	7.499420335	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 2/E	20.39249745	16.66742874	10.51176665	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 2/E	39.0561219	48.95624257	-1.056481864	4.7	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 1/E	40.11065918	48.89435603	-4.285131514	5	20.83184814

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV013_85mm	85	Category 1/E	31.06508199	36.2536668	3.410476198	9	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 1/E	27.03226436	30.26790926	6.410404899	12.61710051	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 1/E	18.83829526	17.4947963	10.5543602	30.003942	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 1/E	41.24243078	50.42636864	-5.309455484	4.7	20.83184814
Export (1.1xOP)	E_INV013_254mm	254	Category 12/E	36.66221853	46.81178067	2.212217076	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 12/E	30.67327616	34.68569286	6.070094605	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 12/E	27.98481169	28.83763672	7.531559168	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 12/E	22.17740826	16.31121512	10.45785471	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 12/E	37.4377631	48.27411966	1.6344845	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 11/E	37.05056057	48.16560921	1.554850177	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 11/E	30.71174584	35.71899344	5.906078262	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 11/E	27.94835368	29.77384979	7.445537346	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 11/E	22.07889389	17.1552713	10.51753407	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 11/E	37.86585181	49.67261058	0.925123271	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 10/E	39.5090128	48.22068342	-4.04849086	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 10/E	30.61835484	35.74931421	3.494727793	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 10/E	26.66245726	29.84392963	6.416757966	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 10/E	18.61337846	17.23262048	10.43990921	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 10/E	40.62122467	49.73207596	-5.052850226	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 9/E	37.55391666	46.82130342	-0.108067682	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 9/E	30.18553951	34.71767285	5.480790782	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 9/E	26.97093405	28.93242066	7.455340989	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 9/E	20.15197605	16.41043553	10.39960047	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 9/E	38.48474549	48.28350368	-0.879658679	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 8/E	38.59496246	46.84785162	-2.808858902	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 8/E	30.11636832	34.70985134	4.154180202	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 8/E	26.32989825	28.91622696	6.806352341	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 8/E	18.61970757	16.35033362	10.3823909	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 8/E	39.65744857	48.31539006	-3.745211184	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 7/E	38.23270859	48.18832291	-1.092975832	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 7/E	30.48020177	35.74544635	5.037307216	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 7/E	27.09445091	29.85249186	7.276959881	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 7/E	20.31427513	17.29093882	10.45666867	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 7/E	39.21420653	49.69669284	-1.93178109	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 6/E	38.23270859	48.18832291	-1.092975832	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 6/E	30.48020177	35.74544635	5.037307216	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 6/E	27.09445091	29.85249186	7.276959881	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 6/E	20.31427513	17.29093882	10.45666867	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 6/E	39.21420653	49.69669284	-1.93178109	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 5/E	37.05056057	48.16560921	1.554850177	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 5/E	30.71174584	35.71899344	5.906078262	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 5/E	27.94835368	29.77384979	7.445537346	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 5/E	22.07889389	17.1552713	10.51753407	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 5/E	37.86585181	49.67261058	0.925123271	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 4/E	38.59496246	46.84785162	-2.808858902	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 4/E	30.11636832	34.70985134	4.154180202	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 4/E	26.32989825	28.91622696	6.806352341	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 4/E	18.61970757	16.35033362	10.3823909	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 4/E	39.65744857	48.31539006	-3.745211184	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 3/E	36.66221853	46.81178067	2.212217076	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 3/E	30.67327616	34.68569286	6.070094605	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 3/E	27.98481169	28.83763672	7.531559168	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 3/E	22.17740826	16.31121512	10.45785471	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 3/E	37.4377631	48.27411966	1.6344845	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 2/E	37.55391666	46.82130342	-0.108067682	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 2/E	30.18553951	34.71767285	5.480790782	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 2/E	26.97093405	28.93242066	7.455340989	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 2/E	20.15197605	16.41043553	10.39960047	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 2/E	38.48474549	48.28350368	-0.879658679	4.7	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 1/E	39.5090128	48.22068342	-4.04849086	5	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 1/E	30.61835484	35.74931421	3.494727793	9	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 1/E	26.66245726	29.84392963	6.416757966	12.61710051	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 1/E	18.61337846	17.23262048	10.43990921	30.003942	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 1/E	40.62122467	49.73207596	-5.052850226	4.7	20.27227783
Export (1.1xOP)	E_INV013_10mm	10	Category 12/E	4.321901398	3.712082929	1.833824612	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 12/E	3.364878572	2.169052201	2.515649514	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 12/E	2.873281297	1.350392113	2.998324983	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 12/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 12/E	4.406537692	3.883603369	1.773969718	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 11/E	4.25751433	3.777144348	1.822123883	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 11/E	3.328260776	2.253319787	2.513292918	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 11/E	2.845112452	1.433142722	2.917684558	12.61710051	0.458678603

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV013_10mm	10	Category 11/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 11/E	4.34087117	3.94892598	1.763349453	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 10/E	4.392839051	4.345380782	1.740815535	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 10/E	3.407173139	2.741059771	2.432735464	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 10/E	2.865673429	1.860237241	2.791442731	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 10/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 10/E	4.483524193	4.526249135	1.687054047	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 9/E	4.393442552	4.042504474	1.785035584	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 9/E	3.414095253	2.45529095	2.474522557	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 9/E	2.901229638	1.593106427	2.886589739	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 9/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 9/E	4.482227345	4.221562906	1.727259985	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 8/E	4.43722972	4.272812235	1.749632737	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 8/E	3.425809548	2.64828897	2.440602613	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 8/E	2.900645551	1.761663022	2.818292824	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 8/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 8/E	4.529914196	4.454192198	1.692779745	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 7/E	4.340193301	4.113592593	1.774392374	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 7/E	3.386180724	2.541883743	2.465165708	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 7/E	2.862949995	1.681555107	2.828317333	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 7/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 7/E	4.427575298	4.290898841	1.718016355	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 6/E	4.340193301	4.113592593	1.774392374	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 6/E	3.386180724	2.541883743	2.465165708	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 6/E	2.862949995	1.681555107	2.828317333	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 6/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 6/E	4.427575298	4.290898841	1.718016355	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 5/E	4.25751433	3.777144348	1.822123883	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 5/E	3.328260776	2.253319787	2.513292918	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 5/E	2.845112452	1.433142722	2.917684558	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 5/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 5/E	4.34087117	3.94892598	1.763349453	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 4/E	4.43722972	4.272812235	1.749632737	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 4/E	3.425809548	2.64828897	2.440602613	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 4/E	2.900645551	1.761663022	2.818292824	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 4/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 4/E	4.529914196	4.454192198	1.692779745	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 3/E	4.321901398	3.712082929	1.833824612	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 3/E	3.364878572	2.169052201	2.515649514	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 3/E	2.873281297	1.350392113	2.998324983	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 3/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 3/E	4.406537692	3.883603369	1.773969718	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 2/E	4.393442552	4.042504474	1.785035584	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 2/E	3.414095253	2.45529095	2.474522557	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 2/E	2.901229638	1.593106427	2.886589739	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 2/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 2/E	4.482227345	4.221562906	1.727259985	4.7	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 1/E	4.392839051	4.345380782	1.740815535	5	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 1/E	3.407173139	2.741059771	2.432735464	9	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 1/E	2.865673429	1.860237241	2.791442731	12.61710051	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 1/E	0	0	0	30.003942	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 1/E	4.483524193	4.526249135	1.687054047	4.7	0.458678603
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 12/E	14.18069329	13.71001085	-1.079981458	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 12/E	12.43050724	10.12713206	-0.329951992	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 12/E	11.50907173	8.28441288	0.19892224	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 12/E	9.558589304	4.133945085	1.312931661	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 12/E	14.38953962	14.12243721	-1.166700475	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 11/E	14.10080995	13.76518357	-1.097479451	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 11/E	12.33676117	10.176432	-0.337312612	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 11/E	11.41199684	8.338064072	0.193042712	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 11/E	9.461939654	4.175217068	1.305387428	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 11/E	14.31059776	14.18114292	-1.185478866	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 10/E	17.18338985	12.2638605	-0.607651069	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 10/E	15.20114032	7.798611381	0.088649796	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 10/E	14.11798282	5.581121626	0.48263837	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 10/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 10/E	17.40879771	12.74482494	-0.683982801	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 9/E	15.08833232	13.18928642	-0.744133262	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 9/E	13.2404303	9.504729819	0.083292792	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 9/E	12.36785933	7.514660978	0.422151145	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 9/E	9.893289882	3.39860245	2.158353299	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 9/E	15.30037143	13.60397385	-0.822997847	4.7	2.990689516

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 8/E	17.32590068	12.18289385	-0.598602249	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 8/E	15.34750338	7.710202968	0.086220167	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 8/E	14.25989251	5.528236225	0.47509375	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 8/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 8/E	17.55028182	12.66693966	-0.675782047	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 7/E	14.97118246	13.2216111	-0.754524442	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 7/E	13.11264459	9.549228865	0.08048401	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 7/E	12.24306046	7.569894327	0.415012247	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 7/E	9.772054303	3.41509184	2.16161646	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 7/E	15.18408962	13.63594464	-0.837825431	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 6/E	15.25311999	13.49168997	-0.779433655	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 6/E	13.38293836	9.751450318	0.023809971	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 6/E	12.47653626	7.739470225	0.405693483	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 6/E	9.999855301	3.493184914	2.107759337	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 6/E	15.46784534	13.91359179	-0.859577983	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 5/E	14.33285193	14.01123379	-1.120448595	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 5/E	12.54561085	10.36379378	-0.359923806	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 5/E	11.60444214	8.495373121	0.181154039	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 5/E	9.644717476	4.259091823	1.267707197	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 5/E	14.54636516	14.43389915	-1.209081768	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 4/E	16.36886566	12.08121535	0.915544372	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 4/E	14.75188467	7.806043711	0.915544372	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 4/E	13.86827402	5.505988973	0.915544372	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 4/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 4/E	16.55244806	12.53617698	0.915544372	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 3/E	14.38243233	13.92073966	-1.099419359	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 3/E	12.6108618	10.28778995	-0.346846417	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 3/E	11.67578004	8.41947705	0.190354342	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 3/E	9.716942384	2.740169492	1.282216947	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 3/E	14.59430527	14.33929798	-1.186823224	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 2/E	15.35707171	13.44483791	-0.766409322	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 2/E	13.48985076	9.695479054	0.047293312	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 2/E	12.59459841	7.67306463	0.409164465	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 2/E	10.11241999	3.470985421	2.105543389	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 2/E	15.57255449	13.86630111	-0.845721372	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 1/E	16.97555968	12.09626294	-0.5909164	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 1/E	15.00640598	7.685202289	0.117633997	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 1/E	13.94193621	5.494449102	0.493195648	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 1/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 1/E	17.20002328	12.57152586	-0.671875836	4.7	2.990689516
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 10/E	107.1783563	92.15753991	-11.70628663	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 10/E	94.92639824	66.62728159	-7.666100274	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 10/E	88.8488271	52.59099669	-5.684530982	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 10/E	74.10770724	23.9702363	-1.078501159	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 10/E	108.6287481	94.97457795	-12.18517557	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	93.23652186	93.92429965	-7.864103177	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	82.4056052	71.62342252	-5.243734492	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	77.26243074	60.02247947	-4.033174282	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	66.48030148	31.70450595	-1.530660331	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	94.55767423	96.49596166	-8.213321679	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 8/E	104.7035828	88.2781067	-11.21673635	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 8/E	92.91828413	63.42548222	-7.311666521	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 8/E	87.03443048	49.78049982	-5.389284215	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 8/E	72.52231653	22.84571617	-0.871160713	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 8/E	106.0955735	91.02056307	-11.68079907	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 7/E	95.41057939	97.61591342	-8.18035467	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 7/E	84.1101905	74.54008353	-5.458729519	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 7/E	78.76586453	62.61760022	-4.209714133	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 7/E	67.63079769	34.38893415	-1.63695288	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 7/E	96.79135761	100.2964716	-8.546948092	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 6/E	99.27012983	101.8255642	-8.624378538	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 6/E	87.49557624	77.80053933	-5.786646638	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 6/E	81.92268553	65.40573106	-4.474857307	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 6/E	70.32343875	36.0744707	-1.779630386	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 6/E	100.7108502	104.6159517	-9.005337841	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 5/E	98.10153898	110.8780747	-10.11655201	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 5/E	85.76746687	85.06817725	-6.675190436	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 5/E	80.09588247	72.33297518	-5.297520833	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 5/E	68.62645467	43.58300708	-2.526147644	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 5/E	99.6295967	114.025472	-10.59968055	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 4/E	102.589815	86.3582975	-10.90542916	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 4/E	91.05332482	61.98928957	-7.097261881	9	1196.275757

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 4/E	85.28958328	48.60692065	-5.220902877	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 4/E	71.03799222	22.27562836	-0.804021041	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 4/E	103.9522668	89.03538965	-11.35811122	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	95.97638724	106.809468	-9.728704396	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	84.16403066	81.98173259	-6.452127982	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	78.70265704	69.6450821	-5.113380396	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	67.61600297	41.62173654	-2.413655615	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	97.43607709	109.7526723	-10.18599973	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 2/E	97.06606967	98.02499043	-8.299856249	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 2/E	85.77512022	74.80045267	-5.569254703	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 2/E	80.40669369	62.73524622	-4.292168598	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 2/E	69.17285159	34.19744666	-1.669472411	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 2/E	98.44286232	100.7046284	-8.662420543	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 1/E	105.0212085	90.15723171	-11.38287301	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 1/E	93.0279458	65.12446552	-7.442079471	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 1/E	87.07523039	51.35621617	-5.507344429	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 1/E	72.5991242	23.37058007	-1.005838295	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 1/E	106.4409922	92.91823154	-11.8504677	4.7	1196.275757
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 12/E	2.988701956	2.892856901	14.54953042	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 12/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 12/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 12/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 12/E	6.042355128	6.943413792	11.30381974	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 11/E	5.493508686	6.23654681	11.88865725	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 11/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 11/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 11/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 11/E	7.572966866	8.993454518	9.60550176	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 10/E	0	0	0	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 10/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 10/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 10/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 10/E	3.665300733	3.040877833	25.96507808	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 9/E	0	0	0	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 9/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 9/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 9/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 9/E	5.049554942	5.357331401	15.91995346	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 8/E	0	0	0	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 8/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 8/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 8/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 8/E	0	0	0	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 7/E	4.263719637	4.358345613	16.77311804	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 7/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 7/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 7/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 7/E	6.940845595	7.796858318	13.77802785	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 6/E	4.263719637	4.358345613	16.77311804	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 6/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 6/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 6/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 6/E	6.940845595	7.796858318	13.77802785	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 5/E	5.493508686	6.23654681	11.88865725	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 5/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 5/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 5/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 5/E	7.572966866	8.993454518	9.60550176	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 4/E	0	0	0	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 4/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 4/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 4/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 4/E	0	0	0	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 3/E	2.988701956	2.892856901	14.54953042	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 3/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 3/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 3/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 3/E	6.042355128	6.943413792	11.30381974	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 2/E	0	0	0	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 2/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 2/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 2/E	0	0	0	30.003942	2.990689516

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 2/E	5.049554942	5.357331401	15.91995346	4.7	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 1/E	0	0	0	5	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 1/E	0	0	0	9	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 1/E	0	0	0	12.61710051	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 1/E	0	0	0	30.003942	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 1/E	3.665300733	3.040877833	25.96507808	4.7	2.990689516
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 10/E	278.3321952	189.2622337	-44.75513931	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 10/E	241.1516098	189.2622337	-24.8735152	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 10/E	223.0426543	154.4589021	-15.24076325	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 10/E	181.9720984	75.83411363	7.968915753	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 10/E	282.7755281	263.0321737	-47.16644858	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	292.6238393	307.4203041	-54.57240304	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	251.3113475	234.8095306	-32.27223045	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	231.8812566	198.9085294	-22.16272029	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	188.7282101	118.6471333	4.698964772	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	297.6771547	316.0415567	-57.43263544	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 8/E	277.60069	249.9150602	-43.27496992	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 8/E	241.2619967	184.6337976	-23.8340522	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 8/E	223.4698901	150.076653	-14.36820396	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 8/E	165.6476579	77.71503054	42.75987688	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 8/E	281.929514	257.3510139	-45.62080092	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 7/E	294.569826	314.634846	-56.84788158	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 7/E	251.9243475	240.0355098	-33.64355031	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 7/E	231.9935657	203.4813607	-23.25483117	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 7/E	187.9805143	122.3171352	4.157866572	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 7/E	299.810985	323.5421405	-59.85199954	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 6/E	285.598193	304.4845018	-55.12779777	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 6/E	244.1578824	232.1495652	-32.42062032	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 6/E	224.7479651	196.6859234	-22.18113678	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 6/E	181.8967497	117.904713	4.715692545	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 6/E	290.6877427	313.1186927	-58.06036037	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 5/E	297.5101642	345.8055116	-70.77694237	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 5/E	251.9727333	263.6760024	-43.70365454	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 5/E	231.0551438	224.463997	-32.03916504	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 5/E	188.1372168	140.9812031	-7.285088164	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 5/E	303.1662438	355.975729	-74.35587459	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 4/E	282.1437431	254.2708754	-44.12597501	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 4/E	212.5223019	185.2861714	41.03021077	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 4/E	199.2612699	155.0747363	41.02267498	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 4/E	169.5472359	79.10757737	41.02576138	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 4/E	286.5376311	261.8206328	-46.5001141	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	294.5854618	336.7642497	-67.80612733	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	250.6602992	257.3530562	-41.96739817	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	230.3533853	219.1653978	-30.69060918	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	188.2793849	137.137373	-6.217964498	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	300.0139537	346.3167301	-71.18696834	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 2/E	283.7024753	297.528383	-52.90830172	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 2/E	243.5452584	227.1041301	-31.07242735	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 2/E	224.6171422	192.2668792	-21.09870513	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 2/E	182.6312344	114.3518103	5.190351602	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 2/E	288.6114273	305.8876435	-55.70236375	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 1/E	282.4877051	259.5201286	-45.5481247	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 1/E	244.7952532	192.3791798	-25.44298776	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 1/E	226.4484114	157.088605	-15.71889004	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 1/E	184.8795713	77.31712655	7.652407475	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 1/E	286.9953941	267.2139007	-47.98800936	4.7	1196.275757
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 12/E	4.743017135	3.759876909	1.789759888	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 12/E	3.720798667	2.098529958	2.481880661	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 12/E	3.144571305	1.231791854	3.134714598	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 12/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 12/E	4.835476664	3.946970268	1.722854896	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 11/E	4.676674879	3.840714301	1.776260385	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 11/E	3.649980893	2.186877794	2.473569181	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 11/E	3.145805372	1.322510388	3.004431492	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 11/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 11/E	4.765431552	4.022680091	1.714989027	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 10/E	4.618276012	4.407501502	1.679184539	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 10/E	3.47457539	2.660759189	2.37925766	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 10/E	2.997442031	1.71377478	2.775329343	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 10/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 10/E	4.718415046	4.600126509	1.622256241	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 9/E	4.706848753	4.102711098	1.728146072	5	0.50954634

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 9/E	3.605817232	2.370602988	2.427833261	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 9/E	3.08765689	1.453549335	2.942841381	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 9/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 9/E	4.803629352	4.291283555	1.667404696	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 8/E	4.658380594	4.321436091	1.685069131	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 8/E	3.505957736	2.555687908	2.390621744	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 8/E	3.001144929	1.599410068	2.842508942	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 8/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 8/E	4.759331345	4.515145494	1.628733412	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 7/E	4.65394202	4.184060412	1.720162016	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 7/E	3.558333662	2.470122534	2.425750391	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 7/E	3.080370156	1.558311492	2.858744707	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 7/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 7/E	4.748665672	4.373816348	1.661603575	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 6/E	4.65394202	4.184060412	1.720162016	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 6/E	3.558333662	2.470122534	2.425750391	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 6/E	3.080370156	1.558311492	2.858744707	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 6/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 6/E	4.748665672	4.373816348	1.661603575	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 5/E	4.676674879	3.840714301	1.776260385	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 5/E	3.649980893	2.186877794	2.473569181	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 5/E	3.145805372	1.322510388	3.004431492	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 5/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 5/E	4.765431552	4.022680091	1.714989027	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 4/E	4.658380594	4.321436091	1.685069131	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 4/E	3.505957736	2.555687908	2.390621744	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 4/E	3.001144929	1.599410068	2.842508942	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 4/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 4/E	4.759331345	4.515145494	1.628733412	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 3/E	4.743017135	3.759876909	1.789759888	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 3/E	3.720798667	2.098529958	2.481880661	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 3/E	3.144571305	1.231791854	3.134714598	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 3/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 3/E	4.835476664	3.946970268	1.722854896	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 2/E	4.706848753	4.102711098	1.728146072	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 2/E	3.605817232	2.370602988	2.427833261	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 2/E	3.08765689	1.453549335	2.942841381	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 2/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 2/E	4.803629352	4.291283555	1.667404696	4.7	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 1/E	4.618276012	4.407501502	1.679184539	5	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 1/E	3.47457539	2.660759189	2.37925766	9	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 1/E	2.997442031	1.71377478	2.775329343	12.61710051	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 1/E	0	0	0	30.003942	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 1/E	4.718415046	4.600126509	1.622256241	4.7	0.50954634
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 12/E	10.78953023	11.34045995	2.423585446	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 12/E	9.425627009	7.805964301	3.076203658	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 12/E	8.699353821	6.01408682	3.415342075	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 12/E	6.73174774	2.180206983	4.52770706	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 12/E	10.94567417	11.75100034	2.350220132	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 11/E	10.66874955	11.56230489	2.43425638	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 11/E	9.294774435	8.016228344	3.102824902	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 11/E	8.572717004	6.229549276	3.448857029	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 11/E	6.633449602	2.370724175	4.516254703	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 11/E	10.82640732	11.97994304	2.358132061	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 10/E	10.26138306	12.0730126	2.472803988	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 10/E	8.604640127	8.56681566	3.0947912	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 10/E	7.687323876	6.749342403	3.422993086	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 10/E	5.587392691	2.537027767	4.305958636	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 10/E	10.4530063	12.4773915	2.397341973	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 9/E	10.54891397	11.69191308	2.434587613	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 9/E	9.029117758	8.15555835	3.065912915	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 9/E	8.194189698	6.337425028	3.399743442	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 9/E	6.0728618	2.2603881	4.481950081	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 9/E	10.72215814	12.09618031	2.363611532	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 8/E	10.31551245	11.8576478	2.459667721	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 8/E	8.661705425	8.351072429	3.070240766	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 8/E	7.719845133	6.517447317	3.39280345	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 8/E	5.568925452	2.278484982	4.31979172	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 8/E	10.50345544	12.26201336	2.38948091	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 7/E	10.46262294	11.9068655	2.446994468	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 7/E	8.935555549	8.369751688	3.09129569	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 7/E	8.114124146	6.561975961	3.431145364	12.61710051	2.038185358

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 7/E	6.092973673	2.482246996	4.351195147	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 7/E	10.63863069	12.31413746	2.372604737	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 6/E	10.46262294	11.9068655	2.446994468	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 6/E	8.935555549	8.369751688	3.09129569	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 6/E	8.114124146	6.561975961	3.431145364	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 6/E	6.092973673	2.482246996	4.351195147	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 6/E	10.63863069	12.31413746	2.372604737	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 5/E	10.66874955	11.56230489	2.43425638	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 5/E	9.294774435	8.016228344	3.102824902	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 5/E	8.572717004	6.229549276	3.448857029	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 5/E	6.633449602	2.370724175	4.516254703	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 5/E	10.82640732	11.97994304	2.358132061	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 4/E	10.31551245	11.8576478	2.459667721	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 4/E	8.661705425	8.351072429	3.070240766	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 4/E	7.719845133	6.517447317	3.39280345	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 4/E	5.568925452	2.278484982	4.31979172	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 4/E	10.50345544	12.26201336	2.38948091	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 3/E	10.78953023	11.34045995	2.423585446	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 3/E	9.425627009	7.805964301	3.076203658	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 3/E	8.699353821	6.01408682	3.415342075	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 3/E	6.73174774	2.180206983	4.52770706	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 3/E	10.94567417	11.75100034	2.350220132	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 2/E	10.54891397	11.69191308	2.434587613	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 2/E	9.029117758	8.15555835	3.065912915	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 2/E	8.194189698	6.337425028	3.399743442	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 2/E	6.0728618	2.2603881	4.481950081	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 2/E	10.72215814	12.09618031	2.363611532	4.7	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 1/E	10.26138306	12.0730126	2.472803988	5	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 1/E	8.604640127	8.56681566	3.0947912	9	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 1/E	7.687323876	6.749342403	3.422993086	12.61710051	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 1/E	5.587392691	2.537027767	4.305958636	30.003942	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 1/E	10.4530063	12.4773915	2.397341973	4.7	2.038185358
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 12/E	136.7598493	161.5178441	-38.01453418	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 12/E	106.8949293	121.4604583	-10.2290927	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 12/E	93.20081842	102.4880714	1.941568257	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 12/E	65.97544844	63.62721823	23.42268133	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 12/E	140.4301393	166.3503247	-41.50582031	4.7	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 11/E	141.6347868	167.4726617	-43.86153586	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 11/E	110.0071325	125.9137351	-14.02640356	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 11/E	95.5375399	106.3473255	-0.907837327	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 11/E	67.06052376	66.56090245	22.57558875	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 11/E	145.5278456	172.5006936	-47.6016069	4.7	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 10/E	154.3832412	164.3039082	-66.77764882	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 10/E	114.1344995	122.2679836	-28.39834058	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 10/E	95.06658751	102.126061	-11.13154131	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 10/E	61.31691501	60.46244431	20.2264898	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 10/E	159.2460953	169.3501245	-71.50702754	4.7	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 9/E	144.5351904	159.9123672	-50.25017065	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 9/E	109.5418199	119.8020367	-17.43219438	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 9/E	93.21549911	100.668181	-2.927377014	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 9/E	61.11271174	60.95325222	23.18011896	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 9/E	148.7923329	164.7372486	-54.33442541	4.7	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 8/E	147.8700141	158.2873537	-59.42862402	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 8/E	109.3952198	117.6597741	-23.21449517	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 8/E	91.00932335	98.02917967	-7.027204833	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 8/E	59.3300789	57.40452844	22.06137057	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 8/E	152.5091696	163.1510673	-63.90519804	4.7	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 7/E	150.4556037	165.8505107	-57.08365887	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 7/E	113.6348638	124.2798445	-22.09666936	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 7/E	96.49691889	104.5819782	-6.535517676	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 7/E	62.34593338	63.95546335	21.65461317	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 7/E	154.9428295	170.8668376	-61.42617882	4.7	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 6/E	150.4556037	165.8505107	-57.08365887	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 6/E	113.6348638	124.2798445	-22.09666936	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 6/E	96.49691889	104.5819782	-6.535517676	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 6/E	62.34593338	63.95546335	21.65461317	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 6/E	154.9428295	170.8668376	-61.42617882	4.7	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 5/E	141.6347868	167.4726617	-43.86153586	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 5/E	110.0071325	125.9137351	-14.02640356	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 5/E	95.5375399	106.3473255	-0.907837327	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 5/E	67.06052376	66.56090245	22.57558875	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 5/E	145.5278456	172.5006936	-47.6016069	4.7	303.3635254

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 4/E	147.8700141	158.2873537	-59.42862402	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 4/E	109.3952198	117.6597741	-23.21449517	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 4/E	91.00932335	98.02917967	-7.027204833	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 4/E	59.3300789	57.40452844	22.06137057	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 4/E	152.5091696	163.1510673	-63.90519804	4.7	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 3/E	136.7598493	161.5178441	-38.01453418	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 3/E	106.8949293	121.4604583	-10.2290927	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 3/E	93.20081842	102.4880714	1.941568257	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 3/E	65.97544844	63.62721823	23.42268133	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 3/E	140.4301393	166.3503247	-41.50582031	4.7	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 2/E	144.5351904	159.9123672	-50.25017065	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 2/E	109.5418199	119.8020367	-17.43219438	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 2/E	93.21549911	100.668181	-2.927377014	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 2/E	61.11271174	60.95325222	23.18011896	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 2/E	148.7923329	164.7372486	-54.33442541	4.7	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 1/E	154.3832412	164.3039082	-66.77764882	5	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 1/E	114.1344995	122.2679836	-28.39834058	9	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 1/E	95.06658751	102.126061	-11.13154131	12.61710051	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 1/E	61.31691501	60.46244431	20.2264898	30.003942	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 1/E	159.2460953	169.3501245	-71.50702754	4.7	303.3635254
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 12/E	174.0310208	225.6505806	-57.06062839	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 12/E	148.8881299	168.9618232	-31.91773747	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 12/E	137.1390175	141.9976216	-20.16862511	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 12/E	113.7298427	86.69442068	3.240549675	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 12/E	177.0857083	232.4637081	-60.11531593	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 11/E	177.403747	234.9634354	-61.62095346	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 11/E	150.7662912	175.9744701	-34.98349767	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 11/E	138.3513991	148.0533111	-22.56860554	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 11/E	113.7026983	91.09376881	2.080095329	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 11/E	180.641232	242.0747793	-64.85843844	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 10/E	209.8381902	228.2695891	-104.6494661	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 10/E	155.6898497	167.7414815	-55.78174478	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 10/E	130.1868632	138.404906	-34.44485238	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 10/E	85.75822171	78.06720513	3.326500383	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 10/E	216.3575923	235.4926145	-110.7657157	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 9/E	184.5981571	224.6360371	-70.02691903	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 9/E	148.1524935	168.5786359	-36.83432758	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 9/E	131.5198223	141.9044252	-22.44397835	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 9/E	98.89192277	87.02721039	2.068537226	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 9/E	189.0933411	231.3814618	-74.22381787	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 8/E	200.9175467	218.5793665	-94.9703433	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 8/E	149.0906364	160.133958	-49.27450372	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 8/E	125.9878858	131.7667682	-29.43060496	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 8/E	82.77025806	73.07185645	5.564724478	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 8/E	207.1242583	225.5187363	-100.7072046	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 7/E	190.4556035	233.7440436	-76.63112119	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 7/E	151.7477131	175.4131254	-40.9520079	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 7/E	134.151048	147.8061324	-25.45822398	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 7/E	100.2137812	91.38820664	0.927812658	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 7/E	195.239158	240.7856832	-81.14040313	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 6/E	190.4556035	233.7440436	-76.63112119	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 6/E	151.7477131	175.4131254	-40.9520079	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 6/E	134.151048	147.8061324	-25.45822398	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 6/E	100.2137812	91.38820664	0.927812658	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 6/E	195.239158	240.7856832	-81.14040313	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 5/E	177.403747	234.9634354	-61.62095346	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 5/E	150.7662912	175.9744701	-34.98349767	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 5/E	138.3513991	148.0533111	-22.56860554	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 5/E	113.7026983	91.09376881	2.080095329	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 5/E	180.641232	242.0747793	-64.85843844	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 4/E	200.9175467	218.5793665	-94.9703433	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 4/E	149.0906364	160.133958	-49.27450372	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 4/E	125.9878858	131.7667682	-29.43060496	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 4/E	82.77025806	73.07185645	5.564724478	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 4/E	207.1242583	225.5187363	-100.7072046	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 3/E	174.0310208	225.6505806	-57.06062839	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 3/E	148.8881299	168.9618232	-31.91773747	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 3/E	137.1390175	141.9976216	-20.16862511	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 3/E	113.7298427	86.69442068	3.240549675	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 3/E	177.0857083	232.4637081	-60.11531593	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 2/E	184.5981571	224.6360371	-70.02691903	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 2/E	148.1524935	168.5786359	-36.83432758	9	465.0292053

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 2/E	131.5198223	141.9044252	-22.44397835	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 2/E	98.89192277	87.02721039	2.068537226	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 2/E	189.0933411	231.3814618	-74.22381787	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 1/E	209.8381902	228.2695891	-104.6494661	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 1/E	155.6898497	167.7414815	-55.78174478	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 1/E	130.1868632	138.404906	-34.44485238	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 1/E	85.75822171	78.06720513	3.326500383	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 1/E	216.3575923	235.4926145	-110.7657157	4.7	465.0292053
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 12/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 12/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 12/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 12/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 12/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 11/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 11/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 11/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 11/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 11/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 10/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 10/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 10/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 10/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 10/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 9/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 9/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 9/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 9/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 9/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 8/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 8/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 8/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 8/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 8/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 7/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 7/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 7/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 7/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 7/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 6/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 6/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 6/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 6/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 6/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 5/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 5/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 5/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 5/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 5/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 4/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 4/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 4/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 4/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 4/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 3/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 3/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 3/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 3/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 3/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 2/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 2/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 2/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 2/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 2/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 1/E	0	0	0	5	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 1/E	0	0	0	9	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 1/E	0	0	0	12.61710051	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 1/E	0	0	0	30.003942	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 1/E	0	0	0	4.7	0.081527412
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 12/E	174.0310208	225.6505806	-57.06062839	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 12/E	148.8881299	168.9618232	-31.91773747	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 12/E	137.1390175	141.9976216	-20.16862511	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 12/E	113.7298427	86.69442068	3.240549675	30.003942	465.0292053

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 12/E	177.0857083	232.4637081	-60.11531593	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 11/E	177.403747	234.9634354	-61.62095346	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 11/E	150.7662912	175.9744701	-34.98349767	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 11/E	138.3513991	148.0533111	-22.56860554	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 11/E	113.7026983	91.09376881	2.080095329	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 11/E	180.641232	242.0747793	-64.85843844	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 10/E	209.8381902	228.2695891	-104.6494661	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 10/E	155.6898497	167.7414815	-55.78174478	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 10/E	130.1868632	138.404906	-34.44485238	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 10/E	85.75822171	78.06720513	3.326500383	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 10/E	216.3575923	235.4926145	-110.7657157	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 9/E	184.5981571	224.6360371	-70.02691903	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 9/E	148.1524935	168.5786359	-36.83432758	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 9/E	131.5198223	141.9044252	-22.44397835	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 9/E	98.89192277	87.02721039	2.068537226	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 9/E	189.0933411	231.3814618	-74.22381787	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 8/E	200.9175467	218.5793665	-94.9703433	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 8/E	149.0906364	160.133958	-49.27450372	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 8/E	125.9878858	131.7667682	-29.43060496	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 8/E	82.77025806	73.07185645	5.564724478	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 8/E	207.1242583	225.5187363	-100.7072046	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 7/E	190.4556035	233.7440436	-76.63112119	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 7/E	151.7477131	175.4131254	-40.9520079	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 7/E	134.151048	147.8061324	-25.45822398	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 7/E	100.2137812	91.38820664	0.927812658	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 7/E	195.239158	240.7856832	-81.14040313	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 6/E	190.4556035	233.7440436	-76.63112119	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 6/E	151.7477131	175.4131254	-40.9520079	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 6/E	134.151048	147.8061324	-25.45822398	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 6/E	100.2137812	91.38820664	0.927812658	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 6/E	195.239158	240.7856832	-81.14040313	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 5/E	177.403747	234.9634354	-61.62095346	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 5/E	150.7662912	175.9744701	-34.98349767	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 5/E	138.3513991	148.0533111	-22.56860554	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 5/E	113.7026983	91.09376881	2.080095329	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 5/E	180.641232	242.0747793	-64.85843844	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 4/E	200.9175467	218.5793665	-94.9703433	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 4/E	149.0906364	160.133958	-49.27450372	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 4/E	125.9878858	131.7667682	-29.43060496	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 4/E	82.77025806	73.07185645	5.564724478	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 4/E	207.1242583	225.5187363	-100.7072046	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 3/E	174.0310208	225.6505806	-57.06062839	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 3/E	148.8881299	168.9618232	-31.91773747	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 3/E	137.1390175	141.9976216	-20.16862511	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 3/E	113.7298427	86.69442068	3.240549675	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 3/E	177.0857083	232.4637081	-60.11531593	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 2/E	184.5981571	224.6360371	-70.02691903	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 2/E	148.1524935	168.5786359	-36.83432758	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 2/E	131.5198223	141.9044252	-22.44397835	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 2/E	98.89192277	87.02721039	2.068537226	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 2/E	189.0933411	231.3814618	-74.22381787	4.7	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 1/E	209.8381902	228.2695891	-104.6494661	5	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 1/E	155.6898497	167.7414815	-55.78174478	9	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 1/E	130.1868632	138.404906	-34.44485238	12.61710051	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 1/E	85.75822171	78.06720513	3.326500383	30.003942	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 1/E	216.3575923	235.4926145	-110.7657157	4.7	465.0292053
Export (1.1xOP)	E_INV017_25mm	25	Category 12/E	13.74681917	16.16280582	3.638004399	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 12/E	11.89307177	11.56048988	4.535212139	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 12/E	10.96382259	9.268855626	4.971520579	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 12/E	8.582537895	4.236617555	5.947758608	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 12/E	13.96796658	16.70290014	3.527922945	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 11/E	13.64038077	16.47924639	3.623918844	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 11/E	11.74960204	11.84514174	4.569021602	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 11/E	10.81277851	9.552025545	5.022375625	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 11/E	8.388711084	4.509861615	6.021648834	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 11/E	13.86580513	17.02596715	3.507835169	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 10/E	13.51706207	16.88481596	3.495186035	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 10/E	11.30871235	12.31454773	4.462374414	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 10/E	10.18815181	10.03470579	4.946113711	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 10/E	7.521205471	4.849927957	5.999269538	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 10/E	13.77677935	17.42198056	3.381152088	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 9/E	13.65292001	16.43034613	3.567075346	5	3.856528282

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV017_25mm	25	Category 9/E	11.61161547	11.86014487	4.504801258	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 9/E	10.58505444	9.56864378	4.951862285	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 9/E	8.068755809	4.422564283	5.935825403	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 9/E	13.89383692	16.9709019	3.456782458	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 8/E	13.54772029	16.5705761	3.513780462	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 8/E	11.370325	12.03509818	4.446361301	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 8/E	10.25118691	9.749485305	4.922357116	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 8/E	7.638057489	4.53544085	5.929824692	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 8/E	13.80392048	17.10148686	3.401187651	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 7/E	13.58550808	16.74884725	3.55211864	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 7/E	11.51449482	12.14235809	4.522649734	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 7/E	10.4780828	9.853728557	4.994340469	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 7/E	7.91557574	4.717932243	6.006733971	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 7/E	13.83110624	17.29146934	3.435159079	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 6/E	13.58550808	16.74884725	3.55211864	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 6/E	11.51449482	12.14235809	4.522649734	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 6/E	10.4780828	9.853728557	4.994340469	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 6/E	7.91557574	4.717932243	6.006733971	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 6/E	13.83110624	17.29146934	3.435159079	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 5/E	13.64038077	16.47924639	3.623918844	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 5/E	11.74960204	11.84514174	4.569021602	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 5/E	10.81277851	9.552025545	5.022375625	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 5/E	8.388711084	4.509861615	6.021648834	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 5/E	13.86580513	17.02596715	3.507835169	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 4/E	13.54772029	16.5705761	3.513780462	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 4/E	11.370325	12.03509818	4.446361301	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 4/E	10.25118691	9.749485305	4.922357116	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 4/E	7.638057489	4.53544085	5.929824692	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 4/E	13.80392048	17.10148686	3.401187651	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 3/E	13.74681917	16.16280582	3.638004399	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 3/E	11.89307177	11.56048988	4.535212139	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 3/E	10.96382259	9.268855626	4.971520579	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 3/E	8.582537895	4.236617555	5.947758608	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 3/E	13.96796658	16.70290014	3.527922945	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 2/E	13.65292001	16.43034613	3.567075346	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 2/E	11.61161547	11.86014487	4.504801258	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 2/E	10.58505444	9.56864378	4.951862285	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 2/E	8.068755809	4.422564283	5.935825403	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 2/E	13.89383692	16.9709019	3.456782458	4.7	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 1/E	13.51706207	16.88481596	3.495186035	5	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 1/E	11.30871235	12.31454773	4.462374414	9	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 1/E	10.18815181	10.03470579	4.946113711	12.61710051	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 1/E	7.521205471	4.849927957	5.999269538	30.003942	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 1/E	13.77677935	17.42198056	3.381152088	4.7	3.856528282
Export (1.1xOP)	E_INV017_50mm	50	Category 12/E	29.0404204	36.32517223	4.210846894	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 12/E	24.67696527	26.72788578	6.601678502	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 12/E	22.58597414	22.04165817	7.695411254	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 12/E	17.83703948	11.88019076	9.910622556	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 12/E	29.59047842	37.47586595	3.866207843	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 11/E	29.15789168	37.30034282	3.896492021	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 11/E	24.6073853	27.50761538	6.52701723	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 11/E	22.46657777	22.76742285	7.675088151	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 11/E	17.74799809	12.56916776	9.991611346	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 11/E	29.74248167	38.47723002	3.501923347	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 10/E	30.33647455	37.43959067	0.631747633	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 10/E	23.87780831	27.65072094	5.693795809	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 10/E	21.0531025	22.98107086	7.475973408	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 10/E	15.11961153	12.7682453	9.873795712	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 10/E	31.1515976	38.62455006	-0.065427045	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 9/E	29.28253506	36.3865063	3.092286281	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 9/E	24.02069021	26.85307385	6.536628107	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 9/E	21.72751008	22.22494359	7.636047377	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 9/E	16.13691564	11.99393507	9.840736381	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 9/E	29.95922606	37.53505679	2.577594336	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 8/E	29.78865337	36.44211142	1.45186346	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 8/E	23.64821678	26.88388391	6.035245084	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 8/E	20.96129255	22.27487857	7.576567442	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 8/E	15.27710001	12.06288243	9.791497073	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 8/E	30.5658359	37.59571742	0.80847604	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 7/E	29.63840961	37.36902719	2.492296122	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 7/E	24.07564023	27.61446216	6.392469284	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 7/E	21.70037351	22.93692103	7.614814688	12.61710051	15.42611313

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV017_50mm	50	Category 7/E	16.19566131	12.71903218	9.923257138	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 7/E	30.35409242	38.55436966	1.924123683	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 6/E	29.63840961	37.36902719	2.492296122	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 6/E	24.07564023	27.61446216	6.392469284	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 6/E	21.70037351	22.93692103	7.614814688	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 6/E	16.19566131	12.71903218	9.923257138	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 6/E	30.35409242	38.55436966	1.924123683	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 5/E	29.15789168	37.30034282	3.896492021	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 5/E	24.6073853	27.50761538	6.52701723	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 5/E	22.46657777	22.76742285	7.675088151	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 5/E	17.74799809	12.56916776	9.991611346	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 5/E	29.74248167	38.47723002	3.501923347	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 4/E	29.78865337	36.44211142	1.45186346	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 4/E	23.64821678	26.88388391	6.035245084	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 4/E	20.96129255	22.27487857	7.576567442	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 4/E	15.27710001	12.06288243	9.791497073	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 4/E	30.5658359	37.59571742	0.80847604	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 3/E	29.0404204	36.32517223	4.210846894	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 3/E	24.67696527	26.72788578	6.601678502	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 3/E	22.58597414	22.04165817	7.695411254	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 3/E	17.83703948	11.88019076	9.910622556	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 3/E	29.59047842	37.47586595	3.866207843	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 2/E	29.28253506	36.3865063	3.092286281	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 2/E	24.02069021	26.85307385	6.536628107	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 2/E	21.72751008	22.22494359	7.636047377	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 2/E	16.13691564	11.99393507	9.840736381	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 2/E	29.95922606	37.53505679	2.577594336	4.7	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 1/E	30.33647455	37.43959067	0.631747633	5	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 1/E	23.87780831	27.65072094	5.693795809	9	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 1/E	21.0531025	22.98107086	7.475973408	12.61710051	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 1/E	15.11961153	12.7682453	9.873795712	30.003942	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 1/E	31.1515976	38.62455006	-0.065427045	4.7	15.42611313
Export (1.1xOP)	E_INV017_576mm	576	Category 12/E	170.2547675	191.8583288	-49.82183162	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 12/E	130.857168	144.7556352	-12.32539396	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 12/E	112.6300261	122.4720687	4.388092315	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 12/E	75.85422638	76.85277627	34.9862522	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 12/E	175.06822	197.5421241	-54.47671182	4.7	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 11/E	177.4037214	198.9627824	-57.99238374	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 11/E	135.6498778	150.0437349	-17.82833481	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 11/E	116.3789626	127.0187314	0.153338563	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 11/E	78.02730763	80.29440685	33.25854954	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 11/E	182.5083897	204.8826874	-62.96610506	4.7	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 10/E	188.0940309	196.0441914	-80.09032766	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 10/E	139.375791	146.4916976	-32.94220097	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 10/E	116.3042938	122.8472537	-11.41311283	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 10/E	74.74842437	74.51219014	28.7518334	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 10/E	193.9777019	202.0020101	-85.8625827	4.7	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 9/E	176.9169892	190.3304479	-62.06367177	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 9/E	133.3006106	143.0530596	-20.37257044	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 9/E	112.8293081	120.5495017	-1.565690273	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 9/E	73.0085094	74.12399333	33.06164324	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 9/E	182.2072862	196.0173791	-67.20563267	4.7	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 8/E	179.8262177	188.8571469	-70.94736074	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 8/E	133.3331339	141.0621846	-26.40451358	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 8/E	111.2011147	118.1052664	-6.167657324	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 8/E	72.09500999	70.94529298	31.25481991	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 8/E	185.426548	194.588107	-76.40796233	4.7	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 7/E	184.8250178	197.4290141	-70.92404046	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 7/E	138.8692386	148.3662854	-26.5474116	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 7/E	117.3701154	125.1436585	-6.447623712	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 7/E	75.00905231	77.56220093	30.83152897	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 7/E	190.4062877	203.3516425	-76.38501273	4.7	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 6/E	184.8250178	197.4290141	-70.92404046	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 6/E	138.8692386	148.3662854	-26.5474116	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 6/E	117.3701154	125.1436585	-6.447623712	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 6/E	75.00905231	77.56220093	30.83152897	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 6/E	190.4062877	203.3516425	-76.38501273	4.7	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 5/E	177.4037214	198.9627824	-57.99238374	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 5/E	135.6498778	150.0437349	-17.82833481	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 5/E	116.3789626	127.0187314	0.153338563	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 5/E	78.02730763	80.29440685	33.25854954	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 5/E	182.5083897	204.8826874	-62.96610506	4.7	480.7966614

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV017_576mm	576	Category 4/E	179.8262177	188.8571469	-70.94736074	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 4/E	133.3331339	141.0621846	-26.40451358	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 4/E	111.2011147	118.1052664	-6.167657324	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 4/E	72.09500999	70.94529298	31.25481991	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 4/E	185.426548	194.588107	-76.40796233	4.7	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 3/E	170.2547675	191.8583288	-49.82183162	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 3/E	130.857168	144.7556352	-12.32539396	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 3/E	112.6300261	122.4720687	4.388092315	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 3/E	75.85422638	76.85277627	34.9862522	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 3/E	175.06822	197.5421241	-54.47671182	4.7	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 2/E	176.9169892	190.3304479	-62.06367177	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 2/E	133.3006106	143.0530596	-20.37257044	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 2/E	112.8293081	120.5495017	-1.565690273	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 2/E	73.0085094	74.12399333	33.06164324	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 2/E	182.2072862	196.0173791	-67.20563267	4.7	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 1/E	188.0940309	196.0441914	-80.09032766	5	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 1/E	139.375791	146.4916976	-32.94220097	9	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 1/E	116.3042938	122.8472537	-11.41311283	12.61710051	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 1/E	74.74842437	74.51219014	28.7518334	30.003942	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 1/E	193.9777019	202.0020101	-85.8625827	4.7	480.7966614
Export (1.1xOP)	E_INV017_1727mm	1727	Category 12/E	166.5005689	216.5507834	-50.96448684	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 12/E	138.7378356	163.0089821	-25.5345251	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 12/E	125.7917979	137.5960225	-13.66263679	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 12/E	99.8697589	85.72096428	9.947251295	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 12/E	169.8808943	223.0014521	-54.05240059	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 11/E	170.5128188	225.0956218	-55.58845278	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 11/E	141.0759793	169.417432	-28.60702059	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 11/E	127.3956518	143.1194028	-16.04460771	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 11/E	100.1555329	89.77244074	8.84770821	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 11/E	174.1052062	231.8225341	-58.86990978	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 10/E	202.869636	218.3147411	-97.60497558	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 10/E	149.2041864	161.0684085	-48.0948792	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 10/E	124.1000608	133.2701032	-26.25994519	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 10/E	80.9283842	75.42415385	12.3800369	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 10/E	209.327037	225.1424346	-103.7626173	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 9/E	186.7691986	214.5066023	-74.15953433	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 9/E	145.1590098	160.6518793	-35.83544473	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 9/E	125.7653413	134.970558	-18.98379131	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 9/E	85.82243251	81.94625873	11.32296925	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 9/E	191.8547357	220.9808319	-78.96870028	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 8/E	193.8892454	209.3253641	-87.647327	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 8/E	142.5307887	154.0061004	-41.24508336	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 8/E	119.5204267	127.0405438	-20.95539342	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 8/E	77.83018645	70.50777784	14.76465033	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 8/E	200.0443984	215.8879788	-93.44276934	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 7/E	193.8627545	223.0965658	-81.91980262	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 7/E	149.8318801	167.1361505	-40.81110744	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 7/E	129.4442827	140.5987009	-22.69778538	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 7/E	86.87187989	86.06376439	9.953306779	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 7/E	199.2558014	229.8451841	-87.06920467	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 6/E	193.8627545	223.0965658	-81.91980262	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 6/E	149.8318801	167.1361505	-40.81110744	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 6/E	129.4442827	140.5987009	-22.69778538	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 6/E	86.87187989	86.06376439	9.953306779	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 6/E	199.2558014	229.8451841	-87.06920467	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 5/E	170.5128188	225.0956218	-55.58845278	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 5/E	141.0759793	169.417432	-28.60702059	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 5/E	127.3956518	143.1194028	-16.04460771	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 5/E	100.1555329	89.77244074	8.84770821	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 5/E	174.1052062	231.8225341	-58.86990978	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 4/E	193.8892454	209.3253641	-87.647327	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 4/E	142.5307887	154.0061004	-41.24508336	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 4/E	119.5204267	127.0405438	-20.95539342	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 4/E	77.83018645	70.50777784	14.76465033	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 4/E	200.0443984	215.8879788	-93.44276934	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 3/E	166.5005689	216.5507834	-50.96448684	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 3/E	138.7378356	163.0089821	-25.5345251	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 3/E	125.7917979	137.5960225	-13.66263679	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 3/E	99.8697589	85.72096428	9.947251295	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 3/E	169.8808943	223.0014521	-54.05240059	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 2/E	186.7691986	214.5066023	-74.15953433	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 2/E	145.1590098	160.6518793	-35.83544473	9	467.7773438

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV017_1727mm	1727	Category 2/E	125.7653413	134.970558	-18.98379131	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 2/E	85.82243251	81.94625873	11.32296925	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 2/E	191.8547357	220.9808319	-78.96870028	4.7	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 1/E	202.869636	218.3147411	-97.60497558	5	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 1/E	149.2041864	161.0684085	-48.0948792	9	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 1/E	124.1000608	133.2701032	-26.25994519	12.61710051	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 1/E	80.9283842	75.42415385	12.3800369	30.003942	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 1/E	209.327037	225.1424346	-103.7626173	4.7	467.7773438
Export (1.1xOP)	E_INV017_10mm	10	Category 12/E	4.692065555	4.054919742	2.087801657	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 12/E	3.706978656	2.416666222	2.801829331	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 12/E	3.195498835	1.535902978	3.167287402	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 12/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 12/E	4.778691171	4.240024655	2.030148716	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 11/E	4.617926182	4.130768878	2.085074722	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 11/E	3.423102321	2.540888946	3.276641275	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 11/E	3.179017684	1.63817189	3.132669339	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 11/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 11/E	4.701353612	4.313670127	2.032607536	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 10/E	4.746677242	4.694434021	2.023976665	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 10/E	3.759496009	2.979669987	2.666510205	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 10/E	3.1695561	2.048892423	3.052892771	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 10/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 10/E	4.842933664	4.887365497	1.967216258	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 9/E	4.757298497	4.382454058	2.052224342	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 9/E	3.750967895	2.693971743	2.753558933	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 9/E	3.232921218	1.778413108	3.105695043	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 9/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 9/E	4.848309391	4.573204661	1.996734722	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 8/E	4.79971534	4.612445497	2.02575381	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 8/E	3.759554648	2.884662265	2.721047951	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 8/E	3.198936043	1.937103409	3.069754222	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 8/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 8/E	4.89525269	4.806233031	1.970609618	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 7/E	4.695035372	4.462356426	2.0501427	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 7/E	3.724784303	2.787878743	2.728535158	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 7/E	3.181321582	1.881073323	3.083653127	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 7/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 7/E	4.785136315	4.652073801	1.995310984	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 6/E	4.695035372	4.462356426	2.0501427	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 6/E	3.724784303	2.787878743	2.728535158	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 6/E	3.181321582	1.881073323	3.083653127	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 6/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 6/E	4.785136315	4.652073801	1.995310984	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 5/E	4.617926182	4.130768878	2.085074722	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 5/E	3.423102321	2.540888946	3.276641275	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 5/E	3.179017684	1.63817189	3.132669339	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 5/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 5/E	4.701353612	4.313670127	2.032607536	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 4/E	4.79971534	4.612445497	2.02575381	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 4/E	3.759554648	2.884662265	2.721047951	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 4/E	3.198936043	1.937103409	3.069754222	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 4/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 4/E	4.89525269	4.806233031	1.970609618	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 3/E	4.692065555	4.054919742	2.087801657	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 3/E	3.706978656	2.416666222	2.801829331	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 3/E	3.195498835	1.535902978	3.167287402	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 3/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 3/E	4.778691171	4.240024655	2.030148716	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 2/E	4.757298497	4.382454058	2.052224342	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 2/E	3.750967895	2.693971743	2.753558933	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 2/E	3.232921218	1.778413108	3.105695043	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 2/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 2/E	4.848309391	4.573204661	1.996734722	4.7	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 1/E	4.746677242	4.694434021	2.023976665	5	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 1/E	3.759496009	2.979669987	2.666510205	9	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 1/E	3.1695561	2.048892423	3.052892771	12.61710051	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 1/E	0	0	0	30.003942	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 1/E	4.842933664	4.887365497	1.967216258	4.7	0.617044508
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 12/E	43.28858626	52.92874899	-10.66936608	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 12/E	34.48024474	39.55636144	-3.705290784	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 12/E	31.36753317	33.69324377	-2.435828561	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 12/E	25.62224086	22.79084346	-0.748462803	30.003942	20.98087311

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 12/E	44.55935256	54.62623558	-11.91239546	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 11/E	44.34806723	54.48775039	-11.62032698	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 11/E	34.99354561	40.56667449	-3.90111164	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 11/E	31.76150616	34.52951381	-2.538825544	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 11/E	25.85288181	23.29477623	-0.787147022	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 11/E	45.6635735	56.25945827	-12.91366252	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 10/E	46.01660568	55.01013084	-1.84371046	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 10/E	40.34493237	42.06341821	-0.577610709	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 10/E	37.7374614	35.75982783	-0.063459832	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 10/E	32.51039019	21.80723481	0.998791222	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 10/E	46.77634091	56.69592795	-2.136985851	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 9/E	42.44144923	52.89127757	-5.23902365	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 9/E	35.78905593	39.9560345	-2.217038148	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 9/E	32.986972	34.36151327	-1.399268846	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 9/E	27.57673431	22.66064155	-0.086574806	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 9/E	43.38655846	54.51033746	-5.87854508	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 8/E	45.44185161	53.54364531	-1.732544409	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 8/E	39.94766104	41.01336584	-0.529832389	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 8/E	37.40832462	34.85171668	-0.021192544	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 8/E	32.30362014	21.14277442	1.027258774	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 8/E	46.17099031	55.12116792	-2.005788518	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 7/E	43.06765972	54.32597822	-5.378280816	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 7/E	36.24140349	40.99984898	-2.327571145	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 7/E	33.34666625	35.15747554	-1.463529277	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 7/E	27.79738657	23.22550159	-0.123538324	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 7/E	44.24105304	56.08470536	-6.433292789	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 6/E	43.06765972	54.32597822	-5.378280816	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 6/E	36.24140349	40.99984898	-2.327571145	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 6/E	33.34666625	35.15747554	-1.463529277	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 6/E	27.79738657	23.22550159	-0.123538324	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 6/E	44.24105304	56.08470536	-6.433292789	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 5/E	44.34806723	54.48775039	-11.62032698	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 5/E	34.99354561	40.56667449	-3.90111164	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 5/E	31.76150616	34.52951381	-2.538825544	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 5/E	25.85288181	23.29477623	-0.787147022	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 5/E	45.6635735	56.25945827	-12.91366252	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 4/E	45.44185161	53.54364531	-1.732544409	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 4/E	39.94766104	41.01336584	-0.529832389	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 4/E	37.40832462	34.85171668	-0.021192544	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 4/E	32.30362014	21.14277442	1.027258774	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 4/E	46.17099031	55.12116792	-2.005788518	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 3/E	43.28858626	52.92874899	-10.66936608	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 3/E	34.48024474	39.55636144	-3.705290784	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 3/E	31.36753317	33.69324377	-2.435828561	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 3/E	25.62224086	22.79084346	-0.748462803	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 3/E	44.55935256	54.62623558	-11.91239546	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 2/E	42.44144923	52.89127757	-5.23902365	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 2/E	35.78905593	39.9560345	-2.217038148	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 2/E	32.986972	34.36151327	-1.399268846	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 2/E	27.57673431	22.66064155	-0.086574806	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 2/E	43.38655846	54.51033746	-5.87854508	4.7	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 1/E	46.01660568	55.01013084	-1.84371046	5	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 1/E	40.34493237	42.06341821	-0.577610709	9	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 1/E	37.7374614	35.75982783	-0.063459832	12.61710051	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 1/E	32.51039019	21.80723481	0.998791222	30.003942	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 1/E	46.77634091	56.69592795	-2.136985851	4.7	20.98087311
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 12/E	83.34394337	102.3796719	-24.37311697	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 12/E	64.42657714	76.0016928	-6.836416577	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 12/E	58.40633998	64.87747651	-4.244619617	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 12/E	47.71291848	44.07864089	-1.540887448	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 12/E	85.76559089	105.6319904	-26.74761852	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 11/E	85.7511348	105.930115	-26.5689341	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 11/E	65.65679873	78.29791025	-7.427942885	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 11/E	59.28229666	66.72826663	-4.455392698	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 11/E	48.21959663	45.18109699	-1.604391669	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 11/E	88.27877012	109.3192927	-29.05944494	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 10/E	85.66710139	106.1456909	-2.962847303	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 10/E	75.00618921	81.16855552	-0.958635756	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 10/E	70.17573453	69.38502078	-0.306981558	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 10/E	60.61472366	43.49213349	0.871853645	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 10/E	87.031691	109.310113	-3.343101804	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 9/E	80.96097332	102.108451	-12.94583243	5	83.92349243

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 9/E	66.54045286	76.86939308	-3.706808951	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 9/E	61.30504965	65.88598623	-2.372984281	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 9/E	51.34464543	44.17720195	-0.562735664	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 9/E	83.2237203	105.3760853	-15.08827012	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 8/E	84.38921604	102.7697692	-2.74937338	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 8/E	74.12523989	78.85385961	-0.873828231	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 8/E	69.45099952	67.39152993	-0.246521744	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 8/E	60.15757675	42.02888259	0.913992427	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 8/E	85.68287941	105.8124147	-3.072149123	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 7/E	83.11243206	105.6494206	-14.74728838	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 7/E	67.53982376	79.18587813	-3.919333428	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 7/E	62.10018634	67.63722522	-2.487905962	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 7/E	51.82395141	45.41133206	-0.606832347	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 7/E	85.47332335	109.0550869	-16.99362847	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 6/E	83.11243206	105.6494206	-14.74728838	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 6/E	67.53982376	79.18587813	-3.919333428	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 6/E	62.10018634	67.63722522	-2.487905962	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 6/E	51.82395141	45.41133206	-0.606832347	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 6/E	85.47332335	109.0550869	-16.99362847	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 5/E	85.7511348	105.930115	-26.5689341	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 5/E	65.65679873	78.29791025	-7.427942885	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 5/E	59.28229666	66.72826663	-4.455392698	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 5/E	48.21959663	45.18109699	-1.604391669	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 5/E	88.27877012	109.3192927	-29.05944494	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 4/E	84.38921604	102.7697692	-2.74937338	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 4/E	74.12523989	78.85385961	-0.873828231	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 4/E	69.45099952	67.39152993	-0.246521744	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 4/E	60.15757675	42.02888259	0.913992427	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 4/E	85.68287941	105.8124147	-3.072149123	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 3/E	83.34394337	102.3796719	-24.37311697	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 3/E	64.42657714	76.0016928	-6.836416577	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 3/E	58.40633998	64.87747651	-4.244619617	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 3/E	47.71291848	44.07864089	-1.540887448	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 3/E	85.76559089	105.6319904	-26.74761852	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 2/E	80.96097332	102.108451	-12.94583243	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 2/E	66.54045286	76.86939308	-3.706808951	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 2/E	61.30504965	65.88598623	-2.372984281	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 2/E	51.34464543	44.17720195	-0.562735664	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 2/E	83.2237203	105.3760853	-15.08827012	4.7	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 1/E	85.66710139	106.1456909	-2.962847303	5	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 1/E	75.00618921	81.16855552	-0.958635756	9	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 1/E	70.17573453	69.38502078	-0.306981558	12.61710051	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 1/E	60.61472366	43.49213349	0.871853645	30.003942	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 1/E	87.031691	109.310113	-3.343101804	4.7	83.92349243
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 12/E	360.1563464	437.3940961	-90.95273635	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 12/E	283.6324891	327.7552771	-23.09796141	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 12/E	259.8665827	281.0073706	-15.52513941	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 12/E	216.2562585	193.034983	-8.028062537	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 12/E	370.0749022	450.903773	-100.4790109	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 11/E	374.4946381	459.0747734	-103.4926218	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 11/E	291.6090382	342.2324948	-27.50002884	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 11/E	264.9968669	292.5169475	-16.23129377	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 11/E	219.382064	200.1496356	-8.328516385	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 11/E	385.0826393	473.4448884	-113.7753117	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 10/E	438.9003322	576.9612601	-33.56483769	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 10/E	373.0503158	438.0830506	-4.481331578	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 10/E	347.8091713	378.393763	-1.991650915	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 10/E	298.3183715	250.5368657	1.575747517	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 10/E	450.5803094	595.0964543	-44.4793121	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 9/E	373.2850799	468.4521253	-59.80592778	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 9/E	306.1169819	354.5365538	-13.57158594	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 9/E	283.3212988	305.2501787	-9.306674787	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 9/E	239.3352262	207.1059484	-3.820685632	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 9/E	385.784698	483.9409147	-74.14491967	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 8/E	425.2484472	548.460552	-25.37826025	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 8/E	365.9784157	419.8828111	-4.026798153	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 8/E	342.0083984	362.9015815	-1.712835829	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 8/E	294.7229212	239.5590862	1.71088795	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 8/E	435.2237676	565.0968932	-33.57253326	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 7/E	390.1072014	493.2926721	-76.60389383	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 7/E	312.64486	370.0772422	-14.56287682	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 7/E	288.5479085	317.0303521	-9.7841177	12.61710051	3122.793213

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 7/E	242.5484416	215.427591	-4.034576603	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 7/E	400.8481137	508.7401366	-86.81697545	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 6/E	390.1072014	493.2926721	-76.60389383	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 6/E	312.64486	370.0772422	-14.56287682	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 6/E	288.5479085	317.0303521	-9.7841177	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 6/E	242.5484416	215.427591	-4.034576603	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 6/E	400.8481137	508.7401366	-86.81697545	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 5/E	374.4946381	459.0747734	-103.4926218	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 5/E	291.6090382	342.2324948	-27.50002884	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 5/E	264.9968669	292.5169475	-16.23129377	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 5/E	219.382064	200.1496356	-8.328516385	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 5/E	385.0826393	473.4448884	-113.7753117	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 4/E	425.2484472	548.460552	-25.37826025	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 4/E	365.9784157	419.8828111	-4.026798153	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 4/E	342.0083984	362.9015815	-1.712835829	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 4/E	294.7229212	239.5590862	1.71088795	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 4/E	435.2237676	565.0968932	-33.57253326	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 3/E	360.1563464	437.3940961	-90.95273635	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 3/E	283.6324891	327.7552771	-23.09796141	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 3/E	259.8665827	281.0073706	-15.52513941	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 3/E	216.2562585	193.034983	-8.028062537	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 3/E	370.0749022	450.903773	-100.4790109	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 2/E	373.2850799	468.4521253	-59.80592778	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 2/E	306.1169819	354.5365538	-13.57158594	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 2/E	283.3212988	305.2501787	-9.306674787	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 2/E	239.3352262	207.1059484	-3.820685632	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 2/E	385.784698	483.9409147	-74.14491967	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 1/E	438.9003322	576.9612601	-33.56483769	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 1/E	373.0503158	438.0830506	-4.481331578	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 1/E	347.8091713	378.393763	-1.991650915	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 1/E	298.3183715	250.5368657	1.575747517	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 1/E	450.5803094	595.0964543	-44.4793121	4.7	3122.793213
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 12/E	843.5517635	765.4314558	-178.4649217	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 12/E	684.6618505	765.4314558	-54.55701138	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 12/E	633.4648446	661.4759214	-43.73002235	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 12/E	531.606612	453.9179791	-24.36929369	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 12/E	863.5513884	1038.233769	-195.1078286	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 11/E	883.6464593	1071.739541	-211.6219687	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 11/E	703.3735724	806.2470601	-58.27618576	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 11/E	648.2882657	692.0683258	-45.48067805	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 11/E	540.874129	475.697943	-25.45259656	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 11/E	907.4707443	1104.590958	-234.2269188	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 10/E	1050.02462	1338.156481	-57.21128817	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 10/E	908.5266935	1028.520581	-10.34203874	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 10/E	850.808298	889.1212624	-5.993491279	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 10/E	735.5794028	584.9967534	1.927411026	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 10/E	1071.847541	1377.62344	-72.33526771	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 9/E	884.7387368	1079.483204	-119.8188969	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 9/E	741.6873476	824.0908103	-34.01006346	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 9/E	690.7332269	716.5160653	-26.7336119	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 9/E	588.4637883	483.2540122	-12.80375957	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 9/E	905.1562167	1111.25413	-136.528867	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 8/E	1014.189241	1256.354166	-41.26466251	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 8/E	888.0652285	974.636149	-9.35614035	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 8/E	833.9233263	842.9786734	-5.281994141	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 8/E	725.0109745	551.9133609	2.368167019	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 8/E	1033.644411	1292.497153	-53.65612849	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 7/E	923.3377448	1147.859552	-147.9138512	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 7/E	760.2292185	869.89714	-35.90435653	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 7/E	705.9152781	751.7499213	-27.97169113	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 7/E	597.959917	508.4249164	-13.5716242	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 7/E	946.2392292	1182.570056	-167.8296579	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 6/E	923.3377448	1147.859552	-147.9138512	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 6/E	760.2292185	869.89714	-35.90435653	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 6/E	705.9152781	751.7499213	-27.97169113	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 6/E	597.959917	508.4249164	-13.5716242	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 6/E	946.2392292	1182.570056	-167.8296579	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 5/E	883.6464593	1071.739541	-211.6219687	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 5/E	703.3735724	806.2470601	-58.27618576	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 5/E	648.2882657	692.0683258	-45.48067805	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 5/E	540.874129	475.697943	-25.45259656	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 5/E	907.4707443	1104.590958	-234.2269188	4.7	28043.73633

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 4/E	1014.189241	1256.354166	-41.26466251	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 4/E	888.0652285	974.636149	-9.35614035	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 4/E	833.9233263	842.9786734	-5.281994141	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 4/E	725.0109745	551.9133609	2.368167019	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 4/E	1033.644411	1292.497153	-53.65612849	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 3/E	843.5517635	765.4314558	-178.4649217	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 3/E	684.6618505	765.4314558	-54.55701138	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 3/E	633.4648446	661.4759214	-43.73002235	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 3/E	531.606612	453.9179791	-24.36929369	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 3/E	863.5513884	1038.233769	-195.1078286	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 2/E	884.7387368	1079.483204	-119.8188969	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 2/E	741.6873476	824.0908103	-34.01006346	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 2/E	690.7332269	716.5160653	-26.7336119	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 2/E	588.4637883	483.2540122	-12.80375957	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 2/E	905.1562167	1111.25413	-136.528867	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 1/E	1050.02462	1338.156481	-57.21128817	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 1/E	908.5266935	1028.520581	-10.34203874	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 1/E	850.808298	889.1212624	-5.993491279	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 1/E	735.5794028	584.9967534	1.927411026	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 1/E	1071.847541	1377.62344	-72.33526771	4.7	28043.73633
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 12/E	18.38050005	22.06601214	-3.907211649	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 12/E	15.11030718	16.58687373	-1.883000901	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 12/E	13.71862434	14.1465233	-1.201456689	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 12/E	10.95750648	9.37089658	0.142809863	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 12/E	18.81617347	22.74588959	-4.229981683	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 11/E	18.67353405	22.57016531	-4.09761522	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 11/E	15.29038129	16.93288114	-1.961181084	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 11/E	13.86015525	14.40790958	-1.252720948	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 11/E	11.03788792	9.54716262	0.125594358	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 11/E	19.13043925	23.27258205	-4.447488117	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 10/E	20.19971413	23.06812872	-1.097782015	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 10/E	17.53436223	17.44008736	-0.016550209	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 10/E	16.33672013	14.70516016	0.393626222	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 10/E	13.87962861	8.632344718	1.307561464	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 10/E	20.52123331	23.73815499	-1.226695995	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 9/E	18.59105226	22.24257225	-2.599566155	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 9/E	15.66106312	16.79258931	-1.09472257	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 9/E	14.39535792	14.37985209	-0.595162499	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 9/E	11.82453331	9.231097589	0.490490625	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 9/E	18.96467549	22.91784266	-2.816770184	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 8/E	19.98918328	22.57714001	-1.032563565	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 8/E	16.61869451	16.8829873	1.560525744	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 8/E	16.22267877	14.38389157	0.414238985	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 8/E	13.7980319	8.405687345	1.338885581	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 8/E	20.3056744	23.2296632	-1.160797083	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 7/E	18.84121303	22.74857426	-2.721516494	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 7/E	15.80976734	17.1175048	-1.122294747	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 7/E	14.52706048	14.66014842	-0.638635061	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 7/E	11.90323277	9.426246128	0.471504543	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 7/E	19.22713291	23.44527529	-2.95079549	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 6/E	18.84121303	22.74857426	-2.721516494	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 6/E	15.80976734	17.1175048	-1.122294747	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 6/E	14.52706048	14.66014842	-0.638635061	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 6/E	11.90323277	9.426246128	0.471504543	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 6/E	19.22713291	23.44527529	-2.95079549	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 5/E	18.67353405	22.57016531	-4.09761522	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 5/E	15.29038129	16.93288114	-1.961181084	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 5/E	13.86015525	14.40790958	-1.252720948	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 5/E	11.03788792	9.54716262	0.125594358	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 5/E	19.13043925	23.27258205	-4.447488117	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 4/E	19.98918328	22.57714001	-1.032563565	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 4/E	16.61869451	16.8829873	1.560525744	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 4/E	16.22267877	14.38389157	0.414238985	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 4/E	13.7980319	8.405687345	1.338885581	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 4/E	20.3056744	23.2296632	-1.160797083	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 3/E	18.38050005	22.06601214	-3.907211649	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 3/E	15.11030718	16.58687373	-1.883000901	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 3/E	13.71862434	14.1465233	-1.201456689	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 3/E	10.95750648	9.37089658	0.142809863	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 3/E	18.81617347	22.74588959	-4.229981683	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 2/E	18.59105226	22.24257225	-2.599566155	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 2/E	15.66106312	16.79258931	-1.09472257	9	3.356939316

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 2/E	14.39535792	14.37985209	-0.595162499	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 2/E	11.82453331	9.231097589	0.490490625	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 2/E	18.96467549	22.91784266	-2.816770184	4.7	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 1/E	20.19971413	23.06812872	-1.097782015	5	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 1/E	17.53436223	17.44008736	-0.016550209	9	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 1/E	16.33672013	14.70516016	0.393626222	12.61710051	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 1/E	13.87962861	8.632344718	1.307561464	30.003942	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 1/E	20.52123331	23.73815499	-1.226695995	4.7	3.356939316
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 12/E	360.1563464	437.3940961	-90.95273635	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 12/E	283.6324891	327.7552771	-23.09796141	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 12/E	259.8665827	281.0073706	-15.52513941	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 12/E	216.2562585	193.034983	-8.028062537	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 12/E	370.0749022	450.903773	-100.4790109	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 11/E	374.4946381	459.0747734	-103.4926218	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 11/E	291.6090382	342.2324948	-27.50002884	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 11/E	264.9968669	292.5169475	-16.23129377	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 11/E	219.382064	200.1496356	-8.328516385	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 11/E	385.0826393	473.4448884	-113.7753117	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 10/E	438.9003322	576.9612601	-33.56483769	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 10/E	373.0503158	438.0830506	-4.481331578	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 10/E	347.8091713	378.393763	-1.991650915	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 10/E	298.3183715	250.5368657	1.575747517	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 10/E	450.5803094	595.0964543	-44.4793121	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 9/E	373.2850799	468.4521253	-59.80592778	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 9/E	306.1169819	354.5365538	-13.57158594	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 9/E	283.3212988	305.2501787	-9.306674787	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 9/E	239.3352262	207.1059484	-3.820685632	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 9/E	385.784698	483.9409147	-74.14491967	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 8/E	425.2484472	548.460552	-25.37826025	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 8/E	365.9784157	419.8828111	-4.026798153	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 8/E	342.0083984	362.9015815	-1.712835829	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 8/E	294.7229212	239.5590862	1.71088795	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 8/E	435.2237676	565.0968932	-33.57253326	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 7/E	390.1072014	493.2926721	-76.60389383	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 7/E	312.64486	370.0772422	-14.56287682	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 7/E	288.5479085	317.0303521	-9.7841177	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 7/E	242.5484416	215.427591	-4.034576603	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 7/E	400.8481137	508.7401366	-86.81697545	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 6/E	390.1072014	493.2926721	-76.60389383	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 6/E	312.64486	370.0772422	-14.56287682	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 6/E	288.5479085	317.0303521	-9.7841177	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 6/E	242.5484416	215.427591	-4.034576603	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 6/E	400.8481137	508.7401366	-86.81697545	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 5/E	374.4946381	459.0747734	-103.4926218	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 5/E	291.6090382	342.2324948	-27.50002884	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 5/E	264.9968669	292.5169475	-16.23129377	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 5/E	219.382064	200.1496356	-8.328516385	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 5/E	385.0826393	473.4448884	-113.7753117	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 4/E	425.2484472	548.460552	-25.37826025	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 4/E	365.9784157	419.8828111	-4.026798153	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 4/E	342.0083984	362.9015815	-1.712835829	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 4/E	294.7229212	239.5590862	1.71088795	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 4/E	435.2237676	565.0968932	-33.57253326	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 3/E	360.1563464	437.3940961	-90.95273635	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 3/E	283.6324891	327.7552771	-23.09796141	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 3/E	259.8665827	281.0073706	-15.52513941	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 3/E	216.2562585	193.034983	-8.028062537	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 3/E	370.0749022	450.903773	-100.4790109	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 2/E	373.2850799	468.4521253	-59.80592778	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 2/E	306.1169819	354.5365538	-13.57158594	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 2/E	283.3212988	305.2501787	-9.306674787	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 2/E	239.3352262	207.1059484	-3.820685632	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 2/E	385.784698	483.9409147	-74.14491967	4.7	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 1/E	438.9003322	576.9612601	-33.56483769	5	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 1/E	373.0503158	438.0830506	-4.481331578	9	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 1/E	347.8091713	378.393763	-1.991650915	12.61710051	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 1/E	298.3183715	250.5368657	1.575747517	30.003942	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 1/E	450.5803094	595.0964543	-44.4793121	4.7	3122.793213
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 12/E	843.5517635	765.4314558	-178.4649217	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 12/E	684.6618505	765.4314558	-54.55701138	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 12/E	633.4648446	661.4759214	-43.73002235	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 12/E	531.606612	453.9179791	-24.36929369	30.003942	28043.73633

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 12/E	863.5513884	1038.233769	-195.1078286	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 11/E	883.6464593	1071.739541	-211.6219687	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 11/E	703.3735724	806.2470601	-58.27618576	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 11/E	648.2882657	692.0683258	-45.48067805	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 11/E	540.874129	475.697943	-25.45259656	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 11/E	907.4707443	1104.590958	-234.2269188	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 10/E	1050.02462	1338.156481	-57.21128817	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 10/E	908.5266935	1028.520581	-10.34203874	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 10/E	850.808298	889.1212624	-5.993491279	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 10/E	735.5794028	584.9967534	1.927411026	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 10/E	1071.847541	1377.62344	-72.33526771	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 9/E	884.7387368	1079.483204	-119.8188969	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 9/E	741.6873476	824.0908103	-34.01006346	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 9/E	690.7332269	716.5160653	-26.7336119	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 9/E	588.4637883	483.2540122	-12.80375957	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 9/E	905.1562167	1111.25413	-136.528867	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 8/E	1014.189241	1256.354166	-41.26466251	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 8/E	888.0652285	974.636149	-9.35614035	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 8/E	833.9233263	842.9786734	-5.281994141	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 8/E	725.0109745	551.9133609	2.368167019	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 8/E	1033.644411	1292.497153	-53.65612849	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 7/E	923.3377448	1147.859552	-147.9138512	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 7/E	760.2292185	869.89714	-35.90435653	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 7/E	705.9152781	751.7499213	-27.97169113	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 7/E	597.959917	508.4249164	-13.5716242	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 7/E	946.2392292	1182.570056	-167.8296579	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 6/E	923.3377448	1147.859552	-147.9138512	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 6/E	760.2292185	869.89714	-35.90435653	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 6/E	705.9152781	751.7499213	-27.97169113	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 6/E	597.959917	508.4249164	-13.5716242	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 6/E	946.2392292	1182.570056	-167.8296579	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 5/E	883.6464593	1071.739541	-211.6219687	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 5/E	703.3735724	806.2470601	-58.27618576	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 5/E	648.2882657	692.0683258	-45.48067805	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 5/E	540.874129	475.697943	-25.45259656	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 5/E	907.4707443	1104.590958	-234.2269188	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 4/E	1014.189241	1256.354166	-41.26466251	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 4/E	888.0652285	974.636149	-9.35614035	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 4/E	833.9233263	842.9786734	-5.281994141	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 4/E	725.0109745	551.9133609	2.368167019	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 4/E	1033.644411	1292.497153	-53.65612849	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 3/E	843.5517635	765.4314558	-178.4649217	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 3/E	684.6618505	765.4314558	-54.55701138	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 3/E	633.4648446	661.4759214	-43.73002235	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 3/E	531.606612	453.9179791	-24.36929369	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 3/E	863.5513884	1038.233769	-195.1078286	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 2/E	884.7387368	1079.483204	-119.8188969	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 2/E	741.6873476	824.0908103	-34.01006346	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 2/E	690.7332269	716.5160653	-26.7336119	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 2/E	588.4637883	483.2540122	-12.80375957	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 2/E	905.1562167	1111.25413	-136.528867	4.7	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 1/E	1050.02462	1338.156481	-57.21128817	5	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 1/E	908.5266935	1028.520581	-10.34203874	9	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 1/E	850.808298	889.1212624	-5.993491279	12.61710051	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 1/E	735.5794028	584.9967534	1.927411026	30.003942	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 1/E	1071.847541	1377.62344	-72.33526771	4.7	28043.73633
Export (1.1xOP)	E_INV020_25mm	25	Category 12/E	21.41525526	23.78936273	3.881330946	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 12/E	18.5492084	16.88954497	5.325008891	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 12/E	17.1135537	13.43737176	6.016402272	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 12/E	13.60241501	6.020184508	7.496821075	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 12/E	21.75393089	24.59369257	3.707748584	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 11/E	21.34036024	24.41282064	3.809051817	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 11/E	18.41470184	17.44052296	5.32056363	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 11/E	16.96411308	13.97034569	6.041682606	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 11/E	13.36809592	6.461977846	7.569202314	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 11/E	21.68686689	25.23113494	3.62736087	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 10/E	20.66548145	24.61104853	3.217290907	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 10/E	16.86447534	17.79578214	5.181500481	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 10/E	14.99265579	14.34902574	5.893134521	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 10/E	11.11442224	6.545340995	7.403759686	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 10/E	21.15971969	25.41947481	2.881472954	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 9/E	20.87612615	23.96293541	3.800528611	5	8.529616356

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV020_25mm	25	Category 9/E	17.65939328	17.16387625	5.240361895	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 9/E	15.9922546	13.70910948	5.934429815	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 9/E	12.27233247	6.063084466	7.409974021	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 9/E	21.25227077	24.75152786	3.629700923	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 8/E	20.48964319	23.9963519	3.486909933	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 8/E	16.83753314	17.25330894	5.188041053	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 8/E	14.94386271	13.79287096	5.87458422	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 8/E	11.11106588	6.005426617	7.338438656	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 8/E	20.95894257	24.78537953	3.192434745	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 7/E	20.8843582	24.56912574	3.726263651	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 7/E	17.60998654	17.70850243	5.233205531	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 7/E	15.94559666	14.25306455	5.952470992	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 7/E	12.15603115	6.564311097	7.478953358	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 7/E	21.26760651	25.37139478	3.546204583	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 6/E	20.8843582	24.56912574	3.726263651	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 6/E	17.60998654	17.70850243	5.233205531	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 6/E	15.94559666	14.25306455	5.952470992	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 6/E	12.15603115	6.564311097	7.478953358	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 6/E	21.26760651	25.37139478	3.546204583	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 5/E	21.34036024	24.41282064	3.809051817	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 5/E	18.41470184	17.44052296	5.32056363	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 5/E	16.96411308	13.97034569	6.041682606	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 5/E	13.36809592	6.461977846	7.569202314	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 5/E	21.68686689	25.23113494	3.62736087	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 4/E	20.48964319	23.9963519	3.486909933	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 4/E	16.83753314	17.25330894	5.188041053	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 4/E	14.94386271	13.79287096	5.87458422	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 4/E	11.11106588	6.005426617	7.338438656	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 4/E	20.95894257	24.78537953	3.192434745	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 3/E	21.41525526	23.78936273	3.881330946	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 3/E	18.5492084	16.88954497	5.325008891	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 3/E	17.1135537	13.43737176	6.016402272	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 3/E	13.60241501	6.020184508	7.496821075	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 3/E	21.75393089	24.59369257	3.707748584	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 2/E	20.87612615	23.96293541	3.800528611	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 2/E	17.65939328	17.16387625	5.240361895	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 2/E	15.9922546	13.70910948	5.934429815	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 2/E	12.27233247	6.063084466	7.409974021	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 2/E	21.25227077	24.75152786	3.629700923	4.7	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 1/E	20.66548145	24.61104853	3.217290907	5	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 1/E	16.86447534	17.79578214	5.181500481	9	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 1/E	14.99265579	14.34902574	5.893134521	12.61710051	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 1/E	11.11442224	6.545340995	7.403759686	30.003942	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 1/E	21.15971969	25.41947481	2.881472954	4.7	8.529616356
Export (1.1xOP)	E_INV020_50mm	50	Category 12/E	41.47652564	49.34988595	3.232603198	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 12/E	34.80103424	36.11974359	7.482960844	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 12/E	31.6860765	29.63771309	9.224364026	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 12/E	24.09083458	15.54582354	12.74669048	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 12/E	42.3261244	50.9271117	2.611574972	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 11/E	41.9063619	50.89297058	2.586651976	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 11/E	34.89712925	37.35349205	7.298060201	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 11/E	31.70588682	30.77905128	9.132717122	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 11/E	23.86763678	16.53183793	12.82334544	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 11/E	42.79971861	52.51560153	1.907519428	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 10/E	43.7245597	50.6913912	-3.494104156	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 10/E	33.43907179	37.10601081	4.898607441	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 10/E	28.57839063	30.49691682	8.211704005	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 10/E	20.21916418	16.02450702	12.91052091	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 10/E	44.99229998	52.31524103	-4.607429413	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 9/E	41.97662284	49.25310319	0.788278725	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 9/E	33.54661895	36.06375397	6.999943405	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 9/E	29.68047134	29.60509715	9.28021337	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 9/E	21.97880796	15.38136131	12.75366046	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 9/E	43.02709212	50.82749823	-0.061110628	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 8/E	42.62419649	49.12750229	-2.165579157	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 8/E	32.75952887	35.84564125	5.592588169	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 8/E	28.03474785	29.30908205	8.621322798	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 8/E	20.08559891	14.92634156	12.81866969	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 8/E	43.8359575	50.70883275	-3.201270046	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 7/E	42.77170742	50.79875309	-0.229504765	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 7/E	33.95550889	37.29618313	6.544772918	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 7/E	29.94068245	30.75721832	9.109667828	12.61710051	34.11846542

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV020_50mm	50	Category 7/E	21.90439832	16.4256348	12.82941907	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 7/E	43.87068559	52.41828864	-1.145072483	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 6/E	42.77170742	50.79875309	-0.229504765	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 6/E	33.95550889	37.29618313	6.544772918	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 6/E	29.94068245	30.75721832	9.109667828	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 6/E	21.90439832	16.4256348	12.82941907	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 6/E	43.87068559	52.41828864	-1.145072483	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 5/E	41.9063619	50.89297058	2.586651976	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 5/E	34.89712925	37.35349205	7.298060201	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 5/E	31.70588682	30.77905128	9.132717122	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 5/E	23.86763678	16.53183793	12.82334544	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 5/E	42.79971861	52.51560153	1.907519428	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 4/E	42.62419649	49.12750229	-2.165579157	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 4/E	32.75952887	35.84564125	5.592588169	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 4/E	28.03474785	29.30908205	8.621322798	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 4/E	20.08559891	14.92634156	12.81866969	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 4/E	43.8359575	50.70883275	-3.201270046	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 3/E	41.47652564	49.34988595	3.232603198	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 3/E	34.80103424	36.11974359	7.482960844	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 3/E	31.6860765	29.63771309	9.224364026	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 3/E	24.09083458	15.54582354	12.74669048	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 3/E	42.3261244	50.9271117	2.611574972	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 2/E	41.97662284	49.25310319	0.788278725	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 2/E	33.54661895	36.06375397	6.999943405	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 2/E	29.68047134	29.60509715	9.28021337	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 2/E	21.97880796	15.38136131	12.75366046	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 2/E	43.02709212	50.82749823	-0.061110628	4.7	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 1/E	43.7245597	50.6913912	-3.494104156	5	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 1/E	33.43907179	37.10601081	4.898607441	9	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 1/E	28.57839063	30.49691682	8.211704005	12.61710051	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 1/E	20.21916418	16.02450702	12.91052091	30.003942	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 1/E	44.99229998	52.31524103	-4.607429413	4.7	34.11846542
Export (1.1xOP)	E_INV020_203mm	203	Category 12/E	86.7500674	101.7362435	-6.314901956	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 12/E	68.46328461	75.7158544	9.566762924	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 12/E	60.07241684	63.26909626	16.25673327	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 12/E	42.37385103	36.91662734	26.86430918	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 12/E	89.00791045	104.8633231	-8.359089489	4.7	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 11/E	89.1909318	105.2997829	-9.295240953	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 11/E	69.90146791	78.46531863	7.852595395	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 11/E	61.09356433	65.70136592	15.12417109	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 11/E	41.90426282	38.89702322	26.83731527	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 11/E	91.57466419	108.5370343	-11.49100854	4.7	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 10/E	94.85457169	104.0230644	-22.79098226	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 10/E	70.54996342	76.98688302	-0.412836137	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 10/E	59.03254319	63.95988869	9.334509716	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 10/E	38.74305564	36.67299418	26.46478869	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 10/E	97.80577704	107.2648918	-25.59744471	4.7	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 9/E	89.55258479	101.1384681	-12.95973078	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 9/E	68.44562046	75.08134393	5.801369522	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 9/E	58.5287545	62.54919028	13.81550707	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 9/E	39.829818	36.00601388	27.46573632	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 9/E	92.13266542	104.2605462	-15.34908022	4.7	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 8/E	91.33928296	100.4747416	-18.78725442	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 8/E	68.06939869	74.18783374	2.193599911	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 8/E	56.91024853	61.43156216	11.2537009	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 8/E	37.8510186	34.54610358	27.05120225	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 8/E	94.15593119	103.6120024	-21.42978105	4.7	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 7/E	92.63035233	104.6793715	-16.56150508	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 7/E	70.47351133	77.83702409	3.573047228	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 7/E	60.15610931	65.00665983	12.23825006	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 7/E	40.14038187	38.08318998	27.29544112	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 7/E	95.35230478	107.9112933	-19.1291181	4.7	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 6/E	92.63035233	104.6793715	-16.56150508	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 6/E	70.47351133	77.83702409	3.573047228	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 6/E	60.15610931	65.00665983	12.23825006	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 6/E	40.14038187	38.08318998	27.29544112	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 6/E	95.35230478	107.9112933	-19.1291181	4.7	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 5/E	89.1909318	105.2997829	-9.295240953	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 5/E	69.90146791	78.46531863	7.852595395	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 5/E	61.09356433	65.70136592	15.12417109	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 5/E	41.90426282	38.89702322	26.83731527	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 5/E	91.57466419	108.5370343	-11.49100854	4.7	160.6287231

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV020_203mm	203	Category 4/E	91.33928296	100.4747416	-18.78725442	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 4/E	68.06939869	74.18783374	2.193599911	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 4/E	56.91024853	61.43156216	11.2537009	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 4/E	37.8510186	34.54610358	27.05120225	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 4/E	94.15593119	103.6120024	-21.42978105	4.7	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 3/E	86.7500674	101.7362435	-6.314901956	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 3/E	68.46328461	75.7158544	9.566762924	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 3/E	60.07241684	63.26909626	16.25673327	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 3/E	42.37385103	36.91662734	26.86430918	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 3/E	89.00791045	104.8633231	-8.359089489	4.7	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 2/E	89.55258479	101.1384681	-12.95973078	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 2/E	68.44562046	75.08134393	5.801369522	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 2/E	58.5287545	62.54919028	13.81550707	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 2/E	39.829818	36.00601388	27.46573632	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 2/E	92.13266542	104.2605462	-15.34908022	4.7	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 1/E	94.85457169	104.0230644	-22.79098226	5	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 1/E	70.54996342	76.98688302	-0.412836137	9	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 1/E	59.03254319	63.95988869	9.334509716	12.61710051	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 1/E	38.74305564	36.67299418	26.46478869	30.003942	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 1/E	97.80577704	107.2648918	-25.59744471	4.7	160.6287231
Export (1.1xOP)	E_INV020_610mm	610	Category 12/E	88.45255733	105.3278159	-12.17222162	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 12/E	70.64819233	78.35556186	3.264098659	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 12/E	62.50511843	65.46723102	9.772709467	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 12/E	45.2963733	38.41145818	20.27451419	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 12/E	90.65270463	108.5696624	-14.15651053	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 11/E	90.74256591	109.0522854	-15.09177773	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 11/E	71.95892558	81.21205026	1.557492692	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 11/E	63.40609577	67.99282333	8.621972318	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 11/E	46.16913372	40.52025762	20.06795407	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 11/E	93.06868088	112.4096224	-17.22688248	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 10/E	97.94638989	106.7974314	-30.64724861	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 10/E	72.09855764	78.51558812	-7.132306862	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 10/E	59.69523975	64.77082942	3.070249803	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 10/E	39.19869769	36.26046262	20.88297573	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 10/E	101.0670189	110.1776845	-33.59656836	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 9/E	92.47075866	104.2669491	-19.83201129	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 9/E	70.64330846	77.23162135	-0.582681289	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 9/E	60.38217205	64.19536726	7.632025062	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 9/E	41.26000946	36.6077394	21.6370131	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 9/E	95.13418648	107.5028008	-22.28587447	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 8/E	94.20001632	103.0291394	-26.38299177	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 8/E	69.36123032	75.51121787	-4.316627678	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 8/E	57.77874399	62.04991001	5.166449145	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 8/E	38.003922	33.73213602	21.61725604	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 8/E	97.18941577	106.2973221	-29.16730991	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 7/E	95.63138833	107.9819748	-23.57875191	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 7/E	72.75004765	80.11831587	-2.936469522	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 7/E	62.08374809	66.78316423	5.932337068	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 7/E	41.66983582	38.77096286	21.33609528	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 7/E	98.42874884	111.3307734	-26.19433948	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 6/E	95.63138833	107.9819748	-23.57875191	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 6/E	72.75004765	80.11831587	-2.936469522	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 6/E	62.08374809	66.78316423	5.932337068	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 6/E	41.66983582	38.77096286	21.33609528	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 6/E	98.42874884	111.3307734	-26.19433948	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 5/E	90.74256591	109.0522854	-15.09177773	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 5/E	71.95892558	81.21205026	1.557492692	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 5/E	63.40609577	67.99282333	8.621972318	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 5/E	46.16913372	40.52025762	20.06795407	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 5/E	93.06868088	112.4096224	-17.22688248	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 4/E	94.20001632	103.0291394	-26.38299177	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 4/E	69.36123032	75.51121787	-4.316627678	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 4/E	57.77874399	62.04991001	5.166449145	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 4/E	38.003922	33.73213602	21.61725604	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 4/E	97.18941577	106.2973221	-29.16730991	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 3/E	88.45255733	105.3278159	-12.17222162	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 3/E	70.64819233	78.35556186	3.264098659	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 3/E	62.50511843	65.46723102	9.772709467	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 3/E	45.2963733	38.41145818	20.27451419	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 3/E	90.65270463	108.5696624	-14.15651053	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 2/E	92.47075866	104.2669491	-19.83201129	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 2/E	70.64330846	77.23162135	-0.582681289	9	156.5337067

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Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV020_610mm	610	Category 2/E	60.38217205	64.19536726	7.632025062	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 2/E	41.26000946	36.6077394	21.6370131	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 2/E	95.13418648	107.5028008	-22.28587447	4.7	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 1/E	97.94638989	106.7974314	-30.64724861	5	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 1/E	72.09855764	78.51558812	-7.132306862	9	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 1/E	59.69523975	64.77082942	3.070249803	12.61710051	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 1/E	39.19869769	36.26046262	20.88297573	30.003942	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 1/E	101.0670189	110.1776845	-33.59656836	4.7	156.5337067

Not included in Export

Not included in Export

Study	Model	Hole Size	Weather	Height	Time	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV005_25mm	25	Category 12/E	1	Max Conc	122600	13.45960426	1.08719492	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 11/E	1	Max Conc	122600	13.39350605	1.060701251	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 10/E	1	Max Conc	122600	14.5741272	1.0823282	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 9/E	1	Max Conc	122600	14.10470772	1.097262621	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 8/E	1	Max Conc	122600	14.62445545	1.107933283	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 7/E	1	Max Conc	122600	14.03684616	1.070057631	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 6/E	1	Max Conc	122600	13.96282482	1.058619857	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 5/E	1	Max Conc	122600	13.21872139	1.036691546	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 4/E	1	Max Conc	122600	14.62098598	1.107672691	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 3/E	1	Max Conc	122600	13.28458977	1.063328266	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 2/E	1	Max Conc	122600	14.03289413	1.085982323	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 1/E	1	Max Conc	122600	14.58383465	1.082437277	0	13.64766216
Export (1.1xOP)	E_INV005_68mm	68	Category 12/E	1	Max Conc	122600	47.87420273	2.980487585	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 11/E	1	Max Conc	122600	47.99105072	3.125588894	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 10/E	1	Max Conc	122600	46.96001434	2.990053415	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 9/E	1	Max Conc	122600	47.57247162	3.005928278	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 8/E	1	Max Conc	122600	46.67079544	2.89741993	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 7/E	1	Max Conc	122600	47.80015945	3.130266428	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 6/E	1	Max Conc	122600	47.32860184	3.006495237	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 5/E	1	Max Conc	122600	47.68999863	2.947551727	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 4/E	1	Max Conc	122600	47.28692245	3.023877144	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 3/E	1	Max Conc	122600	47.59748459	2.837523222	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 2/E	1	Max Conc	122600	47.13159943	2.881155014	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 1/E	1	Max Conc	122600	47.59625626	3.165198088	0	100.970871
Export (1.1xOP)	E_INV005_203mm	203	Category 12/E	1	Max Conc	122600	173.6400909	13.15817642	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 11/E	1	Max Conc	122600	173.0522766	14.49895763	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 10/E	1	Max Conc	122600	163.5089722	13.90430164	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 9/E	1	Max Conc	122600	169.8541565	13.40026379	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 8/E	1	Max Conc	122600	162.9755249	12.7639637	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 7/E	1	Max Conc	122600	169.6834869	14.73913097	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 6/E	1	Max Conc	122600	166.8460999	13.58321762	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 5/E	1	Max Conc	122600	170.7862244	13.29624653	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 4/E	1	Max Conc	122600	166.871994	13.62467766	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 3/E	1	Max Conc	122600	171.5172272	12.17727757	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 2/E	1	Max Conc	122600	166.4663239	12.47968483	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 1/E	1	Max Conc	122600	166.8227386	14.92080498	0	899.8503418

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	59.77705383	4.44469738	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	23.60087204	2.054610968	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	57.89718246	4.352054596	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	23.08076096	2.011916637	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	54.58818436	4.611580849	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	23.93065071	2.07276535	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	58.56056213	4.707967758	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	24.15860939	2.11288166	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	56.05348969	4.707323074	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	24.38278008	2.112164259	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	56.80073166	4.609728813	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	23.63000298	2.069545031	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	55.79018402	4.230466366	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	23.33302307	1.981492758	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	56.62422562	3.886289358	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	22.51408958	1.883979917	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	57.39503479	4.986884117	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	24.67085075	2.171552658	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	58.54223251	3.966383457	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	23.14232063	1.92246449	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	57.44233704	4.321593285	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	23.81758308	2.022211075	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	55.84269714	4.883822441	0	5.944300652
Export (1.1xOP)	E_INV001_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	24.15010071	2.122736692	0	5.944300652
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 12/E	1	Max Conc	0.5	22000	132.1165009	9.207180023	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 12/E	1	Max Conc	1	44000	57.72195816	4.724469662	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 11/E	1	Max Conc	0.5	22000	125.8979874	9.021468163	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 11/E	1	Max Conc	1	44000	56.55017471	4.630273342	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 10/E	1	Max Conc	0.5	22000	114.3216248	9.778785706	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 10/E	1	Max Conc	1	44000	53.79753876	4.698898315	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 9/E	1	Max Conc	0.5	22000	125.9501724	9.812797546	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 9/E	1	Max Conc	1	44000	56.97453308	4.8844347	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 8/E	1	Max Conc	0.5	22000	118.4660797	9.986150742	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 8/E	1	Max Conc	1	44000	54.90501785	4.790938377	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 7/E	1	Max Conc	0.5	22000	120.3126526	9.613510132	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 7/E	1	Max Conc	1	44000	55.80820847	4.789356709	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 6/E	1	Max Conc	0.5	22000	119.6857376	9.005789757	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 6/E	1	Max Conc	1	44000	54.6921196	4.48308897	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 5/E	1	Max Conc	0.5	22000	126.1768188	8.310832977	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 5/E	1	Max Conc	1	44000	55.58217239	4.263479233	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 4/E	1	Max Conc	0.5	22000	120.6555023	10.49646854	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 4/E	1	Max Conc	1	44000	56.27297211	5.040489674	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 3/E	1	Max Conc	0.5	22000	131.7723846	8.484441757	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 3/E	1	Max Conc	1	44000	56.76734161	4.352385998	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 2/E	1	Max Conc	0.5	22000	124.6058807	9.194906235	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 2/E	1	Max Conc	1	44000	55.83814621	4.573387146	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 1/E	1	Max Conc	0.5	22000	116.0755386	10.27631474	0	23.77720261
Export (1.1xOP)	E_INV001_50mm (all)	50	Category 1/E	1	Max Conc	1	44000	55.15818787	4.944113731	0	23.77720261
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 12/E	1	Max Conc	0.5	22000	620.5665894	53.47977829	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 12/E	1	Max Conc	1	44000	431.6803589	36.54763031	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 11/E	1	Max Conc	0.5	22000	597.7102661	52.61593628	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 11/E	1	Max Conc	1	44000	422.5041504	36.01030731	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 10/E	1	Max Conc	0.5	22000	538.6469116	61.59503174	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 10/E	1	Max Conc	1	44000	398.8568115	39.6223259	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 9/E	1	Max Conc	0.5	22000	582.6255493	57.09191895	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 9/E	1	Max Conc	1	44000	415.3019714	38.42422485	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 8/E	1	Max Conc	0.5	22000	562.8929443	62.71741104	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 8/E	1	Max Conc	1	44000	407.6442871	40.22360992	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 7/E	1	Max Conc	0.5	22000	561.3632813	56.20001602	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 7/E	1	Max Conc	1	44000	407.3303528	37.86902237	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 6/E	1	Max Conc	0.5	22000	573.1265869	58.445858	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 6/E	1	Max Conc	1	44000	411.3997498	37.9372139	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 5/E	1	Max Conc	0.5	22000	605.2461548	55.18122101	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 5/E	1	Max Conc	1	44000	425.1363831	36.23417664	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 4/E	1	Max Conc	0.5	22000	544.189209	61.14180756	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 4/E	1	Max Conc	1	44000	401.8958435	40.43735504	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 3/E	1	Max Conc	0.5	22000	631.7871094	56.15700531	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 3/E	1	Max Conc	1	44000	434.9759521	36.80018616	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 2/E	1	Max Conc	0.5	22000	595.3782349	59.46058655	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 2/E	1	Max Conc	1	44000	419.690155	38.5231781	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 1/E	1	Max Conc	0.5	22000	520.5010376	60.1099968	0	1567.735474
Export (1.1xOP)	E_INV001_406mm (all)	406	Category 1/E	1	Max Conc	1	44000	393.5623779	39.86721039	0	1567.735474

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 12/E	1	Max Conc	0.5	22000	1247.087891	121.8785172	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 12/E	1	Max Conc	1	44000	949.5150757	89.15624237	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 11/E	1	Max Conc	0.5	22000	1216.137451	120.3404083	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 11/E	1	Max Conc	1	44000	934.3221436	87.96048737	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 10/E	1	Max Conc	0.5	22000	1007.896912	137.1235504	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 10/E	1	Max Conc	1	44000	835.414978	98.63929749	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 9/E	1	Max Conc	0.5	22000	1155.129272	129.2419281	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 9/E	1	Max Conc	1	44000	905.0731201	93.71115875	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 8/E	1	Max Conc	0.5	22000	1026.427612	138.9194031	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 8/E	1	Max Conc	1	44000	849.3674927	99.94843292	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 7/E	1	Max Conc	0.5	22000	1129.616577	127.5120697	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 7/E	1	Max Conc	1	44000	891.8573608	92.47212219	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 6/E	1	Max Conc	0.5	22000	1077.659912	132.9877014	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 6/E	1	Max Conc	1	44000	866.3343506	95.56041718	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 5/E	1	Max Conc	0.5	22000	1140.39563	128.1087189	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 5/E	1	Max Conc	1	44000	897.0272217	92.20529175	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 4/E	1	Max Conc	0.5	22000	1074.218628	137.033493	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 4/E	1	Max Conc	1	44000	868.3394165	98.56004333	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 3/E	1	Max Conc	0.5	22000	1168.738281	129.8204956	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 3/E	1	Max Conc	1	44000	908.2611084	93.47371674	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 2/E	1	Max Conc	0.5	22000	1100.350586	134.744751	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 2/E	1	Max Conc	1	44000	879.5249634	96.84884644	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 1/E	1	Max Conc	0.5	22000	1048.401489	135.1712036	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (1hr)	1219	Category 1/E	1	Max Conc	1	44000	854.1359253	97.28277588	0	14132.79785
Export (1.1xOP)	E_INV001_10mm	10	Category 12/E	1	Max Conc	0.5	22000	15.96488476	1.493525863	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 12/E	1	Max Conc	1	44000	7.292320728	0.742990971	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 11/E	1	Max Conc	0.5	22000	15.4854393	1.465032101	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 11/E	1	Max Conc	1	44000	7.158656597	0.729803443	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 10/E	1	Max Conc	0.5	22000	18.4030056	1.575295925	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 10/E	1	Max Conc	1	44000	8.545191765	0.749278784	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 9/E	1	Max Conc	0.5	22000	17.53075981	1.570425034	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 9/E	1	Max Conc	1	44000	7.917319775	0.757058442	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 8/E	1	Max Conc	0.5	22000	18.82365036	1.607559562	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 8/E	1	Max Conc	1	44000	8.692642212	0.762960434	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 7/E	1	Max Conc	0.5	22000	17.07604027	1.540159106	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 7/E	1	Max Conc	1	44000	7.770936966	0.744503617	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 6/E	1	Max Conc	0.5	22000	16.5248909	1.453018546	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 6/E	1	Max Conc	1	44000	7.796915054	0.724740744	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 5/E	1	Max Conc	0.5	22000	14.44247723	1.345985055	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 5/E	1	Max Conc	1	44000	7.237397671	0.696742296	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 4/E	1	Max Conc	0.5	22000	19.0480175	1.646851301	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 4/E	1	Max Conc	1	44000	8.69502449	0.769696593	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 3/E	1	Max Conc	0.5	22000	14.85869503	1.371736884	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 3/E	1	Max Conc	1	44000	7.361774921	0.709700525	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 2/E	1	Max Conc	0.5	22000	16.9763279	1.482425213	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 2/E	1	Max Conc	1	44000	7.945354462	0.737197876	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 1/E	1	Max Conc	0.5	22000	18.58910179	1.613034725	0	0.951088071
Export (1.1xOP)	E_INV001_10mm	10	Category 1/E	1	Max Conc	1	44000	8.548075676	0.756100059	0	0.951088071
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 12/E	1	Max Conc	0.5	22000	1247.087891	121.8785172	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 12/E	1	Max Conc	1	44000	949.5150757	89.15624237	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 11/E	1	Max Conc	0.5	22000	1216.137451	120.3404083	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 11/E	1	Max Conc	1	44000	934.3221436	87.96048737	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 10/E	1	Max Conc	0.5	22000	1016.663635	137.1374969	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 10/E	1	Max Conc	1	44000	835.414978	98.63929749	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 9/E	1	Max Conc	0.5	22000	1154.881226	129.0344238	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 9/E	1	Max Conc	1	44000	905.0731201	93.71115875	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 8/E	1	Max Conc	0.5	22000	1026.446899	138.929718	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 8/E	1	Max Conc	1	44000	849.3674927	99.94843292	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 7/E	1	Max Conc	0.5	22000	1126.198608	127.4457703	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 7/E	1	Max Conc	1	44000	891.8573608	92.47212219	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 6/E	1	Max Conc	0.5	22000	1077.659912	132.9877014	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 6/E	1	Max Conc	1	44000	866.3343506	95.56041718	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 5/E	1	Max Conc	0.5	22000	1140.39563	128.1087189	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 5/E	1	Max Conc	1	44000	897.0272217	92.20529175	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 4/E	1	Max Conc	0.5	22000	1074.097168	137.0382996	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 4/E	1	Max Conc	1	44000	868.3394165	98.56004333	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 3/E	1	Max Conc	0.5	22000	1168.738281	129.8204956	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 3/E	1	Max Conc	1	44000	908.2611084	93.47371674	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 2/E	1	Max Conc	0.5	22000	1100.350586	134.744751	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 2/E	1	Max Conc	1	44000	879.5249634	96.84884644	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 1/E	1	Max Conc	0.5	22000	1048.574951	135.2888794	0	14132.79785
Export (1.1xOP)	E_INV001_1219mm (2min)	1219	Category 1/E	1	Max Conc	1	44000	854.1359253	97.28277588	0	14132.79785

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV002_25mm	25	Category 12/E	1	Max Conc	0.5	22000	55.45082855	4.169112682	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 12/E	1	Max Conc	1	44000	21.88202286	1.913854241	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 11/E	1	Max Conc	0.5	22000	53.62030792	4.083821297	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 11/E	1	Max Conc	1	44000	21.29176331	1.875230074	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 10/E	1	Max Conc	0.5	22000	51.08069229	4.320457458	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 10/E	1	Max Conc	1	44000	22.48787689	1.943361044	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 9/E	1	Max Conc	0.5	22000	54.55307007	4.416133881	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 9/E	1	Max Conc	1	44000	22.57557678	1.974557877	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 8/E	1	Max Conc	0.5	22000	52.43938446	4.41503191	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 8/E	1	Max Conc	1	44000	22.94332314	1.982037544	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 7/E	1	Max Conc	0.5	22000	52.91141891	4.316655159	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 7/E	1	Max Conc	1	44000	22.04187393	1.931455493	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 6/E	1	Max Conc	0.5	22000	51.99408722	3.967607975	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 6/E	1	Max Conc	1	44000	21.7473259	1.851092339	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 5/E	1	Max Conc	0.5	22000	52.47557831	3.650167704	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 5/E	1	Max Conc	1	44000	20.75107574	1.768420815	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 4/E	1	Max Conc	0.5	22000	53.66445541	4.680958748	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 4/E	1	Max Conc	1	44000	23.16422844	2.026518106	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 3/E	1	Max Conc	0.5	22000	54.2591629	3.72661376	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 3/E	1	Max Conc	1	44000	21.40272141	1.803909183	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 2/E	1	Max Conc	0.5	22000	53.5549202	4.047152519	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 2/E	1	Max Conc	1	44000	22.28528595	1.891524792	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 1/E	1	Max Conc	0.5	22000	52.22234344	4.57984972	0	5.318684101
Export (1.1xOP)	E_INV002_25mm	25	Category 1/E	1	Max Conc	1	44000	22.69762993	1.986022472	0	5.318684101
Export (1.1xOP)	E_INV002_50mm	50	Category 12/E	1	Max Conc	0.5	22000	123.2692184	8.704633713	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 12/E	1	Max Conc	1	44000	54.08696747	4.424482822	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 11/E	1	Max Conc	0.5	22000	117.789505	8.520232201	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 11/E	1	Max Conc	1	44000	52.79655457	4.337011814	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 10/E	1	Max Conc	0.5	22000	107.1348114	9.209665298	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 10/E	1	Max Conc	1	44000	50.21698761	4.397255421	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 9/E	1	Max Conc	0.5	22000	118.0692673	9.274058342	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 9/E	1	Max Conc	1	44000	53.41078186	4.577192307	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 8/E	1	Max Conc	0.5	22000	111.2279205	9.422682762	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 8/E	1	Max Conc	1	44000	51.38659286	4.489458561	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 7/E	1	Max Conc	0.5	22000	113.0777359	9.071578979	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 7/E	1	Max Conc	1	44000	52.16964722	4.482221603	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 6/E	1	Max Conc	0.5	22000	112.3832397	8.478894234	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 6/E	1	Max Conc	1	44000	51.03076172	4.198786736	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 5/E	1	Max Conc	0.5	22000	118.0613174	7.823303699	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 5/E	1	Max Conc	1	44000	51.79230118	4.001763344	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 4/E	1	Max Conc	0.5	22000	113.5555496	9.917209625	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 4/E	1	Max Conc	1	44000	52.76874542	4.724364281	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 3/E	1	Max Conc	0.5	22000	122.984581	7.996650219	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 3/E	1	Max Conc	1	44000	53.07676315	4.079647064	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 2/E	1	Max Conc	0.5	22000	117.0101852	8.669552803	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 2/E	1	Max Conc	1	44000	52.26678085	4.281163692	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 1/E	1	Max Conc	0.5	22000	108.9255981	9.694106102	0	21.2747364
Export (1.1xOP)	E_INV002_50mm	50	Category 1/E	1	Max Conc	1	44000	51.59017181	4.629177094	0	21.2747364
Export (1.1xOP)	E_INV002_237mm	237	Category 12/E	1	Max Conc	0.5	22000	294.6782227	23.92002106	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 12/E	1	Max Conc	1	44000	182.8869629	14.6344471	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 11/E	1	Max Conc	0.5	22000	277.6271667	23.32889175	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 11/E	1	Max Conc	1	44000	176.193985	14.36575127	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 10/E	1	Max Conc	0.5	22000	255.1478577	26.52025795	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 10/E	1	Max Conc	1	44000	165.0763092	15.04280376	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 9/E	1	Max Conc	0.5	22000	279.9612732	25.58824348	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 9/E	1	Max Conc	1	44000	176.9888916	15.27254105	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 8/E	1	Max Conc	0.5	22000	272.1382446	27.34031105	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 8/E	1	Max Conc	1	44000	169.904892	15.32823086	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 7/E	1	Max Conc	0.5	22000	262.7247009	24.89657784	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 7/E	1	Max Conc	1	44000	170.8716888	14.98490429	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 6/E	1	Max Conc	0.5	22000	270.3671265	24.79787254	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 6/E	1	Max Conc	1	44000	169.7194214	14.37588978	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 5/E	1	Max Conc	0.5	22000	285.7356873	23.16069221	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 5/E	1	Max Conc	1	44000	175.5802612	13.70756054	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 4/E	1	Max Conc	0.5	22000	266.1505127	27.49736404	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 4/E	1	Max Conc	1	44000	172.1665192	15.93292236	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 3/E	1	Max Conc	0.5	22000	303.5435181	23.761343	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 3/E	1	Max Conc	1	44000	181.8766174	13.96986485	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 2/E	1	Max Conc	0.5	22000	286.8075256	25.49207115	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 2/E	1	Max Conc	1	44000	175.1567383	14.65065098	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 1/E	1	Max Conc	0.5	22000	248.1050568	26.67523384	0	208.2308044
Export (1.1xOP)	E_INV002_237mm	237	Category 1/E	1	Max Conc	1	44000	166.9402924	15.63586807	0	208.2308044

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV002_711mm	711	Category 12/E	1	Max Conc	0.5	22000	275.8979492	23.41351318	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 12/E	1	Max Conc	1	44000	176.2568054	14.442523	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 11/E	1	Max Conc	0.5	22000	257.346405	22.74386978	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 11/E	1	Max Conc	1	44000	169.186142	14.15678596	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 10/E	1	Max Conc	0.5	22000	238.9183044	25.65917969	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 10/E	1	Max Conc	1	44000	159.5165558	14.81585407	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 9/E	1	Max Conc	0.5	22000	260.9966125	24.96742439	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 9/E	1	Max Conc	1	44000	170.995224	15.06280231	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 8/E	1	Max Conc	0.5	22000	253.6481476	26.57780266	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 8/E	1	Max Conc	1	44000	165.29039	15.12363815	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 7/E	1	Max Conc	0.5	22000	243.6743317	24.20182037	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 7/E	1	Max Conc	1	44000	164.5751801	14.76500034	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 6/E	1	Max Conc	0.5	22000	250.9059601	24.08864021	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 6/E	1	Max Conc	1	44000	163.9756775	14.16612816	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 5/E	1	Max Conc	0.5	22000	267.1218567	22.56337929	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 5/E	1	Max Conc	1	44000	169.280365	13.51374531	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 4/E	1	Max Conc	0.5	22000	246.9044495	26.73168755	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 4/E	1	Max Conc	1	44000	167.1015015	15.71424484	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 3/E	1	Max Conc	0.5	22000	284.0520325	23.24718094	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 3/E	1	Max Conc	1	44000	175.7616272	13.78707981	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 2/E	1	Max Conc	0.5	22000	268.751709	24.87477112	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 2/E	1	Max Conc	1	44000	169.9046936	14.45663738	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 1/E	1	Max Conc	0.5	22000	232.9523315	25.81277275	0	203.5370483
Export (1.1xOP)	E_INV002_711mm	711	Category 1/E	1	Max Conc	1	44000	160.807312	15.39277935	0	203.5370483
Export (1.1xOP)	E_INV002_10mm	10	Category 12/E	1	Max Conc	0.5	22000	14.61795712	1.401302218	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 12/E	1	Max Conc	1	44000	6.882912159	0.702412724	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 11/E	1	Max Conc	0.5	22000	14.21607018	1.373123884	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 11/E	1	Max Conc	1	44000	6.745660782	0.690924942	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 10/E	1	Max Conc	0.5	22000	17.18816185	1.473853588	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 10/E	1	Max Conc	1	44000	8.062584877	0.709303975	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 9/E	1	Max Conc	0.5	22000	16.18312645	1.470671177	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 9/E	1	Max Conc	1	44000	7.513246059	0.71593684	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 8/E	1	Max Conc	0.5	22000	17.58597946	1.501909375	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 8/E	1	Max Conc	1	44000	8.2184515	0.721294641	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 7/E	1	Max Conc	0.5	22000	15.79727554	1.441366553	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 7/E	1	Max Conc	1	44000	7.38603878	0.703479469	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 6/E	1	Max Conc	0.5	22000	15.24687195	1.367110968	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 6/E	1	Max Conc	1	44000	7.418786526	0.684314013	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 5/E	1	Max Conc	0.5	22000	13.23293304	1.264390826	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 5/E	1	Max Conc	1	44000	6.845325947	0.660028934	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 4/E	1	Max Conc	0.5	22000	17.7490921	1.537216067	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 4/E	1	Max Conc	1	44000	8.21592617	0.727939248	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 3/E	1	Max Conc	0.5	22000	13.59521389	1.288810134	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 3/E	1	Max Conc	1	44000	6.976233482	0.671319723	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 2/E	1	Max Conc	0.5	22000	15.6622963	1.391293406	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 2/E	1	Max Conc	1	44000	7.543139458	0.696737289	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 1/E	1	Max Conc	0.5	22000	17.36775017	1.504608274	0	0.850989401
Export (1.1xOP)	E_INV002_10mm	10	Category 1/E	1	Max Conc	1	44000	8.059088707	0.716094077	0	0.850989401
Export (1.1xOP)	E_INV004_25mm	25	Category 12/E	1	Max Conc	0.5	22000	53.68190765	4.048655033	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 12/E	1	Max Conc	1	44000	21.06853485	1.854588985	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 11/E	1	Max Conc	0.5	22000	51.96473694	3.967489481	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 11/E	1	Max Conc	1	44000	20.50828552	1.818381071	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 10/E	1	Max Conc	0.5	22000	49.63011932	4.186676979	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 10/E	1	Max Conc	1	44000	21.78997231	1.881735444	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 9/E	1	Max Conc	0.5	22000	52.87827682	4.277939796	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 9/E	1	Max Conc	1	44000	21.80369949	1.90768981	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 8/E	1	Max Conc	0.5	22000	50.94320297	4.280575752	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 8/E	1	Max Conc	1	44000	22.27614784	1.920835972	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 7/E	1	Max Conc	0.5	22000	51.35731125	4.191634178	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 7/E	1	Max Conc	1	44000	21.27837372	1.866016865	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 6/E	1	Max Conc	0.5	22000	50.43085861	3.852768183	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 6/E	1	Max Conc	1	44000	20.96643829	1.796872139	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 5/E	1	Max Conc	0.5	22000	50.73344421	3.538894176	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 5/E	1	Max Conc	1	44000	20.03380775	1.712795138	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 4/E	1	Max Conc	0.5	22000	52.08570099	4.538641453	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 4/E	1	Max Conc	1	44000	22.46297073	1.961645007	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 3/E	1	Max Conc	0.5	22000	52.39562988	3.615180969	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 3/E	1	Max Conc	1	44000	20.49212837	1.748988032	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 2/E	1	Max Conc	0.5	22000	51.88664627	3.931247234	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 2/E	1	Max Conc	1	44000	21.50181007	1.831443906	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 1/E	1	Max Conc	0.5	22000	50.72821808	4.438220978	0	5.044268608
Export (1.1xOP)	E_INV004_25mm	25	Category 1/E	1	Max Conc	1	44000	21.99055862	1.921289325	0	5.044268608

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV004_50mm	50	Category 12/E	1	Max Conc	0.5	22000	120.5537338	8.481511116	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 12/E	1	Max Conc	1	44000	52.34244919	4.293849945	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 11/E	1	Max Conc	0.5	22000	115.5865631	8.302855492	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 11/E	1	Max Conc	1	44000	51.06610107	4.212028027	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 10/E	1	Max Conc	0.5	22000	104.6915894	8.961841583	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 10/E	1	Max Conc	1	44000	48.67110443	4.266746044	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 9/E	1	Max Conc	0.5	22000	115.6553421	9.034567833	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 9/E	1	Max Conc	1	44000	51.71156311	4.432706356	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 8/E	1	Max Conc	0.5	22000	108.5826111	9.169015884	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 8/E	1	Max Conc	1	44000	49.72457886	4.347612858	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 7/E	1	Max Conc	0.5	22000	110.7256317	8.837173462	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 7/E	1	Max Conc	1	44000	50.4584198	4.346553802	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 6/E	1	Max Conc	0.5	22000	109.8418198	8.246596336	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 6/E	1	Max Conc	1	44000	49.304245	4.077191353	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 5/E	1	Max Conc	0.5	22000	115.5414429	7.607870579	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 5/E	1	Max Conc	1	44000	50.021492	3.882601976	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 4/E	1	Max Conc	0.5	22000	111.0011444	9.663033485	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 4/E	1	Max Conc	1	44000	51.11817551	4.577531815	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 3/E	1	Max Conc	0.5	22000	120.118988	7.775357723	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 3/E	1	Max Conc	1	44000	51.31880951	3.960397005	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 2/E	1	Max Conc	0.5	22000	114.214653	8.433065414	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 2/E	1	Max Conc	1	44000	50.54462433	4.155610085	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 1/E	1	Max Conc	0.5	22000	106.5980072	9.441583633	0	20.17707443
Export (1.1xOP)	E_INV004_50mm	50	Category 1/E	1	Max Conc	1	44000	49.91028595	4.48094368	0	20.17707443
Export (1.1xOP)	E_INV004_237mm	237	Category 12/E	1	Max Conc	0.5	22000	287.1520386	22.9428215	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 12/E	1	Max Conc	1	44000	174.1842194	13.93111897	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 11/E	1	Max Conc	0.5	22000	269.9144287	22.38260841	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 11/E	1	Max Conc	1	44000	168.6298676	13.66707134	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 10/E	1	Max Conc	0.5	22000	247.7691345	25.42100906	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 10/E	1	Max Conc	1	44000	157.6728058	14.28171921	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 9/E	1	Max Conc	0.5	22000	272.2973328	24.54940224	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 9/E	1	Max Conc	1	44000	169.1242828	14.53651047	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 8/E	1	Max Conc	0.5	22000	264.2731018	26.2128334	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 8/E	1	Max Conc	1	44000	162.5240479	14.56492424	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 7/E	1	Max Conc	0.5	22000	254.7772675	23.89405632	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 7/E	1	Max Conc	1	44000	163.9689484	14.25425911	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 6/E	1	Max Conc	0.5	22000	262.4415283	23.73925591	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 6/E	1	Max Conc	1	44000	162.4814453	13.64445019	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 5/E	1	Max Conc	0.5	22000	278.119873	22.15106964	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 5/E	1	Max Conc	1	44000	167.883667	13.00794315	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 4/E	1	Max Conc	0.5	22000	258.4440002	26.40276527	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 4/E	1	Max Conc	1	44000	165.1082306	15.16310787	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 3/E	1	Max Conc	0.5	22000	294.4026184	22.73432732	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 3/E	1	Max Conc	1	44000	172.7819061	13.2638588	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 2/E	1	Max Conc	0.5	22000	278.9694214	24.41264153	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 2/E	1	Max Conc	1	44000	167.2918701	13.91492748	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 1/E	1	Max Conc	0.5	22000	242.6034393	25.61949158	0	187.4739075
Export (1.1xOP)	E_INV004_237mm	237	Category 1/E	1	Max Conc	1	44000	159.9882202	14.86787796	0	187.4739075
Export (1.1xOP)	E_INV004_711mm	711	Category 12/E	1	Max Conc	0.5	22000	269.3833313	22.46685982	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 12/E	1	Max Conc	1	44000	168.9658813	13.73148823	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 11/E	1	Max Conc	0.5	22000	250.5274811	21.86590958	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 11/E	1	Max Conc	1	44000	162.8004456	13.46394348	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 10/E	1	Max Conc	0.5	22000	233.5623322	24.63782883	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 10/E	1	Max Conc	1	44000	152.5995331	14.05760002	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 9/E	1	Max Conc	0.5	22000	254.1893616	23.98370934	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 9/E	1	Max Conc	1	44000	164.319931	14.32745266	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 8/E	1	Max Conc	0.5	22000	247.1225281	25.50867462	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 8/E	1	Max Conc	1	44000	158.1593628	14.35379505	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 7/E	1	Max Conc	0.5	22000	238.591217	23.28077698	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 7/E	1	Max Conc	1	44000	158.1515503	14.03580379	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 6/E	1	Max Conc	0.5	22000	245.1297302	23.08747482	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 6/E	1	Max Conc	1	44000	157.1810913	13.43710804	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 5/E	1	Max Conc	0.5	22000	260.4504089	21.60193062	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 5/E	1	Max Conc	1	44000	162.5286713	12.81463814	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 4/E	1	Max Conc	0.5	22000	242.4136047	25.6994915	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 4/E	1	Max Conc	1	44000	160.4209137	14.93619823	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 3/E	1	Max Conc	0.5	22000	277.6393738	22.24931908	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 3/E	1	Max Conc	1	44000	168.2138824	13.07672691	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 2/E	1	Max Conc	0.5	22000	261.9618835	23.83141518	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 2/E	1	Max Conc	1	44000	162.8573761	13.71566296	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 1/E	1	Max Conc	0.5	22000	227.6845093	24.86084938	0	183.0305328
Export (1.1xOP)	E_INV004_711mm	711	Category 1/E	1	Max Conc	1	44000	154.3400726	14.63427734	0	183.0305328

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV005_25mm	25	Category 12/E	1	Max Conc	0.5	18694.51	151.5173187	14.67303944	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 12/E	1	Max Conc	1	37389.03	63.11693192	4.669076443	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 11/E	1	Max Conc	0.5	18694.51	147.8726196	15.65598297	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 11/E	1	Max Conc	1	37389.03	61.20307541	5.023659229	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 10/E	1	Max Conc	0.5	18694.51	121.1829529	16.11129379	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 10/E	1	Max Conc	1	37389.03	57.59704971	5.095579147	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 9/E	1	Max Conc	0.5	18694.51	139.2469482	16.04667664	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 9/E	1	Max Conc	1	37389.03	61.54074097	4.918216228	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 8/E	1	Max Conc	0.5	18694.51	125.1572037	15.40838909	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 8/E	1	Max Conc	1	37389.03	58.85363388	4.760662556	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 7/E	1	Max Conc	0.5	18694.51	135.6165924	17.35149956	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 7/E	1	Max Conc	1	37389.03	59.85855484	5.336581707	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 6/E	1	Max Conc	0.5	18694.51	132.1782837	13.63011265	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 6/E	1	Max Conc	1	37389.03	59.06558228	4.657955647	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 5/E	1	Max Conc	0.5	18694.51	138.5385742	12.04815865	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 5/E	1	Max Conc	1	37389.03	60.63574219	4.237783909	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 4/E	1	Max Conc	0.5	18694.51	127.563385	17.98748016	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 4/E	1	Max Conc	1	37389.03	60.02392197	5.179535866	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 3/E	1	Max Conc	0.5	18694.51	144.9429779	11.63366985	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 3/E	1	Max Conc	1	37389.03	62.59771729	4.014849186	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 2/E	1	Max Conc	0.5	18694.51	136.5632935	13.24105358	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 2/E	1	Max Conc	1	37389.03	60.95492554	4.364546776	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 1/E	1	Max Conc	0.5	18694.51	124.1320648	19.2942524	0	13.64766216
Export (1.1xOP)	E_INV005_25mm	25	Category 1/E	1	Max Conc	1	37389.03	58.64009857	5.639222145	0	13.64766216
Export (1.1xOP)	E_INV005_68mm	68	Category 12/E	1	Max Conc	0.5	18694.51	454.667572	57.07331085	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 12/E	1	Max Conc	1	37389.03	205.5367889	19.0284481	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 11/E	1	Max Conc	0.5	18694.51	440.912384	61.54809189	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 11/E	1	Max Conc	1	37389.03	200.3128815	21.25436783	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 10/E	1	Max Conc	0.5	18694.51	335.9400635	86.6941452	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 10/E	1	Max Conc	1	37389.03	173.913681	21.36433792	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 9/E	1	Max Conc	0.5	18694.51	392.0146179	61.32767868	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 9/E	1	Max Conc	1	37389.03	194.0108185	20.32157516	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 8/E	1	Max Conc	0.5	18694.51	348.3274841	83.14006042	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 8/E	1	Max Conc	1	37389.03	179.3501892	19.71989441	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 7/E	1	Max Conc	0.5	18694.51	384.0914917	86.95454407	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 7/E	1	Max Conc	1	37389.03	188.61763	22.56436539	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 6/E	1	Max Conc	0.5	18694.51	382.8040466	57.24850464	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 6/E	1	Max Conc	1	37389.03	186.9708862	19.55727768	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 5/E	1	Max Conc	0.5	18694.51	441.8568115	51.2834053	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 5/E	1	Max Conc	1	37389.03	199.7113342	17.88788605	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 4/E	1	Max Conc	0.5	18694.51	344.6231384	88.80230713	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 4/E	1	Max Conc	1	37389.03	182.6791077	21.73509026	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 3/E	1	Max Conc	0.5	18694.51	461.4662476	48.99376297	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 3/E	1	Max Conc	1	37389.03	205.0417633	16.68990707	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 2/E	1	Max Conc	0.5	18694.51	397.9603271	54.46474457	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 2/E	1	Max Conc	1	37389.03	192.415741	17.86574745	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 1/E	1	Max Conc	0.5	18694.51	330.8074951	93.42562866	0	100.970871
Export (1.1xOP)	E_INV005_68mm	68	Category 1/E	1	Max Conc	1	37389.03	177.3473358	23.94390297	0	100.970871
Export (1.1xOP)	E_INV005_203mm	203	Category 12/E	1	Max Conc	0.5	18694.51	681.2754517	116.2298737	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 12/E	1	Max Conc	1	37389.03	477.5854187	71.33044434	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 11/E	1	Max Conc	0.5	18694.51	628.3030396	120.9758835	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 11/E	1	Max Conc	1	37389.03	445.1194153	75.66981506	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 10/E	1	Max Conc	0.5	18694.51	502.6781006	115.9474182	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 10/E	1	Max Conc	1	37389.03	378.3761597	73.49330139	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 9/E	1	Max Conc	0.5	18694.51	598.0203857	114.9779968	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 9/E	1	Max Conc	1	37389.03	430.750061	71.43998718	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 8/E	1	Max Conc	0.5	18694.51	532.5421143	112.0085373	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 8/E	1	Max Conc	1	37389.03	398.6472168	69.69561768	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 7/E	1	Max Conc	0.5	18694.51	557.5419922	119.6405182	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 7/E	1	Max Conc	1	37389.03	404.4074097	75.6561203	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 6/E	1	Max Conc	0.5	18694.51	599.361084	117.0987778	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 6/E	1	Max Conc	1	37389.03	420.3624268	73.39612579	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 5/E	1	Max Conc	0.5	18694.51	678.4963989	118.4838257	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 5/E	1	Max Conc	1	37389.03	474.1862183	73.26847076	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 4/E	1	Max Conc	0.5	18694.51	518.7662964	113.9796829	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 4/E	1	Max Conc	1	37389.03	393.5192871	71.52832794	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 3/E	1	Max Conc	0.5	18694.51	722.6454468	114.5048752	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 3/E	1	Max Conc	1	37389.03	503.6417847	69.31926727	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 2/E	1	Max Conc	0.5	18694.51	637.0097046	113.0891953	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 2/E	1	Max Conc	1	37389.03	444.9981384	69.57781982	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 1/E	1	Max Conc	0.5	18694.51	486.5511475	118.5270004	0	899.8503418
Export (1.1xOP)	E_INV005_203mm	203	Category 1/E	1	Max Conc	1	37389.03	371.8996277	75.6446228	0	899.8503418

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	221.6811218	39.37459183	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	116.7559433	12.53849888	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	206.1953888	44.58330536	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	111.7518616	14.61229515	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	182.5594482	42.18065262	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	93.52471161	13.42611408	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	248.2592316	47.04289246	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	109.4938965	13.9917841	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	194.6749573	39.29173279	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	98.42558289	12.33537006	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	237.7608337	54.02601624	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	104.0050049	16.05576134	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	225.0345001	34.53091812	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	98.07926941	11.34030151	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	204.1569061	27.19166565	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	100.201004	10.1442194	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	198.3536072	51.4511795	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	102.1711807	15.40030575	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	216.5984497	25.178936	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	108.4529877	9.608562469	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	239.9380646	32.37330627	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	104.1377411	10.77392006	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	188.0129547	57.90384293	0	18.23570442
Export (1.1xOP)	E_INV006_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	97.49370575	17.52091026	0	18.23570442
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 12/E	1	Max Conc	0.5	22000	318.5906982	61.84062958	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 12/E	1	Max Conc	1	44000	177.2793579	22.02858543	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 11/E	1	Max Conc	0.5	22000	295.4133911	70.18791199	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 11/E	1	Max Conc	1	44000	168.6344299	25.49269867	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 10/E	1	Max Conc	0.5	22000	251.7326813	67.09165955	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 10/E	1	Max Conc	1	44000	133.999649	22.52295303	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 9/E	1	Max Conc	0.5	22000	353.7962036	72.8145752	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 9/E	1	Max Conc	1	44000	160.2514648	23.69228363	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 8/E	1	Max Conc	0.5	22000	269.027832	62.50798035	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 8/E	1	Max Conc	1	44000	141.470871	20.70351982	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 7/E	1	Max Conc	0.5	22000	339.7918701	83.89860535	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 7/E	1	Max Conc	1	44000	151.6324158	27.25645638	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 6/E	1	Max Conc	0.5	22000	322.4050903	56.09583282	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 6/E	1	Max Conc	1	44000	146.0103607	19.65657425	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 5/E	1	Max Conc	0.5	22000	293.5429993	44.82538605	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 5/E	1	Max Conc	1	44000	159.7553864	17.11712265	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 4/E	1	Max Conc	0.5	22000	272.2704163	78.78199005	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 4/E	1	Max Conc	1	44000	145.0242157	25.62513924	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 3/E	1	Max Conc	0.5	22000	313.0956421	41.66021729	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 3/E	1	Max Conc	1	44000	170.0474091	15.56442261	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 2/E	1	Max Conc	0.5	22000	343.8155212	52.50507355	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 2/E	1	Max Conc	1	44000	156.3786926	18.02761841	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 1/E	1	Max Conc	0.5	22000	257.2944641	89.90703583	0	35.74197769
Export (1.1xOP)	E_INV006_35mm (all)	35	Category 1/E	1	Max Conc	1	44000	138.1375732	29.15842819	0	35.74197769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 12/E	1	Max Conc	0.5	22000	463.8887939	96.90673828	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 12/E	1	Max Conc	1	44000	264.1976318	37.12518311	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 11/E	1	Max Conc	0.5	22000	429.7866516	109.8761368	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 11/E	1	Max Conc	1	44000	249.9920654	42.72270203	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 10/E	1	Max Conc	0.5	22000	350.4002075	107.3758087	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 10/E	1	Max Conc	1	44000	191.3193054	37.47865295	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 9/E	1	Max Conc	0.5	22000	503.2729492	112.3524017	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 9/E	1	Max Conc	1	44000	232.3140717	39.21608734	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 8/E	1	Max Conc	0.5	22000	374.3924561	100.5195618	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 8/E	1	Max Conc	1	44000	202.6292725	34.46860123	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 7/E	1	Max Conc	0.5	22000	485.0376892	128.6003876	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 7/E	1	Max Conc	1	44000	219.1610565	45.1213913	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 6/E	1	Max Conc	0.5	22000	461.0968628	90.92425537	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 6/E	1	Max Conc	1	44000	214.1726379	33.46457291	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 5/E	1	Max Conc	0.5	22000	424.6210022	73.72358704	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 5/E	1	Max Conc	1	44000	242.3274994	30.02871895	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 4/E	1	Max Conc	0.5	22000	377.3305359	123.0563889	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 4/E	1	Max Conc	1	44000	205.758728	42.2165947	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 3/E	1	Max Conc	0.5	22000	452.9961853	68.26872253	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 3/E	1	Max Conc	1	44000	258.7114868	27.35042763	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 2/E	1	Max Conc	0.5	22000	492.1836853	85.10713196	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 2/E	1	Max Conc	1	44000	229.5480804	30.64328957	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 1/E	1	Max Conc	0.5	22000	355.5605469	138.9971771	0	72.94281769
Export (1.1xOP)	E_INV006_50mm (all)	50	Category 1/E	1	Max Conc	1	44000	195.7891235	47.89235687	0	72.94281769

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 12/E	1	Max Conc	0.5	22000	843.8233643	216.5546875	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 12/E	1	Max Conc	1	44000	448.3869629	145.7187805	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 11/E	1	Max Conc	0.5	22000	761.2623901	241.2492065	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 11/E	1	Max Conc	1	44000	418.710144	162.9841003	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 10/E	1	Max Conc	0.5	22000	794.6726074	435.1567688	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 10/E	1	Max Conc	1	44000	378.7688293	233.1538239	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 9/E	1	Max Conc	0.5	22000	939.5722046	392.6124268	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 9/E	1	Max Conc	1	44000	565.0238647	211.1843414	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 8/E	1	Max Conc	0.5	22000	835.2369995	415.1949158	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 8/E	1	Max Conc	1	44000	411.0790405	160.037674	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 7/E	1	Max Conc	0.5	22000	850.4203491	434.3589478	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 7/E	1	Max Conc	1	44000	525.0114136	243.1511841	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 6/E	1	Max Conc	0.5	22000	746.6627197	277.8259583	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 6/E	1	Max Conc	1	44000	503.5532227	142.7090912	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 5/E	1	Max Conc	0.5	22000	582.8153076	157.8039551	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 5/E	1	Max Conc	1	44000	415.5124817	102.7106857	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 4/E	1	Max Conc	0.5	22000	928.9824219	590.9608765	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 4/E	1	Max Conc	1	44000	432.1229553	312.4687195	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 3/E	1	Max Conc	0.5	22000	625.9891968	146.9263611	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 3/E	1	Max Conc	1	44000	440.0039673	94.51698303	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 2/E	1	Max Conc	0.5	22000	809.9656982	261.8131714	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 2/E	1	Max Conc	1	44000	534.4098511	131.8770599	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 1/E	1	Max Conc	0.5	22000	919.4187622	655.9622192	0	172.025238
Export (1.1xOP)	E_INV006_119mm (1hr)	119	Category 1/E	1	Max Conc	1	44000	405.2355652	419.4816284	0	172.025238
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 12/E	1	Max Conc	0.5	22000	1201.223633	246.7563934	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 12/E	1	Max Conc	1	44000	638.9370117	215.507431	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 11/E	1	Max Conc	0.5	22000	1170.754517	248.4178009	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 11/E	1	Max Conc	1	44000	624.8739624	216.1766815	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 10/E	1	Max Conc	0.5	22000	561.8860474	544.2061157	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 10/E	1	Max Conc	1	44000	250.0166626	475.317749	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 9/E	1	Max Conc	0.5	22000	1355.537231	373.209198	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 9/E	1	Max Conc	1	44000	642.2109985	327.6607361	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 8/E	1	Max Conc	0.5	22000	568.5780029	555.3308716	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 8/E	1	Max Conc	1	44000	257.8084412	484.9460449	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 7/E	1	Max Conc	0.5	22000	1379.456909	368.2470703	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 7/E	1	Max Conc	1	44000	676.7354736	323.0365295	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 6/E	1	Max Conc	0.5	22000	395.8699341	257.3066406	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 6/E	1	Max Conc	1	44000	203.8176117	221.4772949	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 5/E	1	Max Conc	0.5	22000	355.6990662	180.7966919	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 5/E	1	Max Conc	1	44000	196.0046539	153.1264191	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 4/E	1	Max Conc	0.5	22000	1454.686279	706.1715088	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 4/E	1	Max Conc	1	44000	406.5697021	626.7884521	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 3/E	1	Max Conc	0.5	22000	361.5848083	178.4277954	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 3/E	1	Max Conc	1	44000	194.9351349	152.2303314	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 2/E	1	Max Conc	0.5	22000	394.8740234	255.9067535	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 2/E	1	Max Conc	1	44000	184.8103027	221.3114624	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 1/E	1	Max Conc	0.5	22000	1584.800049	814.8765869	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (1hr)	356	Category 1/E	1	Max Conc	1	44000	515.6793213	705.3798828	0	172.5023804
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 12/E	1	Max Conc	0.5	22000	72.74923706	9.19078064	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 12/E	1	Max Conc	1	44000	33.06113434	2.911055803	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 11/E	1	Max Conc	0.5	22000	68.40862274	9.473538399	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 11/E	1	Max Conc	1	44000	30.86535263	3.113032818	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 10/E	1	Max Conc	0.5	22000	66.99816895	9.771357536	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 10/E	1	Max Conc	1	44000	31.48817062	3.367282391	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 9/E	1	Max Conc	0.5	22000	80.77023315	10.59852028	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 9/E	1	Max Conc	1	44000	34.02177811	3.293098688	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 8/E	1	Max Conc	0.5	22000	70.38114929	9.505008698	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 8/E	1	Max Conc	1	44000	33.7517395	3.237869978	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 7/E	1	Max Conc	0.5	22000	77.96120453	11.92219067	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 7/E	1	Max Conc	1	44000	31.84809303	3.531141281	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 6/E	1	Max Conc	0.5	22000	64.81319427	7.752738953	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 6/E	1	Max Conc	1	44000	30.70275116	2.826959133	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 5/E	1	Max Conc	0.5	22000	66.29875946	6.240731239	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 5/E	1	Max Conc	1	44000	28.92381096	2.328773499	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 4/E	1	Max Conc	0.5	22000	75.60691071	13.05657387	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 4/E	1	Max Conc	1	44000	34.66038513	3.687886715	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 3/E	1	Max Conc	0.5	22000	72.80863953	6.059452057	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 3/E	1	Max Conc	1	44000	31.04500389	2.231933832	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 2/E	1	Max Conc	0.5	22000	70.64457703	7.625193119	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 2/E	1	Max Conc	1	44000	33.00252533	2.71430397	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 1/E	1	Max Conc	0.5	22000	72.46355438	14.54405499	0	2.91771245
Export (1.1xOP)	E_INV006_10mm (all)	10	Category 1/E	1	Max Conc	1	44000	32.5832634	3.894172668	0	2.91771245

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 12/E	1	Max Conc	0.5	22000	808.4068604	213.1574249	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 12/E	1	Max Conc	1	44000	440.3148499	140.5185394	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 11/E	1	Max Conc	0.5	22000	714.9159546	234.2707367	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 11/E	1	Max Conc	1	44000	410.1592712	156.2990112	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 10/E	1	Max Conc	0.5	22000	743.3349609	400.1128235	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 10/E	1	Max Conc	1	44000	366.4798584	169.1712189	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 9/E	1	Max Conc	0.5	22000	898.5064087	382.7631836	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 9/E	1	Max Conc	1	44000	551.1062622	197.1674347	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 8/E	1	Max Conc	0.5	22000	789.8783569	385.2361145	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 8/E	1	Max Conc	1	44000	395.7365417	158.6173096	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 7/E	1	Max Conc	0.5	22000	814.1013794	418.5744324	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 7/E	1	Max Conc	1	44000	513.3827515	223.2894745	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 6/E	1	Max Conc	0.5	22000	734.1749878	266.049408	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 6/E	1	Max Conc	1	44000	487.9762268	130.7500916	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 5/E	1	Max Conc	0.5	22000	575.9328003	152.7216797	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 5/E	1	Max Conc	1	44000	411.3954468	97.90088654	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 4/E	1	Max Conc	0.5	22000	885.6150513	557.6547852	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 4/E	1	Max Conc	1	44000	423.0055847	271.5080872	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 3/E	1	Max Conc	0.5	22000	620.434021	144.0003357	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 3/E	1	Max Conc	1	44000	436.3818359	91.51512909	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 2/E	1	Max Conc	0.5	22000	798.0413818	254.5620728	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 2/E	1	Max Conc	1	44000	522.5643921	124.0684586	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 1/E	1	Max Conc	0.5	22000	870.7634277	614.670105	0	172.025238
Export (1.1xOP)	E_INV006_119mm (2min)	119	Category 1/E	1	Max Conc	1	44000	396.6504517	279.433136	0	172.025238
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 12/E	1	Max Conc	0.5	22000	1233.459717	202.2962189	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 12/E	1	Max Conc	1	44000	656.8997803	177.5690155	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 11/E	1	Max Conc	0.5	22000	1208.044434	201.1664124	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 11/E	1	Max Conc	1	44000	647.4915771	176.0731354	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 10/E	1	Max Conc	0.5	22000	567.4997559	480.4846802	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 10/E	1	Max Conc	1	44000	256.2813721	421.0014648	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 9/E	1	Max Conc	0.5	22000	1344.389648	316.0255737	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 9/E	1	Max Conc	1	44000	643.0577393	278.1187744	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 8/E	1	Max Conc	0.5	22000	536.335144	485.9996338	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 8/E	1	Max Conc	1	44000	218.8207092	426.4368896	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 7/E	1	Max Conc	0.5	22000	1389.051392	311.8752136	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 7/E	1	Max Conc	1	44000	685.8865356	274.3997498	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 6/E	1	Max Conc	0.5	22000	427.3955688	209.6984711	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 6/E	1	Max Conc	1	44000	243.4423523	181.9479675	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 5/E	1	Max Conc	0.5	22000	373.4638977	135.1148987	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 5/E	1	Max Conc	1	44000	205.9112091	116.249939	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 4/E	1	Max Conc	0.5	22000	1418.212402	636.4949341	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 4/E	1	Max Conc	1	44000	391.6797791	565.0705566	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 3/E	1	Max Conc	0.5	22000	378.7536011	134.4898529	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 3/E	1	Max Conc	1	44000	204.5663757	116.4336777	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 2/E	1	Max Conc	0.5	22000	487.08078	210.7944183	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 2/E	1	Max Conc	1	44000	278.1737366	183.6384583	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 1/E	1	Max Conc	0.5	22000	1496.391846	607.8841553	0	172.5023804
Export (1.1xOP)	E_INV006_356mm (2min)	356	Category 1/E	1	Max Conc	1	44000	463.8874512	539.7484741	0	172.5023804
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	151.5739594	39.76754761	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	97.25739288	19.01435661	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	138.1183777	44.95119476	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	91.4275589	20.95375824	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	169.2694092	53.16601563	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	83.8988266	16.97313499	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	191.7643433	69.18302917	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	113.9939194	24.01270866	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	182.6894531	51.06332016	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	91.76860809	16.37136459	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	176.1328735	78.28312683	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	106.4294891	26.77804184	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	180.6275177	37.36960602	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	89.77883148	12.5884161	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	144.9377289	23.18641663	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	83.76036072	9.284814835	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	205.7722626	95.95024109	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	98.6335144	26.8012886	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	155.4976959	21.88981819	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	91.96733856	9.594700813	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	194.5886688	35.63663864	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	99.53364563	12.50386429	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	200.6975403	109.5227051	0	9.457866669
Export (1.1xOP)	E_INV007_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	92.85136414	29.71524048	0	9.457866669

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 12/E	1	Max Conc	0.5	22000	220.7575989	62.9672966	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 12/E	1	Max Conc	1	44000	141.4136047	33.64302826	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 11/E	1	Max Conc	0.5	22000	196.4380341	71.34641266	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 11/E	1	Max Conc	1	44000	133.406311	37.90612411	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 10/E	1	Max Conc	0.5	22000	237.8387604	86.4855423	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 10/E	1	Max Conc	1	44000	120.6962204	29.74686241	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 9/E	1	Max Conc	0.5	22000	275.4410706	109.7007675	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 9/E	1	Max Conc	1	44000	168.5163116	42.82239151	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 8/E	1	Max Conc	0.5	22000	254.1744232	82.48596191	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 8/E	1	Max Conc	1	44000	131.1333313	27.9900322	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 7/E	1	Max Conc	0.5	22000	252.8715057	125.0163193	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 7/E	1	Max Conc	1	44000	159.4290466	48.7662735	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 6/E	1	Max Conc	0.5	22000	258.2628174	63.06885147	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 6/E	1	Max Conc	1	44000	140.5646667	23.7096405	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 5/E	1	Max Conc	0.5	22000	206.3154755	38.82336807	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 5/E	1	Max Conc	1	44000	133.2946014	18.74346542	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 4/E	1	Max Conc	0.5	22000	286.6022644	146.0398102	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 4/E	1	Max Conc	1	44000	139.1013794	45.12481689	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 3/E	1	Max Conc	0.5	22000	219.6706085	36.04618073	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 3/E	1	Max Conc	1	44000	141.2029877	18.01606369	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 2/E	1	Max Conc	0.5	22000	276.873291	59.37570953	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 2/E	1	Max Conc	1	44000	154.2713776	22.73211288	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 1/E	1	Max Conc	0.5	22000	279.5623779	169.3729706	0	18.53741837
Export (1.1xOP)	E_INV007_35mm (all)	35	Category 1/E	1	Max Conc	1	44000	131.0592041	50.72523499	0	18.53741837
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 12/E	1	Max Conc	0.5	22000	730.9505615	259.8742676	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 12/E	1	Max Conc	1	44000	440.0300598	172.2573242	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 11/E	1	Max Conc	0.5	22000	626.4901123	294.4806519	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 11/E	1	Max Conc	1	44000	412.6552429	197.5558777	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 10/E	1	Max Conc	0.5	22000	721.5250244	449.3199463	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 10/E	1	Max Conc	1	44000	363.3658752	173.2913513	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 9/E	1	Max Conc	0.5	22000	853.861084	483.421875	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 9/E	1	Max Conc	1	44000	571.3917236	248.4074097	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 8/E	1	Max Conc	0.5	22000	772.5263672	424.2651062	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 8/E	1	Max Conc	1	44000	392.4007874	159.8908539	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 7/E	1	Max Conc	0.5	22000	791.1715698	547.6693115	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 7/E	1	Max Conc	1	44000	542.0790405	288.8823853	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 6/E	1	Max Conc	0.5	22000	746.6461182	317.4606628	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 6/E	1	Max Conc	1	44000	501.4011841	148.3770752	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 5/E	1	Max Conc	0.5	22000	601.7970581	179.9709473	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 5/E	1	Max Conc	1	44000	427.741394	113.0530853	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 4/E	1	Max Conc	0.5	22000	885.3794556	656.7261353	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 4/E	1	Max Conc	1	44000	414.4414673	246.0563965	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 3/E	1	Max Conc	0.5	22000	626.6757813	164.4902344	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 3/E	1	Max Conc	1	44000	447.8174133	103.5086975	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 2/E	1	Max Conc	0.5	22000	799.5579834	292.8250427	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 2/E	1	Max Conc	1	44000	528.2509155	137.4533844	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 1/E	1	Max Conc	0.5	22000	877.1187134	747.6126099	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (1hr)	119	Category 1/E	1	Max Conc	1	44000	392.5916138	282.8511963	0	172.7689209
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 12/E	1	Max Conc	0.5	22000	1178.256958	255.1093292	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 12/E	1	Max Conc	1	44000	621.8326416	222.6694794	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 11/E	1	Max Conc	0.5	22000	1154.518188	255.8224487	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 11/E	1	Max Conc	1	44000	614.0041504	222.3498993	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 10/E	1	Max Conc	0.5	22000	504.5350037	587.6014404	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 10/E	1	Max Conc	1	44000	222.8724518	512.2060547	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 9/E	1	Max Conc	0.5	22000	1321.948853	392.1373596	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 9/E	1	Max Conc	1	44000	623.4712524	344.2036743	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 8/E	1	Max Conc	0.5	22000	568.6051636	596.310791	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 8/E	1	Max Conc	1	44000	257.4369202	520.0476074	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 7/E	1	Max Conc	0.5	22000	1343.334595	385.1839905	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 7/E	1	Max Conc	1	44000	657.0673828	338.0762329	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 6/E	1	Max Conc	0.5	22000	386.3822632	264.9979248	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 6/E	1	Max Conc	1	44000	196.4575806	227.9036102	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 5/E	1	Max Conc	0.5	22000	350.5628052	184.2526703	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 5/E	1	Max Conc	1	44000	192.5185852	155.9024963	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 4/E	1	Max Conc	0.5	22000	1463.947388	746.8265991	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 4/E	1	Max Conc	1	44000	429.8397217	663.7835693	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 3/E	1	Max Conc	0.5	22000	355.8928528	182.2944031	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 3/E	1	Max Conc	1	44000	190.9132996	155.3826294	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 2/E	1	Max Conc	0.5	22000	387.2442627	264.2463074	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 2/E	1	Max Conc	1	44000	180.9606018	228.4095459	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 1/E	1	Max Conc	0.5	22000	1622.654297	813.6970825	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (1hr)	356	Category 1/E	1	Max Conc	1	44000	556.4313354	704.2090454	0	172.8658752

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 12/E	1	Max Conc	0.5	22000	730.9533691	259.877655	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 12/E	1	Max Conc	1	44000	440.0300598	172.2573242	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 11/E	1	Max Conc	0.5	22000	724.059021	341.2750854	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 11/E	1	Max Conc	1	44000	489.8411255	197.5161285	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 10/E	1	Max Conc	0.5	22000	617.9934082	399.4560852	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 10/E	1	Max Conc	1	44000	412.9003906	180.0150452	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 9/E	1	Max Conc	0.5	22000	687.2706909	418.8690186	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 9/E	1	Max Conc	1	44000	519.8684082	252.1357574	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 8/E	1	Max Conc	0.5	22000	653.130127	364.7901306	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 8/E	1	Max Conc	1	44000	433.6552734	180.6941681	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 7/E	1	Max Conc	0.5	22000	646.3006592	478.486145	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 7/E	1	Max Conc	1	44000	498.0144043	288.4567871	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 6/E	1	Max Conc	0.5	22000	742.2380371	356.53479	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 6/E	1	Max Conc	1	44000	534.9056396	197.0908966	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 5/E	1	Max Conc	0.5	22000	601.7970581	179.9709473	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 5/E	1	Max Conc	1	44000	427.741394	113.0530853	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 4/E	1	Max Conc	0.5	22000	615.7287598	455.1531677	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 4/E	1	Max Conc	1	44000	420.9460754	245.7636108	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 3/E	1	Max Conc	0.5	22000	626.6757813	164.4902344	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 3/E	1	Max Conc	1	44000	447.8174133	103.5086975	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 2/E	1	Max Conc	0.5	22000	772.1380005	338.0825195	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 2/E	1	Max Conc	1	44000	548.9853516	176.9759216	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 1/E	1	Max Conc	0.5	22000	585.414856	522.4903564	0	172.7689209
Export (1.1xOP)	E_INV007_119mm (2min)	119	Category 1/E	1	Max Conc	1	44000	402.7930908	282.8603516	0	172.7689209
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 12/E	1	Max Conc	0.5	22000	1202.175049	208.7340851	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 12/E	1	Max Conc	1	44000	632.7390747	183.0539093	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 11/E	1	Max Conc	0.5	22000	1194.267578	207.5563965	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 11/E	1	Max Conc	1	44000	638.3869629	181.4542847	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 10/E	1	Max Conc	0.5	22000	508.6297302	514.4492188	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 10/E	1	Max Conc	1	44000	232.4594879	449.8170166	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 9/E	1	Max Conc	0.5	22000	1316.963867	330.1736145	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 9/E	1	Max Conc	1	44000	627.4542236	289.8567505	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 8/E	1	Max Conc	0.5	22000	512.7846069	525.1773682	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 8/E	1	Max Conc	1	44000	213.802063	455.6500549	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 7/E	1	Max Conc	0.5	22000	1356.494019	327.1459045	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 7/E	1	Max Conc	1	44000	667.6164551	287.3855896	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 6/E	1	Max Conc	0.5	22000	427.1702271	216.3110809	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 6/E	1	Max Conc	1	44000	243.2261353	187.468811	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 5/E	1	Max Conc	0.5	22000	368.9535217	138.0030823	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 5/E	1	Max Conc	1	44000	202.9427948	118.7439728	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 4/E	1	Max Conc	0.5	22000	1450.59314	696.5519409	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 4/E	1	Max Conc	1	44000	414.1869812	625.6478271	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 3/E	1	Max Conc	0.5	22000	372.9396057	137.7823029	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 3/E	1	Max Conc	1	44000	201.2822723	119.2538528	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 2/E	1	Max Conc	0.5	22000	489.4850159	217.6126251	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 2/E	1	Max Conc	1	44000	279.3951721	189.3503418	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 1/E	1	Max Conc	0.5	22000	1576.178467	625.1331177	0	172.8658752
Export (1.1xOP)	E_INV007_356mm (2min)	356	Category 1/E	1	Max Conc	1	44000	534.5600586	556.3259888	0	172.8658752
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	130.6178894	37.40450287	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	83.94458771	19.0256424	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	118.7157059	41.39095306	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	79.93057251	19.96481895	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	164.5088806	55.80845642	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	78.88506317	17.11183739	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	167.6151276	68.18378448	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	103.6980362	27.84248924	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	178.0534973	54.09031296	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	86.32091522	17.22314644	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	151.4300995	75.87940216	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	96.23500824	29.45181084	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	159.1047211	34.64287186	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	80.7273941	11.40087032	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	128.0811615	20.61804199	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	72.30857086	7.609303474	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	233.0755463	125.0223541	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	96.03533936	31.88263321	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	136.4575806	19.81725883	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	80.43315125	8.562139511	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	169.8179321	33.32971191	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	92.65223694	12.19882679	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	225.3482361	143.4447632	0	7.477133751
Export (1.1xOP)	E_INV009_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	89.46043396	34.5022583	0	7.477133751

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 12/E	1	Max Conc	0.5	22000	276.9641418	93.54166412	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 12/E	1	Max Conc	1	44000	176.7685852	57.45870209	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 11/E	1	Max Conc	0.5	22000	244.3347778	105.5430145	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 11/E	1	Max Conc	1	44000	166.8528748	64.65175629	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 10/E	1	Max Conc	0.5	22000	332.6408081	151.9861145	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 10/E	1	Max Conc	1	44000	164.3956451	53.97508621	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 9/E	1	Max Conc	0.5	22000	358.022644	171.0870972	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 9/E	1	Max Conc	1	44000	224.716507	87.0701828	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 8/E	1	Max Conc	0.5	22000	355.124176	143.4157104	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 8/E	1	Max Conc	1	44000	177.0995483	51.21898651	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 7/E	1	Max Conc	0.5	22000	317.1570129	195.6290436	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 7/E	1	Max Conc	1	44000	211.6129913	100.0190277	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 6/E	1	Max Conc	0.5	22000	321.59021	99.58853912	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 6/E	1	Max Conc	1	44000	201.7454834	43.70391464	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 5/E	1	Max Conc	0.5	22000	257.3564758	57.83742142	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 5/E	1	Max Conc	1	44000	175.3371735	32.62425613	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 4/E	1	Max Conc	0.5	22000	470.3201599	287.8883667	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 4/E	1	Max Conc	1	44000	192.8691559	89.38484192	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 3/E	1	Max Conc	0.5	22000	270.0177917	53.33293533	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 3/E	1	Max Conc	1	44000	184.2547607	30.93703461	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 2/E	1	Max Conc	0.5	22000	345.6682129	93.00554657	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 2/E	1	Max Conc	1	44000	217.799057	41.88307953	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 1/E	1	Max Conc	0.5	22000	475.60495	332.5697937	0	29.908535
Export (1.1xOP)	E_INV009_50mm (all)	50	Category 1/E	1	Max Conc	1	44000	180.7156372	102.0387039	0	29.908535
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 12/E	1	Max Conc	0.5	22000	1895.053223	512.1011963	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 12/E	1	Max Conc	1	44000	942.3502197	452.6343689	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 11/E	1	Max Conc	0.5	22000	1913.001953	515.0093994	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 11/E	1	Max Conc	1	44000	980.4394531	454.1859436	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 10/E	1	Max Conc	0.5	22000	680.9778442	1235.127197	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 10/E	1	Max Conc	1	44000	276.5562439	1092.506836	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 9/E	1	Max Conc	0.5	22000	2081.01001	780.3983765	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 9/E	1	Max Conc	1	44000	911.9725342	692.9423218	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 8/E	1	Max Conc	0.5	22000	884.1555786	1248.227417	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 8/E	1	Max Conc	1	44000	363.0171814	1104.962036	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 7/E	1	Max Conc	0.5	22000	2151.195313	774.5750122	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 7/E	1	Max Conc	1	44000	1014.359497	686.9014893	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 6/E	1	Max Conc	0.5	22000	615.8901978	544.3132935	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 6/E	1	Max Conc	1	44000	282.3592224	477.4827271	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 5/E	1	Max Conc	0.5	22000	555.7857666	385.4752502	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 5/E	1	Max Conc	1	44000	287.9770813	335.5373535	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 4/E	1	Max Conc	0.5	22000	2136.924072	1558.092896	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 4/E	1	Max Conc	1	44000	522.2232666	1397.244507	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 3/E	1	Max Conc	0.5	22000	563.7945557	382.7685852	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 3/E	1	Max Conc	1	44000	284.3881226	334.6776733	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 2/E	1	Max Conc	0.5	22000	616.2814331	538.8125	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 2/E	1	Max Conc	1	44000	269.3488464	474.3054504	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 1/E	1	Max Conc	0.5	22000	2402.16748	1495.753784	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (1hr)	610	Category 1/E	1	Max Conc	1	44000	710.2039795	1341.356689	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	1	Max Conc	0.5	22000	2190.86792	407.2250061	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	1	Max Conc	1	44000	1138.689209	359.7703857	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 10/E	1	Max Conc	0.5	22000	996.3816528	1125.564575	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 10/E	1	Max Conc	1	44000	400.2767334	996.7456665	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	1	Max Conc	0.5	22000	2370.133301	679.3394165	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	1	Max Conc	1	44000	1075.30835	603.7870483	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 8/E	1	Max Conc	0.5	22000	924.8782349	1154.715332	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 8/E	1	Max Conc	1	44000	327.760376	1023.161072	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 7/E	1	Max Conc	0.5	22000	2449.241943	662.4901123	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 7/E	1	Max Conc	1	44000	1159.599365	588.3496704	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 6/E	1	Max Conc	0.5	22000	901.5177612	449.0878906	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 6/E	1	Max Conc	1	44000	500.0527954	394.9162598	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 5/E	1	Max Conc	0.5	22000	688.7272339	287.2801208	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 5/E	1	Max Conc	1	44000	382.036438	251.8331299	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 4/E	1	Max Conc	0.5	22000	2175.755859	1441.549438	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 4/E	1	Max Conc	1	44000	527.7077026	1292.927002	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	1	Max Conc	0.5	22000	724.8567505	287.6320801	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	1	Max Conc	1	44000	390.2746277	253.346283	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 2/E	1	Max Conc	0.5	22000	933.6964111	453.2516479	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 2/E	1	Max Conc	1	44000	512.5268555	399.6727295	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 1/E	1	Max Conc	0.5	22000	2520.953369	1395.139771	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 1/E	1	Max Conc	1	44000	754.5479126	1255.310303	0	526.6993408
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 12/E	1	Max Conc	0.5	22000	1498.459106	411.0132751	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 12/E	1	Max Conc	1	44000	785.2525024	285.0301514	0	493.0002747

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 11/E	1	Max Conc	0.5	22000	1316.828369	452.6976318	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 11/E	1	Max Conc	1	44000	719.1241455	319.2944031	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 10/E	1	Max Conc	0.5	22000	1239.147827	855.3629761	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 10/E	1	Max Conc	1	44000	604.227478	429.1060181	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 9/E	1	Max Conc	0.5	22000	1540.479736	763.9943237	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 9/E	1	Max Conc	1	44000	987.2966309	407.2263489	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 8/E	1	Max Conc	0.5	22000	1286.24646	806.1976929	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 8/E	1	Max Conc	1	44000	639.3973999	306.8283997	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 7/E	1	Max Conc	0.5	22000	1402.310547	827.1676636	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 7/E	1	Max Conc	1	44000	916.151001	468.0484009	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 6/E	1	Max Conc	0.5	22000	1247.953003	583.1333008	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 6/E	1	Max Conc	1	44000	857.6113281	291.5438843	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 5/E	1	Max Conc	0.5	22000	970.5135498	323.3422546	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 5/E	1	Max Conc	1	44000	702.8577881	213.4966278	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 4/E	1	Max Conc	0.5	22000	1457.738281	1065.396851	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 4/E	1	Max Conc	1	44000	690.6365356	631.6565552	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 3/E	1	Max Conc	0.5	22000	1024.203369	304.0434265	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 3/E	1	Max Conc	1	44000	736.1304932	199.3733368	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 2/E	1	Max Conc	0.5	22000	1366.311279	554.506897	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 2/E	1	Max Conc	1	44000	905.5262451	265.8392639	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 1/E	1	Max Conc	0.5	22000	1453.314331	1187.142578	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (1hr)	203	Category 1/E	1	Max Conc	1	44000	650.5250854	787.5267944	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 12/E	1	Max Conc	0.5	22000	1452.393311	404.6791077	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 12/E	1	Max Conc	1	44000	772.8823853	276.7496033	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 11/E	1	Max Conc	0.5	22000	1282.074585	444.262085	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 11/E	1	Max Conc	1	44000	716.1644287	308.6083069	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 10/E	1	Max Conc	0.5	22000	1193.806763	816.322998	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 10/E	1	Max Conc	1	44000	591.9143677	321.4389954	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 9/E	1	Max Conc	0.5	22000	1527.446777	746.0153809	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 9/E	1	Max Conc	1	44000	972.0853882	380.3101196	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 8/E	1	Max Conc	0.5	22000	1246.643311	772.7323608	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 8/E	1	Max Conc	1	44000	627.7421265	298.4491272	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 7/E	1	Max Conc	0.5	22000	1381.633545	804.2028809	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 7/E	1	Max Conc	1	44000	909.9573975	434.5982361	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 6/E	1	Max Conc	0.5	22000	1242.049194	571.0163574	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 6/E	1	Max Conc	1	44000	845.1419678	278.5248108	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 5/E	1	Max Conc	0.5	22000	965.2780762	318.4596863	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 5/E	1	Max Conc	1	44000	699.0643311	209.0381165	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 4/E	1	Max Conc	0.5	22000	1425.883545	1027.24939	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 4/E	1	Max Conc	1	44000	686.6928711	477.7553101	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 3/E	1	Max Conc	0.5	22000	1018.928223	302.5965271	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 3/E	1	Max Conc	1	44000	732.3433838	196.7055206	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 2/E	1	Max Conc	0.5	22000	1363.134033	546.791748	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 2/E	1	Max Conc	1	44000	891.8666382	260.1056519	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 1/E	1	Max Conc	0.5	22000	1346.631958	1087.952637	0	493.0002747
Export (1.1xOP)	E_INV009_203mm (2min)	203	Category 1/E	1	Max Conc	1	44000	629.3546753	512.7390747	0	493.0002747
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	98.41351318	30.62121773	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	63.84243393	15.23543835	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	90.91750336	32.5227623	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	60.11701584	13.51959801	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	149.0294342	54.87473297	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	64.03443146	14.38965797	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	127.1407471	57.67053986	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	79.8467865	25.44397736	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	166.6637573	55.679039	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	73.39940643	16.5839138	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	115.8704758	60.99088669	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	73.12747955	21.073452	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	120.2380142	25.85167694	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	40.32613754	3.40820241	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	98.21604156	15.03517532	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	26.97806549	2.177740574	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	199.0842438	181.5204468	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	90.73866272	41.59064865	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	104.7161407	15.14885426	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	56.09848785	4.5858922	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	129.6231689	26.41232681	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	65.67908478	7.663002491	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	181.863678	181.5657043	0	4.728972912
Export (1.1xOP)	E_INV010_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	80.89113617	41.5114975	0	4.728972912
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 12/E	1	Max Conc	0.5	22000	213.392807	79.11803436	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 12/E	1	Max Conc	1	44000	132.1002197	52.46458435	0	18.91589165

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 11/E	1	Max Conc	0.5	22000	186.657608	87.12631226	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 11/E	1	Max Conc	1	44000	125.7366562	56.61707687	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 10/E	1	Max Conc	0.5	22000	360.9255371	173.1325531	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 10/E	1	Max Conc	1	44000	150.2763214	60.48025131	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 9/E	1	Max Conc	0.5	22000	269.4230957	153.0710754	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 9/E	1	Max Conc	1	44000	167.4888	92.94642639	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 8/E	1	Max Conc	0.5	22000	389.0452271	166.599472	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 8/E	1	Max Conc	1	44000	164.3827515	58.02159882	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 7/E	1	Max Conc	0.5	22000	235.8482208	171.119278	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 7/E	1	Max Conc	1	44000	158.2906036	103.2207642	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 6/E	1	Max Conc	0.5	22000	245.1142731	82.82199097	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 6/E	1	Max Conc	1	44000	164.4069977	41.41120148	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 5/E	1	Max Conc	0.5	22000	200.8456573	45.43102264	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 5/E	1	Max Conc	1	44000	136.538208	26.38146591	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 4/E	1	Max Conc	0.5	22000	444.4221497	491.6368103	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 4/E	1	Max Conc	1	44000	210.3478699	136.035553	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 3/E	1	Max Conc	0.5	22000	207.2332916	42.62543106	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 3/E	1	Max Conc	1	44000	141.6752014	25.95994377	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 2/E	1	Max Conc	0.5	22000	256.5873108	77.64447021	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 2/E	1	Max Conc	1	44000	174.6322021	41.12779617	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 1/E	1	Max Conc	0.5	22000	393.1599121	526.9658203	0	18.91589165
Export (1.1xOP)	E_INV010_50mm (all)	50	Category 1/E	1	Max Conc	1	44000	197.9577942	149.9739838	0	18.91589165
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 10/E	1	Max Conc	0.5	22000	1129.515137	2138.0896	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 10/E	1	Max Conc	1	44000	350.9960327	1903.287109	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 8/E	1	Max Conc	0.5	22000	1280.070068	1905.321167	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 8/E	1	Max Conc	1	44000	383.2701721	1696.874756	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 7/E	1	Max Conc	0.5	22000	3545.704346	1289.525757	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 7/E	1	Max Conc	1	44000	1543.019775	1150.085327	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 6/E	1	Max Conc	0.5	22000	1262.677856	967.2772827	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 6/E	1	Max Conc	1	44000	650.5429077	853.1273193	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 5/E	1	Max Conc	0.5	22000	889.2119141	702.3208618	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 5/E	1	Max Conc	1	44000	440.3181458	618.1117554	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 4/E	1	Max Conc	0.5	22000	3217.335449	2510.560303	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 4/E	1	Max Conc	1	44000	615.1809082	2222.844238	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	1	Max Conc	0.5	22000	899.0587158	692.3347168	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	1	Max Conc	1	44000	429.4435425	611.2892456	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 2/E	1	Max Conc	0.5	22000	983.0946655	954.7138672	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 2/E	1	Max Conc	1	44000	400.5232544	844.9115601	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 1/E	1	Max Conc	0.5	22000	3773.847656	2726.628174	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 1/E	1	Max Conc	1	44000	959.442627	2408.716797	0	1454.520142
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 12/E	1	Max Conc	0.5	22000	2286.659912	359.9366455	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 12/E	1	Max Conc	1	44000	1037.039551	302.6681519	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 11/E	1	Max Conc	0.5	22000	2158.752686	430.901062	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 11/E	1	Max Conc	1	44000	1016.799133	356.6436462	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 10/E	1	Max Conc	0.5	22000	2070.36377	1688.601563	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 10/E	1	Max Conc	1	44000	1267.851563	752.6150513	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 9/E	1	Max Conc	0.5	22000	2788.234131	529.4620361	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 9/E	1	Max Conc	1	44000	1212.085815	430.9238892	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 8/E	1	Max Conc	0.5	22000	2545.502686	1676.360962	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 8/E	1	Max Conc	1	44000	1418.663574	644.7792969	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 7/E	1	Max Conc	0.5	22000	2346.343262	704.1571045	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 7/E	1	Max Conc	1	44000	1032.630859	559.8937378	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 6/E	1	Max Conc	0.5	22000	1201.108032	521.2930298	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 6/E	1	Max Conc	1	44000	822.9727783	400.9572754	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 5/E	1	Max Conc	0.5	22000	1011.162842	302.3263855	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 5/E	1	Max Conc	1	44000	668.9249268	247.9586334	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 4/E	1	Max Conc	0.5	22000	2915.948975	1940.745239	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 4/E	1	Max Conc	1	44000	1709.8479	794.3405151	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 3/E	1	Max Conc	0.5	22000	1096.318726	264.6964722	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 3/E	1	Max Conc	1	44000	707.4469604	220.9268799	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 2/E	1	Max Conc	0.5	22000	1379.610352	412.5561218	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 2/E	1	Max Conc	1	44000	918.2025757	326.2748718	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 1/E	1	Max Conc	0.5	22000	2237.762695	1995.118408	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (1hr)	305	Category 1/E	1	Max Conc	1	44000	1464.082153	1007.835815	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 12/E	1	Max Conc	0.5	22000	2315.610352	334.5055542	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 12/E	1	Max Conc	1	44000	1053.498657	280.4780579	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 11/E	1	Max Conc	0.5	22000	2170.877441	402.8519287	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 11/E	1	Max Conc	1	44000	1014.598328	332.1006775	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 10/E	1	Max Conc	0.5	22000	2086.151855	1634.398193	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 10/E	1	Max Conc	1	44000	1281.443237	822.0024414	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 9/E	1	Max Conc	0.5	22000	2837.478516	522.809082	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 9/E	1	Max Conc	1	44000	1243.690063	400.2893982	0	703.8603516

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 8/E	1	Max Conc	0.5	22000	2561.57666	1630.019653	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 8/E	1	Max Conc	1	44000	1427.517334	619.1607666	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 7/E	1	Max Conc	0.5	22000	2368.206787	670.2890625	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 7/E	1	Max Conc	1	44000	1042.60498	529.4093628	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 6/E	1	Max Conc	0.5	22000	1246.421509	497.4530334	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 6/E	1	Max Conc	1	44000	843.2562256	383.8554993	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 5/E	1	Max Conc	0.5	22000	1038.783569	280.8840027	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 5/E	1	Max Conc	1	44000	684.0415039	230.3802643	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 4/E	1	Max Conc	0.5	22000	2898.682129	1917.929199	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 4/E	1	Max Conc	1	44000	1617.78064	908.1472168	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 3/E	1	Max Conc	0.5	22000	1120.303101	242.5874329	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 3/E	1	Max Conc	1	44000	719.0003662	202.6530762	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 2/E	1	Max Conc	0.5	22000	1443.735352	410.1775513	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 2/E	1	Max Conc	1	44000	965.0367432	309.0061035	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 1/E	1	Max Conc	0.5	22000	2257.659424	1925.637817	0	703.8603516
Export (1.1xOP)	E_INV010_305mm (2min)	305	Category 1/E	1	Max Conc	1	44000	1467.404785	1192.117188	0	703.8603516
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	1	Max Conc	0.5	22000	3812.189941	648.2089844	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	1	Max Conc	1	44000	1940.8396	575.77948	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	1	Max Conc	0.5	22000	3434.18335	639.5197754	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	1	Max Conc	1	44000	1719.737793	567.5758667	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 10/E	1	Max Conc	0.5	22000	1413.234009	1826.01062	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 10/E	1	Max Conc	1	44000	487.1199036	1625.960327	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	1	Max Conc	0.5	22000	3693.822998	1061.151855	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	1	Max Conc	1	44000	1556.321655	946.1004028	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 8/E	1	Max Conc	0.5	22000	1309.269409	1892.86853	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 8/E	1	Max Conc	1	44000	380.7071838	1685.790649	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 7/E	1	Max Conc	0.5	22000	3843.866455	1029.71228	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 7/E	1	Max Conc	1	44000	1720.514893	918.5238647	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 6/E	1	Max Conc	0.5	22000	1402.69873	741.2807617	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 6/E	1	Max Conc	1	44000	754.4243164	654.3452148	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 5/E	1	Max Conc	0.5	22000	1100.633911	479.1484985	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 5/E	1	Max Conc	1	44000	603.6611328	422.1349487	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 4/E	1	Max Conc	0.5	22000	3261.713379	2224.115479	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 4/E	1	Max Conc	1	44000	624.538269	2022.344604	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	1	Max Conc	0.5	22000	1157.904297	480.6838684	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	1	Max Conc	1	44000	605.4867554	425.139679	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 2/E	1	Max Conc	0.5	22000	1440.338745	749.6842651	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 2/E	1	Max Conc	1	44000	756.8302002	664.3517456	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 1/E	1	Max Conc	0.5	22000	3715.169189	2035.657227	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 1/E	1	Max Conc	1	44000	942.28302	1834.000732	0	1454.520142
Export (1.1xOP)	E_INV011_25mm	25	Category 12/E	1	Max Conc	0.5	22000	5.239913464	0.64399153	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 12/E	1	Max Conc	1	44000	3.286119699	0.339802682	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 11/E	1	Max Conc	0.5	22000	5.1638484	0.632078409	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 11/E	1	Max Conc	1	44000	3.238386154	0.333614558	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 10/E	1	Max Conc	0.5	22000	7.533129215	0.687436163	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 10/E	1	Max Conc	1	44000	4.03476429	0.348995119	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 9/E	1	Max Conc	0.5	22000	6.144259453	0.683741629	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 9/E	1	Max Conc	1	44000	3.637792349	0.351255178	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 8/E	1	Max Conc	0.5	22000	7.652117729	0.699619353	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 8/E	1	Max Conc	1	44000	4.098422527	0.355558276	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 7/E	1	Max Conc	0.5	22000	6.050792217	0.671555936	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 7/E	1	Max Conc	1	44000	3.582537174	0.344769627	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 6/E	1	Max Conc	0.5	22000	6.257918835	0.615742147	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 6/E	1	Max Conc	1	44000	3.657864571	0.328558683	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 5/E	1	Max Conc	0.5	22000	5.490998745	0.556503057	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 5/E	1	Max Conc	1	44000	3.36457777	0.309043735	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 4/E	1	Max Conc	0.5	22000	7.608534813	0.724402606	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 4/E	1	Max Conc	1	44000	4.077548504	0.362185895	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 3/E	1	Max Conc	0.5	22000	5.56931448	0.567184925	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 3/E	1	Max Conc	1	44000	3.409750938	0.314891756	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 2/E	1	Max Conc	0.5	22000	6.350911617	0.627224505	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 2/E	1	Max Conc	1	44000	3.711281538	0.334748447	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 1/E	1	Max Conc	0.5	22000	7.487963676	0.712209225	0	0.114641115
Export (1.1xOP)	E_INV011_25mm	25	Category 1/E	1	Max Conc	1	44000	4.014695168	0.355585128	0	0.114641115
Export (1.1xOP)	E_INV011_50mm	50	Category 12/E	1	Max Conc	0.5	22000	12.19970989	1.312665462	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 12/E	1	Max Conc	1	44000	6.173837185	0.681783259	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 11/E	1	Max Conc	0.5	22000	11.8122139	1.286625385	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 11/E	1	Max Conc	1	44000	6.083047867	0.668889403	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 10/E	1	Max Conc	0.5	22000	16.73730278	1.429319143	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 10/E	1	Max Conc	1	44000	7.900398254	0.70092988	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 9/E	1	Max Conc	0.5	22000	14.7864809	1.400921226	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 9/E	1	Max Conc	1	44000	6.968039513	0.703583062	0	0.45856446

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV011_50mm	50	Category 8/E	1	Max Conc	0.5	22000	17.10862923	1.457132697	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 8/E	1	Max Conc	1	44000	8.035005569	0.713730335	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 7/E	1	Max Conc	0.5	22000	14.40411377	1.373987317	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 7/E	1	Max Conc	1	44000	6.85620451	0.691312671	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 6/E	1	Max Conc	0.5	22000	13.32288074	1.260985613	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 6/E	1	Max Conc	1	44000	6.96041441	0.658999383	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 5/E	1	Max Conc	0.5	22000	10.56094742	1.128712535	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 5/E	1	Max Conc	1	44000	6.276913166	0.618878424	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 4/E	1	Max Conc	0.5	22000	17.44626236	1.51305747	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 4/E	1	Max Conc	1	44000	8.023659706	0.726376414	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 3/E	1	Max Conc	0.5	22000	10.8205843	1.152253985	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 3/E	1	Max Conc	1	44000	6.360428333	0.631142378	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 2/E	1	Max Conc	0.5	22000	13.67693806	1.286842585	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 2/E	1	Max Conc	1	44000	7.064513683	0.671084166	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 1/E	1	Max Conc	0.5	22000	17.08803177	1.485600471	0	0.45856446
Export (1.1xOP)	E_INV011_50mm	50	Category 1/E	1	Max Conc	1	44000	7.889869213	0.7135306	0	0.45856446
Export (1.1xOP)	E_INV011_610mm	610	Category 12/E	1	Max Conc	0.5	22000	79.56873322	8.383676529	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 12/E	1	Max Conc	1	44000	56.72290039	6.110293388	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 11/E	1	Max Conc	0.5	22000	85.10054779	8.54997921	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 11/E	1	Max Conc	1	44000	61.05340576	6.182332516	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 10/E	1	Max Conc	0.5	22000	71.34651184	9.635942459	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 10/E	1	Max Conc	1	44000	56.60339355	6.834712982	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 9/E	1	Max Conc	0.5	22000	69.65722656	8.879613876	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 9/E	1	Max Conc	1	44000	53.49158859	6.485928059	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 8/E	1	Max Conc	0.5	22000	66.57262421	9.242612839	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 8/E	1	Max Conc	1	44000	52.67960739	6.648172379	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 7/E	1	Max Conc	0.5	22000	75.92125702	9.142571449	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 7/E	1	Max Conc	1	44000	57.23588943	6.612438202	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 6/E	1	Max Conc	0.5	22000	85.88335419	8.894379616	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 6/E	1	Max Conc	1	44000	62.26214218	6.215369225	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 5/E	1	Max Conc	0.5	22000	101.2693863	8.089439392	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 5/E	1	Max Conc	1	44000	67.87767792	5.630973339	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 4/E	1	Max Conc	0.5	22000	59.51701355	9.261498451	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 4/E	1	Max Conc	1	44000	49.53894806	6.836480618	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 3/E	1	Max Conc	0.5	22000	93.92246246	7.99276495	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 3/E	1	Max Conc	1	44000	63.47276306	5.601722717	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 2/E	1	Max Conc	0.5	22000	80.253479	8.702720642	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 2/E	1	Max Conc	1	44000	57.67066574	6.125243664	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 1/E	1	Max Conc	0.5	22000	65.40691376	9.671637535	0	15.29050255
Export (1.1xOP)	E_INV011_610mm	610	Category 1/E	1	Max Conc	1	44000	53.7768631	7.054134846	0	15.29050255
Export (1.1xOP)	E_INV011_203mm	203	Category 12/E	1	Max Conc	0.5	22000	111.4284744	6.348353863	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 12/E	1	Max Conc	1	44000	41.68113327	3.283538103	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 11/E	1	Max Conc	0.5	22000	112.695694	6.301631451	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 11/E	1	Max Conc	1	44000	41.15108871	3.222946167	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 10/E	1	Max Conc	0.5	22000	94.58815002	7.133490086	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 10/E	1	Max Conc	1	44000	40.36433792	3.393069744	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 9/E	1	Max Conc	0.5	22000	104.1311111	6.924928665	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 9/E	1	Max Conc	1	44000	41.6858139	3.457868576	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 8/E	1	Max Conc	0.5	22000	94.93958282	7.170620441	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 8/E	1	Max Conc	1	44000	40.78033066	3.451111317	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 7/E	1	Max Conc	0.5	22000	104.6886978	6.886360168	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 7/E	1	Max Conc	1	44000	41.14294052	3.397659779	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 6/E	1	Max Conc	0.5	22000	103.1034851	6.241729259	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 6/E	1	Max Conc	1	44000	40.51302719	3.132060051	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 5/E	1	Max Conc	0.5	22000	110.2851563	5.534076691	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 5/E	1	Max Conc	1	44000	40.1619873	2.88501811	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 4/E	1	Max Conc	0.5	22000	96.98369598	7.622288227	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 4/E	1	Max Conc	1	44000	41.55302048	3.629191637	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 3/E	1	Max Conc	0.5	22000	109.7830734	5.6017313	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 3/E	1	Max Conc	1	44000	40.64424133	2.941151619	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 2/E	1	Max Conc	0.5	22000	102.841629	6.300087452	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 2/E	1	Max Conc	1	44000	40.89384079	3.191199541	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 1/E	1	Max Conc	0.5	22000	96.80952454	7.593233585	0	7.558792114
Export (1.1xOP)	E_INV011_203mm	203	Category 1/E	1	Max Conc	1	44000	41.04803467	3.567269802	0	7.558792114
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 12/E	1	Max Conc	0.5	22000	27.73345566	3.648032665	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 12/E	1	Max Conc	1	44000	25.53587151	2.802053928	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 11/E	1	Max Conc	0.5	22000	75.60638428	4.233855247	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 11/E	1	Max Conc	1	44000	0.718680382	0.137660846	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 10/E	1	Max Conc	0.5	22000	56.02201843	8.167497635	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 10/E	1	Max Conc	1	44000	29.6397953	4.268951893	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 9/E	1	Max Conc	0.5	22000	98.28639221	4.980504036	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 9/E	1	Max Conc	1	44000	51.08547592	3.381762266	0	0.528650582

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 8/E	1	Max Conc	0.5	22000	58.17145157	6.816452503	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 8/E	1	Max Conc	1	44000	31.79079819	4.564162731	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 7/E	1	Max Conc	0.5	22000	96.61364746	6.440142155	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 7/E	1	Max Conc	1	44000	47.64185715	3.576506615	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 6/E	1	Max Conc	0.5	22000	35.65689087	3.219062567	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 6/E	1	Max Conc	1	44000	0.69622761	0.118658386	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 5/E	1	Max Conc	0.5	22000	24.25491524	1.997123718	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 5/E	1	Max Conc	1	44000	12.21171761	0.733567834	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 4/E	1	Max Conc	0.5	22000	116.3890533	12.390378	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 4/E	1	Max Conc	1	44000	38.90511322	9.491888046	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 3/E	1	Max Conc	0.5	22000	25.66903305	1.961236954	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 3/E	1	Max Conc	1	44000	14.90574455	1.095009327	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 2/E	1	Max Conc	0.5	22000	36.14702225	3.442532301	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 2/E	1	Max Conc	1	44000	22.74447441	1.797505021	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 1/E	1	Max Conc	0.5	22000	104.5284119	14.29092789	0	0.528650582
Export (1.1xOP)	E_INV012_25mm (all)	25	Category 1/E	1	Max Conc	1	44000	31.92197037	9.92899704	0	0.528650582
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 12/E	1	Max Conc	0.5	22000	177.8161163	11.07664013	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 12/E	1	Max Conc	1	44000	100.0175476	7.90080595	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 11/E	1	Max Conc	0.5	22000	163.7731781	11.7756176	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 11/E	1	Max Conc	1	44000	88.50827789	8.06467247	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 10/E	1	Max Conc	0.5	22000	89.91009521	23.42276001	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 10/E	1	Max Conc	1	44000	44.41337204	17.28018379	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 9/E	1	Max Conc	0.5	22000	222.0697784	16.40604591	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 9/E	1	Max Conc	1	44000	120.5784531	12.45182228	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 8/E	1	Max Conc	0.5	22000	90.56781769	22.18626022	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 8/E	1	Max Conc	1	44000	43.23561096	16.86394501	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 7/E	1	Max Conc	0.5	22000	211.533432	17.52852058	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 7/E	1	Max Conc	1	44000	112.8934784	12.98101711	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 6/E	1	Max Conc	0.5	22000	71.94036102	10.70934582	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 6/E	1	Max Conc	1	44000	43.17857361	6.531620502	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 5/E	1	Max Conc	0.5	22000	56.1950531	7.162705421	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 5/E	1	Max Conc	1	44000	31.30029869	2.267632961	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 4/E	1	Max Conc	0.5	22000	193.8802185	34.05302811	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 4/E	1	Max Conc	1	44000	52.69779587	28.3780117	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 3/E	1	Max Conc	0.5	22000	56.66566467	6.763061047	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 3/E	1	Max Conc	1	44000	36.21097183	4.064216614	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 2/E	1	Max Conc	0.5	22000	74.98014069	10.28562641	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 2/E	1	Max Conc	1	44000	45.55596542	6.781552315	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 1/E	1	Max Conc	0.5	22000	188.5472565	37.39698792	0	2.114602327
Export (1.1xOP)	E_INV012_50mm (all)	50	Category 1/E	1	Max Conc	1	44000	51.90207291	30.18102455	0	2.114602327
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 12/E	1	Max Conc	0.5	22000	600.769043	85.06371307	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 12/E	1	Max Conc	1	44000	328.3143005	71.88645172	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 11/E	1	Max Conc	0.5	22000	579.22052	85.90700531	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 11/E	1	Max Conc	1	44000	314.9983521	72.09467316	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 10/E	1	Max Conc	0.5	22000	276.9287415	198.4770203	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 10/E	1	Max Conc	1	44000	134.0979919	166.3586884	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 9/E	1	Max Conc	0.5	22000	699.1375732	132.570816	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 9/E	1	Max Conc	1	44000	355.6539307	113.0787354	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 8/E	1	Max Conc	0.5	22000	264.9978638	202.4568176	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 8/E	1	Max Conc	1	44000	126.2790604	170.223175	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 7/E	1	Max Conc	0.5	22000	697.7462158	131.2124634	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 7/E	1	Max Conc	1	44000	361.9761353	111.5024033	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 6/E	1	Max Conc	0.5	22000	199.852356	86.29405975	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 6/E	1	Max Conc	1	44000	104.6419525	70.66136169	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 5/E	1	Max Conc	0.5	22000	179.6446075	58.19910812	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 5/E	1	Max Conc	1	44000	104.7320786	46.28826523	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 4/E	1	Max Conc	0.5	22000	823.4182739	267.0620422	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 4/E	1	Max Conc	1	44000	301.3181763	232.461731	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 3/E	1	Max Conc	0.5	22000	184.7918701	57.36920547	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 3/E	1	Max Conc	1	44000	106.4690933	46.25946045	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 2/E	1	Max Conc	0.5	22000	200.6797333	86.08359528	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 2/E	1	Max Conc	1	44000	102.1821442	71.14800262	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 1/E	1	Max Conc	0.5	22000	901.0283203	256.0725403	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (1hr)	203	Category 1/E	1	Max Conc	1	44000	371.1433105	220.1938782	0	34.85625839
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 12/E	1	Max Conc	0.5	22000	1157.976074	332.3052063	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 12/E	1	Max Conc	1	44000	595.7479858	293.2460632	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 11/E	1	Max Conc	0.5	22000	1485.977295	331.1917419	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 11/E	1	Max Conc	1	44000	761.6211548	291.2680359	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 10/E	1	Max Conc	0.5	22000	754.8642578	920.6855469	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 10/E	1	Max Conc	1	44000	312.5814514	808.6606445	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 9/E	1	Max Conc	0.5	22000	1454.232544	546.7070313	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 9/E	1	Max Conc	1	44000	714.2781982	483.4776611	0	314.7374268

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 8/E	1	Max Conc	0.5	22000	727.9053345	874.2966919	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 8/E	1	Max Conc	1	44000	274.0691833	769.7305908	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 7/E	1	Max Conc	0.5	22000	1820.583008	539.1157837	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 7/E	1	Max Conc	1	44000	863.9988403	476.5710144	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 6/E	1	Max Conc	0.5	22000	661.0722656	353.651947	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 6/E	1	Max Conc	1	44000	364.1159363	308.826416	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 5/E	1	Max Conc	0.5	22000	463.2559814	226.2398987	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 5/E	1	Max Conc	1	44000	245.2568512	196.6224213	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 4/E	1	Max Conc	0.5	22000	1765.297607	1025.930786	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 4/E	1	Max Conc	1	44000	469.4974976	917.0249634	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 3/E	1	Max Conc	0.5	22000	456.488739	222.5622559	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 3/E	1	Max Conc	1	44000	234.2846375	194.5445862	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 2/E	1	Max Conc	0.5	22000	495.3276978	353.547699	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 2/E	1	Max Conc	1	44000	222.1946106	310.0278931	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 1/E	1	Max Conc	0.5	22000	1958.559937	978.0366211	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (1hr)	610	Category 1/E	1	Max Conc	1	44000	620.0792236	874.3286133	0	314.7374268
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 12/E	1	Max Conc	0.5	22000	1.846608639	0.373638868	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 12/E	1	Max Conc	1	44000	0.784778774	0.126960099	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 11/E	1	Max Conc	0.5	22000	1.843852997	0.351942003	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 11/E	1	Max Conc	1	44000	0.721602678	0.118389547	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 10/E	1	Max Conc	0.5	22000	0.50282383	0.0645224	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 10/E	1	Max Conc	1	44000	0.461761236	0.057915621	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 9/E	1	Max Conc	0.5	22000	0.554394901	0.08482562	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 9/E	1	Max Conc	1	44000	0.492289364	0.074871093	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 8/E	1	Max Conc	0.5	22000	0.523706496	0.06810271	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 8/E	1	Max Conc	1	44000	0.472774506	0.059733693	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 7/E	1	Max Conc	0.5	22000	0.523574531	0.079678535	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 7/E	1	Max Conc	1	44000	0.481849611	0.070142575	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 6/E	1	Max Conc	0.5	22000	0.776147962	0.110824913	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 6/E	1	Max Conc	1	44000	0.590122879	0.084859483	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 5/E	1	Max Conc	0.5	22000	5.956063271	0.444371641	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 5/E	1	Max Conc	1	44000	1.363742709	0.134722456	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 4/E	1	Max Conc	0.5	22000	0.462304741	0.056034975	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 4/E	1	Max Conc	1	44000	0.406922132	0.054551795	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 3/E	1	Max Conc	0.5	22000	8.547412872	0.562461972	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 3/E	1	Max Conc	1	44000	4.251455307	0.253559291	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 2/E	1	Max Conc	0.5	22000	0.862997949	0.121405937	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 2/E	1	Max Conc	1	44000	0.61402905	0.091673188	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 1/E	1	Max Conc	0.5	22000	0.451093078	0.054659784	0	0.084584087
Export (1.1xOP)	E_INV012_10mm (all)	10	Category 1/E	1	Max Conc	1	44000	0.402395546	0.051663827	0	0.084584087
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 12/E	1	Max Conc	0.5	22000	576.9529419	62.81963348	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 12/E	1	Max Conc	1	44000	322.9903564	53.35445404	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 11/E	1	Max Conc	0.5	22000	556.6610718	63.20635605	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 11/E	1	Max Conc	1	44000	310.0719299	53.35648727	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 10/E	1	Max Conc	0.5	22000	281.2072144	152.4064331	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 10/E	1	Max Conc	1	44000	141.5521545	128.4889526	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 9/E	1	Max Conc	0.5	22000	664.0565796	103.0352707	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 9/E	1	Max Conc	1	44000	342.7913818	87.87314606	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 8/E	1	Max Conc	0.5	22000	266.8312378	160.0289307	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 8/E	1	Max Conc	1	44000	125.2416382	134.9113007	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 7/E	1	Max Conc	0.5	22000	660.9382935	99.01958466	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 7/E	1	Max Conc	1	44000	347.7501221	84.3820343	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 6/E	1	Max Conc	0.5	22000	198.5660095	63.51845169	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 6/E	1	Max Conc	1	44000	112.3266068	52.45263672	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 5/E	1	Max Conc	0.5	22000	181.9022217	40.40396881	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 5/E	1	Max Conc	1	44000	107.5271301	32.94055176	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 4/E	1	Max Conc	0.5	22000	763.9674072	220.2226868	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 4/E	1	Max Conc	1	44000	275.1103821	194.3829193	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 3/E	1	Max Conc	0.5	22000	186.2649078	40.14175797	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 3/E	1	Max Conc	1	44000	108.7960739	33.08658218	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 2/E	1	Max Conc	0.5	22000	203.1199951	63.88500595	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 2/E	1	Max Conc	1	44000	118.6728058	53.17290878	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 1/E	1	Max Conc	0.5	22000	818.8137817	206.3013611	0	34.85625839
Export (1.1xOP)	E_INV012_203mm (2min)	203	Category 1/E	1	Max Conc	1	44000	330.5070801	179.0915375	0	34.85625839
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 12/E	1	Max Conc	0.5	22000	972.1499634	101.7345886	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 12/E	1	Max Conc	1	44000	542.1548462	88.46910095	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 11/E	1	Max Conc	0.5	22000	884.0662842	105.9053345	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 11/E	1	Max Conc	1	44000	483.2529297	91.17971802	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 10/E	1	Max Conc	0.5	22000	471.613739	234.0903473	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 10/E	1	Max Conc	1	44000	232.1174011	203.4711914	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 9/E	1	Max Conc	0.5	22000	1049.640137	169.6313324	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 9/E	1	Max Conc	1	44000	531.4128418	148.4254608	0	314.7374268

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 8/E	1	Max Conc	0.5	22000	448.1607971	246.0685272	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 8/E	1	Max Conc	1	44000	204.1032867	215.1371613	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 7/E	1	Max Conc	0.5	22000	1059.52002	165.6705475	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 7/E	1	Max Conc	1	44000	552.123291	144.6697235	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 6/E	1	Max Conc	0.5	22000	378.4767151	94.11128235	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 6/E	1	Max Conc	1	44000	225.1201324	80.71924591	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 5/E	1	Max Conc	0.5	22000	280.9355164	59.26912308	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 5/E	1	Max Conc	1	44000	167.3984985	49.70225143	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 4/E	1	Max Conc	0.5	22000	1084.19104	399.6620178	2.356906	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 4/E	1	Max Conc	1	44000	372.0961304	352.5562744	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 3/E	1	Max Conc	0.5	22000	311.9733582	54.23129654	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 3/E	1	Max Conc	1	44000	187.0270996	46.21715927	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 2/E	1	Max Conc	0.5	22000	402.8074341	96.25730896	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 2/E	1	Max Conc	1	44000	236.830307	83.47207642	0	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 1/E	1	Max Conc	0.5	22000	1189.062256	361.9212341	2.351142	314.7374268
Export (1.1xOP)	E_INV012_610mm (2min)	610	Category 1/E	1	Max Conc	1	44000	471.8297119	324.835907	0	314.7374268
Export (1.1xOP)	E_INV013_25mm	25	Category 12/E	1	Max Conc	0.5	22000	35.99276352	2.908699989	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 12/E	1	Max Conc	1	44000	14.20160103	1.322639227	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 11/E	1	Max Conc	0.5	22000	34.8598175	2.846503019	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 11/E	1	Max Conc	1	44000	13.84974575	1.298907518	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 10/E	1	Max Conc	0.5	22000	35.2843399	3.012619972	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 10/E	1	Max Conc	1	44000	15.57704639	1.352834582	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 9/E	1	Max Conc	0.5	22000	36.50829315	3.06523633	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 9/E	1	Max Conc	1	44000	15.08300209	1.353916883	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 8/E	1	Max Conc	0.5	22000	36.21897125	3.081129789	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 8/E	1	Max Conc	1	44000	15.92991066	1.379120111	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 7/E	1	Max Conc	0.5	22000	35.45715332	3.002089739	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 7/E	1	Max Conc	1	44000	14.68266869	1.330575347	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 6/E	1	Max Conc	0.5	22000	34.71921921	2.771187305	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 6/E	1	Max Conc	1	44000	14.49562359	1.301451802	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 5/E	1	Max Conc	0.5	22000	33.67501831	2.541985273	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 5/E	1	Max Conc	1	44000	13.43930721	1.243451834	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 4/E	1	Max Conc	0.5	22000	36.8675499	3.2426126	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 4/E	1	Max Conc	1	44000	16.00369644	1.388813019	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 3/E	1	Max Conc	0.5	22000	34.72973633	2.595786572	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 3/E	1	Max Conc	1	44000	13.77730465	1.266793251	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 2/E	1	Max Conc	0.5	22000	35.75992203	2.829221249	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 2/E	1	Max Conc	1	44000	14.84196568	1.324633241	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 1/E	1	Max Conc	0.5	22000	35.91734695	3.170548439	0	2.866741419
Export (1.1xOP)	E_INV013_25mm	25	Category 1/E	1	Max Conc	1	44000	15.65515423	1.362479806	0	2.866741419
Export (1.1xOP)	E_INV013_50mm	50	Category 12/E	1	Max Conc	0.5	22000	84.24774933	6.315689564	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 12/E	1	Max Conc	1	44000	36.29019547	3.072785616	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 11/E	1	Max Conc	0.5	22000	80.91790009	6.172685623	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 11/E	1	Max Conc	1	44000	35.31138992	3.015449524	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 10/E	1	Max Conc	0.5	22000	75.39889526	6.577112675	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 10/E	1	Max Conc	1	44000	34.85707474	3.066616774	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 9/E	1	Max Conc	0.5	22000	81.88800049	6.698642731	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 9/E	1	Max Conc	1	44000	36.41955185	3.170535088	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 8/E	1	Max Conc	0.5	22000	78.14488983	6.732391834	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 8/E	1	Max Conc	1	44000	35.74184799	3.1308074	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 7/E	1	Max Conc	0.5	22000	78.57776642	6.546401978	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 7/E	1	Max Conc	1	44000	35.47019577	3.104272842	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 6/E	1	Max Conc	0.5	22000	78.06116486	6.059193134	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 6/E	1	Max Conc	1	44000	34.7931366	2.93212533	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 5/E	1	Max Conc	0.5	22000	80.87081909	5.586329937	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 5/E	1	Max Conc	1	44000	34.54466629	2.791719437	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 4/E	1	Max Conc	0.5	22000	79.67784119	7.120066166	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 4/E	1	Max Conc	1	44000	36.49834061	3.270015001	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 3/E	1	Max Conc	0.5	22000	84.02616119	5.718070507	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 3/E	1	Max Conc	1	44000	35.62887955	2.847762585	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 2/E	1	Max Conc	0.5	22000	81.10667419	6.202282429	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 2/E	1	Max Conc	1	44000	35.75619507	2.987589836	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 1/E	1	Max Conc	0.5	22000	76.62890625	6.949890137	0	11.46696568
Export (1.1xOP)	E_INV013_50mm	50	Category 1/E	1	Max Conc	1	44000	35.57923889	3.200488091	0	11.46696568
Export (1.1xOP)	E_INV013_85mm	85	Category 12/E	1	Max Conc	0.5	22000	112.3602753	8.510712624	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 12/E	1	Max Conc	1	44000	52.7726326	4.372410297	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 11/E	1	Max Conc	0.5	22000	106.5647049	8.318516731	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 11/E	1	Max Conc	1	44000	51.30118942	4.291293144	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 10/E	1	Max Conc	0.5	22000	99.09492493	8.936523438	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 10/E	1	Max Conc	1	44000	48.95388412	4.347069263	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 9/E	1	Max Conc	0.5	22000	108.0196381	9.043826103	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 9/E	1	Max Conc	1	44000	52.17002869	4.518960953	0	20.83184814

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV013_85mm	85	Category 8/E	1	Max Conc	0.5	22000	103.4700699	9.177676201	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 8/E	1	Max Conc	1	44000	50.25217056	4.432312489	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 7/E	1	Max Conc	0.5	22000	102.5885849	8.822590828	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 7/E	1	Max Conc	1	44000	50.74378586	4.427689552	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 6/E	1	Max Conc	0.5	22000	103.2621613	8.269874573	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 6/E	1	Max Conc	1	44000	49.64769363	4.156907082	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 5/E	1	Max Conc	0.5	22000	108.1851425	7.657699585	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 5/E	1	Max Conc	1	44000	50.30168915	3.959853888	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 4/E	1	Max Conc	0.5	22000	104.4084473	9.643285751	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 4/E	1	Max Conc	1	44000	51.64209747	4.666352272	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 3/E	1	Max Conc	0.5	22000	113.5565643	7.830931187	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 3/E	1	Max Conc	1	44000	51.79033279	4.035945892	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 2/E	1	Max Conc	0.5	22000	108.1757431	8.471936226	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 2/E	1	Max Conc	1	44000	51.04809189	4.234276772	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 1/E	1	Max Conc	0.5	22000	99.49103546	9.380427361	0	20.83184814
Export (1.1xOP)	E_INV013_85mm	85	Category 1/E	1	Max Conc	1	44000	50.31573486	4.570895195	0	20.83184814
Export (1.1xOP)	E_INV013_254mm	254	Category 12/E	1	Max Conc	0.5	22000	107.4021149	8.35888958	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 12/E	1	Max Conc	1	44000	51.57791901	4.310193539	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 11/E	1	Max Conc	0.5	22000	101.7856293	8.163154602	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 11/E	1	Max Conc	1	44000	50.04672241	4.229462147	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 10/E	1	Max Conc	0.5	22000	95.66819	8.761627197	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 10/E	1	Max Conc	1	44000	48.07836151	4.285079479	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 9/E	1	Max Conc	0.5	22000	103.3879318	8.867276192	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 9/E	1	Max Conc	1	44000	51.01704788	4.447416782	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 8/E	1	Max Conc	0.5	22000	99.73549652	8.979218483	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 8/E	1	Max Conc	1	44000	49.15147781	4.365074158	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 7/E	1	Max Conc	0.5	22000	98.47232819	8.650170326	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 7/E	1	Max Conc	1	44000	49.54863358	4.363514423	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 6/E	1	Max Conc	0.5	22000	99.31886292	8.114858627	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 6/E	1	Max Conc	1	44000	48.59617615	4.096422672	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 5/E	1	Max Conc	0.5	22000	103.748024	7.519519806	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 5/E	1	Max Conc	1	44000	49.04632568	3.900979996	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 4/E	1	Max Conc	0.5	22000	100.202774	9.428750992	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 4/E	1	Max Conc	1	44000	50.52629471	4.589861393	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 3/E	1	Max Conc	0.5	22000	108.9378281	7.69730711	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 3/E	1	Max Conc	1	44000	50.57162094	3.978436232	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 2/E	1	Max Conc	0.5	22000	104.0116272	8.310531616	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 2/E	1	Max Conc	1	44000	49.9117012	4.175207138	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 1/E	1	Max Conc	0.5	22000	95.76381683	9.187259674	0	20.27227783
Export (1.1xOP)	E_INV013_254mm	254	Category 1/E	1	Max Conc	1	44000	49.1328392	4.494973183	0	20.27227783
Export (1.1xOP)	E_INV013_10mm	10	Category 12/E	1	Max Conc	0.5	22000	9.12829113	1.009690166	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 12/E	1	Max Conc	1	44000	5.118451118	0.515515089	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 11/E	1	Max Conc	0.5	22000	8.892988205	0.991383076	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 11/E	1	Max Conc	1	44000	5.033715248	0.506884515	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 10/E	1	Max Conc	0.5	22000	11.79311466	1.052240372	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 10/E	1	Max Conc	1	44000	5.899084568	0.519986808	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 9/E	1	Max Conc	0.5	22000	10.54165459	1.048584104	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 9/E	1	Max Conc	1	44000	5.555511475	0.525393903	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 8/E	1	Max Conc	0.5	22000	12.06843853	1.070870399	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 8/E	1	Max Conc	1	44000	6.02166605	0.528628528	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 7/E	1	Max Conc	0.5	22000	10.27007103	1.031502843	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 7/E	1	Max Conc	1	44000	5.45473814	0.517116845	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 6/E	1	Max Conc	0.5	22000	10.01830101	0.980315089	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 6/E	1	Max Conc	1	44000	5.495575905	0.502969444	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 5/E	1	Max Conc	0.5	22000	8.707751274	0.913456678	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 5/E	1	Max Conc	1	44000	5.107109547	0.484304219	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 4/E	1	Max Conc	0.5	22000	12.18299103	1.087974906	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 4/E	1	Max Conc	1	44000	6.01424408	0.534135163	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 3/E	1	Max Conc	0.5	22000	8.878820419	0.928551733	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 3/E	1	Max Conc	1	44000	5.210432053	0.492229909	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 2/E	1	Max Conc	0.5	22000	10.24781036	0.997188151	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 2/E	1	Max Conc	1	44000	5.595618725	0.511208177	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 1/E	1	Max Conc	0.5	22000	11.91155338	1.069495678	0	0.458678603
Export (1.1xOP)	E_INV013_10mm	10	Category 1/E	1	Max Conc	1	44000	5.892001629	0.525261104	0	0.458678603
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 12/E	1	Max Conc	0.5	22000	209.8359375	13.60610867	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 12/E	1	Max Conc	1	44000	118.0266495	10.14401722	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 11/E	1	Max Conc	0.5	22000	193.0419464	14.64502811	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 11/E	1	Max Conc	1	44000	103.6747742	10.6063652	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 10/E	1	Max Conc	0.5	22000	109.8959732	30.07896996	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 10/E	1	Max Conc	1	44000	57.02532959	22.63162613	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 9/E	1	Max Conc	0.5	22000	190.1398621	19.38018036	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 9/E	1	Max Conc	1	44000	81.13286591	15.46478653	0	2.990689516

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 8/E	1	Max Conc	0.5	22000	112.193367	26.60903168	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 8/E	1	Max Conc	1	44000	55.92822266	20.79219246	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 7/E	1	Max Conc	0.5	22000	242.7970734	21.4027462	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 7/E	1	Max Conc	1	44000	127.0364304	16.60400391	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 6/E	1	Max Conc	0.5	22000	85.66718292	13.56007862	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 6/E	1	Max Conc	1	44000	52.73828125	9.072760582	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 5/E	1	Max Conc	0.5	22000	66.99229431	9.245802879	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 5/E	1	Max Conc	1	44000	40.25977325	4.871399879	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 4/E	1	Max Conc	0.5	22000	240.5818634	41.23934937	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 4/E	1	Max Conc	1	44000	69.61729431	33.87574768	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 3/E	1	Max Conc	0.5	22000	66.91203308	8.925992012	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 3/E	1	Max Conc	1	44000	42.25486755	5.561218739	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 2/E	1	Max Conc	0.5	22000	88.80593872	12.93732166	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 2/E	1	Max Conc	1	44000	54.95899963	9.08939743	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 1/E	1	Max Conc	0.5	22000	224.0315704	49.17869949	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (1m)	50	Category 1/E	1	Max Conc	1	44000	62.76570892	39.64517975	0	2.990689516
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 12/E	1	Max Conc	0.5	22000	38797.86328	5645.808594	-806.853	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 12/E	1	Max Conc	1	44000	13992.75684	5022.45752	-688.997	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 11/E	1	Max Conc	0.5	22000	38625.64063	5733.025879	-809.042	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 11/E	1	Max Conc	1	44000	15150.62598	5083.697266	-693.36	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 10/E	1	Max Conc	0.5	22000	5564.970703	7296.475098	-3089.26	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 10/E	1	Max Conc	1	44000	3775.692871	6432.403809	-2667.39	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 9/E	1	Max Conc	0.5	22000	46046.51563	8753.753906	-1472.25	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 9/E	1	Max Conc	1	44000	15574.2168	7843.882324	-1228.84	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 8/E	1	Max Conc	0.5	22000	6593.584961	6583.236328	-2884.38	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 8/E	1	Max Conc	1	44000	3333.877441	5848.09082	-2514.21	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 7/E	1	Max Conc	0.5	22000	50377.13672	8540.871094	-1568.2	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 7/E	1	Max Conc	1	44000	19672.63086	7641.106934	-1291.93	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 6/E	1	Max Conc	0.5	22000	13622.7334	7151.468262	-1038.82	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 6/E	1	Max Conc	1	44000	5747.195801	6366.802734	-838.396	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 5/E	1	Max Conc	0.5	22000	10992.16113	4460.859863	-651.893	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 5/E	1	Max Conc	1	44000	6128.632324	3797.954834	-557.201	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 4/E	1	Max Conc	0.5	22000	28429.00781	6883.740234	-3153.62	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 4/E	1	Max Conc	1	44000	3500.508301	6254.351074	-2809.55	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 3/E	1	Max Conc	0.5	22000	9819.587891	2239.6875	-653.521	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 3/E	1	Max Conc	1	44000	5105.319336	1680.858521	-560.125	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 2/E	1	Max Conc	0.5	22000	13381.92578	7167.609863	-970.629	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 2/E	1	Max Conc	1	44000	5401.813965	6395.133301	-806.6	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 1/E	1	Max Conc	0.5	22000	26238.71484	7432.920898	-3347.46	67776677.85
Export (1.1xOP)	E_INV014_Rupture (1m)		Category 1/E	1	Max Conc	1	44000	3694.791016	6633.990234	-2938.93	67776677.85
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 10/E	1	Max Conc	0.5	22000	1221.757813	1850.406006	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 10/E	1	Max Conc	1	44000	410.3387756	1620.005615	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	1	Max Conc	0.5	22000	3306.241455	863.3151245	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	1	Max Conc	1	44000	1401.215454	769.0566406	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 8/E	1	Max Conc	0.5	22000	1190.636597	1640.839722	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 8/E	1	Max Conc	1	44000	364.9889221	1441.114746	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 7/E	1	Max Conc	0.5	22000	3387.297852	986.2524414	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 7/E	1	Max Conc	1	44000	1506.869507	855.1389771	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 6/E	1	Max Conc	0.5	22000	1159.521118	709.442749	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 6/E	1	Max Conc	1	44000	590.6073608	626.8158569	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 5/E	1	Max Conc	0.5	22000	797.8655396	642.2857056	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 5/E	1	Max Conc	1	44000	397.246521	564.6955566	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 4/E	1	Max Conc	0.5	22000	2849.613525	2277.763672	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 4/E	1	Max Conc	1	44000	536.7939453	2015.98877	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	1	Max Conc	0.5	22000	806.8087158	634.170105	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	1	Max Conc	1	44000	388.3905029	559.1127319	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 2/E	1	Max Conc	0.5	22000	877.8222656	708.7834473	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 2/E	1	Max Conc	1	44000	361.79953	626.4678955	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 1/E	1	Max Conc	0.5	22000	3182.423828	2479.675781	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 1/E	1	Max Conc	1	44000	764.8450928	2189.872314	0	1196.275757
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 12/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 12/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 11/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 11/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 10/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 10/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 9/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 9/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 8/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 8/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 7/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 7/E	1	Max Conc	1	44000	0	0	0	2.990689516

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 6/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 6/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 5/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 5/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 4/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 4/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 3/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 3/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 2/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 2/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 1/E	1	Max Conc	0.5	22000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_50mm (2/3H)	50	Category 1/E	1	Max Conc	1	44000	0	0	0	2.990689516
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 12/E	1	Max Conc	0.5	22000	38797.23828	5640.975098	-796.318	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 12/E	1	Max Conc	1	44000	12604.56445	5017.775879	-672.613	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 11/E	1	Max Conc	0.5	22000	40920.92578	5722.334473	-791.276	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 11/E	1	Max Conc	1	44000	20671.5	5074.177246	-664.842	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 10/E	1	Max Conc	0.5	22000	6213.87207	7048.317383	-2657.81	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 10/E	1	Max Conc	1	44000	3973.679199	6227.070313	-2253.8	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 9/E	1	Max Conc	0.5	22000	42149.54688	8758.217773	-1317.44	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 9/E	1	Max Conc	1	44000	13806.11133	7847.367188	-1087.04	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 8/E	1	Max Conc	0.5	22000	6933.647949	6687.009766	-2567.07	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 8/E	1	Max Conc	1	44000	3756.834717	5954.174316	-2197.71	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 7/E	1	Max Conc	0.5	22000	49617.23438	8556.794922	-1322.21	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 7/E	1	Max Conc	1	44000	18457.67578	7655.586914	-1079.14	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 6/E	1	Max Conc	0.5	22000	11993.61621	7153.175781	-798.314	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 6/E	1	Max Conc	1	44000	4662.190918	6368.479492	-659.199	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 5/E	1	Max Conc	0.5	22000	10188.93457	4463.105469	-550.052	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 5/E	1	Max Conc	1	44000	5095.449219	3798.087891	-457.082	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 4/E	1	Max Conc	0.5	22000	24308.18945	6861.518555	-2827.88	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 4/E	1	Max Conc	1	44000	3722.696777	6220.325195	-2497.91	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 3/E	1	Max Conc	0.5	22000	7448.34668	2525.898682	-552.717	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 3/E	1	Max Conc	1	44000	3565.953125	2234.643799	-454.119	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 2/E	1	Max Conc	0.5	22000	13628.2207	7158.146484	-816.43	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 2/E	1	Max Conc	1	44000	6725.993652	6386.203125	-675.5	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 1/E	1	Max Conc	0.5	22000	22546.70508	7236.030273	-2923.15	67776677.85
Export (1.1xOP)	E_INV014_Rupture (2/3H)		Category 1/E	1	Max Conc	1	44000	3953.255859	6496.442871	-2543.48	67776677.85
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 10/E	1	Max Conc	0.5	22000	1577.647339	1409.988892	13.3573	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 10/E	1	Max Conc	1	44000	723.4765625	1197.752197	13.3573	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	1	Max Conc	0.5	22000	3150.552246	732.5377197	12.94704	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	1	Max Conc	1	44000	1115.005981	630.3071289	12.94704	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 8/E	1	Max Conc	0.5	22000	1756.194336	1069.494141	13.36383	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 8/E	1	Max Conc	1	44000	679.4740601	920.4406128	13.36383	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 7/E	1	Max Conc	0.5	22000	2723.854004	885.4801636	12.95186	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 7/E	1	Max Conc	1	44000	944.7710571	757.7786255	12.95186	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 6/E	1	Max Conc	0.5	22000	1277.890137	607.6224365	13.84548	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 6/E	1	Max Conc	1	44000	670.2329102	522.1588745	13.84548	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 5/E	1	Max Conc	0.5	22000	1205.563354	381.8503113	11.73502	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 5/E	1	Max Conc	1	44000	717.2375488	323.6280518	11.73502	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 4/E	1	Max Conc	0.5	22000	4332.722656	1277.623291	12.77844	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 4/E	1	Max Conc	1	44000	1064.605957	1106.632446	12.77844	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	1	Max Conc	0.5	22000	1256.43335	341.4928894	4.767755	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	1	Max Conc	1	44000	728.652771	291.9386292	11.33766	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 2/E	1	Max Conc	0.5	22000	1355.399536	535.6433105	13.64386	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 2/E	1	Max Conc	1	44000	687.4925537	463.0369568	13.64386	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 1/E	1	Max Conc	0.5	22000	3663.687744	1720.280029	12.76461	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 1/E	1	Max Conc	1	44000	998.1903076	1471.838379	12.76461	1196.275757
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 12/E	1	Max Conc	0.5	15707.78	8.824108124	0.957979918	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 12/E	1	Max Conc	1	31415.56	5.145750999	0.494603127	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 11/E	1	Max Conc	0.5	15707.78	8.626114845	0.941306293	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 11/E	1	Max Conc	1	31415.56	5.069458485	0.485740602	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 10/E	1	Max Conc	0.5	15707.78	11.54394245	0.997670889	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 10/E	1	Max Conc	1	31415.56	5.920603752	0.498182088	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 9/E	1	Max Conc	0.5	15707.78	10.23792744	0.995839357	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 9/E	1	Max Conc	1	31415.56	5.570346832	0.503500521	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 8/E	1	Max Conc	0.5	15707.78	11.78156376	1.015694737	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 8/E	1	Max Conc	1	31415.56	6.025146484	0.50724709	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 7/E	1	Max Conc	0.5	15707.78	9.996888161	0.979068637	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 7/E	1	Max Conc	1	31415.56	5.485444069	0.494991899	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 6/E	1	Max Conc	0.5	15707.78	9.755579948	0.929929495	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 6/E	1	Max Conc	1	31415.56	5.528701782	0.481409937	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 5/E	1	Max Conc	0.5	15707.78	8.599821091	0.866886139	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 5/E	1	Max Conc	1	31415.56	5.15391922	0.463553071	0	0.50954634

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 4/E	1	Max Conc	0.5	15707.78	11.89945984	1.032621145	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 4/E	1	Max Conc	1	31415.56	6.016499043	0.512579441	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 3/E	1	Max Conc	0.5	15707.78	8.734493256	0.88174808	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 3/E	1	Max Conc	1	31415.56	5.241719246	0.472155213	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 2/E	1	Max Conc	0.5	15707.78	9.956199646	0.946401477	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 2/E	1	Max Conc	1	31415.56	5.612449169	0.489865959	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 1/E	1	Max Conc	0.5	15707.78	11.66334248	1.014695406	0	0.50954634
Export (1.1xOP)	E_INV015_25mm (all)	25	Category 1/E	1	Max Conc	1	31415.56	5.912259102	0.50350678	0	0.50954634
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 12/E	1	Max Conc	0.5	15707.78	25.8405323	2.059949398	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 12/E	1	Max Conc	1	31415.56	10.36040497	0.997833073	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 11/E	1	Max Conc	0.5	15707.78	25.18512344	2.028985977	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 11/E	1	Max Conc	1	31415.56	10.16571808	0.980332315	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 10/E	1	Max Conc	0.5	15707.78	26.96089745	2.082762718	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 10/E	1	Max Conc	1	31415.56	12.01789379	1.012668848	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 9/E	1	Max Conc	0.5	15707.78	27.00756645	2.103685379	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 9/E	1	Max Conc	1	31415.56	11.29597473	1.018934727	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 8/E	1	Max Conc	0.5	15707.78	27.52190018	2.107861996	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 8/E	1	Max Conc	1	31415.56	12.21028709	1.031317711	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 7/E	1	Max Conc	0.5	15707.78	26.38844681	2.077627659	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 7/E	1	Max Conc	1	31415.56	11.06898689	0.999537051	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 6/E	1	Max Conc	0.5	15707.78	25.75310326	1.997513533	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 6/E	1	Max Conc	1	31415.56	10.93847656	0.97409004	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 5/E	1	Max Conc	0.5	15707.78	23.82856941	1.851069689	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 5/E	1	Max Conc	1	31415.56	9.98971653	0.937087715	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 4/E	1	Max Conc	0.5	15707.78	27.84662437	2.117190361	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 4/E	1	Max Conc	1	31415.56	12.22684956	1.037161231	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 3/E	1	Max Conc	0.5	15707.78	24.49426842	1.887190819	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 3/E	1	Max Conc	1	31415.56	10.17466736	0.954291642	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 2/E	1	Max Conc	0.5	15707.78	26.36438942	2.029201031	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 2/E	1	Max Conc	1	31415.56	11.17926025	0.993397772	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 1/E	1	Max Conc	0.5	15707.78	27.28143501	2.092912912	0	2.038185358
Export (1.1xOP)	E_INV015_50mm (all)	50	Category 1/E	1	Max Conc	1	31415.56	12.00049019	1.018748045	0	2.038185358
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 12/E	1	Max Conc	0.5	15707.78	550.8762817	49.41771317	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 12/E	1	Max Conc	1	31415.56	246.4930878	17.12322235	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 11/E	1	Max Conc	0.5	15707.78	543.3136597	47.82205582	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 11/E	1	Max Conc	1	31415.56	242.4832153	16.80310249	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 10/E	1	Max Conc	0.5	15707.78	439.4403381	53.1811676	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 10/E	1	Max Conc	1	31415.56	213.331665	16.71805763	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 9/E	1	Max Conc	0.5	15707.78	501.0205688	53.33668518	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 9/E	1	Max Conc	1	31415.56	235.5601654	17.86688805	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 8/E	1	Max Conc	0.5	15707.78	445.5607605	54.96327591	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 8/E	1	Max Conc	1	31415.56	217.5805359	17.10036278	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 7/E	1	Max Conc	0.5	15707.78	494.1973877	51.74821091	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 7/E	1	Max Conc	1	31415.56	231.3827362	17.52846718	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 6/E	1	Max Conc	0.5	15707.78	484.5795898	48.2145195	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 6/E	1	Max Conc	1	31415.56	223.0427246	16.02660561	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 5/E	1	Max Conc	0.5	15707.78	537.027832	44.20421982	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 5/E	1	Max Conc	1	31415.56	235.9964447	15.34190369	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 4/E	1	Max Conc	0.5	15707.78	456.0192871	59.07008743	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 4/E	1	Max Conc	1	31415.56	226.575592	18.67897224	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 3/E	1	Max Conc	0.5	15707.78	544.3493042	45.77022171	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 3/E	1	Max Conc	1	31415.56	239.9924011	15.67180157	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 2/E	1	Max Conc	0.5	15707.78	491.25	49.71032715	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 2/E	1	Max Conc	1	31415.56	227.0557861	16.382061	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 1/E	1	Max Conc	0.5	15707.78	449.7303772	57.26213837	0	303.3635254
Export (1.1xOP)	E_INV015_610mm (all)	610	Category 1/E	1	Max Conc	1	31415.56	222.4525604	18.31819153	0	303.3635254
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 12/E	1	Max Conc	0.5	15707.78	1072.262329	129.0386963	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 12/E	1	Max Conc	1	31415.56	506.3797302	50.02695847	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 11/E	1	Max Conc	0.5	15707.78	1065.040161	122.2022934	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 11/E	1	Max Conc	1	31415.56	503.1585693	48.02362823	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 10/E	1	Max Conc	0.5	15707.78	750.9348755	152.9794006	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 10/E	1	Max Conc	1	31415.56	402.7718506	52.74801254	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 9/E	1	Max Conc	0.5	15707.78	912.0097046	142.6220551	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 9/E	1	Max Conc	1	31415.56	458.7636719	54.42170334	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 8/E	1	Max Conc	0.5	15707.78	750.5384521	161.4941406	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 8/E	1	Max Conc	1	31415.56	406.5277405	55.32805252	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 7/E	1	Max Conc	0.5	15707.78	915.1124878	135.0371857	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 7/E	1	Max Conc	1	31415.56	454.8322449	52.13962173	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 6/E	1	Max Conc	0.5	15707.78	926.8602905	130.4129181	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 6/E	1	Max Conc	1	31415.56	449.6323547	48.21143723	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 5/E	1	Max Conc	0.5	15707.78	1007.497803	116.0333862	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 5/E	1	Max Conc	1	31415.56	504.2720337	44.09288025	0	465.0292053

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 4/E	1	Max Conc	0.5	15707.78	756.6501465	167.1517334	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 4/E	1	Max Conc	1	31415.56	413.3504639	59.76641464	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 3/E	1	Max Conc	0.5	15707.78	1018.056824	122.8216019	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 3/E	1	Max Conc	1	31415.56	507.9095764	46.02675247	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 2/E	1	Max Conc	0.5	15707.78	924.6114502	137.7913513	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 2/E	1	Max Conc	1	31415.56	454.0396423	50.42906189	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 1/E	1	Max Conc	0.5	15707.78	757.3123169	158.4738159	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (1hr)	1829	Category 1/E	1	Max Conc	1	31415.56	409.8931885	57.10107422	0	465.0292053
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 12/E	1	Max Conc	0.5	15707.78	3.721801996	0.380457371	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 12/E	1	Max Conc	1	31415.56	2.173651457	0.197457775	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 11/E	1	Max Conc	0.5	15707.78	3.662377357	0.373700589	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 11/E	1	Max Conc	1	31415.56	2.139058828	0.194012374	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 10/E	1	Max Conc	0.5	15707.78	4.617527008	0.392592251	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 10/E	1	Max Conc	1	31415.56	2.403068781	0.199011132	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 9/E	1	Max Conc	0.5	15707.78	4.138533592	0.394212306	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 9/E	1	Max Conc	1	31415.56	2.300384283	0.201145157	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 8/E	1	Max Conc	0.5	15707.78	4.694032192	0.399207175	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 8/E	1	Max Conc	1	31415.56	2.439644337	0.202501982	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 7/E	1	Max Conc	0.5	15707.78	4.071987152	0.387274593	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 7/E	1	Max Conc	1	31415.56	2.262702703	0.197559491	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 6/E	1	Max Conc	0.5	15707.78	4.149801731	0.367762089	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 6/E	1	Max Conc	1	31415.56	2.290744781	0.192181662	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 5/E	1	Max Conc	0.5	15707.78	3.799029112	0.344340891	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 5/E	1	Max Conc	1	31415.56	2.18812418	0.185254768	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 4/E	1	Max Conc	0.5	15707.78	4.67598629	0.407374799	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 4/E	1	Max Conc	1	31415.56	2.433050871	0.204554468	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 3/E	1	Max Conc	0.5	15707.78	3.859219074	0.350405842	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 3/E	1	Max Conc	1	31415.56	2.221620083	0.188618019	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 2/E	1	Max Conc	0.5	15707.78	4.216883183	0.374141425	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 2/E	1	Max Conc	1	31415.56	2.328045368	0.195667982	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 1/E	1	Max Conc	0.5	15707.78	4.599532127	0.400467962	0	0.081527412
Export (1.1xOP)	E_INV015_10mm (all)	10	Category 1/E	1	Max Conc	1	31415.56	2.396884203	0.201059118	0	0.081527412
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 12/E	1	Max Conc	0.5	15707.78	1072.262817	129.0437927	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 12/E	1	Max Conc	1	31415.56	506.3797302	50.02695847	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 11/E	1	Max Conc	0.5	15707.78	1065.040527	122.1859512	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 11/E	1	Max Conc	1	31415.56	503.1585693	48.02362823	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 10/E	1	Max Conc	0.5	15707.78	750.9349976	152.9811859	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 10/E	1	Max Conc	1	31415.56	402.7718506	52.74801254	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 9/E	1	Max Conc	0.5	15707.78	912.0097046	142.6045685	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 9/E	1	Max Conc	1	31415.56	458.7636719	54.42170334	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 8/E	1	Max Conc	0.5	15707.78	750.5385742	161.4935455	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 8/E	1	Max Conc	1	31415.56	406.5277405	55.32805252	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 7/E	1	Max Conc	0.5	15707.78	915.1124878	135.0317535	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 7/E	1	Max Conc	1	31415.56	454.8322449	52.13962173	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 6/E	1	Max Conc	0.5	15707.78	926.8603516	130.4187012	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 6/E	1	Max Conc	1	31415.56	449.6323547	48.21143723	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 5/E	1	Max Conc	0.5	15707.78	1007.497803	116.0333862	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 5/E	1	Max Conc	1	31415.56	504.2720337	44.09288025	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 4/E	1	Max Conc	0.5	15707.78	756.6502075	167.1598816	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 4/E	1	Max Conc	1	31415.56	413.3504639	59.76641464	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 3/E	1	Max Conc	0.5	15707.78	1018.056824	122.8216019	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 3/E	1	Max Conc	1	31415.56	507.9095764	46.02675247	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 2/E	1	Max Conc	0.5	15707.78	924.6114502	137.7907715	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 2/E	1	Max Conc	1	31415.56	454.0396423	50.42906189	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 1/E	1	Max Conc	0.5	15707.78	757.312439	158.4758606	0	465.0292053
Export (1.1xOP)	E_INV015_1829mm (2min)	1829	Category 1/E	1	Max Conc	1	31415.56	409.8931885	57.10107422	0	465.0292053
Export (1.1xOP)	E_INV017_25mm	25	Category 12/E	1	Max Conc	0.5	15707.78	35.70263672	2.733167887	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 12/E	1	Max Conc	1	31415.56	14.20105457	1.271160722	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 11/E	1	Max Conc	0.5	15707.78	34.88847733	2.697190046	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 11/E	1	Max Conc	1	31415.56	13.90554714	1.246982098	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 10/E	1	Max Conc	0.5	15707.78	34.8644371	2.795824051	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 10/E	1	Max Conc	1	31415.56	15.4510231	1.281739354	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 9/E	1	Max Conc	0.5	15707.78	36.0197525	2.810230255	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 9/E	1	Max Conc	1	31415.56	14.97162437	1.291412354	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 8/E	1	Max Conc	0.5	15707.78	35.57791138	2.826319456	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 8/E	1	Max Conc	1	31415.56	15.75808048	1.306620598	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 7/E	1	Max Conc	0.5	15707.78	35.23672104	2.779801369	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 7/E	1	Max Conc	1	31415.56	14.65654469	1.268471956	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 6/E	1	Max Conc	0.5	15707.78	34.63113022	2.649811506	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 6/E	1	Max Conc	1	31415.56	14.5157299	1.244860291	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 5/E	1	Max Conc	0.5	15707.78	33.8184433	2.47130847	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 5/E	1	Max Conc	1	31415.56	13.60245037	1.20203495	0	3.856528282

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV017_25mm	25	Category 4/E	1	Max Conc	0.5	15707.78	36.14255905	2.873990059	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 4/E	1	Max Conc	1	31415.56	15.76113701	1.309455752	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 3/E	1	Max Conc	0.5	15707.78	34.67840195	2.520383835	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 3/E	1	Max Conc	1	31415.56	13.91222	1.225938559	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 2/E	1	Max Conc	0.5	15707.78	35.40895081	2.689035654	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 2/E	1	Max Conc	1	31415.56	14.80317211	1.267741084	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 1/E	1	Max Conc	0.5	15707.78	35.39951706	2.847657681	0	3.856528282
Export (1.1xOP)	E_INV017_25mm	25	Category 1/E	1	Max Conc	1	31415.56	15.47129059	1.284915566	0	3.856528282
Export (1.1xOP)	E_INV017_50mm	50	Category 12/E	1	Max Conc	0.5	15707.78	89.47259521	5.878226757	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 12/E	1	Max Conc	1	31415.56	35.80666351	2.945505381	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 11/E	1	Max Conc	0.5	15707.78	87.68258667	5.701332092	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 11/E	1	Max Conc	1	31415.56	34.93564606	2.885467052	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 10/E	1	Max Conc	0.5	15707.78	78.74383545	5.782720566	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 10/E	1	Max Conc	1	31415.56	34.51800156	2.924865246	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 9/E	1	Max Conc	0.5	15707.78	85.89619446	6.139023781	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 9/E	1	Max Conc	1	31415.56	35.90694427	3.031176567	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 8/E	1	Max Conc	0.5	15707.78	80.31988525	5.957383156	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 8/E	1	Max Conc	1	31415.56	35.29545212	2.988649368	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 7/E	1	Max Conc	0.5	15707.78	84.21488953	5.951381683	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 7/E	1	Max Conc	1	31415.56	35.08564758	2.964138985	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 6/E	1	Max Conc	0.5	15707.78	82.41093445	5.465877533	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 6/E	1	Max Conc	1	31415.56	34.48089218	2.809300661	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 5/E	1	Max Conc	0.5	15707.78	86.075737	5.156685829	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 5/E	1	Max Conc	1	31415.56	34.33166885	2.694596291	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 4/E	1	Max Conc	0.5	15707.78	82.68746948	6.415715694	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 4/E	1	Max Conc	1	31415.56	35.96416092	3.110059977	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 3/E	1	Max Conc	0.5	15707.78	87.84892273	5.276237488	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 3/E	1	Max Conc	1	31415.56	35.13760376	2.750446558	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 2/E	1	Max Conc	0.5	15707.78	84.021698	5.594555378	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 2/E	1	Max Conc	1	31415.56	35.29664993	2.865605831	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 1/E	1	Max Conc	0.5	15707.78	81.09970093	6.222745419	0	15.42611313
Export (1.1xOP)	E_INV017_50mm	50	Category 1/E	1	Max Conc	1	31415.56	35.18516159	3.043321609	0	15.42611313
Export (1.1xOP)	E_INV017_576mm	576	Category 12/E	1	Max Conc	0.5	15707.78	640.1356201	49.00048828	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 12/E	1	Max Conc	1	31415.56	282.2072754	18.44556808	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 11/E	1	Max Conc	0.5	15707.78	634.269104	46.57644653	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 11/E	1	Max Conc	1	31415.56	277.4381104	17.98981857	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 10/E	1	Max Conc	0.5	15707.78	515.3490601	51.65005493	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 10/E	1	Max Conc	1	31415.56	242.6209564	18.11608124	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 9/E	1	Max Conc	0.5	15707.78	586.9718018	53.28120041	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 9/E	1	Max Conc	1	31415.56	268.8531494	19.11177826	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 8/E	1	Max Conc	0.5	15707.78	521.5454102	54.53501892	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 8/E	1	Max Conc	1	31415.56	246.6833801	18.6084919	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 7/E	1	Max Conc	0.5	15707.78	581.2285156	50.60617447	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 7/E	1	Max Conc	1	31415.56	264.4547424	18.62233353	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 6/E	1	Max Conc	0.5	15707.78	561.958313	47.67838287	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 6/E	1	Max Conc	1	31415.56	253.2042847	17.52949524	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 5/E	1	Max Conc	0.5	15707.78	615.4189453	44.05376816	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 5/E	1	Max Conc	1	31415.56	266.6820984	16.93975067	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 4/E	1	Max Conc	0.5	15707.78	537.5925903	58.52326584	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 4/E	1	Max Conc	1	31415.56	258.4420776	19.81166267	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 3/E	1	Max Conc	0.5	15707.78	622.2747803	46.40865326	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 3/E	1	Max Conc	1	31415.56	271.7229614	17.36563492	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 2/E	1	Max Conc	0.5	15707.78	568.3991699	50.27694702	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 2/E	1	Max Conc	1	31415.56	258.278656	17.99118233	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 1/E	1	Max Conc	0.5	15707.78	531.8032227	55.49335098	0	480.7966614
Export (1.1xOP)	E_INV017_576mm	576	Category 1/E	1	Max Conc	1	31415.56	252.2821503	19.28796387	0	480.7966614
Export (1.1xOP)	E_INV017_1727mm	1727	Category 12/E	1	Max Conc	0.5	15707.78	1125.487427	59.25536728	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 12/E	1	Max Conc	1	31415.56	460.0830688	24.96905136	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 11/E	1	Max Conc	0.5	15707.78	1221.137573	41.80823517	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 11/E	1	Max Conc	1	31415.56	457.3332214	25.11383057	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 10/E	1	Max Conc	0.5	15707.78	800.6685181	56.013134	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 10/E	1	Max Conc	1	31415.56	357.6258545	28.64684486	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 9/E	1	Max Conc	0.5	15707.78	964.2095337	66.26395416	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 9/E	1	Max Conc	1	31415.56	417.512207	26.55645943	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 8/E	1	Max Conc	0.5	15707.78	784.526001	74.7041626	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 8/E	1	Max Conc	1	31415.56	365.8827515	26.72592545	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 7/E	1	Max Conc	0.5	15707.78	1032.007446	47.28800201	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 7/E	1	Max Conc	1	31415.56	414.4066467	27.11953926	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 6/E	1	Max Conc	0.5	15707.78	961.9836426	48.4352417	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 6/E	1	Max Conc	1	31415.56	395.3375854	26.40984726	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 5/E	1	Max Conc	0.5	15707.78	1154.186401	42.87394714	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 5/E	1	Max Conc	1	31415.56	434.2756653	24.43194389	0	467.7773438

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV017_1727mm	1727	Category 4/E	1	Max Conc	0.5	15707.78	814.9100342	77.90005493	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 4/E	1	Max Conc	1	31415.56	384.7037048	28.60906982	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 3/E	1	Max Conc	0.5	15707.78	1080.950439	58.22519684	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 3/E	1	Max Conc	1	31415.56	440.1598511	23.50655365	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 2/E	1	Max Conc	0.5	15707.78	929.0605469	64.84023285	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 2/E	1	Max Conc	1	31415.56	399.6008301	25.02171326	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 1/E	1	Max Conc	0.5	15707.78	853.1140137	55.03258514	0	467.7773438
Export (1.1xOP)	E_INV017_1727mm	1727	Category 1/E	1	Max Conc	1	31415.56	375.0855408	29.57793045	0	467.7773438
Export (1.1xOP)	E_INV017_10mm	10	Category 12/E	1	Max Conc	0.5	15707.78	9.236053467	0.96790421	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 12/E	1	Max Conc	1	31415.56	5.267500877	0.495021492	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 11/E	1	Max Conc	0.5	15707.78	9.026867867	0.949950993	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 11/E	1	Max Conc	1	31415.56	5.176398277	0.486357629	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 10/E	1	Max Conc	0.5	15707.78	11.58764076	0.997338712	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 10/E	1	Max Conc	1	31415.56	5.907195568	0.496350646	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 9/E	1	Max Conc	0.5	15707.78	10.48892403	0.996157408	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 9/E	1	Max Conc	1	31415.56	5.630242348	0.502248108	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 8/E	1	Max Conc	0.5	15707.78	11.8324194	1.015228629	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 8/E	1	Max Conc	1	31415.56	6.015200138	0.505342424	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 7/E	1	Max Conc	0.5	15707.78	10.25755978	0.979975224	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 7/E	1	Max Conc	1	31415.56	5.543603897	0.493797928	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 6/E	1	Max Conc	0.5	15707.78	10.05996895	0.939436436	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 6/E	1	Max Conc	1	31415.56	5.576755524	0.482599378	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 5/E	1	Max Conc	0.5	15707.78	8.920871735	0.8839854	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 5/E	1	Max Conc	1	31415.56	5.251531124	0.467712998	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 4/E	1	Max Conc	0.5	15707.78	11.93409443	1.028170586	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 4/E	1	Max Conc	1	31415.56	6.009058475	0.50973618	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 3/E	1	Max Conc	0.5	15707.78	9.064842224	0.901154637	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 3/E	1	Max Conc	1	31415.56	5.3410182	0.47620979	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 2/E	1	Max Conc	0.5	15707.78	10.27091599	0.955488622	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 2/E	1	Max Conc	1	31415.56	5.662483215	0.490961552	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 1/E	1	Max Conc	0.5	15707.78	11.68916225	1.010424495	0	0.617044508
Export (1.1xOP)	E_INV017_10mm	10	Category 1/E	1	Max Conc	1	31415.56	5.901422024	0.500745535	0	0.617044508
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 12/E	1	Max Conc	0.5	12851.34	217.280426	34.3945961	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 12/E	1	Max Conc	1	25702.68	98.77140045	10.30537415	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 11/E	1	Max Conc	0.5	12851.34	210.2167511	35.68787003	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 11/E	1	Max Conc	1	25702.68	96.86279297	10.63994408	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 10/E	1	Max Conc	0.5	12851.34	169.4270172	32.97697067	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 10/E	1	Max Conc	1	25702.68	86.32086182	10.33108616	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 9/E	1	Max Conc	0.5	12851.34	205.7614136	36.89345169	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 9/E	1	Max Conc	1	25702.68	95.47569275	10.98836327	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 8/E	1	Max Conc	0.5	12851.34	173.6983795	32.73785019	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 8/E	1	Max Conc	1	25702.68	88.64182281	10.21547508	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 7/E	1	Max Conc	0.5	12851.34	202.3100586	38.09623718	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 7/E	1	Max Conc	1	25702.68	93.49725342	11.24861431	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 6/E	1	Max Conc	0.5	12851.34	198.2345581	27.57060432	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 6/E	1	Max Conc	1	25702.68	89.08551788	9.333889008	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 5/E	1	Max Conc	0.5	12851.34	203.8141022	23.19492722	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 5/E	1	Max Conc	1	25702.68	93.1306839	8.417538643	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 4/E	1	Max Conc	0.5	12851.34	176.4172974	40.47813034	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 4/E	1	Max Conc	1	25702.68	91.86483002	11.64724922	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 3/E	1	Max Conc	0.5	12851.34	210.4291382	22.97280312	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 3/E	1	Max Conc	1	25702.68	96.72019958	8.246938705	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 2/E	1	Max Conc	0.5	12851.34	203.2937164	27.21365738	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 2/E	1	Max Conc	1	25702.68	91.06482697	9.176322937	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 1/E	1	Max Conc	0.5	12851.34	172.1773376	41.85168457	0	20.98087311
Export (1.1xOP)	E_INV018_25mm (all)	25	Category 1/E	1	Max Conc	1	25702.68	89.94192505	12.23778534	0	20.98087311
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 12/E	1	Max Conc	0.5	12851.34	456.4450989	82.89785767	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 12/E	1	Max Conc	1	25702.68	222.9717255	28.20209694	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 11/E	1	Max Conc	0.5	12851.34	441.2059326	86.86322021	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 11/E	1	Max Conc	1	25702.68	217.5164948	29.86913109	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 10/E	1	Max Conc	0.5	12851.34	326.7652588	83.34986115	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 10/E	1	Max Conc	1	25702.68	180.2958221	28.73985291	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 9/E	1	Max Conc	0.5	12851.34	405.5424194	86.52055359	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 9/E	1	Max Conc	1	25702.68	203.1398163	29.81957245	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 8/E	1	Max Conc	0.5	12851.34	337.0729065	82.84371948	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 8/E	1	Max Conc	1	25702.68	186.0169983	27.80119896	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 7/E	1	Max Conc	0.5	12851.34	397.8981934	90.70121002	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 7/E	1	Max Conc	1	25702.68	198.6750183	31.37807274	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 6/E	1	Max Conc	0.5	12851.34	401.085083	72.5018692	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 6/E	1	Max Conc	1	25702.68	197.4630432	25.74796677	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 5/E	1	Max Conc	0.5	12851.34	430.6110229	64.26338959	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 5/E	1	Max Conc	1	25702.68	216.8019257	23.31404495	0	83.92349243

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 4/E	1	Max Conc	0.5	12851.34	337.6390686	95.51470184	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 4/E	1	Max Conc	1	25702.68	188.7559052	31.75524902	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 3/E	1	Max Conc	0.5	12851.34	446.0887451	63.51507568	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 3/E	1	Max Conc	1	25702.68	223.8013916	22.63350296	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 2/E	1	Max Conc	0.5	12851.34	412.7702942	71.27400208	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 2/E	1	Max Conc	1	25702.68	202.7063751	24.95818329	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 1/E	1	Max Conc	0.5	12851.34	328.7150574	98.70159149	0	83.92349243
Export (1.1xOP)	E_INV018_50mm (all)	50	Category 1/E	1	Max Conc	1	25702.68	183.9764862	33.56863022	0	83.92349243
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 12/E	1	Max Conc	0.5	12851.34	2556.600098	560.7282104	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 12/E	1	Max Conc	1	25702.68	1241.639038	243.2476349	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 11/E	1	Max Conc	0.5	12851.34	2502.355225	582.2786865	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 11/E	1	Max Conc	1	25702.68	1198.265869	254.9480438	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 10/E	1	Max Conc	0.5	12851.34	1591.893066	787.0979614	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 10/E	1	Max Conc	1	25702.68	942.4259644	297.0761108	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 9/E	1	Max Conc	0.5	12851.34	2052.157227	623.5377808	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 9/E	1	Max Conc	1	25702.68	1101.632446	264.6891479	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 8/E	1	Max Conc	0.5	12851.34	1648.217651	778.3484497	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 8/E	1	Max Conc	1	25702.68	977.8012085	290.0937805	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 7/E	1	Max Conc	0.5	12851.34	1988.663452	645.1842651	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 7/E	1	Max Conc	1	25702.68	1063.157227	277.6603699	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 6/E	1	Max Conc	0.5	12851.34	2023.077148	671.6159058	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 6/E	1	Max Conc	1	25702.68	1064.604858	269.3899231	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 5/E	1	Max Conc	0.5	12851.34	2544.785645	611.845459	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 5/E	1	Max Conc	1	25702.68	1219.402832	247.8578033	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 4/E	1	Max Conc	0.5	12851.34	1660.226563	749.1610718	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 4/E	1	Max Conc	1	25702.68	981.9992676	297.0149536	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 3/E	1	Max Conc	0.5	12851.34	2640.618408	603.3820801	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 3/E	1	Max Conc	1	25702.68	1264.570435	240.7809753	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 2/E	1	Max Conc	0.5	12851.34	2086.548584	662.1069336	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 2/E	1	Max Conc	1	25702.68	1102.050293	260.8496399	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 1/E	1	Max Conc	0.5	12851.34	1604.502075	771.7164307	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (1hr)	305	Category 1/E	1	Max Conc	1	25702.68	947.5563965	308.7457275	0	3122.793213
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 12/E	1	Max Conc	0.5	12851.34	4014.970703	1150.994995	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 12/E	1	Max Conc	1	25702.68	2636.90918	752.8435059	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 11/E	1	Max Conc	0.5	12851.34	3833.436035	1166.772217	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 11/E	1	Max Conc	1	25702.68	2511.241699	770.00177	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 10/E	1	Max Conc	0.5	12851.34	2456.216797	1162.187012	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 10/E	1	Max Conc	1	25702.68	1889.716797	778.4851074	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 9/E	1	Max Conc	0.5	12851.34	3176.515137	1140.242798	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 9/E	1	Max Conc	1	25702.68	2265.658447	756.2979736	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 8/E	1	Max Conc	0.5	12851.34	2541.192383	1150.775269	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 8/E	1	Max Conc	1	25702.68	1954.043457	765.9260864	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 7/E	1	Max Conc	0.5	12851.34	3034.28125	1154.717529	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 7/E	1	Max Conc	1	25702.68	2167.741455	771.7120972	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 6/E	1	Max Conc	0.5	12851.34	3010.321777	1182.209351	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 6/E	1	Max Conc	1	25702.68	2131.361572	783.5002441	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 5/E	1	Max Conc	0.5	12851.34	3658.927002	1209.577026	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 5/E	1	Max Conc	1	25702.68	2469.420166	788.800354	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 4/E	1	Max Conc	0.5	12851.34	2578.179688	1131.185547	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 4/E	1	Max Conc	1	25702.68	1976.430908	757.3953247	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 3/E	1	Max Conc	0.5	12851.34	3807.767334	1197.736328	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 3/E	1	Max Conc	1	25702.68	2572.973877	775.2316895	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 2/E	1	Max Conc	0.5	12851.34	3121.876709	1171.279175	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 2/E	1	Max Conc	1	25702.68	2210.786133	770.4066162	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 1/E	1	Max Conc	0.5	12851.34	2481.266602	1144.670166	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (1hr)	914	Category 1/E	1	Max Conc	1	25702.68	1907.400879	771.8040161	0	28043.73633
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 12/E	1	Max Conc	0.5	12851.34	66.10041046	7.89760828	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 12/E	1	Max Conc	1	25702.68	29.48254395	2.47299695	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 11/E	1	Max Conc	0.5	12851.34	64.32207489	7.902751446	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 11/E	1	Max Conc	1	25702.68	28.6756916	2.502636194	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 10/E	1	Max Conc	0.5	12851.34	60.44800568	8.082470894	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 10/E	1	Max Conc	1	25702.68	29.98205948	2.763686895	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 9/E	1	Max Conc	0.5	12851.34	68.00495911	8.835485458	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 9/E	1	Max Conc	1	25702.68	30.71072388	2.750910759	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 8/E	1	Max Conc	0.5	12851.34	62.09220123	8.192285538	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 8/E	1	Max Conc	1	25702.68	30.83141899	2.747226477	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 7/E	1	Max Conc	0.5	12851.34	66.71714783	8.823794365	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 7/E	1	Max Conc	1	25702.68	29.88845825	2.787168741	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 6/E	1	Max Conc	0.5	12851.34	61.01592255	6.673604012	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 6/E	1	Max Conc	1	25702.68	28.87177277	2.371876001	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 5/E	1	Max Conc	0.5	12851.34	63.23913193	5.438990116	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 5/E	1	Max Conc	1	25702.68	27.26125526	2.007322788	0	3.356939316

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 4/E	1	Max Conc	0.5	12851.34	66.45540619	10.10004139	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 4/E	1	Max Conc	1	25702.68	31.60648537	3.014425516	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 3/E	1	Max Conc	0.5	12851.34	65.72653961	5.489505768	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 3/E	1	Max Conc	1	25702.68	28.00020981	2.009531498	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 2/E	1	Max Conc	0.5	12851.34	63.44677353	6.739599228	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 2/E	1	Max Conc	1	25702.68	29.74407578	2.357270479	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 1/E	1	Max Conc	0.5	12851.34	65.16611481	10.22561169	0	3.356939316
Export (1.1xOP)	E_INV018_10mm (all)	10	Category 1/E	1	Max Conc	1	25702.68	30.86922264	3.06539464	0	3.356939316
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 12/E	1	Max Conc	0.5	12851.34	1304.419556	334.5645447	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 12/E	1	Max Conc	1	25702.68	928.7119141	215.1515961	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 11/E	1	Max Conc	0.5	12851.34	1234.207764	340.3909607	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 11/E	1	Max Conc	1	25702.68	883.3278198	220.9355316	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 10/E	1	Max Conc	0.5	12851.34	918.1763916	321.9869995	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 10/E	1	Max Conc	1	25702.68	706.4453735	212.7244263	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 9/E	1	Max Conc	0.5	12851.34	1122.237061	328.3193665	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 9/E	1	Max Conc	1	25702.68	811.9464722	214.4304047	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 8/E	1	Max Conc	0.5	12851.34	955.0462646	318.8039246	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 8/E	1	Max Conc	1	25702.68	733.8519897	208.6885223	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 7/E	1	Max Conc	0.5	12851.34	1071.943726	333.9485474	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 7/E	1	Max Conc	1	25702.68	774.6791992	219.8300018	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 6/E	1	Max Conc	0.5	12851.34	1145.726074	328.0454102	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 6/E	1	Max Conc	1	25702.68	803.1310425	213.8065186	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 5/E	1	Max Conc	0.5	12851.34	1285.22583	335.7125549	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 5/E	1	Max Conc	1	25702.68	936.7183838	215.0065155	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 4/E	1	Max Conc	0.5	12851.34	931.4207764	323.7406921	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 4/E	1	Max Conc	1	25702.68	721.6722412	213.7343597	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 3/E	1	Max Conc	0.5	12851.34	1342.941772	332.2068481	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 3/E	1	Max Conc	1	25702.68	978.597229	210.7487488	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 2/E	1	Max Conc	0.5	12851.34	1193.216675	324.4003601	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 2/E	1	Max Conc	1	25702.68	837.7595215	209.5902863	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 1/E	1	Max Conc	0.5	12851.34	892.5707397	328.8733215	0	3122.793213
Export (1.1xOP)	E_INV018_305mm (2min)	305	Category 1/E	1	Max Conc	1	25702.68	692.7362061	218.9236603	0	3122.793213
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 12/E	1	Max Conc	0.5	12851.34	1522.699585	337.9399719	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 12/E	1	Max Conc	1	25702.68	1150.037598	227.2995605	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 11/E	1	Max Conc	0.5	12851.34	1452.987793	342.9512329	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 11/E	1	Max Conc	1	25702.68	1102.432617	231.4784851	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 10/E	1	Max Conc	0.5	12851.34	1132.987183	329.9992065	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 10/E	1	Max Conc	1	25702.68	924.149231	226.7353363	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 9/E	1	Max Conc	0.5	12851.34	1340.803345	331.6569824	9.401909	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 9/E	1	Max Conc	1	25702.68	1033.917603	225.4417419	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 8/E	1	Max Conc	0.5	12851.34	1171.047485	327.0681458	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 8/E	1	Max Conc	1	25702.68	954.0951538	223.4788361	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 7/E	1	Max Conc	0.5	12851.34	1288.229004	336.3430786	6.287953	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 7/E	1	Max Conc	1	25702.68	993.2385254	229.4514008	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 6/E	1	Max Conc	0.5	12851.34	1367.868408	336.7677307	12.11535	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 6/E	1	Max Conc	1	25702.68	1025.90625	228.9666901	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 5/E	1	Max Conc	0.5	12851.34	1498.689941	345.1005859	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 5/E	1	Max Conc	1	25702.68	1164.019775	231.5454254	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 4/E	1	Max Conc	0.5	12851.34	1151.027222	326.7590027	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 4/E	1	Max Conc	1	25702.68	943.7078857	223.8331146	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 3/E	1	Max Conc	0.5	12851.34	1557.300049	342.2087402	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 3/E	1	Max Conc	1	25702.68	1208.28833	228.0969543	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 2/E	1	Max Conc	0.5	12851.34	1417.7052	333.5167236	18.77489	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 2/E	1	Max Conc	1	25702.68	1063.899902	225.598526	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 1/E	1	Max Conc	0.5	12851.34	1111.217041	330.9707336	0	28043.73633
Export (1.1xOP)	E_INV018_914mm (2min)	914	Category 1/E	1	Max Conc	1	25702.68	912.4729614	227.8211212	0	28043.73633
Export (1.1xOP)	E_INV020_25mm	25	Category 12/E	1	Max Conc	0.5	23339.49	50.05953598	3.596598387	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 12/E	1	Max Conc	1	46678.97	19.81134224	1.685967684	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 11/E	1	Max Conc	0.5	23339.49	49.06500626	3.47194314	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 11/E	1	Max Conc	1	46678.97	19.40066338	1.647930384	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 10/E	1	Max Conc	0.5	23339.49	46.86493683	3.578690052	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 10/E	1	Max Conc	1	46678.97	20.49840546	1.694122314	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 9/E	1	Max Conc	0.5	23339.49	49.41808319	3.692450285	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 9/E	1	Max Conc	1	46678.97	20.38133621	1.718971372	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 8/E	1	Max Conc	0.5	23339.49	47.70233154	3.715111971	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 8/E	1	Max Conc	1	46678.97	20.82483673	1.733556151	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 7/E	1	Max Conc	0.5	23339.49	48.4943924	3.551323414	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 7/E	1	Max Conc	1	46678.97	20.06093788	1.679967523	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 6/E	1	Max Conc	0.5	23339.49	47.66772461	3.440671921	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 6/E	1	Max Conc	1	46678.97	19.93682671	1.637458324	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 5/E	1	Max Conc	0.5	23339.49	48.07391739	3.282236814	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 5/E	1	Max Conc	1	46678.97	19.1772728	1.576555848	0	8.529616356

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV020_25mm	25	Category 4/E	1	Max Conc	0.5	23339.49	48.72042084	3.784999132	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 4/E	1	Max Conc	1	46678.97	20.99956512	1.75970161	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 3/E	1	Max Conc	0.5	23339.49	49.05587769	3.373180628	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 3/E	1	Max Conc	1	46678.97	19.53119087	1.613072753	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 2/E	1	Max Conc	0.5	23339.49	48.5489502	3.553446531	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 2/E	1	Max Conc	1	46678.97	20.23658562	1.673879385	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 1/E	1	Max Conc	0.5	23339.49	47.83675766	3.628535032	0	8.529616356
Export (1.1xOP)	E_INV020_25mm	25	Category 1/E	1	Max Conc	1	46678.97	20.63063431	1.718719125	0	8.529616356
Export (1.1xOP)	E_INV020_50mm	50	Category 12/E	1	Max Conc	0.5	23339.49	120.3435059	7.938613415	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 12/E	1	Max Conc	1	46678.97	48.76980591	3.958090782	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 11/E	1	Max Conc	0.5	23339.49	118.0620422	7.802125454	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 11/E	1	Max Conc	1	46678.97	48.02030182	3.865489721	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 10/E	1	Max Conc	0.5	23339.49	104.3762436	7.803170204	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 10/E	1	Max Conc	1	46678.97	46.37335968	3.884379625	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 9/E	1	Max Conc	0.5	23339.49	114.6949081	8.297922134	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 9/E	1	Max Conc	1	46678.97	48.38428497	4.058037758	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 8/E	1	Max Conc	0.5	23339.49	106.1976395	7.955729008	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 8/E	1	Max Conc	1	46678.97	47.04864502	3.969091177	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 7/E	1	Max Conc	0.5	23339.49	112.5807037	8.154036522	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 7/E	1	Max Conc	1	46678.97	47.65792084	3.962139368	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 6/E	1	Max Conc	0.5	23339.49	109.9065247	7.353591442	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 6/E	1	Max Conc	1	46678.97	46.85187531	3.745641708	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 5/E	1	Max Conc	0.5	23339.49	115.964447	6.92594099	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 5/E	1	Max Conc	1	46678.97	47.29616165	3.598544598	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 4/E	1	Max Conc	0.5	23339.49	109.7185364	8.699682236	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 4/E	1	Max Conc	1	46678.97	48.02780151	4.151376724	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 3/E	1	Max Conc	0.5	23339.49	118.1843185	7.070946693	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 3/E	1	Max Conc	1	46678.97	48.03682327	3.680737257	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 2/E	1	Max Conc	0.5	23339.49	111.8768463	7.497398376	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 2/E	1	Max Conc	1	46678.97	47.55410004	3.829269409	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 1/E	1	Max Conc	0.5	23339.49	107.7493286	8.542844772	0	34.11846542
Export (1.1xOP)	E_INV020_50mm	50	Category 1/E	1	Max Conc	1	46678.97	47.31826782	4.052974224	0	34.11846542
Export (1.1xOP)	E_INV020_203mm	203	Category 12/E	1	Max Conc	0.5	23339.49	267.4424133	17.74401665	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 12/E	1	Max Conc	1	46678.97	113.2522583	8.800615311	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 11/E	1	Max Conc	0.5	23339.49	262.5780945	17.38432312	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 11/E	1	Max Conc	1	46678.97	111.2719116	8.556652069	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 10/E	1	Max Conc	0.5	23339.49	225.5766754	17.83657837	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 10/E	1	Max Conc	1	46678.97	101.611412	8.623270035	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 9/E	1	Max Conc	0.5	23339.49	252.3493958	18.6630249	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 9/E	1	Max Conc	1	46678.97	110.3737793	9.031153679	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 8/E	1	Max Conc	0.5	23339.49	229.6038818	18.2175312	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 8/E	1	Max Conc	1	46678.97	103.6176071	8.815442085	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 7/E	1	Max Conc	0.5	23339.49	247.826767	18.3513298	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 7/E	1	Max Conc	1	46678.97	108.3710175	8.758292198	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 6/E	1	Max Conc	0.5	23339.49	238.9795837	16.81780243	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 6/E	1	Max Conc	1	46678.97	104.7123032	8.369742393	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 5/E	1	Max Conc	0.5	23339.49	255.0153809	15.86799145	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 5/E	1	Max Conc	1	46678.97	108.0774536	8.086713791	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 4/E	1	Max Conc	0.5	23339.49	238.9688721	19.81451225	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 4/E	1	Max Conc	1	46678.97	107.7353516	9.248581886	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 3/E	1	Max Conc	0.5	23339.49	259.53479	16.18100739	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 3/E	1	Max Conc	1	46678.97	110.0262756	8.258366585	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 2/E	1	Max Conc	0.5	23339.49	243.1386261	17.16258621	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 2/E	1	Max Conc	1	46678.97	106.6893158	8.544005394	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 1/E	1	Max Conc	0.5	23339.49	234.6141815	19.43155289	0	160.6287231
Export (1.1xOP)	E_INV020_203mm	203	Category 1/E	1	Max Conc	1	46678.97	105.7065353	8.947480202	0	160.6287231
Export (1.1xOP)	E_INV020_610mm	610	Category 12/E	1	Max Conc	0.5	23339.49	310.5913086	20.67239761	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 12/E	1	Max Conc	1	46678.97	130.1031952	9.75228405	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 11/E	1	Max Conc	0.5	23339.49	305.5948181	19.86462021	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 11/E	1	Max Conc	1	46678.97	127.4603195	9.553107262	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 10/E	1	Max Conc	0.5	23339.49	254.959137	20.81249046	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 10/E	1	Max Conc	1	46678.97	114.6081543	9.725388527	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 9/E	1	Max Conc	0.5	23339.49	289.5032043	22.12756348	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 9/E	1	Max Conc	1	46678.97	125.2720184	10.05962086	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 8/E	1	Max Conc	0.5	23339.49	259.3378296	21.80510712	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 8/E	1	Max Conc	1	46678.97	116.6052322	9.919336319	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 7/E	1	Max Conc	0.5	23339.49	284.8206482	21.20493698	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 7/E	1	Max Conc	1	46678.97	122.576889	9.847720146	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 6/E	1	Max Conc	0.5	23339.49	274.4199524	19.36324692	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 6/E	1	Max Conc	1	46678.97	118.3990784	9.360368729	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 5/E	1	Max Conc	0.5	23339.49	297.6326904	18.07029533	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 5/E	1	Max Conc	1	46678.97	123.3478165	8.984467506	0	156.5337067

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concentration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV020_610mm	610	Category 4/E	1	Max Conc	0.5	23339.49	269.3408508	23.85974121	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 4/E	1	Max Conc	1	46678.97	120.7332535	10.35064316	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 3/E	1	Max Conc	0.5	23339.49	301.9446106	18.81188965	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 3/E	1	Max Conc	1	46678.97	125.9915009	9.169115067	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 2/E	1	Max Conc	0.5	23339.49	279.2834778	20.22143555	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 2/E	1	Max Conc	1	46678.97	120.4666138	9.550603867	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 1/E	1	Max Conc	0.5	23339.49	265.0303345	22.83187866	0	156.5337067
Export (1.1xOP)	E_INV020_610mm	610	Category 1/E	1	Max Conc	1	46678.97	118.5832825	10.12831306	0	156.5337067

Not included in Export

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 12/E	80.9882105	88.70454328	-7.517028857	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 12/E	70.96250599	68.17263124	-4.775611281	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 12/E	66.32224613	57.92242932	-3.654648748	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 12/E	56.95208437	34.387132	-1.546539265	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 12/E	82.22641119	91.13206235	-7.8994644	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	81.61155388	90.60537841	-7.692891214	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	71.30753283	69.60823103	-4.860365452	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	66.55743935	59.19092467	-3.714743561	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	57.01201303	35.40971882	-1.582257722	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	82.88901661	93.21433812	-8.093900803	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	79.781681	79.26694973	-6.693453562	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	70.45111657	60.38845888	-4.381789489	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	66.02834817	50.51053018	-3.340683634	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	56.68368578	26.99066629	-1.166855126	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	80.91771142	81.43843747	-6.999046881	4.7	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	80.9882105	88.70454328	-7.517028857	5	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	70.96250599	68.17263124	-4.775611281	9	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	66.32224613	57.92242932	-3.654648748	12.61710051	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	56.95208437	34.387132	-1.546539265	30.003942	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	82.22641119	91.13206235	-7.8994644	4.7	526.6993408
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 12/E	111.0347543	123.0285115	-10.83338997	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 12/E	96.95129165	94.99175265	-7.058302513	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 12/E	90.46971702	81.19403572	-5.590567669	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 12/E	77.30801811	49.61127491	-2.643406784	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 12/E	112.7864576	126.6791629	-11.38678049	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 11/E	113.1233042	127.5369635	-11.24123929	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 11/E	98.45318378	98.08769774	-7.266420931	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 11/E	91.73860621	83.90177981	-5.756276765	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 11/E	78.16983319	51.67367238	-2.745331564	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 11/E	114.9549808	131.3344624	-11.83105838	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 9/E	116.1104195	117.316326	-11.98606781	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 9/E	102.1243177	90.06992043	-8.261453427	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 9/E	95.46103259	75.94231017	-6.49964697	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 9/E	81.49899138	42.29710919	-2.859793845	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 9/E	117.7920553	120.4637236	-12.43544787	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	111.0347543	123.0285115	-10.83338997	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	96.95129165	94.99175265	-7.058302513	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	90.46971702	81.19403572	-5.590567669	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	77.30801811	49.61127491	-2.643406784	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	112.7864576	126.6791629	-11.38678049	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	111.0347543	123.0285115	-10.83338997	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	96.95129165	94.99175265	-7.058302513	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	90.46971702	81.19403572	-5.590567669	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	77.30801811	49.61127491	-2.643406784	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	112.7864576	126.6791629	-11.38678049	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	113.1233042	127.5369635	-11.24123929	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	98.45318378	98.08769774	-7.266420931	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	91.73860621	83.90177981	-5.756276765	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	78.16983319	51.67367238	-2.745331564	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	114.9549808	131.3344624	-11.83105838	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	116.1104195	117.316326	-11.98606781	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	102.1243177	90.06992043	-8.261453427	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	95.46103259	75.94231017	-6.49964697	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	81.49899138	42.29710919	-2.859793845	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	117.7920553	120.4637236	-12.43544787	4.7	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	111.0347543	123.0285115	-10.83338997	5	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	96.95129165	94.99175265	-7.058302513	9	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	90.46971702	81.19403572	-5.590567669	12.61710051	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	77.30801811	49.61127491	-2.643406784	30.003942	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	112.7864576	126.6791629	-11.38678049	4.7	1454.520142
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 12/E	97.03412556	108.056275	-9.863570717	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 12/E	85.08852187	82.94863039	-6.553188642	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 12/E	79.56363743	70.47518958	-5.19718926	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 12/E	68.34937653	42.1505818	-2.461629467	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 12/E	98.51088635	111.0330735	-10.32683606	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 11/E	98.10153898	110.8780747	-10.11655201	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 11/E	85.76746687	85.06817725	-6.675190436	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 11/E	80.09588247	72.33297518	-5.297520833	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 11/E	68.62645467	43.58300708	-2.526147644	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 11/E	99.6295967	114.025472	-10.59968055	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	95.24954723	96.07892726	-8.092262342	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	84.17825909	73.29295737	-5.416781095	9	1196.275757

PHMSA QRA Study 200210 (Export 1.1xPressure)_2 Jet Fires

Study	Model	Hole Size	Weather	Downwind Semi Axis	Crosswind Semi Axis	Offset Distance	Radiation Level	Release Rate
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	78.9165893	61.44762577	-4.171721201	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	67.89606282	33.42798054	-1.603413552	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	96.59994546	98.70785304	-8.448505711	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	97.03412556	108.056275	-9.863570717	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	85.08852187	82.94863039	-6.553188642	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	79.56363743	70.47518958	-5.19718926	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	68.34937653	42.1505818	-2.461629467	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	98.51088635	111.0330735	-10.32683606	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 12/E	202.6680098	304.3049044	115.3121799	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 12/E	171.7050205	222.5137138	115.3121799	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 12/E	157.0565216	185.6148955	115.3121799	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 12/E	127.2587542	127.1787834	115.3121799	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 12/E	206.4008978	314.1268743	115.3121799	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 11/E	297.5101642	345.8055116	-70.77694237	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 11/E	251.9727333	263.6760024	-43.70365454	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 11/E	231.0551438	224.463997	-32.03916504	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 11/E	188.1372168	140.9812031	-7.285088164	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 11/E	303.1662438	355.975729	-74.35587459	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	288.4833539	302.8274859	-53.7996667	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	247.7093403	231.231864	-31.71751334	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	228.5109934	195.8248966	-21.66998551	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	185.903162	116.6517535	4.919331409	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	293.4708522	311.3275679	-56.63157285	4.7	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	202.6680098	304.3049044	115.3121799	5	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	171.7050205	222.5137138	115.3121799	9	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	157.0565216	185.6148955	115.3121799	12.61710051	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	127.2587542	127.1787834	115.3121799	30.003942	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	206.4008978	314.1268743	115.3121799	4.7	1196.275757

Not included in Export

Not included in Export

PHMSA QRA Study 200210 (Export 1.1xPressure)_2 Toxic Dispersion

Study	Model	Caselist	Case	Holesize	Weather	Height	Time	Concentra	Max Distar	Max Width	Min Distar	Release Ra	Path

Study	Model	Hole Size	Weather	Height	Time	LFL Fraction	Concen-tration	Max Distance	Max Width	Min Distance	Release Rate
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 12/E	1	Max Conc	0.5	22000	577.1967163	274.5084534	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 12/E	1	Max Conc	1	44000	311.5386353	241.2920227	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	1	Max Conc	0.5	22000	688.7272339	287.2801208	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 11/E	1	Max Conc	1	44000	382.036438	251.8331299	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	1	Max Conc	0.5	22000	1312.468262	532.2198486	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 9/E	1	Max Conc	1	44000	676.4450073	471.7775879	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	1	Max Conc	0.5	22000	577.1967163	274.5084534	0	526.6993408
Export (1.1xOP)	E_INV009_610mm (2min)	610	Category 3/E	1	Max Conc	1	44000	311.5386353	241.2920227	0	526.6993408
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 12/E	1	Max Conc	0.5	22000	775.8069458	673.1352539	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 12/E	1	Max Conc	1	44000	394.6071167	593.671814	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 11/E	1	Max Conc	0.5	22000	889.2119141	702.3208618	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 11/E	1	Max Conc	1	44000	440.3181458	618.1117554	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 9/E	1	Max Conc	0.5	22000	1380.395874	1072.854492	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 9/E	1	Max Conc	1	44000	456.6265869	951.8807983	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	1	Max Conc	0.5	22000	775.8069458	673.1352539	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (1hr)	914	Category 3/E	1	Max Conc	1	44000	394.6071167	593.671814	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	1	Max Conc	0.5	22000	860.0614014	462.4112854	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 12/E	1	Max Conc	1	44000	425.6983337	408.763916	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	1	Max Conc	0.5	22000	1100.633911	479.1484985	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 11/E	1	Max Conc	1	44000	603.6611328	422.1349487	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	1	Max Conc	0.5	22000	2007.265137	847.1669312	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 9/E	1	Max Conc	1	44000	984.6679688	753.572998	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	1	Max Conc	0.5	22000	860.0614014	462.4112854	0	1454.520142
Export (1.1xOP)	E_INV010_914mm (2min)	914	Category 3/E	1	Max Conc	1	44000	425.6983337	408.763916	0	1454.520142
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 12/E	1	Max Conc	0.5	22000	698.0947266	615.2751465	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 12/E	1	Max Conc	1	44000	355.7962952	542.0563354	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 11/E	1	Max Conc	0.5	22000	797.8655396	642.2857056	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 11/E	1	Max Conc	1	44000	397.246521	564.6955566	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	1	Max Conc	0.5	22000	1803.275024	653.0697021	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 9/E	1	Max Conc	1	44000	891.9219971	578.6317139	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	1	Max Conc	0.5	22000	698.0947266	615.2751465	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (1m)	1000	Category 3/E	1	Max Conc	1	44000	355.7962952	542.0563354	0	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 12/E	1	Max Conc	0.5	22000	1077.609131	326.106781	5.246246	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 12/E	1	Max Conc	1	44000	663.0144653	278.240448	11.41713	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 11/E	1	Max Conc	0.5	22000	1205.563354	381.8503113	11.73502	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 11/E	1	Max Conc	1	44000	717.2375488	323.6280518	11.73502	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	1	Max Conc	0.5	22000	1807.76355	595.4694824	13.84411	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 9/E	1	Max Conc	1	44000	803.0092773	514.8251953	13.84411	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	1	Max Conc	0.5	22000	1077.609131	326.106781	5.246246	1196.275757
Export (1.1xOP)	E_INV014_1000mm (2/3H)	1000	Category 3/E	1	Max Conc	1	44000	663.0144653	278.240448	11.41713	1196.275757

Not included in Export

PHMSA QRA Study (VCE) 200207

Peakshaver

NG 10%

Base Case

CASE Name: **Data**

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NG_10%

User-Defined Data

Material

Material Identifier	METHANE

Baker Strehlow Explosion

Distance Step Size	2	ft
Minimum Distance	1	ft
Maximum Distance	10	ft
Flammable Mass	1746	lb
Liquid Fraction	0	fraction
Mass Modification Factor	1	
BS Ground Reflection Factor	2	
Treatment of Mach Number	Calculate Mach Number	
BS Material Reactivity	Low	
BS Flame Expansion	3	
BS Obstacle Density	Medium	

Geometry

Shape	Point	
Dimension	2D	
System	Absolute	
East(1)	0	ft
North(1)	0	ft

Consequence Results

Explosion Effects: Early Explosion

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NG_10%

Early Explosions are assumed to be centered at the release location
Explosion Model Used : Baker-Strehlow

			Category 6/P	Category 7/P	Category 12/P
Supplied Flammable Mass		lb	1746	1746	1746
			Distance (ft) at Overpressure Levels		
			Category 6/P	Category 7/P	Category 12/P
Overpressure	1	psi	322.501	322.501	322.501
Overpressure	2.00007	psi	151.665	151.665	151.665
Overpressure	3	psi	Not Reachable	Not Reachable	Not Reachable
			Used Mass (lb) at Overpressure Levels		
			Category 6/P	Category 7/P	Category 12/P
Overpressure	1	psi	1746	1746	1746
Overpressure	2.00007	psi	1746	1746	1746
Overpressure	3	psi	1746	1746	1746

Weather Conditions

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NG_10%

		Category 6/P	Category 7/P	Category 12/P
Wind Speed	mph	9.3	16.5	16.5
Pasquill Stability		D	E	D
Surface Roughness Length	in	1.1811	1.1811	1.1811
Surface Roughness Parameter		0.068857	0.068857	0.068857
Atmospheric Temperature	degF	37.4	37.4	67.1
Surface Temperature	degF	37.4	37.4	67.1
Relative Humidity	fraction	0.695	0.695	0.695

NG 5%

Base Case

CASE Name: **Data**

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NG_5%

User-Defined Data

Material

Material Identifier	METHANE

Baker Strehlow Explosion

Distance Step Size	2	ft
Minimum Distance	1	ft
Maximum Distance	10	ft
Flammable Mass	873	lb
Liquid Fraction	0	fraction
Mass Modification Factor	1	
BS Ground Reflection Factor	2	
Treatment of Mach Number	Calculate Mach Number	
BS Material Reactivity	Low	
BS Flame Expansion	3	
BS Obstacle Density	Medium	

Geometry

Shape	Point	
Dimension	2D	
System	Absolute	
East(1)	0	ft
North(1)	0	ft

Consequence Results

Explosion Effects: Early Explosion

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NG_5%

Early Explosions are assumed to be centered at the release location
Explosion Model Used : Baker-Strehlow

			Category 6/P	Category 7/P	Category 12/P
Supplied Flammable Mass		lb	873	873	873
			Distance (ft) at Overpressure Levels		
			Category 6/P	Category 7/P	Category 12/P
Overpressure	1	psi	255.969	255.969	255.969
Overpressure	2.00007	psi	120.376	120.376	120.376
Overpressure	3	psi	Not Reachable	Not Reachable	Not Reachable
			Used Mass (lb) at Overpressure Levels		
			Category 6/P	Category 7/P	Category 12/P
Overpressure	1	psi	873	873	873
Overpressure	2.00007	psi	873	873	873
Overpressure	3	psi	873	873	873

Weather Conditions

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NG_5%

		Category 6/P	Category 7/P	Category 12/P
Wind Speed	mph	9.3	16.5	16.5
Pasquill Stability		D	E	D
Surface Roughness Length	in	1.1811	1.1811	1.1811
Surface Roughness Parameter		0.068857	0.068857	0.068857
Atmospheric Temperature	degF	37.4	37.4	67.1
Surface Temperature	degF	37.4	37.4	67.1
Relative Humidity	fraction	0.695	0.695	0.695

NGL 10%

Base Case

CASE Name: **Data**

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NGL_10%

User-Defined Data

Material

Material Identifier	NGL

Baker Strehlow Explosion

Distance Step Size	2	ft
Minimum Distance	1	ft
Maximum Distance	10	ft
Flammable Mass	950	lb
Liquid Fraction	0	fraction
Mass Modification Factor	1	
BS Ground Reflection Factor	2	
Treatment of Mach Number	Calculate Mach Number	
BS Material Reactivity	Medium	
BS Flame Expansion	3	
BS Obstacle Density	Medium	

Geometry

Shape	Point	
Dimension	2D	
System	Absolute	
East(1)	0	ft
North(1)	0	ft

Consequence Results

Explosion Effects: Early Explosion

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NGL_10%

Early Explosions are assumed to be centered at the release location
Explosion Model Used : Baker-Strehlow

			Category 6/P	Category 7/P	Category 12/P
Supplied Flammable Mass		lb	950	950	950

Distance (ft) at Overpressure Levels

			Category 6/P	Category 7/P	Category 12/P
Overpressure	1	psi	744.522	744.522	744.522
Overpressure	2.00007	psi	416.215	416.215	416.215
Overpressure	3	psi	273.662	273.662	273.662

Used Mass (lb) at Overpressure Levels

			Category 6/P	Category 7/P	Category 12/P
Overpressure	1	psi	950	950	950
Overpressure	2.00007	psi	950	950	950
Overpressure	3	psi	950	950	950

Weather Conditions

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NGL_10%

		Category 6/P	Category 7/P	Category 12/P
Wind Speed	mph	9.3	16.5	16.5
Pasquill Stability		D	E	D
Surface Roughness Length	in	1.1811	1.1811	1.1811
Surface Roughness Parameter		0.068857	0.068857	0.068857
Atmospheric Temperature	degF	37.4	37.4	67.1
Surface Temperature	degF	37.4	37.4	67.1
Relative Humidity	fraction	0.695	0.695	0.695

NGL 5%

Base Case

CASE Name: **Data**

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NGL_5%

User-Defined Data

Material

Material Identifier	NGL

Baker Strehlow Explosion

Distance Step Size	2	ft
Minimum Distance	1	ft
Maximum Distance	10	ft
Flammable Mass	474	lb
Liquid Fraction	0	fraction
Mass Modification Factor	1	
BS Ground Reflection Factor	2	
Treatment of Mach Number	Calculate Mach Number	
BS Material Reactivity	Medium	
BS Flame Expansion	3	
BS Obstacle Density	Medium	

Geometry

Shape	Point	
Dimension	2D	
System	Absolute	
East(1)	0	ft
North(1)	0	ft

Consequence Results

Explosion Effects: Early Explosion

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NGL_5%

Early Explosions are assumed to be centered at the release location
Explosion Model Used : Baker-Strehlow

			Category 6/P	Category 7/P	Category 12/P
Supplied Flammable Mass		lb	474	474	474

Distance (ft) at Overpressure Levels

			Category 6/P	Category 7/P	Category 12/P
Overpressure	1	psi	590.513	590.513	590.513
Overpressure	2.00007	psi	330.118	330.118	330.118
Overpressure	3	psi	217.053	217.053	217.053

Used Mass (lb) at Overpressure Levels

			Category 6/P	Category 7/P	Category 12/P
Overpressure	1	psi	474	474	474
Overpressure	2.00007	psi	474	474	474
Overpressure	3	psi	474	474	474

Weather Conditions

Path: \PHMSA QRA Study (VCE) 200207\Peakshaver\NGL_5%

		Category 6/P	Category 7/P	Category 12/P
Wind Speed	mph	9.3	16.5	16.5
Pasquill Stability		D	E	D
Surface Roughness Length	in	1.1811	1.1811	1.1811
Surface Roughness Parameter		0.068857	0.068857	0.068857
Atmospheric Temperature	degF	37.4	37.4	67.1
Surface Temperature	degF	37.4	37.4	67.1
Relative Humidity	fraction	0.695	0.695	0.695

PHMSA QRA Study (VCE) 200207

Export

MR 10%

Base Case

CASE Name: **Data**

Path: \PHMSA QRA Study (VCE) 200207\Export\MR_10%

User-Defined Data

Material

Material Identifier	MR - Liquid

Baker Strehlow Explosion

Distance Step Size	2	ft
Minimum Distance	1	ft
Maximum Distance	10	ft
Flammable Mass	5072	lb
Liquid Fraction	0	fraction
Mass Modification Factor	1	
BS Ground Reflection Factor	2	
Treatment of Mach Number	Calculate Mach Number	
BS Material Reactivity	Medium	
BS Flame Expansion	3	
BS Obstacle Density	Medium	

Geometry

Shape	Point	
Dimension	2D	
System	Absolute	
East(1)	0	ft
North(1)	0	ft

Consequence Results

Explosion Effects: Early Explosion

Path: \PHMSA QRA Study (VCE) 200207\Export\MR_10%

Early Explosions are assumed to be centered at the release location
Explosion Model Used : Baker-Strehlow

			Category 12/E	Category 11/E	Category 9/E
Supplied Flammable Mass		lb	5072	5072	5072

			Category 3/E
Supplied Flammable Mass		lb	5072

Distance (ft) at Overpressure Levels

			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	1268.4	1268.4	1268.4
Overpressure	2.00007	psi	709.08	709.08	709.08
Overpressure	3	psi	466.222	466.222	466.222

			Category 3/E
Overpressure	1	psi	1268.4
Overpressure	2.00007	psi	709.08
Overpressure	3	psi	466.222

Used Mass (lb) at Overpressure Levels

			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	5072	5072	5072
Overpressure	2.00007	psi	5072	5072	5072
Overpressure	3	psi	5072	5072	5072

			Category 3/E
Overpressure	1	psi	5072
Overpressure	2.00007	psi	5072
Overpressure	3	psi	5072

Weather Conditions

Path: \PHMSA QRA Study (VCE) 200207\Export\MR_10%

		Category 12/E	Category 11/E	Category 9/E
Wind Speed	mph	13.4	13.4	7.5
Pasquill Stability		C/D	D	E
Surface Roughness Length	in	1.1811	1.1811	1.1811
Surface Roughness Parameter		0.068857	0.068857	0.068857
Atmospheric Temperature	degF	78.8	58.1	78.8
Surface Temperature	degF	78.8	58.1	78.8
Relative Humidity	fraction	0.79	0.79	0.79

		Category 3/E
Wind Speed	mph	13.4
Pasquill Stability		C/D
Surface Roughness Length	in	1.1811
Surface Roughness Parameter		0.068857
Atmospheric Temperature	degF	78.8
Surface Temperature	degF	78.8
Relative Humidity	fraction	0.79

MR 5%

Base Case

CASE Name: **Data**

Path: \PHMSA QRA Study (VCE) 200207\Export\MR_5%

User-Defined Data

Material

Material Identifier	MR - Liquid	

Baker Strehlow Explosion

Distance Step Size	2	ft
Minimum Distance	1	ft
Maximum Distance	10	ft
Flammable Mass	2513	lb
Liquid Fraction	0	fraction
Mass Modification Factor	1	
BS Ground Reflection Factor	2	
Treatment of Mach Number	Calculate Mach Number	
BS Material Reactivity	Medium	
BS Flame Expansion	3	
BS Obstacle Density	Medium	

Geometry

Shape	Point	
Dimension	2D	
System	Absolute	
East(1)	0	ft
North(1)	0	ft

Consequence Results

Explosion Effects: Early Explosion

Path: \PHMSA QRA Study (VCE) 200207\Export\MR_5%

Early Explosions are assumed to be centered at the release location
Explosion Model Used : Baker-Strehlow

			Category 12/E	Category 11/E	Category 9/E
Supplied Flammable Mass		lb	2513	2513	2513

			Category 3/E
Supplied Flammable Mass		lb	2513

			Distance (ft) at Overpressure Levels		
			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	1003.67	1003.67	1003.67
Overpressure	2.00007	psi	561.091	561.091	561.091
Overpressure	3	psi	368.918	368.918	368.918

			Category 3/E
Overpressure	1	psi	1003.67
Overpressure	2.00007	psi	561.091
Overpressure	3	psi	368.918

			Used Mass (lb) at Overpressure Levels		
			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	2513	2513	2513
Overpressure	2.00007	psi	2513	2513	2513
Overpressure	3	psi	2513	2513	2513

			Category 3/E
Overpressure	1	psi	2513
Overpressure	2.00007	psi	2513
Overpressure	3	psi	2513

Weather Conditions

Path: \PHMSA QRA Study (VCE) 200207\Export\MR_5%

		Category 12/E	Category 11/E	Category 9/E
Wind Speed	mph	13.4	13.4	7.5
Pasquill Stability		C/D	D	E
Surface Roughness Length	in	1.1811	1.1811	1.1811
Surface Roughness Parameter		0.068857	0.068857	0.068857
Atmospheric Temperature	degF	78.8	58.1	78.8
Surface Temperature	degF	78.8	58.1	78.8
Relative Humidity	fraction	0.79	0.79	0.79

		Category 3/E
Wind Speed	mph	13.4
Pasquill Stability		C/D
Surface Roughness Length	in	1.1811
Surface Roughness Parameter		0.068857
Atmospheric Temperature	degF	78.8
Surface Temperature	degF	78.8
Relative Humidity	fraction	0.79

NG 10%

Base Case

CASE Name: **Data**

Path: \PHMSA QRA Study (VCE) 200207\Export\NG_10%

User-Defined Data

Material

Material Identifier	METHANE	

Baker Strehlow Explosion

Distance Step Size	2	ft
Minimum Distance	1	ft
Maximum Distance	10	ft
Flammable Mass	8408	lb
Liquid Fraction	0	fraction
Mass Modification Factor	1	
BS Ground Reflection Factor	2	
Treatment of Mach Number	Calculate Mach Number	
BS Material Reactivity	Low	
BS Flame Expansion	3	
BS Obstacle Density	Medium	

Geometry

Shape	Point	
Dimension	2D	
System	Absolute	
East(1)	0	ft
North(1)	0	ft

Consequence Results

Explosion Effects: Early Explosion

Path: \PHMSA QRA Study (VCE) 200207\Export\NG_10%

Early Explosions are assumed to be centered at the release location
Explosion Model Used : Baker-Strehlow

			Category 12/E	Category 11/E	Category 9/E
Supplied Flammable Mass		lb	8408	8408	8408

			Category 3/E
Supplied Flammable Mass		lb	8408

Distance (ft) at Overpressure Levels

			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	544.603	544.603	544.603
Overpressure	2.00007	psi	256.114	256.114	256.114
Overpressure	3	psi	Not Reachable	Not Reachable	Not Reachable

			Category 3/E
Overpressure	1	psi	544.603
Overpressure	2.00007	psi	256.114
Overpressure	3	psi	Not Reachable

Used Mass (lb) at Overpressure Levels

			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	8408	8408	8408
Overpressure	2.00007	psi	8408	8408	8408
Overpressure	3	psi	8408	8408	8408

			Category 3/E
Overpressure	1	psi	8408
Overpressure	2.00007	psi	8408
Overpressure	3	psi	8408

Weather Conditions

Path: \PHMSA QRA Study (VCE) 200207\Export\NG_10%

		Category 12/E	Category 11/E	Category 9/E
Wind Speed	mph	13.4	13.4	7.5
Pasquill Stability		C/D	D	E
Surface Roughness Length	in	1.1811	1.1811	1.1811
Surface Roughness Parameter		0.068857	0.068857	0.068857
Atmospheric Temperature	degF	78.8	58.1	78.8
Surface Temperature	degF	78.8	58.1	78.8
Relative Humidity	fraction	0.79	0.79	0.79

		Category 3/E
Wind Speed	mph	13.4
Pasquill Stability		C/D
Surface Roughness Length	in	1.1811
Surface Roughness Parameter		0.068857
Atmospheric Temperature	degF	78.8
Surface Temperature	degF	78.8
Relative Humidity	fraction	0.79

NG 5%

Base Case

CASE Name: **Data**

Path: \PHMSA QRA Study (VCE) 200207\Export\NG_5%

User-Defined Data

Material

Material Identifier	METHANE	

Baker Strehlow Explosion

Distance Step Size	2	ft
Minimum Distance	1	ft
Maximum Distance	10	ft
Flammable Mass	4204	lb
Liquid Fraction	0	fraction
Mass Modification Factor	1	
BS Ground Reflection Factor	2	
Treatment of Mach Number	Calculate Mach Number	
BS Material Reactivity	Low	
BS Flame Expansion	3	
BS Obstacle Density	Medium	

Geometry

Shape	Point	
Dimension	2D	
System	Absolute	
East(1)	0	ft
North(1)	0	ft

Consequence Results

Explosion Effects: Early Explosion

Path: \PHMSA QRA Study (VCE) 200207\Export\NG_5%

Early Explosions are assumed to be centered at the release location
Explosion Model Used : Baker-Strehlow

			Category 12/E	Category 11/E	Category 9/E
Supplied Flammable Mass		lb	4204	4204	4204

			Category 3/E
Supplied Flammable Mass		lb	4204

Distance (ft) at Overpressure Levels

			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	432.252	432.252	432.252
Overpressure	2.00007	psi	203.278	203.278	203.278
Overpressure	3	psi	Not Reachable	Not Reachable	Not Reachable

			Category 3/E
Overpressure	1	psi	432.252
Overpressure	2.00007	psi	203.278
Overpressure	3	psi	Not Reachable

Used Mass (lb) at Overpressure Levels

			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	4204	4204	4204
Overpressure	2.00007	psi	4204	4204	4204
Overpressure	3	psi	4204	4204	4204

			Category 3/E
Overpressure	1	psi	4204
Overpressure	2.00007	psi	4204
Overpressure	3	psi	4204

Weather Conditions

Path: \PHMSA QRA Study (VCE) 200207\Export\NG_5%

		Category 12/E	Category 11/E	Category 9/E
Wind Speed	mph	13.4	13.4	7.5
Pasquill Stability		C/D	D	E
Surface Roughness Length	in	1.1811	1.1811	1.1811
Surface Roughness Parameter		0.068857	0.068857	0.068857
Atmospheric Temperature	degF	78.8	58.1	78.8
Surface Temperature	degF	78.8	58.1	78.8
Relative Humidity	fraction	0.79	0.79	0.79

		Category 3/E
Wind Speed	mph	13.4
Pasquill Stability		C/D
Surface Roughness Length	in	1.1811
Surface Roughness Parameter		0.068857
Atmospheric Temperature	degF	78.8
Surface Temperature	degF	78.8
Relative Humidity	fraction	0.79

NGL 10%

Base Case

CASE Name: **Data**

Path: \PHMSA QRA Study (VCE) 200207\Export\NGL_10%

User-Defined Data

Material

Material Identifier	NGL

Baker Strehlow Explosion

Distance Step Size	2	ft
Minimum Distance	1	ft
Maximum Distance	10	ft
Flammable Mass	4572	lb
Liquid Fraction	0	fraction
Mass Modification Factor	1	
BS Ground Reflection Factor	2	
Treatment of Mach Number	Calculate Mach Number	
BS Material Reactivity	Medium	
BS Flame Expansion	3	
BS Obstacle Density	Medium	

Geometry

Shape	Point	
Dimension	2D	
System	Absolute	
East(1)	0	ft
North(1)	0	ft

Consequence Results

Explosion Effects: Early Explosion

Path: \PHMSA QRA Study (VCE) 200207\Export\NGL_10%

Early Explosions are assumed to be centered at the release location
Explosion Model Used : Baker-Strehlow

			Category 12/E	Category 11/E	Category 9/E
Supplied Flammable Mass		lb	4572	4572	4572

			Category 3/E
Supplied Flammable Mass		lb	4572

Distance (ft) at Overpressure Levels

			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	1257.01	1257.01	1257.01
Overpressure	2.00007	psi	702.714	702.714	702.714
Overpressure	3	psi	462.036	462.036	462.036

			Category 3/E
Overpressure	1	psi	1257.01
Overpressure	2.00007	psi	702.714
Overpressure	3	psi	462.036

Used Mass (lb) at Overpressure Levels

			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	4572	4572	4572
Overpressure	2.00007	psi	4572	4572	4572
Overpressure	3	psi	4572	4572	4572

			Category 3/E
Overpressure	1	psi	4572
Overpressure	2.00007	psi	4572
Overpressure	3	psi	4572

Weather Conditions

Path: \PHMSA QRA Study (VCE) 200207\Export\NGL_10%

		Category 12/E	Category 11/E	Category 9/E
Wind Speed	mph	13.4	13.4	7.5
Pasquill Stability		C/D	D	E
Surface Roughness Length	in	1.1811	1.1811	1.1811
Surface Roughness Parameter		0.068857	0.068857	0.068857
Atmospheric Temperature	degF	78.8	58.1	78.8
Surface Temperature	degF	78.8	58.1	78.8
Relative Humidity	fraction	0.79	0.79	0.79

		Category 3/E
Wind Speed	mph	13.4
Pasquill Stability		C/D
Surface Roughness Length	in	1.1811
Surface Roughness Parameter		0.068857
Atmospheric Temperature	degF	78.8
Surface Temperature	degF	78.8
Relative Humidity	fraction	0.79

NGL 5%

Base Case

CASE Name: **Data**

Path: \PHMSA QRA Study (VCE) 200207\Export\NGL_5%

User-Defined Data

Material

Material Identifier	NGL

Baker Strehlow Explosion

Distance Step Size	2	ft
Minimum Distance	1	ft
Maximum Distance	10	ft
Flammable Mass	1037	lb
Liquid Fraction	0	fraction
Mass Modification Factor	1	
BS Ground Reflection Factor	2	
Treatment of Mach Number	Calculate Mach Number	
BS Material Reactivity	Medium	
BS Flame Expansion	3	
BS Obstacle Density	Medium	

Geometry

Shape	Point	
Dimension	2D	
System	Absolute	
East(1)	0	ft
North(1)	0	ft

Consequence Results

Explosion Effects: Early Explosion

Path: \PHMSA QRA Study (VCE) 200207\Export\NGL_5%

Early Explosions are assumed to be centered at the release location
Explosion Model Used : Baker-Strehlow

			Category 12/E	Category 11/E	Category 9/E
Supplied Flammable Mass		lb	1037	1037	1037

			Category 3/E
Supplied Flammable Mass		lb	1037

			Distance (ft) at Overpressure Levels		
			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	766.59	766.59	766.59
Overpressure	2.00007	psi	428.551	428.551	428.551
Overpressure	3	psi	281.773	281.773	281.773

			Category 3/E
Overpressure	1	psi	766.59
Overpressure	2.00007	psi	428.551
Overpressure	3	psi	281.773

			Used Mass (lb) at Overpressure Levels		
			Category 12/E	Category 11/E	Category 9/E
Overpressure	1	psi	1037	1037	1037
Overpressure	2.00007	psi	1037	1037	1037
Overpressure	3	psi	1037	1037	1037

			Category 3/E
Overpressure	1	psi	1037
Overpressure	2.00007	psi	1037
Overpressure	3	psi	1037

Weather Conditions

Path: \PHMSA QRA Study (VCE) 200207\Export\NGL_5%

		Category 12/E	Category 11/E	Category 9/E
Wind Speed	mph	13.4	13.4	7.5
Pasquill Stability		C/D	D	E
Surface Roughness Length	in	1.1811	1.1811	1.1811
Surface Roughness Parameter		0.068857	0.068857	0.068857
Atmospheric Temperature	degF	78.8	58.1	78.8
Surface Temperature	degF	78.8	58.1	78.8
Relative Humidity	fraction	0.79	0.79	0.79

		Category 3/E
Wind Speed	mph	13.4
Pasquill Stability		C/D
Surface Roughness Length	in	1.1811
Surface Roughness Parameter		0.068857
Atmospheric Temperature	degF	78.8
Surface Temperature	degF	78.8
Relative Humidity	fraction	0.79