

Reducing Winter Maintenance Equipment Fuel Consumption Using Advanced Vehicle Data Analytics: Appendices

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| 16. Abstract (Limit: 250 words) This project analyzes the impact that idling and snowfall have on the fuel consumed by MnDOT's snowplow fleet, with the underlying objective to determine and advise MnDOT on ways to reduce fuel usage of the fleet using vehicle telematics data. This is a significant problem to solve as fuel use reduction contributes to MnDOT's sustainability goals of achieving a 30% reduction in fossil fuel use and greenhouse gas (GHG) emissions from 2005 levels by 2025. Furthermore, rising fuel costs are a future cause for concern due to an increase in business operational costs that increases the burden on taxpayers to keep roads safe in winter. This problem is challenging because existing on-board diagnostics (OBD) data do not contain mass information for the trucks' fuel use, which can fluctuate significantly when they are applying deicing substances to the road. Taking a mean value for the vehicle mass, we observe a clear positive correlation between snowfall and average fuel use. For days with snowfall totaling 4 inches or more, fuel use rises more than 25% on average compared to days without snowfall. In addition, the results from the idling analysis indicate that the idling time associated with the fleet is about 23% of total recorded hours and constitutes about 4.3% of the total fuel used. Daily idling activity reports containing information about idling events and fuel economy are generated for the sampled vehicles and shared with MnDOT. | | | |
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APPENDIX A - DEVICES/VEHICLES CONSIDERED FOR IDLING ANALYSIS

Devices and their associated vehicle are listed in this appendix if data from the device was used in any analysis of idling in this report. There are 459 devices/vehicles used in analyses. Vehicles are assigned to districts by spatially joining their data to districts and selecting the district that is assigned the plurality of the records.

| | District | | | | | | | | |
|------------------|----------|----|----|----|----|----|----|-------|------------|
| Winter | 1 | 2 | 3 | 4 | 6 | 7 | 8 | Metro | Total |
| 2018–2019 | 1 | | 2 | | 3 | | 4 | 5 | 15 |
| 2019–2020 | 8 | 7 | 9 | 3 | 9 | 8 | 9 | 11 | 64 |
| 2020–2021 | 55 | 50 | 52 | 32 | 56 | 37 | 41 | 117 | 440 |
| 2021–2022 | 62 | 43 | 59 | 33 | 49 | 41 | 44 | 128 | 459 |

Table A.1 Vehicle counts by district after exclusions.

Winter one vehicles (MnDOT vehicle number, AmeriTrak serial number):

| | | | |
|-------------------|-------------------|-------------------|-------------------|
| 207550 (13051010) | 208553 (13051023) | 209513 (15022403) | 210511 (11062202) |
| 210512 (12021111) | 211502 (10111335) | 211561 (12122329) | 212529 (11082724) |
| 212557 (13041109) | 213559 (11111001) | 215504 (15022408) | 215512 (12041009) |
| 215519 (15031301) | 215574 (15022809) | 216554 (16041348) | |

Winter two vehicles:

| | | | |
|-------------------|-------------------|-------------------|-------------------|
| 205506 (12041106) | 205585 (11111012) | 206510 (11111019) | 206558 (13082426) |
| 206566 (10052007) | 207502 (13081222) | 207508 (11082705) | 207511 (12021102) |
| 207515 (12021110) | 207550 (13051010) | 207552 (13082409) | 207562 (10111307) |
| 207565 (11111004) | 207580 (12041103) | 208553 (13051023) | 209505 (10111336) |
| 209513 (15022403) | 210511 (11062202) | 211500 (12122317) | 211502 (10111335) |
| 211505 (12122311) | 211506 (12122321) | 211508 (11111002) | 211556 (12112822) |
| 211563 (13041117) | 211565 (12122320) | 212500 (13041107) | 212505 (13051004) |
| 212516 (13041123) | 212523 (13072020) | 212529 (11082724) | 212556 (13041122) |
| 212557 (13041109) | 212560 (11082719) | 212568 (11111017) | 213559 (11111001) |
| 213562 (17041101) | 214514 (12122324) | 215504 (15022408) | 215511 (15031308) |
| 215519 (15031301) | 215550 (15022409) | 215559 (15031309) | 215569 (15022808) |
| 215573 (15022818) | 215574 (15022809) | 215579 (15022814) | 216551 (16041355) |
| 216557 (16041357) | 216560 (16041312) | 216563 (16041304) | 216573 (16041328) |
| 216580 (16041332) | 216589 (16041333) | 216591 (16041325) | 217511 (16091428) |
| 217576 (16091419) | 217584 (17123018) | 218143 (17122501) | 218144 (17123003) |
| 218564 (17123013) | 218566 (17123026) | 218577 (18013103) | 218580 (17123020) |

Winter three vehicles:

| | | | |
|-------------------|-------------------|-------------------|-------------------|
| 204525 (12112817) | 205500 (14123010) | 205502 (13081208) | 205505 (11082714) |
| 205506 (12041106) | 205509 (12112815) | 205510 (12112805) | 205514 (10111339) |
| 205550 (13051016) | 205552 (13081204) | 205554 (13082443) | 205556 (13051002) |
| 205557 (13051028) | 205559 (12112824) | 205561 (12021108) | 205562 (12041012) |
| 205563 (11122620) | 205564 (16041327) | 205565 (10052006) | 205567 (10111352) |
| 205582 (12112820) | 205583 (12033107) | 205585 (11111012) | 206501 (13072007) |
| 206502 (13072001) | 206503 (13081219) | 206505 (13081223) | 206506 (13081217) |
| 206507 (11122615) | 206509 (12041101) | 206510 (11111019) | 206511 (12033102) |
| 206515 (13082435) | 206516 (13082436) | 206518 (12112821) | 206521 (10111313) |
| 206522 (12112826) | 206523 (10111317) | 206550 (13082406) | 206551 (13082407) |
| 206552 (13082430) | 206553 (13072009) | 206554 (13082408) | 206555 (13082412) |
| 206556 (13082424) | 206557 (13051011) | 206558 (13082426) | 206559 (14050424) |
| 206561 (12061111) | 206562 (11122606) | 206563 (11122604) | 206564 (11082717) |
| 206565 (11111016) | 206566 (10052007) | 206567 (10111332) | 206568 (10111337) |
| 206575 (11122612) | 206577 (11122610) | 206579 (10111301) | 206582 (12112819) |
| 207501 (13051012) | 207502 (13081222) | 207503 (13072008) | 207505 (13072011) |
| 207506 (13072012) | 207507 (11122603) | 207508 (11082705) | 207510 (11122602) |
| 207511 (12021102) | 207515 (12021110) | 207521 (14050401) | 207524 (12021112) |
| 207550 (13051010) | 207552 (13082409) | 207553 (13081212) | 207554 (13082405) |
| 207555 (13081221) | 207556 (13082410) | 207557 (13082423) | 207558 (13081205) |
| 207559 (13082429) | 207560 (13081211) | 207561 (13082411) | 207563 (11111013) |
| 207564 (16111702) | 207565 (11111004) | 207566 (12112801) | 207568 (10111347) |
| 207569 (10111367) | 207570 (10052004) | 207571 (10111340) | 207580 (12041103) |
| 207584 (13082416) | 207585 (15022820) | 207588 (12061104) | 208500 (13072005) |
| 208501 (13072006) | 208505 (11111010) | 208506 (13041105) | 208507 (13041115) |
| 208509 (10111305) | 208550 (13051017) | 208551 (12122316) | 208552 (13082428) |
| 208553 (13051023) | 208555 (13082445) | 208556 (14050403) | 208558 (10111357) |
| 208559 (13122119) | 208564 (10111326) | 208565 (10111323) | 208566 (10052005) |
| 208571 (13082403) | 208574 (10111302) | 209500 (13081210) | 209501 (13072010) |
| 209503 (11122614) | 209504 (12021109) | 209505 (10111336) | 209509 (13082421) |
| 209510 (13082402) | 209511 (13041106) | 209513 (15022403) | 209514 (12033103) |
| 209550 (13081216) | 209552 (12041006) | 209553 (11080607) | 209554 (10111327) |
| 209556 (11062201) | 209563 (13122114) | 209567 (12061114) | 210502 (11080612) |
| 210511 (11062202) | 210512 (12021111) | 210513 (11080614) | 210515 (11080605) |
| 210516 (11080611) | 210550 (12041010) | 210551 (11082721) | 210552 (11111015) |
| 210553 (11082726) | 210554 (13082431) | 210555 (11111006) | 210557 (11080601) |
| 210559 (11080606) | 210561 (13041104) | 210562 (11080617) | 210563 (11080610) |
| 210564 (11080609) | 210565 (11080616) | 210567 (13122109) | 210569 (11080608) |
| 210570 (11080619) | 211500 (12122317) | 211501 (13082433) | 211502 (10111335) |
| 211504 (13082425) | 211505 (12122311) | 211506 (12122321) | 211508 (11111002) |
| 211509 (12112825) | 211512 (13041103) | 211551 (12122305) | 211553 (11111005) |

| | | | |
|-------------------|-------------------|-------------------|-------------------|
| 211554 (13082447) | 211555 (13082446) | 211556 (12112822) | 211557 (12112812) |
| 211559 (18032402) | 211561 (12122329) | 211562 (13082419) | 211563 (13041117) |
| 211564 (12122318) | 211565 (12122320) | 211566 (12112827) | 211568 (12122328) |
| 212500 (13041107) | 212501 (16032101) | 212502 (13072017) | 212503 (13041113) |
| 212504 (13041111) | 212505 (13051004) | 212506 (12122326) | 212507 (11080624) |
| 212508 (13041114) | 212509 (13051014) | 212510 (12041109) | 212511 (13051027) |
| 212512 (11082702) | 212513 (12122330) | 212515 (13041128) | 212516 (13041123) |
| 212517 (13082427) | 212518 (13041102) | 212519 (13051013) | 212519 (20040101) |
| 212521 (12112803) | 212522 (13041112) | 212523 (13072020) | 212524 (12122304) |
| 212525 (13041130) | 212527 (11082716) | 212528 (13041121) | 212529 (18032401) |
| 212530 (13041110) | 212533 (11111018) | 212550 (13082432) | 212551 (13051026) |
| 212552 (13051019) | 212554 (11080620) | 212555 (11111011) | 212556 (13041122) |
| 212557 (13041109) | 212558 (13072016) | 212560 (11082719) | 212561 (13041118) |
| 212562 (13051015) | 212565 (11111009) | 212566 (13041116) | 212567 (11082709) |
| 212568 (11111017) | 212569 (12112810) | 212570 (13051006) | 212571 (13051005) |
| 212573 (12112802) | 212574 (13081214) | 212575 (13082414) | 212576 (13122105) |
| 212578 (12122319) | 212580 (16111706) | 212581 (13122117) | 213500 (12061124) |
| 213502 (14050412) | 213504 (16041314) | 213507 (14050414) | 213508 (11082728) |
| 213510 (14050415) | 213515 (12122310) | 213518 (13122116) | 213519 (13122113) |
| 213550 (13122104) | 213551 (13081215) | 213552 (13082438) | 213554 (13082415) |
| 213555 (13122101) | 213556 (13122106) | 213559 (11111001) | 213560 (13122103) |
| 213561 (13122110) | 213562 (17041101) | 213563 (11080623) | 213564 (13122107) |
| 214503 (14101505) | 214504 (14121902) | 214505 (14120705) | 214506 (14120708) |
| 214507 (14120704) | 214510 (14101514) | 214512 (14101506) | 214514 (12122324) |
| 214515 (14120714) | 214518 (14120715) | 214519 (14101512) | 214520 (14101507) |
| 214521 (14101511) | 214522 (14120709) | 214523 (14101513) | 214550 (11122605) |
| 214551 (14101502) | 214554 (14050422) | 214555 (14092501) | 214558 (14050405) |
| 214559 (14100513) | 214561 (13082434) | 214562 (11082701) | 214565 (14100509) |
| 214566 (14100507) | 214569 (14100508) | 214572 (14100502) | 214574 (14050420) |
| 214575 (14101509) | 214580 (14120713) | 215501 (15022413) | 215502 (15022418) |
| 215503 (15022412) | 215505 (15022420) | 215506 (15031302) | 215507 (15022417) |
| 215508 (15031316) | 215509 (15031315) | 215510 (15022416) | 215511 (15031308) |
| 215513 (15022405) | 215514 (14050410) | 215516 (15022404) | 215517 (15031304) |
| 215519 (15031301) | 215520 (15022406) | 215550 (15022409) | 215551 (15022411) |
| 215552 (15022802) | 215553 (15022816) | 215556 (15031305) | 215558 (15022801) |
| 215559 (15031309) | 215560 (15022804) | 215561 (15022410) | 215562 (15022401) |
| 215564 (15031310) | 215566 (15031311) | 215567 (15022419) | 215569 (15022808) |
| 215570 (15022803) | 215571 (15031314) | 215572 (15022805) | 215573 (15022818) |
| 215574 (15022809) | 215575 (15022415) | 215577 (15022817) | 215578 (15022402) |
| 215579 (15022814) | 215580 (15022810) | 215581 (15031306) | 215583 (15022807) |
| 215584 (15031312) | 215585 (15022812) | 216500 (16041336) | 216501 (16041317) |
| 216502 (16041322) | 216505 (16041354) | 216510 (16111704) | 216513 (16041346) |

| | | | |
|-------------------|-------------------|-------------------|-------------------|
| 216550 (16041353) | 216551 (16041355) | 216552 (16041345) | 216553 (18032406) |
| 216555 (16041318) | 216556 (16041339) | 216557 (16041357) | 216559 (16041305) |
| 216560 (16041312) | 216561 (16041301) | 216562 (16041316) | 216563 (16041304) |
| 216564 (16041338) | 216565 (16041337) | 216566 (16041307) | 216567 (16041309) |
| 216568 (16041342) | 216569 (16041303) | 216570 (16041315) | 216573 (16041328) |
| 216576 (16041356) | 216577 (16041313) | 216578 (16041335) | 216579 (16041330) |
| 216580 (16041332) | 216581 (16041334) | 216583 (16041324) | 216584 (16041323) |
| 216585 (16041311) | 216586 (16041319) | 216587 (16041329) | 216589 (16041333) |
| 216590 (16041344) | 216591 (16041325) | 216592 (16041347) | 217304 (16091411) |
| 217306 (16091427) | 217459 (16091456) | 217503 (16091457) | 217510 (16091438) |
| 217511 (16091428) | 217512 (16091435) | 217515 (16091452) | 217516 (16091418) |
| 217519 (16091437) | 217551 (16091404) | 217565 (17123001) | 217570 (16091403) |
| 217570 (18032408) | 217572 (16091414) | 217576 (16091419) | 217584 (17123018) |
| 217946 (16091439) | 218143 (17122501) | 218144 (17123003) | 218146 (18033001) |
| 218314 (19011901) | 218315 (19011902) | 218323 (14123031) | 218500 (18013122) |
| 218501 (18013107) | 218502 (18013121) | 218503 (18013128) | 218504 (17123019) |
| 218505 (18013113) | 218506 (18013109) | 218507 (17122502) | 218508 (17123006) |
| 218509 (17123005) | 218510 (18013118) | 218513 (18013108) | 218514 (17123024) |
| 218515 (18013102) | 218552 (18013105) | 218553 (18013132) | 218555 (18013124) |
| 218556 (18013106) | 218558 (18013110) | 218559 (18013114) | 218560 (18013112) |
| 218561 (18013117) | 218562 (17123023) | 218563 (17123025) | 218564 (17123013) |
| | | | |
| 218565 (17123028) | 218566 (17123026) | 218567 (17123027) | 218568 (17123017) |
| 218569 (18013111) | 218570 (18013104) | 218571 (17122503) | 218572 (17123012) |
| 218573 (17123007) | 218574 (18013119) | 218575 (17123021) | 218576 (17123008) |
| 218577 (18013103) | 218578 (17123014) | 218580 (17123020) | 218581 (17123016) |
| 218582 (17123022) | 218583 (17123010) | 218584 (18013101) | 218585 (17123009) |
| 218586 (18013126) | 218588 (17123011) | 218589 (18013125) | 219582 (19033111) |

Winter four vehicles:

| | | | |
|-------------------|-------------------|-------------------|-------------------|
| 208566 (10052005) | 205565 (10052006) | 206566 (10052007) | 206579 (10111301) |
| 208574 (10111302) | 206521 (10111313) | 206523 (10111317) | 208565 (10111323) |
| 208564 (10111326) | 206567 (10111332) | 213512 (10111334) | 211502 (10111335) |
| 206568 (10111337) | 205514 (10111339) | 207569 (10111367) | 210511 (11062202) |
| 210557 (11080601) | 210515 (11080605) | 210559 (11080606) | 209553 (11080607) |
| 210569 (11080608) | 210564 (11080609) | 210563 (11080610) | 210513 (11080614) |
| 210565 (11080616) | 210562 (11080617) | 212554 (11080620) | 213563 (11080623) |
| 214562 (11082701) | 212512 (11082702) | 207508 (11082705) | 212567 (11082709) |
| 205505 (11082714) | 212527 (11082716) | 206564 (11082717) | 212560 (11082719) |
| 210551 (11082721) | 210553 (11082726) | 213508 (11082728) | 213559 (11111001) |
| 211508 (11111002) | 207565 (11111004) | 211553 (11111005) | 210555 (11111006) |
| 208505 (11111010) | 212555 (11111011) | 205585 (11111012) | 207563 (11111013) |

| | | | |
|-------------------|-------------------|-------------------|-------------------|
| 210552 (11111015) | 206565 (11111016) | 212568 (11111017) | 212533 (11111018) |
| 206510 (11111019) | 207510 (11122602) | 207507 (11122603) | 206563 (11122604) |
| 214550 (11122605) | 206562 (11122606) | 206577 (11122610) | 206575 (11122612) |
| 209503 (11122614) | 206507 (11122615) | 205563 (11122620) | 207511 (12021102) |
| 205561 (12021108) | 209504 (12021109) | 207515 (12021110) | 210512 (12021111) |
| 207524 (12021112) | 206511 (12033102) | 209514 (12033103) | 205583 (12033107) |
| 209552 (12041006) | 210550 (12041010) | 205562 (12041012) | 206509 (12041101) |
| 207580 (12041103) | 205506 (12041106) | 212510 (12041109) | 207588 (12061104) |
| 206561 (12061111) | 209567 (12061114) | 213500 (12061124) | 207566 (12112801) |
| 212573 (12112802) | 212521 (12112803) | 205510 (12112805) | 212569 (12112810) |
| 211557 (12112812) | 205509 (12112815) | 204525 (12112817) | 206582 (12112819) |
| 205582 (12112820) | 206518 (12112821) | 211556 (12112822) | 211509 (12112825) |
| 206522 (12112826) | 211566 (12112827) | 212524 (12122304) | 211551 (12122305) |
| 213515 (12122310) | 211505 (12122311) | 208551 (12122316) | 211500 (12122317) |
| 211564 (12122318) | 212578 (12122319) | 211565 (12122320) | 211506 (12122321) |
| 214514 (12122324) | 212506 (12122326) | 212513 (12122330) | 212518 (13041102) |
| 211512 (13041103) | 210561 (13041104) | 208506 (13041105) | 209511 (13041106) |
| 212500 (13041107) | 212557 (13041109) | 212530 (13041110) | 212522 (13041112) |
| 212503 (13041113) | 212508 (13041114) | 208507 (13041115) | 212566 (13041116) |
| 211563 (13041117) | 212561 (13041118) | 212528 (13041121) | 212556 (13041122) |
| 212516 (13041123) | 212553 (13041124) | 212525 (13041130) | 205556 (13051002) |
| 212505 (13051004) | 212571 (13051005) | 212570 (13051006) | 206500 (13051009) |
| 207550 (13051010) | 206557 (13051011) | 207501 (13051012) | 212562 (13051015) |
| 205550 (13051016) | 208550 (13051017) | 212552 (13051019) | 208553 (13051023) |
| 212551 (13051026) | 212511 (13051027) | 205557 (13051028) | 206502 (13072001) |
| 208500 (13072005) | 208501 (13072006) | 206501 (13072007) | 206553 (13072009) |
| 209501 (13072010) | 207505 (13072011) | 207506 (13072012) | 212558 (13072016) |
| 212502 (13072017) | 212523 (13072020) | 205552 (13081204) | 207558 (13081205) |
| 205502 (13081208) | 209500 (13081210) | 207560 (13081211) | 207553 (13081212) |
| 212574 (13081214) | 213551 (13081215) | 209550 (13081216) | 206503 (13081219) |
| 207555 (13081221) | 207502 (13081222) | 206505 (13081223) | 209510 (13082402) |
| 208571 (13082403) | 207554 (13082405) | 206550 (13082406) | 206551 (13082407) |
| 206554 (13082408) | 207552 (13082409) | 207561 (13082411) | 206555 (13082412) |
| 212575 (13082414) | 207584 (13082416) | 211562 (13082419) | 209509 (13082421) |
| 207557 (13082423) | 206556 (13082424) | 211504 (13082425) | 212517 (13082427) |
| 208552 (13082428) | 207559 (13082429) | 206552 (13082430) | 210554 (13082431) |
| 212550 (13082432) | 211501 (13082433) | 214561 (13082434) | 206515 (13082435) |
| 206516 (13082436) | 213552 (13082438) | 205554 (13082443) | 208555 (13082445) |
| 211555 (13082446) | 211554 (13082447) | 213555 (13122101) | 213560 (13122103) |
| 213550 (13122104) | 212576 (13122105) | 213556 (13122106) | 213564 (13122107) |
| 210567 (13122109) | 213561 (13122110) | 213519 (13122113) | 209563 (13122114) |

| | | | |
|-------------------|-------------------|-------------------|-------------------|
| 213518 (13122116) | 212581 (13122117) | 208559 (13122119) | 207521 (14050401) |
| 208556 (14050403) | 214558 (14050405) | 215514 (14050410) | 213502 (14050412) |
| 214579 (14050413) | 213507 (14050414) | 213510 (14050415) | 214574 (14050420) |
| 214578 (14050421) | 214554 (14050422) | 206559 (14050424) | 214555 (14092501) |
| 214566 (14100507) | 214569 (14100508) | 214565 (14100509) | 214559 (14100513) |
| 214577 (14100515) | 214513 (14101501) | 214551 (14101502) | 214503 (14101505) |
| 214520 (14101507) | 214575 (14101509) | 214519 (14101512) | 214523 (14101513) |
| 214510 (14101514) | 214507 (14120704) | 214505 (14120705) | 214506 (14120708) |
| 214522 (14120709) | 214580 (14120713) | 214515 (14120714) | 214518 (14120715) |
| 214504 (14121902) | 205500 (14123010) | 218323 (14123031) | 215578 (15022402) |
| 209513 (15022403) | 215516 (15022404) | 215513 (15022405) | 215520 (15022406) |
| 215550 (15022409) | 215561 (15022410) | 215551 (15022411) | 215503 (15022412) |
| 215575 (15022415) | 215510 (15022416) | 215507 (15022417) | 215502 (15022418) |
| 215567 (15022419) | 215505 (15022420) | 215558 (15022801) | 215552 (15022802) |
| 215570 (15022803) | 215560 (15022804) | 215572 (15022805) | 215583 (15022807) |
| 215569 (15022808) | 215574 (15022809) | 215580 (15022810) | 215585 (15022812) |
| 215579 (15022814) | 215553 (15022816) | 215577 (15022817) | 215573 (15022818) |
| 207585 (15022820) | 215519 (15031301) | 215506 (15031302) | 215517 (15031304) |
| 215556 (15031305) | 215581 (15031306) | 215563 (15031307) | 215559 (15031309) |
| 215564 (15031310) | 215566 (15031311) | 215584 (15031312) | 215571 (15031314) |
| 215509 (15031315) | 215508 (15031316) | 212501 (16032101) | 216561 (16041301) |
| 216569 (16041303) | 216559 (16041305) | 216566 (16041307) | 216567 (16041309) |
| 216560 (16041312) | 216577 (16041313) | 213504 (16041314) | 216570 (16041315) |
| 216562 (16041316) | 216501 (16041317) | 216555 (16041318) | 216502 (16041322) |
| 216584 (16041323) | 216583 (16041324) | 216591 (16041325) | 205564 (16041327) |
| 216573 (16041328) | 216587 (16041329) | 216579 (16041330) | 216580 (16041332) |
| 216589 (16041333) | 216581 (16041334) | 216500 (16041336) | 216565 (16041337) |
| 216564 (16041338) | 216556 (16041339) | 216568 (16041342) | 216552 (16041345) |
| 216513 (16041346) | 216592 (16041347) | 216550 (16041353) | 216505 (16041354) |
| 216551 (16041355) | 216576 (16041356) | 216557 (16041357) | 217551 (16091404) |
| 217304 (16091411) | 217572 (16091414) | 217516 (16091418) | 217576 (16091419) |
| 217306 (16091427) | 217511 (16091428) | 217512 (16091435) | 217519 (16091437) |
| 217510 (16091438) | 217946 (16091439) | 217515 (16091452) | 217459 (16091456) |
| 217503 (16091457) | 207564 (16111702) | 216510 (16111704) | 212580 (16111706) |
| 218143 (17122501) | 218507 (17122502) | 218571 (17122503) | 217565 (17123001) |
| 218144 (17123003) | 218551 (17123004) | 218509 (17123005) | 218508 (17123006) |
| 218573 (17123007) | 218576 (17123008) | 218585 (17123009) | 218583 (17123010) |
| 218588 (17123011) | 218572 (17123012) | 218564 (17123013) | 218578 (17123014) |
| 218581 (17123016) | 218568 (17123017) | 217584 (17123018) | 218580 (17123020) |
| 218575 (17123021) | 218582 (17123022) | 218562 (17123023) | 218514 (17123024) |
| 218563 (17123025) | 218566 (17123026) | 218567 (17123027) | 218565 (17123028) |

| | | | |
|-------------------|-------------------|-------------------|-------------------|
| 218584 (18013101) | 218515 (18013102) | 218577 (18013103) | 218570 (18013104) |
| 218552 (18013105) | 218556 (18013106) | 218501 (18013107) | 218513 (18013108) |
| 218506 (18013109) | 218569 (18013111) | 218560 (18013112) | 218505 (18013113) |
| 218559 (18013114) | 218510 (18013118) | 218574 (18013119) | 218502 (18013121) |
| 218500 (18013122) | 218555 (18013124) | 218589 (18013125) | 218586 (18013126) |
| 218503 (18013128) | 218512 (18013130) | 218550 (18013131) | 218553 (18013132) |
| 211559 (18032402) | 216553 (18032406) | 218146 (18033001) | 218314 (19011901) |
| 218315 (19011902) | 219551 (19033105) | 219582 (19033111) | 219559 (19033120) |
| 219557 (19033129) | 219570 (19033136) | 219505 (19033143) | 219560 (19071508) |
| 219579 (19071509) | 220591 (19071513) | T0138 (20090138) | T0139 (20090139) |
| T0157 (20090157) | | | |

APPENDIX B - DRY DAY REGRESSION RESULTS

| ESN | Parameters | | | | Metrics | | | |
|----------|----------------------|-----------------|-----------------|----------------|---------|------|------|-------|
| | η_{trip} | f_{ir} | C_{rr} | C_{D} | R2 | RMSE | MAE | MAPE |
| 16032101 | 0.39 | 0.71 | 0.01 | 0.78 | 0.94 | 0.62 | 0.51 | 16.49 |
| 13081217 | 0.27 | 0.55 | 0.01 | 0.77 | 0.91 | 0.86 | 0.73 | 12.67 |
| 16041336 | 0.32 | 0.49 | 0.01 | 0.81 | 0.91 | 0.82 | 0.69 | 12.37 |
| 13081208 | 0.32 | 0.59 | 0.01 | 0.62 | 0.91 | 0.82 | 0.67 | 14.77 |
| 18013109 | 0.29 | 0.44 | 0.01 | 0.72 | 0.90 | 0.98 | 0.83 | 14.94 |
| 16041322 | 0.37 | 0.61 | 0.01 | 0.80 | 0.89 | 0.56 | 0.48 | 14.40 |
| 11080614 | 0.33 | 0.48 | 0.01 | 0.79 | 0.85 | 1.38 | 1.18 | 16.14 |
| 12122304 | 0.26 | 0.52 | 0.01 | 0.72 | 0.85 | 1.92 | 1.61 | 14.83 |
| 14050410 | 0.29 | 0.36 | 0.01 | 0.78 | 0.84 | 1.63 | 1.25 | 16.53 |
| 18013128 | 0.32 | 0.53 | 0.01 | 0.77 | 0.83 | 0.87 | 0.77 | 18.74 |
| 13041106 | 0.24 | 0.57 | 0.01 | 0.63 | 0.82 | 2.22 | 1.79 | 19.98 |
| 13051027 | 0.25 | 0.56 | 0.01 | 0.76 | 0.81 | 1.54 | 1.31 | 18.11 |
| 16091428 | 0.29 | 0.56 | 0.01 | 0.78 | 0.80 | 2.24 | 1.90 | 19.05 |
| 16041354 | 0.36 | 0.69 | 0.01 | 0.79 | 0.80 | 1.19 | 1.01 | 20.73 |
| 14120709 | 0.26 | 0.55 | 0.01 | 0.63 | 0.79 | 1.25 | 1.06 | 17.42 |
| 15031316 | 0.28 | 0.39 | 0.01 | 0.71 | 0.78 | 1.93 | 1.60 | 17.91 |

| | | | | | | | | |
|----------|------|------|------|------|------|------|------|-------|
| 15022406 | 0.32 | 0.49 | 0.01 | 0.79 | 0.74 | 1.78 | 1.53 | 20.78 |
| 10111317 | 0.26 | 0.41 | 0.01 | 0.65 | 0.73 | 3.46 | 2.90 | 21.54 |
| 13072006 | 0.28 | 0.62 | 0.01 | 0.64 | 0.71 | 1.73 | 1.45 | 23.13 |
| 13072007 | 0.21 | 0.41 | 0.01 | 0.64 | 0.61 | 2.08 | 1.71 | 24.79 |
| 13041105 | 0.21 | 0.51 | 0.01 | 0.68 | 0.59 | 4.03 | 3.42 | 28.33 |
| 14050415 | 0.25 | 0.52 | 0.01 | 0.74 | 0.53 | 4.50 | 3.83 | 28.49 |

Table B.1 - SA Model Dry Day Regression Results

| ESN | Parameters | | | | Metrics | | | |
|----------|----------------------|-----------------|-----------------|----------------|---------|------|------|-------|
| | η_{trip} | f_{ir} | C_{rr} | C_{D} | R2 | RMSE | MAE | MAPE |
| 16041357 | 0.32 | 0.62 | 0.01 | 0.88 | 0.90 | 1.65 | 1.43 | 17.07 |
| 11082719 | 0.26 | 0.49 | 0.01 | 0.61 | 0.84 | 2.68 | 2.29 | 18.53 |
| 16041345 | 0.27 | 0.60 | 0.01 | 0.74 | 0.84 | 1.67 | 1.42 | 18.52 |
| 15031306 | 0.33 | 0.48 | 0.01 | 0.85 | 0.82 | 1.96 | 1.67 | 21.81 |
| 13081215 | 0.40 | 0.64 | 0.01 | 0.82 | 0.81 | 3.35 | 2.83 | 21.98 |
| 16041309 | 0.44 | 0.65 | 0.01 | 0.80 | 0.80 | 1.84 | 1.53 | 21.89 |
| 16091404 | 0.35 | 0.59 | 0.01 | 0.93 | 0.78 | 3.28 | 2.75 | 20.05 |
| 11082701 | 0.24 | 0.57 | 0.01 | 0.67 | 0.78 | 2.74 | 2.35 | 19.72 |
| 17123010 | 0.36 | 0.47 | 0.01 | 0.78 | 0.78 | 2.09 | 1.75 | 19.56 |
| 15022415 | 0.35 | 0.48 | 0.01 | 0.84 | 0.77 | 2.57 | 2.21 | 21.09 |
| 17123017 | 0.30 | 0.54 | 0.01 | 0.81 | 0.76 | 3.86 | 3.21 | 21.30 |

| | | | | | | | | |
|----------|------|------|------|------|------|------|------|-------|
| 17123003 | 0.34 | 0.70 | 0.01 | 0.71 | 0.76 | 3.95 | 3.35 | 24.29 |
| 10052005 | 0.29 | 0.37 | 0.01 | 0.69 | 0.74 | 2.49 | 2.12 | 20.34 |
| 16041332 | 0.32 | 0.69 | 0.01 | 0.79 | 0.74 | 2.18 | 1.85 | 24.20 |
| 16041330 | 0.34 | 0.58 | 0.01 | 0.74 | 0.71 | 2.06 | 1.74 | 24.78 |
| 16091414 | 0.27 | 0.58 | 0.01 | 0.75 | 0.71 | 2.87 | 2.47 | 24.11 |
| 17123001 | 0.28 | 0.46 | 0.01 | 0.71 | 0.70 | 3.93 | 3.30 | 25.63 |
| 15031309 | 0.30 | 0.51 | 0.01 | 0.70 | 0.70 | 4.76 | 4.07 | 19.71 |
| 14050405 | 0.38 | 0.55 | 0.01 | 0.79 | 0.67 | 3.39 | 2.86 | 26.41 |

Table B.2 - TA Model Dry Day Regression Results

APPENDIX C - IDLING PATTERNS AT MNDOT FACILITIES

Idle events are reduced to high-activity days on a district-by-district, winter-by-winter basis. To be considered a high-activity day, the average number of hours per vehicle in the district must be at least seven, regardless of how many vehicles were active that day.

| Winter | Date | District | | | | | | | |
|------------|------------|----------|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 6 | 7 | 8 | M |
| 2018-2019 | 2018-12-02 | | | | | | | x | |
| | 2018-12-27 | | | | | | | x | |
| | 2018-12-28 | | | | | | | x | |
| | 2018-12-31 | | | | | | | x | |
| | 2019-01-18 | | | | | | | x | |
| | 2019-01-22 | | | | | | | x | |
| | 2019-01-28 | | | | | | | | x |
| | 2019-01-29 | | | | | | | | x |
| | 2019-01-30 | | | | | | | | x |
| | 2019-01-31 | | | | | | | | x |
| | 2019-02-05 | | | | | | | | x |
| | 2019-02-06 | | | | | | | | x |
| | 2019-02-07 | | | x | | | | x | x |
| | 2019-02-08 | | | | | | | | x |
| | 2019-02-09 | | | | | | | | x |
| | 2019-02-10 | | | | | | | | x |
| | 2019-02-12 | | | | | | | x | x |
| | 2019-02-20 | | | x | | | | x | x |
| | 2019-02-21 | | | x | | | | | |
| | 2019-02-23 | | | | | | | | x |
| 2019-02-24 | | | x | | | | x | x | |
| 2019-02-25 | | | x | | | | x | x | |
| 2019-02-26 | | | x | | | | | | |
| 2019-03-01 | | | | | | | | x | |
| 2019-03-05 | | | | | | | x | | |

| | | | | | | | | | |
|--|------------|---|--|---|--|---|--|---|---|
| | 2019-03-09 | | | | | | | x | |
| | 2019-03-10 | x | | | | | | | |
| | 2019-04-10 | | | | | x | | | |
| | 2019-04-11 | | | x | | x | | x | x |
| | 2019-04-12 | x | | | | | | | |

Table C.1a. High-activity days by district in winter one

| Winter | Date | District | | | | | | | |
|------------|------------|----------|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 6 | 7 | 8 | M |
| 2019–2020 | 2019-11-21 | x | x | | | | | | |
| | 2019-11-27 | x | | x | | x | x | x | x |
| | 2019-11-30 | x | | x | x | | | x | x |
| | 2019-12-01 | x | | x | x | x | | | x |
| | 2019-12-03 | x | | | | | | | |
| | 2019-12-04 | x | | | | | | | |
| | 2019-12-05 | x | | | | | | | |
| | 2019-12-09 | x | | x | x | x | x | | x |
| | 2019-12-10 | x | | | | | | | |
| | 2019-12-12 | x | | x | | x | | | |
| | 2019-12-13 | x | | | x | | | | |
| | 2019-12-26 | | x | | | | | | |
| | 2019-12-28 | x | | | x | | | | |
| | 2019-12-29 | x | x | | x | | | | |
| | 2019-12-30 | x | | x | x | x | | x | x |
| | 2019-12-31 | | | | | x | | | x |
| | 2020-01-02 | x | | | | | | | |
| | 2020-01-13 | | | x | | x | x | | |
| | 2020-01-14 | x | | | | | | | |
| | 2020-01-15 | x | x | x | x | | | x | |
| 2020-01-17 | x | | x | x | x | | | x | |
| 2020-01-18 | x | | x | x | x | | | x | |
| 2020-01-19 | | | | | x | | | x | |

| | | | | | | | | | |
|--|------------|---|--|--|---|---|---|--|---|
| | 2020-01-20 | | | | | | | | x |
| | 2020-01-21 | | | | x | | | | |
| | 2020-01-22 | | | | | x | | | |
| | 2020-01-23 | x | | | x | x | | | |
| | 2020-01-24 | x | | | | | | | |
| | 2020-01-30 | | | | x | | | | |
| | 2020-02-09 | | | | | x | | | |
| | 2020-02-12 | | | | x | x | | | |
| | 2020-02-18 | | | | | x | x | | |
| | 2020-04-03 | | | | x | | | | |
| | 2020-04-12 | | | | | x | x | | |
| | 2020-04-13 | | | | | x | | | |

Table C.1b. High-activity days by district in winter two

| Winter | Date | District | | | | | | | |
|------------|------------|----------|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 6 | 7 | 8 | M |
| 2020-2021 | 2020-11-10 | | | | | | x | | |
| | 2020-12-21 | x | | | | | | | |
| | 2020-12-23 | x | | x | x | | | | x |
| | 2020-12-24 | x | | | | x | x | | x |
| | 2020-12-25 | | | | | | | | x |
| | 2020-12-29 | | | | x | | x | x | |
| | 2020-12-30 | x | x | x | x | x | x | x | x |
| | 2021-02-04 | x | | x | x | x | x | x | x |
| | 2021-02-05 | | | | | x | | | |
| | 2021-02-17 | | | | | | | x | x |
| | 2021-02-21 | | | | | x | | | |
| | 2021-02-24 | | | | x | | | | |
| | 2021-02-28 | | | | | | | x | |
| | 2021-03-10 | | | | x | | | | |
| | 2021-03-11 | x | | | x | | | | |
| 2021-03-15 | | | | | x | x | x | x | |

Table C.1c. High-activity days by district in winter three.

Additionally, Appendix C includes the following maps of truck stations and other MnDOT facilities that include clusters of idle events over the two winters, with hours of idling and fuel consumption at the facility, as well as the share of events and values at the facility as a part of the district, and as a share of events at other MnDOT facilities.



Carlton Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 10 (0% ID*, 0% ASID*)
Idle hours: 3.9 (0% ID, 1% ASID)
Fuel used: 3.5 gal (0% ID, 1% ASID)



15+ minute idles

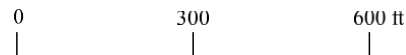
Idle events: 7 (1% ID, 1% ASID)
Idle hours: 3.6 (1% ID, 1% ASID)
Fuel used: 3.3 gal (1% ID, 1% ASID)



30+ minute idles

Idle events: 2 (0% ID, 1% ASID)
Idle hours: 1.8 (0% ID, 1% ASID)
Fuel used: 1.6 gal (0% ID, 1% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Carlton Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 3 (0% ID*, 0% ASID*)
Idle hours: 1.3 (0% ID, 1% ASID)
Fuel used: 1.2 gal (0% ID, 1% ASID)



15+ minute idles

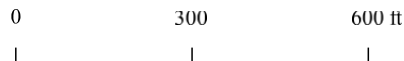
Idle events: 1 (0% ID, 1% ASID)
Idle hours: 1.1 (1% ID, 1% ASID)
Fuel used: 1 gal (1% ID, 1% ASID)



30+ minute idles

Idle events: 1 (1% ID, 2% ASID)
Idle hours: 1.1 (1% ID, 2% ASID)
Fuel used: 1 gal (1% ID, 2% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



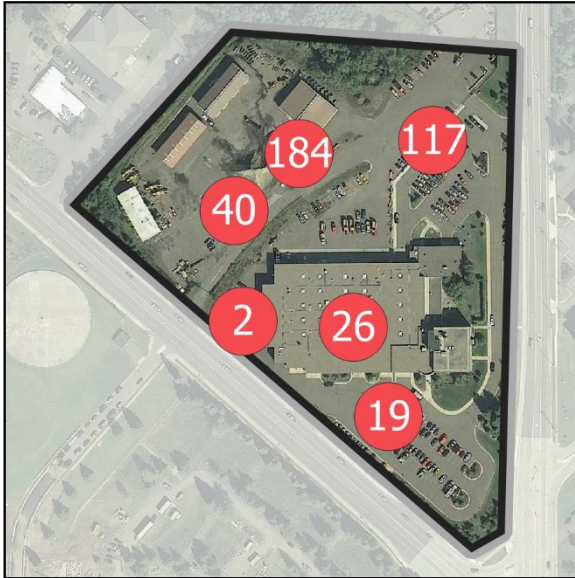
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



District HQ Duluth

ALL IDLE EVENTS



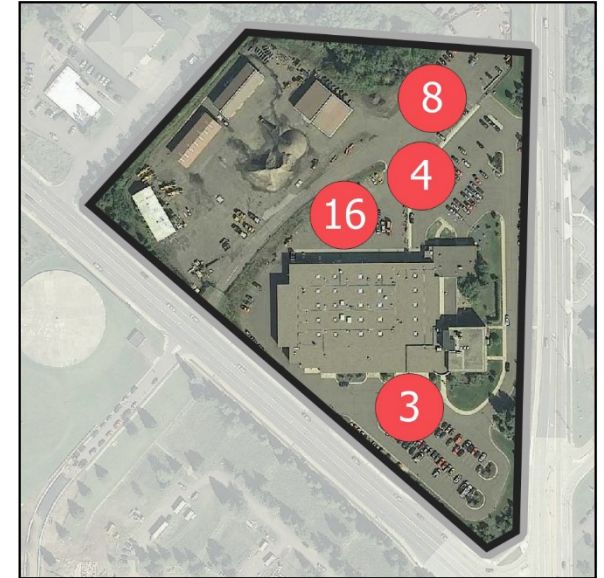
5+ minute idles

Idle events: 388 (7% ID*, 13% ASID*)
 Idle hours: 89.3 (7% ID, 14% ASID)
 Fuel used: 71.2 gal (6% ID, 13% ASID)



15+ minute idles

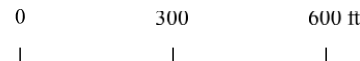
Idle events: 96 (7% ID, 17% ASID)
 Idle hours: 47.4 (7% ID, 15% ASID)
 Fuel used: 40.2 gal (7% ID, 14% ASID)



30+ minute idles

Idle events: 31 (7% ID, 16% ASID)
 Idle hours: 24.6 (6% ID, 13% ASID)
 Fuel used: 23 gal (7% ID, 13% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



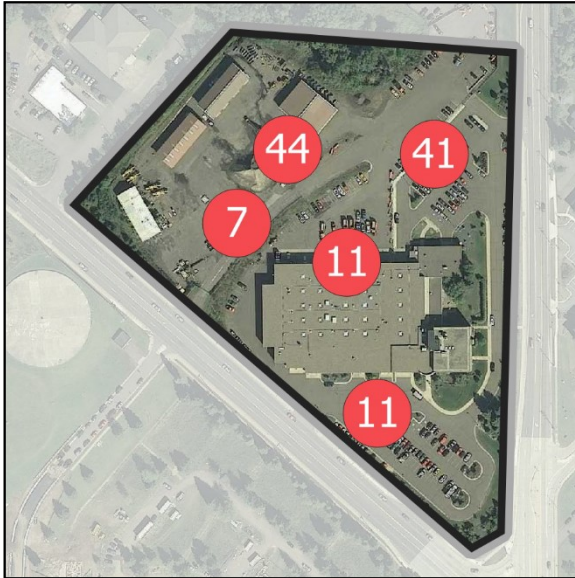
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



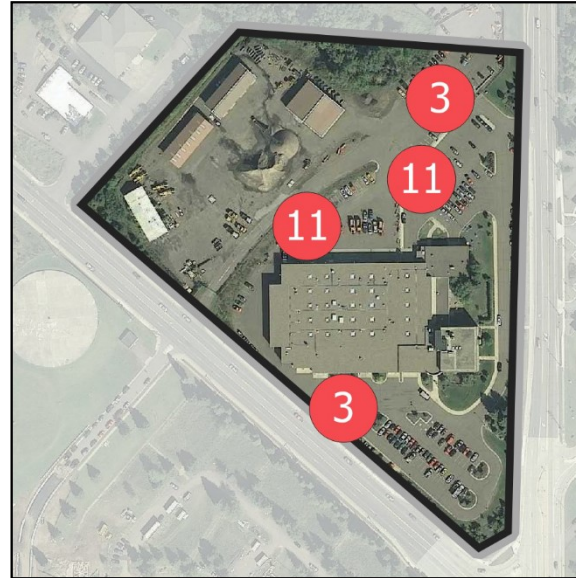
District HQ Duluth

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 114 (6% ID*, 11% ASID*)
 Idle hours: 25.8 (6% ID, 12% ASID)
 Fuel used: 20.9 gal (6% ID, 11% ASID)



15+ minute idles

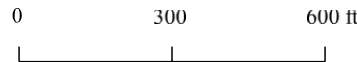
Idle events: 28 (7% ID, 15% ASID)
 Idle hours: 13.9 (7% ID, 14% ASID)
 Fuel used: 11.8 gal (7% ID, 14% ASID)



30+ minute idles

Idle events: 9 (8% ID, 15% ASID)
 Idle hours: 6.4 (6% ID, 11% ASID)
 Fuel used: 6.1 gal (7% ID, 12% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



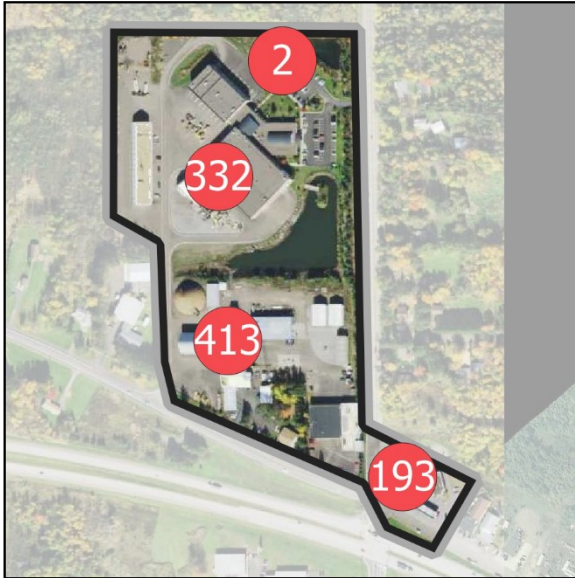
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Duluth Truck Station (Joint Use)

ALL IDLE EVENTS



5+ minute idles

Idle events: 940 (16% ID*, 32% ASID*)
 Idle hours: 205.6 (16% ID, 32% ASID)
 Fuel used: 175 gal (16% ID, 31% ASID)



15+ minute idles

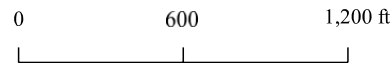
Idle events: 170 (13% ID, 29% ASID)
 Idle hours: 102.7 (15% ID, 33% ASID)
 Fuel used: 91 gal (15% ID, 31% ASID)



30+ minute idles

Idle events: 57 (13% ID, 29% ASID)
 Idle hours: 64 (16% ID, 35% ASID)
 Fuel used: 56.5 gal (17% ID, 33% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



IDLE EVENTS ON HIGH-ACTIVITY DAYS

Duluth Truck Station (Joint Use)



5+ minute idles

Idle events: 281 (15% ID*, 27% ASID*)
 Idle hours: 65.3 (16% ID, 30% ASID)
 Fuel used: 51.8 gal (15% ID, 28% ASID)



15+ minute idles

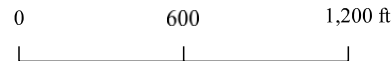
Idle events: 50 (13% ID, 27% ASID)
 Idle hours: 34.1 (17% ID, 33% ASID)
 Fuel used: 27 gal (17% ID, 31% ASID)



30+ minute idles

Idle events: 20 (18% ID, 33% ASID)
 Idle hours: 23.1 (22% ID, 38% ASID)
 Fuel used: 17.4 gal (21% ID, 35% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Ely Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 13 (0% ID*, 0% ASID*)
Idle hours: 3.6 (0% ID, 1% ASID)
Fuel used: 3.1 gal (0% ID, 1% ASID)



15+ minute idles

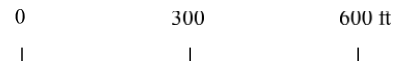
Idle events: 4 (0% ID, 1% ASID)
Idle hours: 2.4 (0% ID, 1% ASID)
Fuel used: 2 gal (0% ID, 1% ASID)



30+ minute idles

Idle events: 2 (0% ID, 1% ASID)
Idle hours: 1.6 (0% ID, 1% ASID)
Fuel used: 1.3 gal (0% ID, 1% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Ely Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 1 (0% ID*, 0% ASID*)
Idle hours: 0.1 (0% ID, 0% ASID)
Fuel used: 0.1 gal (0% ID, 0% ASID)



15+ minute idles

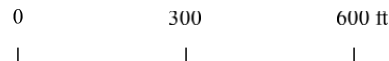
Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Grand Rapids Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 245 (4% ID*, 8% ASID*)
 Idle hours: 45 (3% ID, 7% ASID)
 Fuel used: 43.3 gal (4% ID, 8% ASID)



15+ minute idles

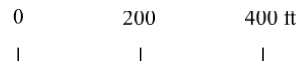
Idle events: 37 (3% ID, 6% ASID)
 Idle hours: 17.4 (2% ID, 6% ASID)
 Fuel used: 19.5 gal (3% ID, 7% ASID)



30+ minute idles

Idle events: 13 (3% ID, 7% ASID)
 Idle hours: 10 (2% ID, 5% ASID)
 Fuel used: 12.8 gal (4% ID, 7% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Grand Rapids Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 105 (5% ID*, 10% ASID*)
 Idle hours: 18.6 (5% ID, 9% ASID)
 Fuel used: 18.5 gal (6% ID, 10% ASID)



15+ minute idles

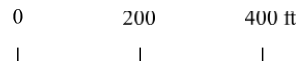
Idle events: 15 (4% ID, 8% ASID)
 Idle hours: 7.2 (4% ID, 7% ASID)
 Fuel used: 8.3 gal (5% ID, 10% ASID)



30+ minute idles

Idle events: 5 (5% ID, 8% ASID)
 Idle hours: 4.1 (4% ID, 7% ASID)
 Fuel used: 4.9 gal (6% ID, 10% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



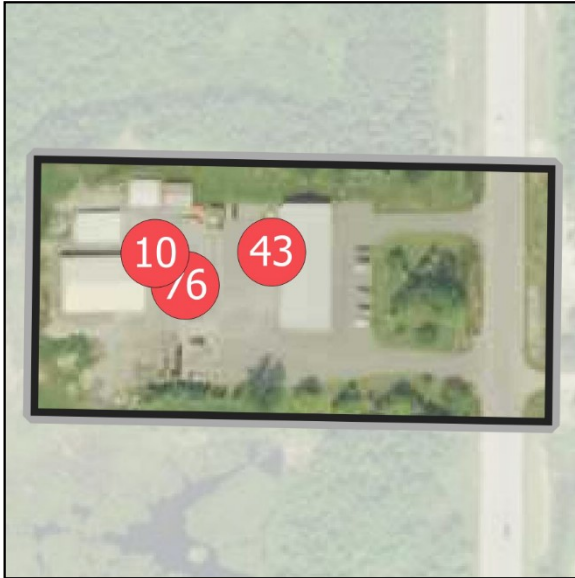
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



International Falls Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 129 (2% ID*, 4% ASID*)
Idle hours: 27.7 (2% ID, 4% ASID)
Fuel used: 23.2 gal (2% ID, 4% ASID)



15+ minute idles

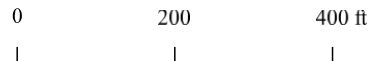
Idle events: 25 (2% ID, 4% ASID)
Idle hours: 14 (2% ID, 4% ASID)
Fuel used: 10.9 gal (2% ID, 4% ASID)



30+ minute idles

Idle events: 9 (2% ID, 5% ASID)
Idle hours: 8.3 (2% ID, 5% ASID)
Fuel used: 6.2 gal (2% ID, 4% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



IDLE EVENTS ON HIGH-ACTIVITY DAYS

International Falls Truck Station



5+ minute idles

Idle events: 53 (3% ID*, 5% ASID*)
 Idle hours: 14.6 (4% ID, 7% ASID)
 Fuel used: 11.3 gal (3% ID, 6% ASID)



15+ minute idles

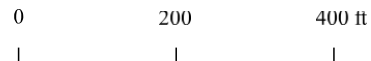
Idle events: 16 (4% ID, 9% ASID)
 Idle hours: 9.3 (5% ID, 9% ASID)
 Fuel used: 7 gal (4% ID, 8% ASID)



30+ minute idles

Idle events: 6 (5% ID, 10% ASID)
 Idle hours: 5.6 (5% ID, 9% ASID)
 Fuel used: 3.9 gal (5% ID, 8% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



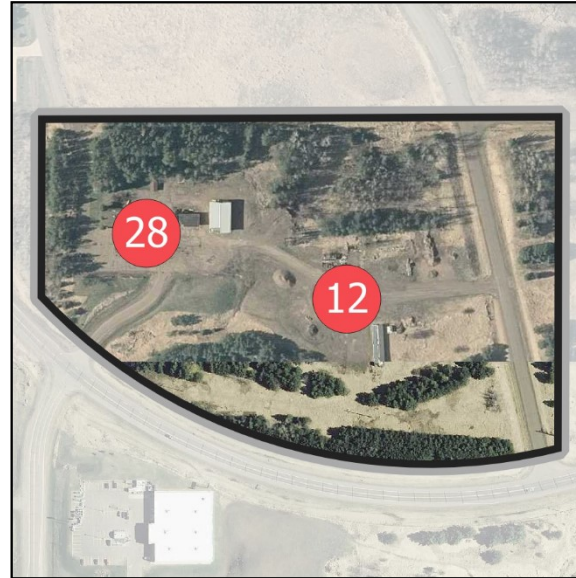
Moose Lake Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 142 (2% ID*, 5% ASID*)
Idle hours: 34.9 (3% ID, 6% ASID)
Fuel used: 21.4 gal (2% ID, 4% ASID)



15+ minute idles

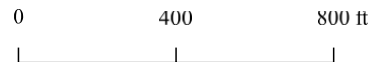
Idle events: 40 (3% ID, 7% ASID)
Idle hours: 19.5 (3% ID, 6% ASID)
Fuel used: 10.8 gal (2% ID, 4% ASID)



30+ minute idles

Idle events: 12 (3% ID, 6% ASID)
Idle hours: 11.8 (3% ID, 6% ASID)
Fuel used: 5.8 gal (2% ID, 3% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



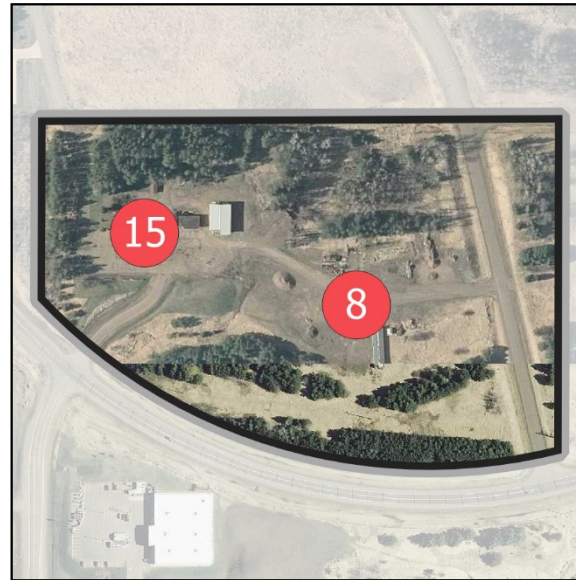
Moose Lake Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 84 (4% ID*, 8% ASID*)
Idle hours: 21.7 (5% ID, 10% ASID)
Fuel used: 13.2 gal (4% ID, 7% ASID)



15+ minute idles

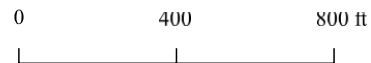
Idle events: 23 (6% ID, 13% ASID)
Idle hours: 12.4 (6% ID, 12% ASID)
Fuel used: 6.7 gal (4% ID, 8% ASID)



30+ minute idles

Idle events: 8 (7% ID, 13% ASID)
Idle hours: 8.5 (8% ID, 14% ASID)
Fuel used: 4.2 gal (5% ID, 8% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Nopeming Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 419 (7% ID*, 14% ASID*)
Idle hours: 85.6 (7% ID, 13% ASID)
Fuel used: 79.9 gal (7% ID, 14% ASID)



15+ minute idles

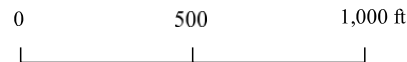
Idle events: 70 (5% ID, 12% ASID)
Idle hours: 39.6 (6% ID, 13% ASID)
Fuel used: 38.6 gal (7% ID, 13% ASID)



30+ minute idles

Idle events: 28 (6% ID, 14% ASID)
Idle hours: 24.9 (6% ID, 13% ASID)
Fuel used: 24.2 gal (7% ID, 14% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Nopeming Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 160 (8% ID*, 16% ASID*)
Idle hours: 26.6 (7% ID, 12% ASID)
Fuel used: 22.1 gal (7% ID, 12% ASID)



15+ minute idles

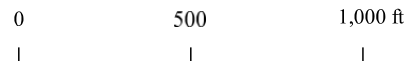
Idle events: 14 (4% ID, 8% ASID)
Idle hours: 7.6 (4% ID, 7% ASID)
Fuel used: 6.4 gal (4% ID, 7% ASID)



30+ minute idles

Idle events: 4 (4% ID, 7% ASID)
Idle hours: 4.2 (4% ID, 7% ASID)
Fuel used: 3.8 gal (5% ID, 8% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Virginia Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 659 (11% ID*, 22% ASID*)
Idle hours: 136 (10% ID, 21% ASID)
Fuel used: 140.8 gal (13% ID, 25% ASID)



15+ minute idles

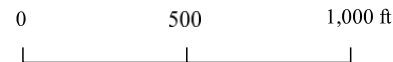
Idle events: 128 (10% ID, 22% ASID)
Idle hours: 67.7 (10% ID, 22% ASID)
Fuel used: 73 gal (12% ID, 25% ASID)



30+ minute idles

Idle events: 41 (9% ID, 21% ASID)
Idle hours: 37.3 (9% ID, 20% ASID)
Fuel used: 40.9 gal (12% ID, 24% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Virginia Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 227 (12% ID*, 22% ASID*)
 Idle hours: 42.6 (10% ID, 20% ASID)
 Fuel used: 45 gal (13% ID, 24% ASID)



15+ minute idles

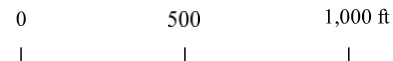
Idle events: 35 (9% ID, 19% ASID)
 Idle hours: 17 (9% ID, 17% ASID)
 Fuel used: 18.1 gal (11% ID, 21% ASID)



30+ minute idles

Idle events: 8 (7% ID, 13% ASID)
 Idle hours: 7.4 (7% ID, 12% ASID)
 Fuel used: 8.3 gal (10% ID, 17% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



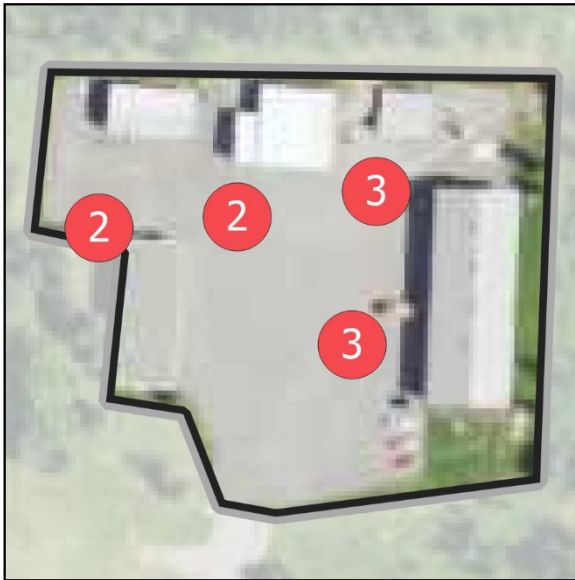
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



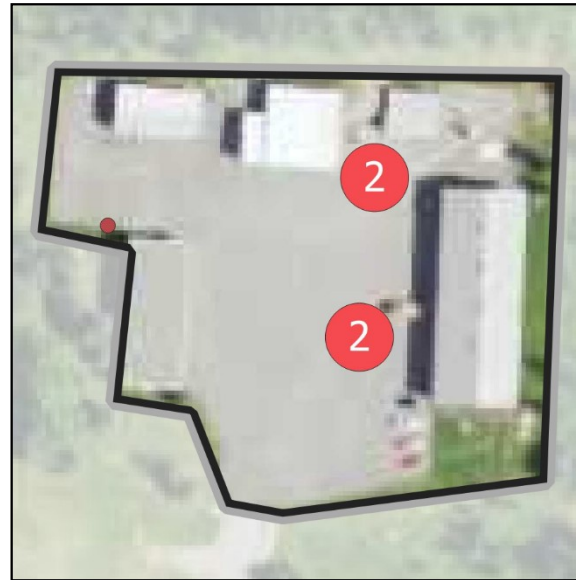
Bagley Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 10 (1% ID*, 1% ASID*)
 Idle hours: 2.4 (1% ID, 1% ASID)
 Fuel used: 1.9 gal (1% ID, 1% ASID)



15+ minute idles

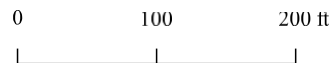
Idle events: 5 (2% ID, 3% ASID)
 Idle hours: 1.8 (1% ID, 3% ASID)
 Fuel used: 1.5 gal (1% ID, 2% ASID)



30+ minute idles

Idle events: 1 (2% ID, 3% ASID)
 Idle hours: 0.6 (1% ID, 2% ASID)
 Fuel used: 0.6 gal (2% ID, 3% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Bagley Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 1 (0% ID*, 1% ASID*)
Idle hours: 0.1 (0% ID, 0% ASID)
Fuel used: 0.1 gal (0% ID, 0% ASID)



15+ minute idles

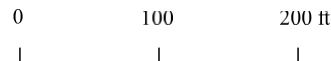
Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



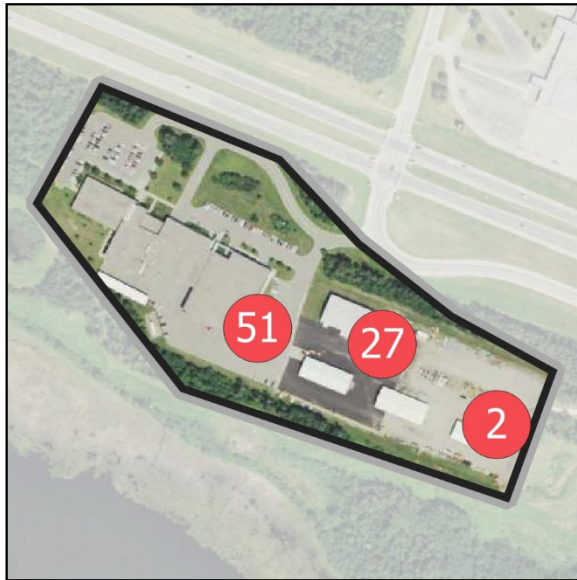
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



District HQ Bemidji

ALL IDLE EVENTS



5+ minute idles

Idle events: 80 (4% ID*, 8% ASID*)
Idle hours: 16.3 (5% ID, 9% ASID)
Fuel used: 13 gal (5% ID, 9% ASID)



15+ minute idles

Idle events: 18 (6% ID, 10% ASID)
Idle hours: 8.1 (6% ID, 11% ASID)
Fuel used: 6.8 gal (7% ID, 11% ASID)



30+ minute idles

Idle events: 6 (9% ID, 17% ASID)
Idle hours: 4.4 (9% ID, 17% ASID)
Fuel used: 3.7 gal (9% ID, 16% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



District HQ Bemidji

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 8 (3% ID*, 5% ASID*)
Idle hours: 2 (4% ID, 7% ASID)
Fuel used: 1.8 gal (4% ID, 7% ASID)



15+ minute idles

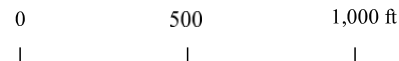
Idle events: 2 (5% ID, 6% ASID)
Idle hours: 1.2 (7% ID, 9% ASID)
Fuel used: 1.2 gal (8% ID, 10% ASID)



30+ minute idles

Idle events: 2 (18% ID, 22% ASID)
Idle hours: 1.2 (17% ID, 21% ASID)
Fuel used: 1.2 gal (19% ID, 25% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



East Grand Forks Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 23 (1% ID*, 2% ASID*)
Idle hours: 6.1 (2% ID, 3% ASID)
Fuel used: 5.3 gal (2% ID, 3% ASID)



15+ minute idles

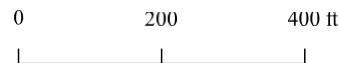
Idle events: 8 (3% ID, 4% ASID)
Idle hours: 4.3 (3% ID, 6% ASID)
Fuel used: 3 gal (3% ID, 5% ASID)



30+ minute idles

Idle events: 5 (8% ID, 14% ASID)
Idle hours: 3.3 (7% ID, 13% ASID)
Fuel used: 2.1 gal (5% ID, 9% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



IDLE EVENTS ON HIGH-ACTIVITY DAYS

East Grand Forks Truck Station



5+ minute idles

Idle events: 10 (3% ID*, 7% ASID*)
Idle hours: 2.1 (4% ID, 7% ASID)
Fuel used: 2.2 gal (5% ID, 9% ASID)



15+ minute idles

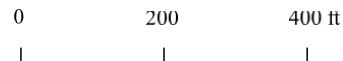
Idle events: 3 (7% ID, 9% ASID)
Idle hours: 1.3 (7% ID, 10% ASID)
Fuel used: 1.1 gal (7% ID, 10% ASID)



30+ minute idles

Idle events: 1 (9% ID, 11% ASID)
Idle hours: 0.5 (7% ID, 9% ASID)
Fuel used: 0.3 gal (5% ID, 6% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Erskine Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 97 (5% ID*, 10% ASID*)
Idle hours: 18.5 (5% ID, 10% ASID)
Fuel used: 15.6 gal (6% ID, 10% ASID)



15+ minute idles

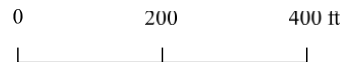
Idle events: 16 (5% ID, 9% ASID)
Idle hours: 7.5 (6% ID, 10% ASID)
Fuel used: 6 gal (6% ID, 9% ASID)



30+ minute idles

Idle events: 5 (8% ID, 14% ASID)
Idle hours: 3.6 (8% ID, 14% ASID)
Fuel used: 2.9 gal (7% ID, 13% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Erskine Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 21 (7% ID*, 14% ASID*)
Idle hours: 4.6 (9% ID, 16% ASID)
Fuel used: 4.1 gal (9% ID, 16% ASID)



15+ minute idles

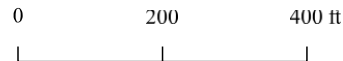
Idle events: 5 (12% ID, 16% ASID)
Idle hours: 2.6 (15% ID, 20% ASID)
Fuel used: 2.1 gal (14% ID, 19% ASID)



30+ minute idles

Idle events: 3 (27% ID, 33% ASID)
Idle hours: 1.9 (26% ID, 33% ASID)
Fuel used: 1.5 gal (25% ID, 33% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



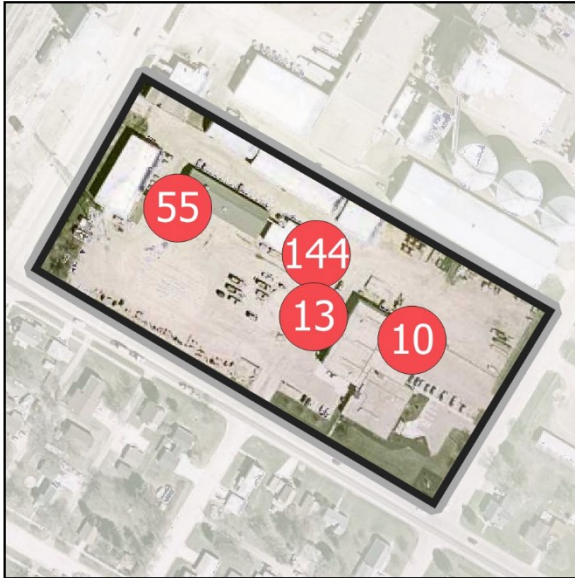
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



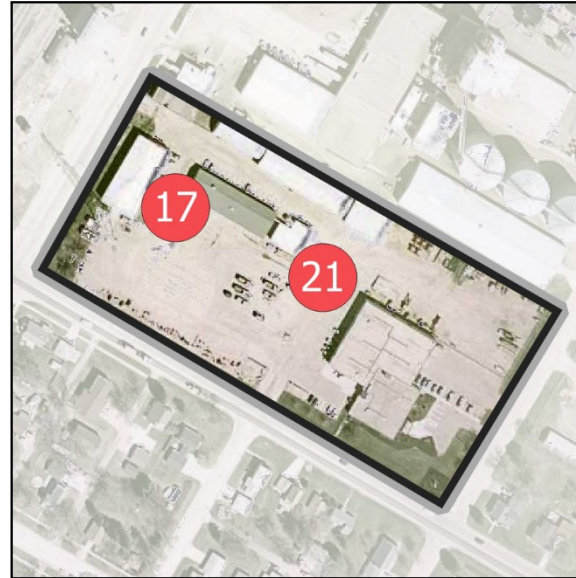
Maintenance HQ, Crookston

ALL IDLE EVENTS



5+ minute idles

Idle events: 222 (11% ID*, 23% ASID*)
 Idle hours: 39.1 (11% ID, 21% ASID)
 Fuel used: 46.2 gal (16% ID, 30% ASID)



15+ minute idles

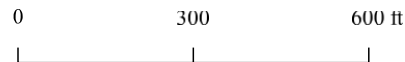
Idle events: 38 (12% ID, 20% ASID)
 Idle hours: 15.5 (12% ID, 21% ASID)
 Fuel used: 17.7 gal (17% ID, 28% ASID)



30+ minute idles

Idle events: 7 (11% ID, 20% ASID)
 Idle hours: 4.5 (10% ID, 18% ASID)
 Fuel used: 4.7 gal (12% ID, 20% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



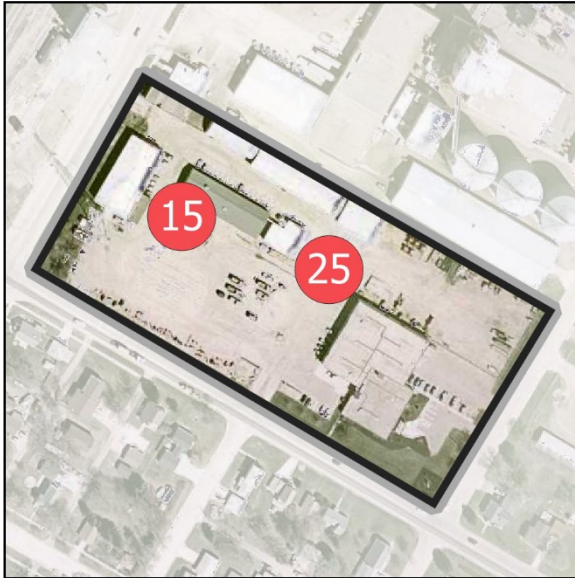
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Maintenance HQ, Crookston

IDLE EVENTS ON HIGH-ACTIVITY DAYS



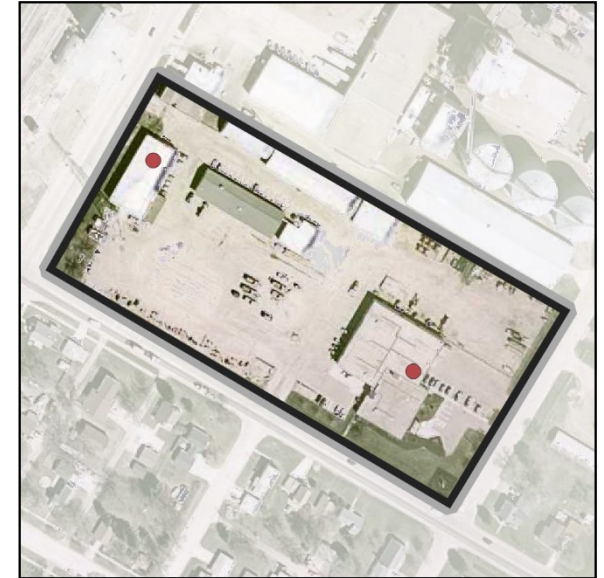
5+ minute idles

Idle events: 40 (14% ID*, 27% ASID*)
Idle hours: 8 (15% ID, 27% ASID)
Fuel used: 9.1 gal (21% ID, 36% ASID)



15+ minute idles

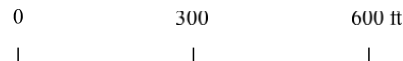
Idle events: 9 (21% ID, 28% ASID)
Idle hours: 3.8 (22% ID, 29% ASID)
Fuel used: 4.2 gal (27% ID, 37% ASID)



30+ minute idles

Idle events: 2 (18% ID, 22% ASID)
Idle hours: 1.2 (17% ID, 22% ASID)
Fuel used: 1.1 gal (17% ID, 22% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Northome Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 25 (1% ID*, 3% ASID*)
Idle hours: 5.3 (2% ID, 3% ASID)
Fuel used: 5.4 gal (2% ID, 4% ASID)



15+ minute idles

Idle events: 7 (2% ID, 4% ASID)
Idle hours: 3.1 (2% ID, 4% ASID)
Fuel used: 3.1 gal (3% ID, 5% ASID)



30+ minute idles

Idle events: 2 (3% ID, 6% ASID)
Idle hours: 1.4 (3% ID, 6% ASID)
Fuel used: 1.1 gal (3% ID, 5% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Northome Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 8 (3% ID*, 5% ASID*)
Idle hours: 2.3 (4% ID, 8% ASID)
Fuel used: 1.8 gal (4% ID, 7% ASID)



15+ minute idles

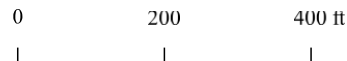
Idle events: 4 (9% ID, 13% ASID)
Idle hours: 1.8 (10% ID, 14% ASID)
Fuel used: 1.4 gal (9% ID, 12% ASID)



30+ minute idles

Idle events: 1 (9% ID, 11% ASID)
Idle hours: 0.8 (11% ID, 15% ASID)
Fuel used: 0.7 gal (11% ID, 14% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Park Rapids Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 37 (2% ID*, 4% ASID*)
 Idle hours: 7.9 (2% ID, 4% ASID)
 Fuel used: 7.2 gal (3% ID, 5% ASID)



15+ minute idles

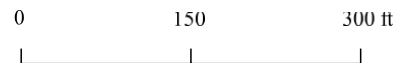
Idle events: 12 (4% ID, 6% ASID)
 Idle hours: 4 (3% ID, 6% ASID)
 Fuel used: 4.8 gal (5% ID, 8% ASID)



30+ minute idles

Idle events: 1 (2% ID, 3% ASID)
 Idle hours: 1.1 (2% ID, 4% ASID)
 Fuel used: 2.7 gal (7% ID, 12% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Park Rapids Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 8 (3% ID*, 5% ASID*)
Idle hours: 1.6 (3% ID, 6% ASID)
Fuel used: 1 gal (2% ID, 4% ASID)



15+ minute idles

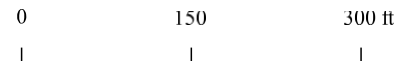
Idle events: 4 (9% ID, 13% ASID)
Idle hours: 1 (6% ID, 8% ASID)
Fuel used: 0.7 gal (4% ID, 6% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Thief River Falls Truck Station (Joint Use)

ALL IDLE EVENTS



5+ minute idles

Idle events: 223 (11% ID*, 23% ASID*)
 Idle hours: 41.7 (12% ID, 23% ASID)
 Fuel used: 26.2 gal (9% ID, 17% ASID)



15+ minute idles

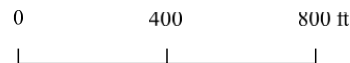
Idle events: 28 (9% ID, 15% ASID)
 Idle hours: 11.5 (9% ID, 16% ASID)
 Fuel used: 8.6 gal (8% ID, 14% ASID)



30+ minute idles

Idle events: 6 (9% ID, 17% ASID)
 Idle hours: 4.8 (10% ID, 19% ASID)
 Fuel used: 4 gal (10% ID, 18% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



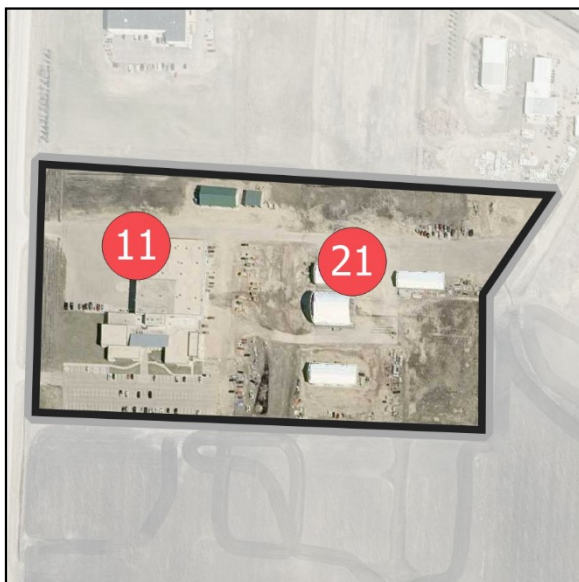
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota

DISTRICT 2 IDLE EVENTS ON HIGH-ACTIVITY DAYS



Thief River Falls Truck Station (Joint Use)



5+ minute idles

Idle events: 32 (11% ID*, 22% ASID*)
 Idle hours: 5.7 (11% ID, 20% ASID)
 Fuel used: 3.4 gal (8% ID, 13% ASID)



15+ minute idles

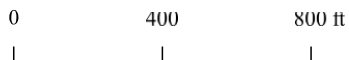
Idle events: 4 (9% ID, 13% ASID)
 Idle hours: 1.1 (6% ID, 8% ASID)
 Fuel used: 0.6 gal (4% ID, 5% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
 Idle hours: 0 (0% ID, 0% ASID)
 Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



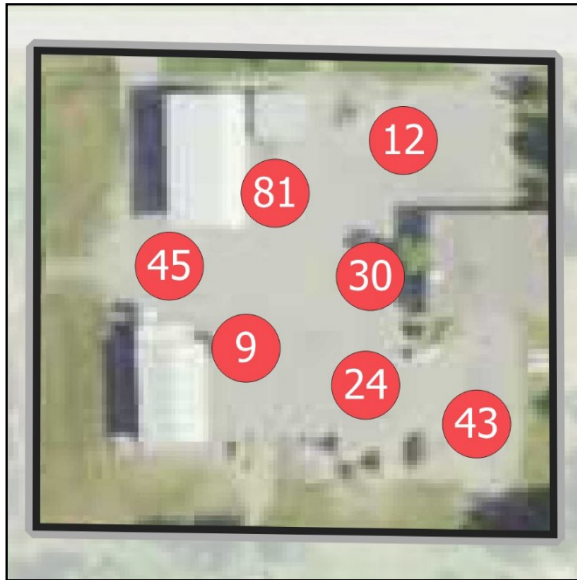
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Walker Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 244 (13% ID*, 25% ASID*)
 Idle hours: 43.1 (12% ID, 23% ASID)
 Fuel used: 29.8 gal (11% ID, 19% ASID)



15+ minute idles

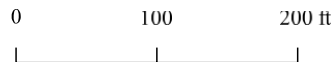
Idle events: 49 (16% ID, 26% ASID)
 Idle hours: 14.6 (12% ID, 20% ASID)
 Fuel used: 10.3 gal (10% ID, 16% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
 Idle hours: 0 (0% ID, 0% ASID)
 Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Walker Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 19 (7% ID*, 13% ASID*)
Idle hours: 2.6 (5% ID, 9% ASID)
Fuel used: 1.8 gal (4% ID, 7% ASID)



15+ minute idles

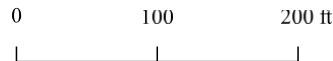
Idle events: 1 (2% ID, 3% ASID)
Idle hours: 0.3 (2% ID, 2% ASID)
Fuel used: 0.1 gal (1% ID, 1% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Cambridge Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 206 (5% ID*, 12% ASID*)
 Idle hours: 34.6 (3% ID, 6% ASID)
 Fuel used: 22.3 gal (2% ID, 4% ASID)



15+ minute idles

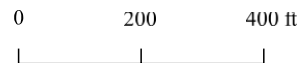
Idle events: 35 (3% ID, 6% ASID)
 Idle hours: 11.6 (2% ID, 3% ASID)
 Fuel used: 7.8 gal (1% ID, 2% ASID)



30+ minute idles

Idle events: 1 (0% ID, 0% ASID)
 Idle hours: 0.5 (0% ID, 0% ASID)
 Fuel used: 0.4 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



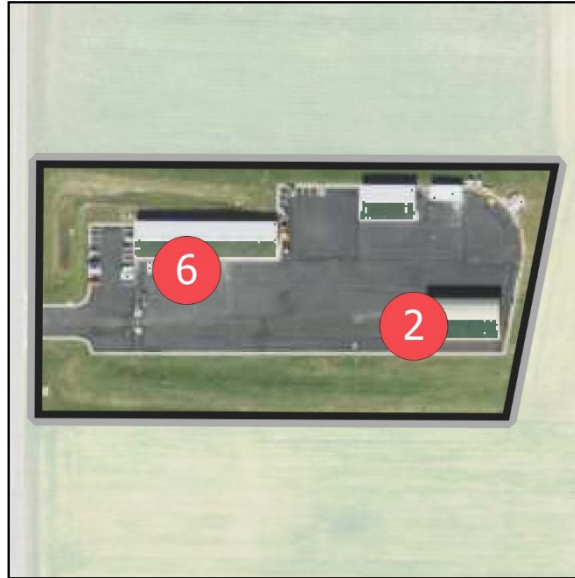
Cambridge Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 60 (9% ID*, 18% ASID*)
Idle hours: 9.5 (8% ID, 14% ASID)
Fuel used: 6.4 gal (5% ID, 9% ASID)



15+ minute idles

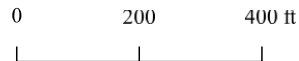
Idle events: 8 (7% ID, 11% ASID)
Idle hours: 2.8 (6% ID, 9% ASID)
Fuel used: 1.9 gal (4% ID, 6% ASID)



30+ minute idles

Idle events: 1 (5% ID, 7% ASID)
Idle hours: 0.5 (3% ID, 4% ASID)
Fuel used: 0.4 gal (2% ID, 3% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Elk River Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 207 (5% ID*, 12% ASID*)
 Idle hours: 68.8 (6% ID, 12% ASID)
 Fuel used: 79.1 gal (6% ID, 13% ASID)



15+ minute idles

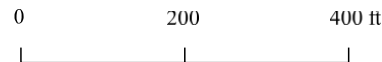
Idle events: 77 (6% ID, 14% ASID)
 Idle hours: 50.6 (7% ID, 13% ASID)
 Fuel used: 59.4 gal (8% ID, 13% ASID)



30+ minute idles

Idle events: 42 (9% ID, 16% ASID)
 Idle hours: 38.1 (8% ID, 13% ASID)
 Fuel used: 45.1 gal (8% ID, 13% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Elk River Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 35 (5% ID*, 11% ASID*)
 Idle hours: 7.8 (6% ID, 12% ASID)
 Fuel used: 6.3 gal (5% ID, 9% ASID)



15+ minute idles

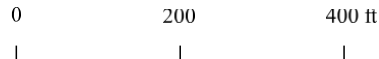
Idle events: 7 (6% ID, 10% ASID)
 Idle hours: 4.1 (8% ID, 13% ASID)
 Fuel used: 3 gal (6% ID, 9% ASID)



30+ minute idles

Idle events: 4 (18% ID, 29% ASID)
 Idle hours: 3 (15% ID, 26% ASID)
 Fuel used: 2.3 gal (12% ID, 19% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



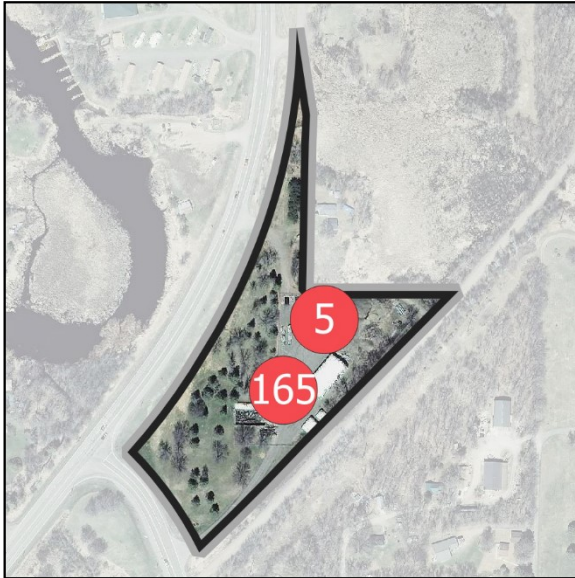
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



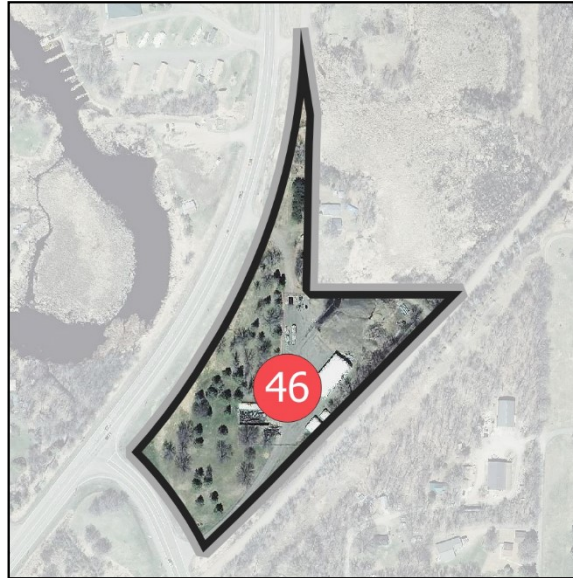
Isle Truck Station

ALL IDLE EVENTS



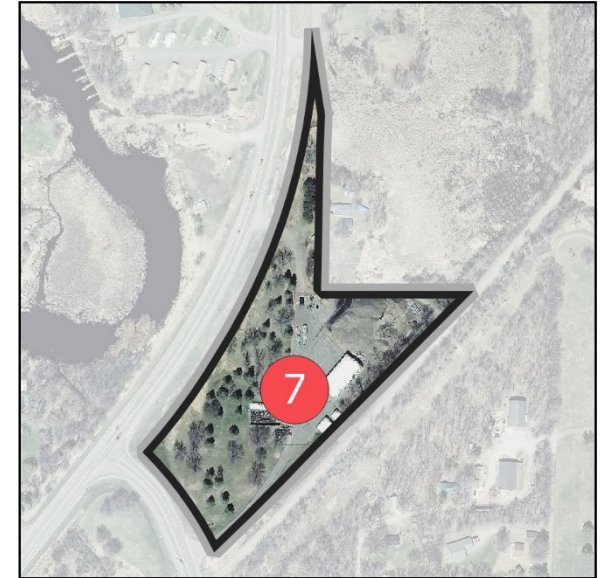
5+ minute idles

Idle events: 170 (4% ID*, 10% ASID*)
Idle hours: 34.5 (3% ID, 6% ASID)
Fuel used: 27.5 gal (2% ID, 4% ASID)



15+ minute idles

Idle events: 46 (4% ID, 8% ASID)
Idle hours: 15.6 (2% ID, 4% ASID)
Fuel used: 12.3 gal (2% ID, 3% ASID)



30+ minute idles

Idle events: 7 (1% ID, 3% ASID)
Idle hours: 4.6 (1% ID, 2% ASID)
Fuel used: 4 gal (1% ID, 1% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



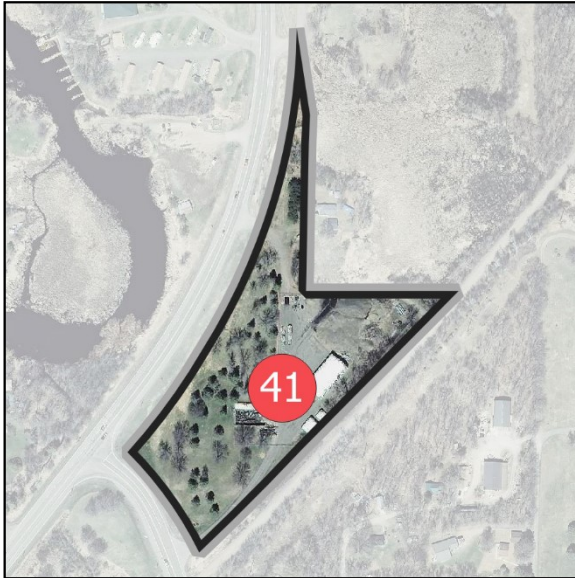
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Isle Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 41 (6% ID*, 12% ASID*)

Idle hours: 7.4 (6% ID, 11% ASID)

Fuel used: 5.7 gal (5% ID, 8% ASID)



15+ minute idles

Idle events: 8 (7% ID, 11% ASID)

Idle hours: 2.3 (5% ID, 7% ASID)

Fuel used: 1.6 gal (3% ID, 5% ASID)



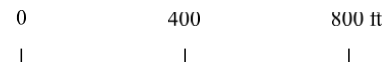
30+ minute idles

Idle events: 0 (0% ID, 0% ASID)

Idle hours: 0 (0% ID, 0% ASID)

Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



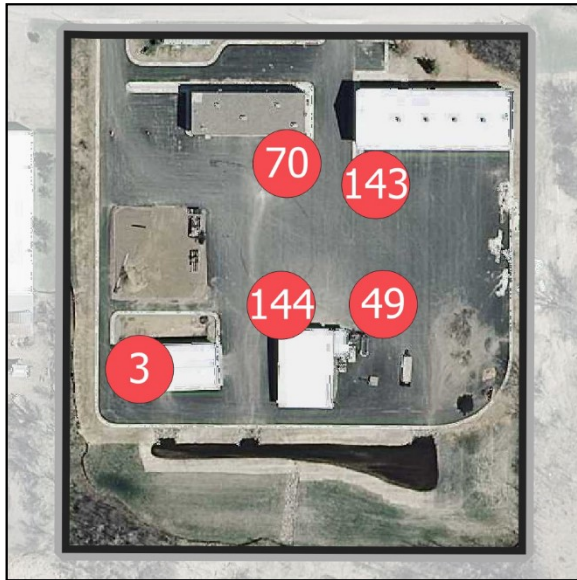
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



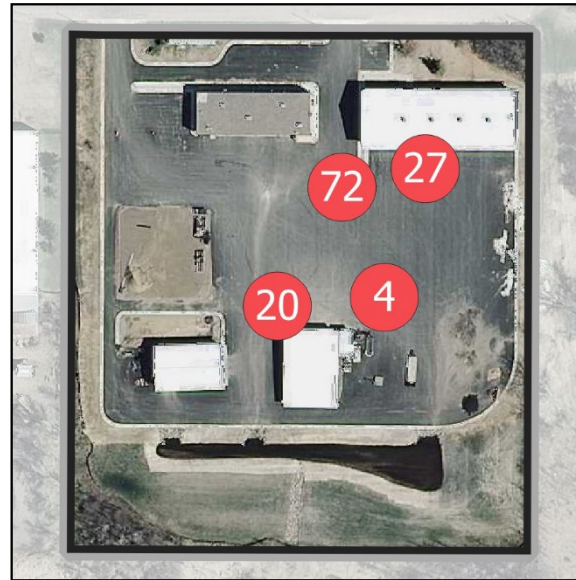
Milaca Truck Station

ALL IDLE EVENTS



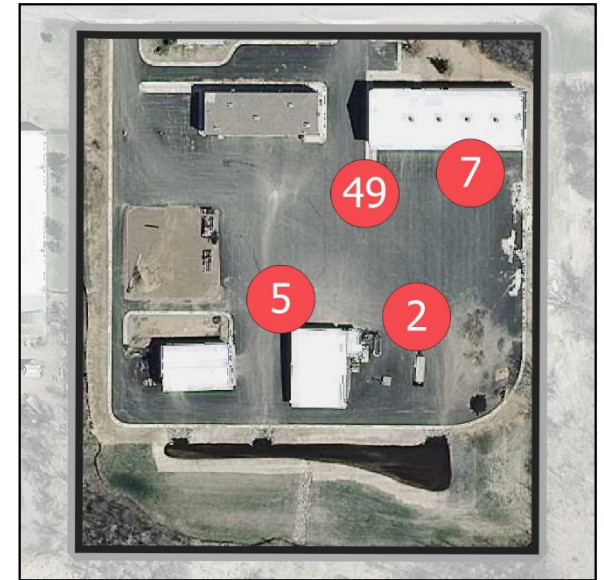
5+ minute idles

Idle events: 409 (9% ID*, 23% ASID*)
 Idle hours: 122.7 (10% ID, 22% ASID)
 Fuel used: 156.7 gal (13% ID, 25% ASID)



15+ minute idles

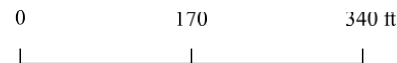
Idle events: 123 (10% ID, 22% ASID)
 Idle hours: 85.2 (12% ID, 21% ASID)
 Fuel used: 106.7 gal (14% ID, 24% ASID)



30+ minute idles

Idle events: 63 (13% ID, 24% ASID)
 Idle hours: 64.4 (13% ID, 21% ASID)
 Fuel used: 79.8 gal (15% ID, 24% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



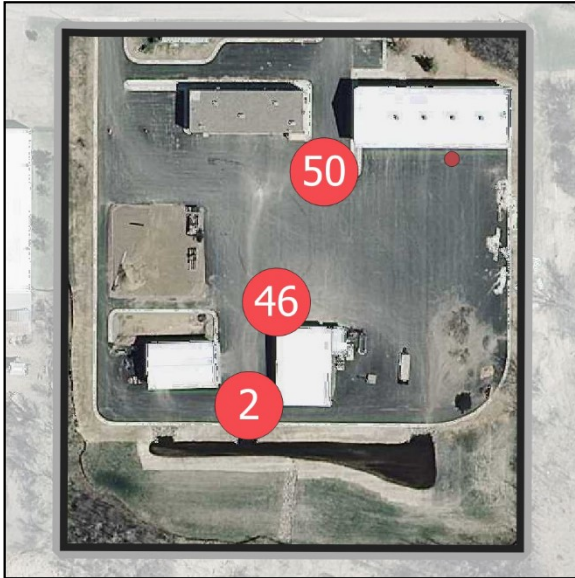
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



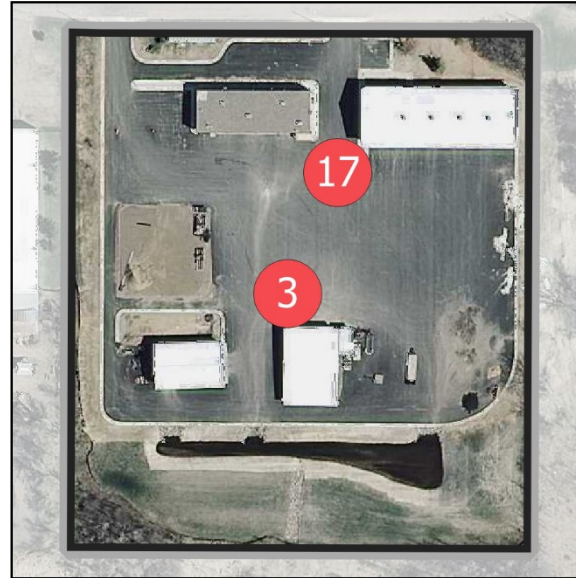
Milaca Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 99 (15% ID*, 30% ASID*)
Idle hours: 18.2 (15% ID, 27% ASID)
Fuel used: 24 gal (20% ID, 35% ASID)



15+ minute idles

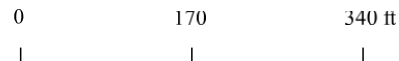
Idle events: 20 (18% ID, 28% ASID)
Idle hours: 7.4 (15% ID, 24% ASID)
Fuel used: 10 gal (20% ID, 31% ASID)



30+ minute idles

Idle events: 1 (5% ID, 7% ASID)
Idle hours: 0.6 (3% ID, 5% ASID)
Fuel used: 0.7 gal (4% ID, 6% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



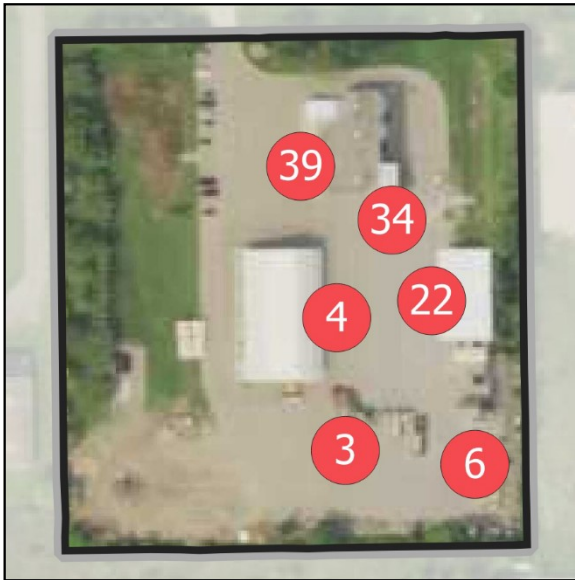
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



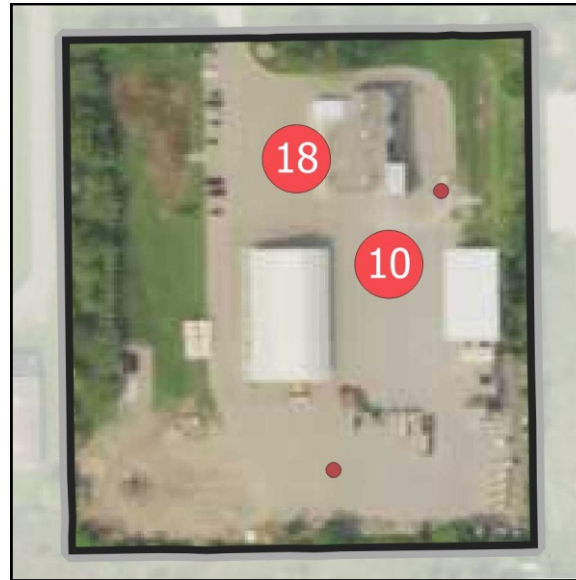
Monticello Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 108 (2% ID*, 6% ASID*)
 Idle hours: 25.5 (2% ID, 5% ASID)
 Fuel used: 30 gal (2% ID, 5% ASID)



15+ minute idles

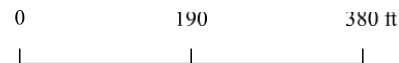
Idle events: 30 (3% ID, 5% ASID)
 Idle hours: 15.1 (2% ID, 4% ASID)
 Fuel used: 19.2 gal (2% ID, 4% ASID)



30+ minute idles

Idle events: 9 (2% ID, 3% ASID)
 Idle hours: 8 (2% ID, 3% ASID)
 Fuel used: 11 gal (2% ID, 3% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



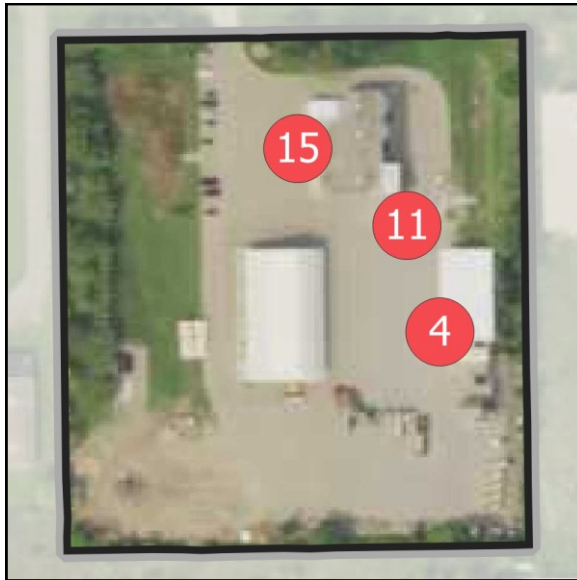
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



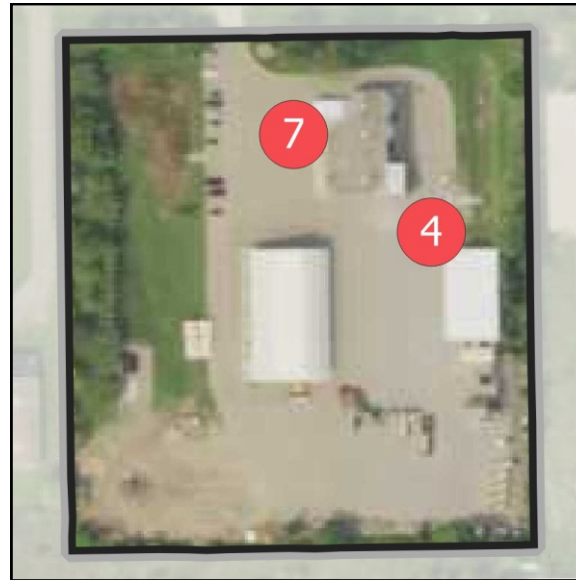
Monticello Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 30 (5% ID*, 9% ASID*)
Idle hours: 6.7 (5% ID, 10% ASID)
Fuel used: 8.3 gal (7% ID, 12% ASID)



15+ minute idles

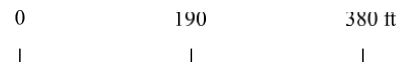
Idle events: 11 (10% ID, 15% ASID)
Idle hours: 3.9 (8% ID, 13% ASID)
Fuel used: 5.1 gal (10% ID, 16% ASID)



30+ minute idles

Idle events: 1 (5% ID, 7% ASID)
Idle hours: 0.6 (3% ID, 5% ASID)
Fuel used: 0.8 gal (4% ID, 7% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Mora Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 132 (3% ID*, 7% ASID*)
 Idle hours: 21.5 (2% ID, 4% ASID)
 Fuel used: 17.6 gal (1% ID, 3% ASID)



15+ minute idles

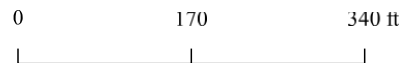
Idle events: 22 (2% ID, 4% ASID)
 Idle hours: 6.4 (1% ID, 2% ASID)
 Fuel used: 5.1 gal (1% ID, 1% ASID)



30+ minute idles

Idle events: 1 (0% ID, 0% ASID)
 Idle hours: 0.7 (0% ID, 0% ASID)
 Fuel used: 0.4 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Mora Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 24 (4% ID*, 7% ASID*)
Idle hours: 3.6 (3% ID, 5% ASID)
Fuel used: 2.7 gal (2% ID, 4% ASID)



15+ minute idles

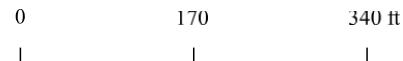
Idle events: 3 (3% ID, 4% ASID)
Idle hours: 0.8 (2% ID, 3% ASID)
Fuel used: 0.5 gal (1% ID, 2% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



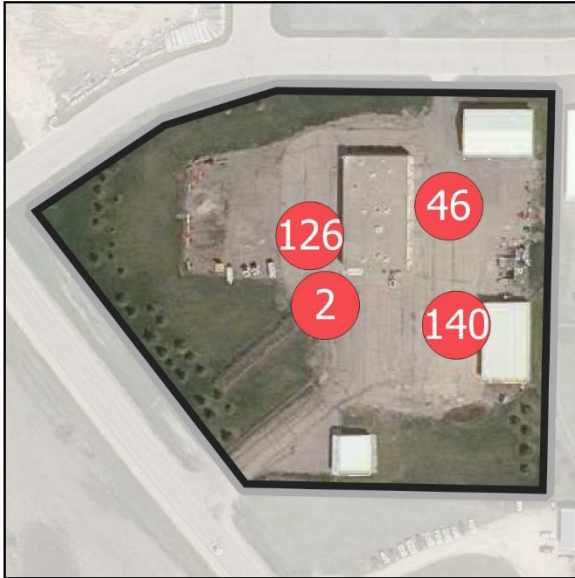
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



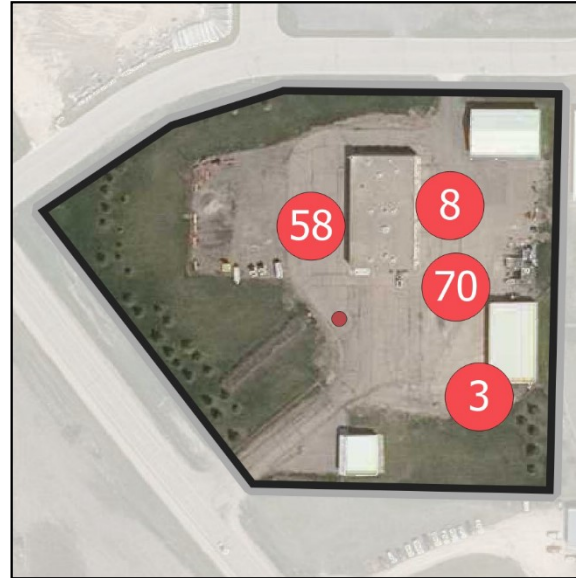
Sauk Centre Truck Station

ALL IDLE EVENTS



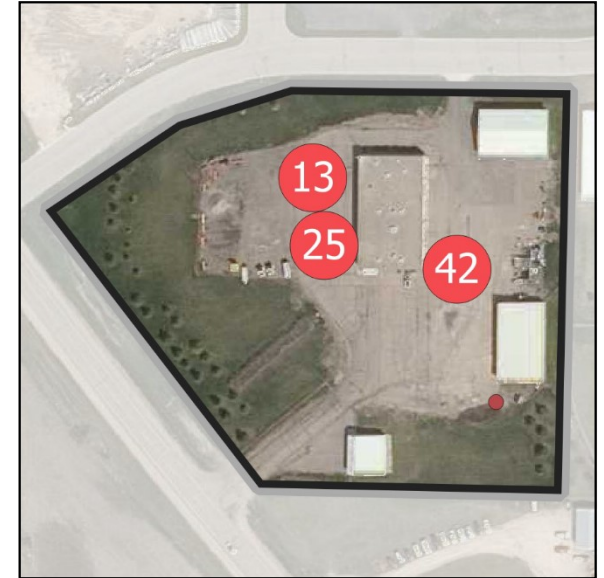
5+ minute idles

Idle events: 314 (7% ID*, 18% ASID*)
 Idle hours: 131.3 (11% ID, 23% ASID)
 Fuel used: 157.9 gal (13% ID, 26% ASID)



15+ minute idles

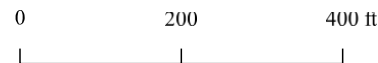
Idle events: 140 (12% ID, 25% ASID)
 Idle hours: 106.8 (15% ID, 27% ASID)
 Fuel used: 130.1 gal (17% ID, 29% ASID)



30+ minute idles

Idle events: 81 (17% ID, 31% ASID)
 Idle hours: 87.3 (18% ID, 29% ASID)
 Fuel used: 106.8 gal (20% ID, 32% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



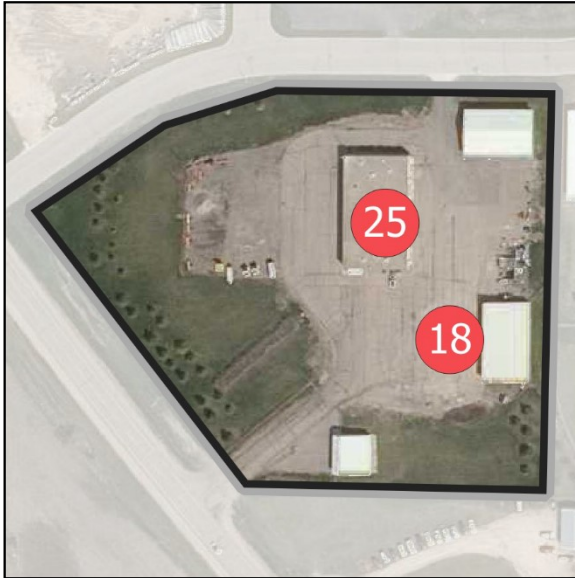
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



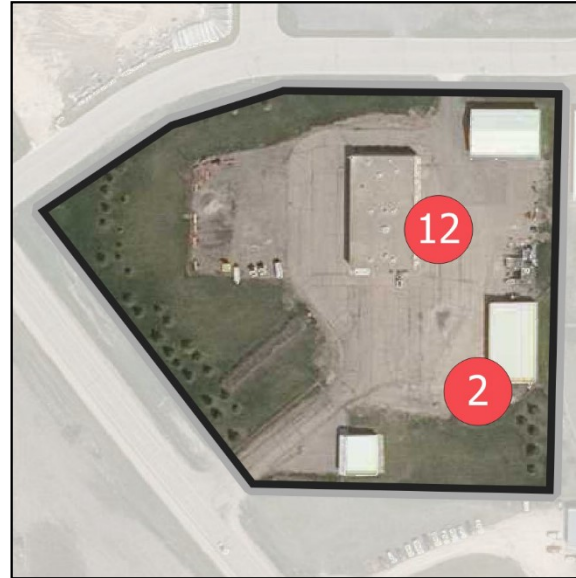
Sauk Centre Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



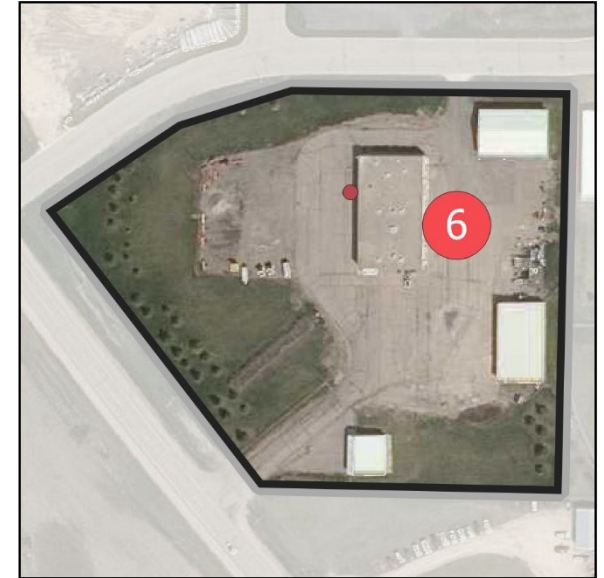
5+ minute idles

Idle events: 43 (6% ID*, 13% ASID*)
 Idle hours: 13.6 (11% ID, 20% ASID)
 Fuel used: 15.6 gal (13% ID, 23% ASID)



15+ minute idles

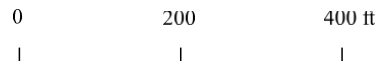
Idle events: 14 (13% ID, 20% ASID)
 Idle hours: 9.2 (19% ID, 30% ASID)
 Fuel used: 10.6 gal (21% ID, 32% ASID)



30+ minute idles

Idle events: 7 (32% ID, 50% ASID)
 Idle hours: 7 (35% ID, 59% ASID)
 Fuel used: 7.9 gal (42% ID, 65% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Alexandria Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 119 (6% ID*, 14% ASID*)
 Idle hours: 35.7 (7% ID, 12% ASID)
 Fuel used: 29.4 gal (6% ID, 10% ASID)



15+ minute idles

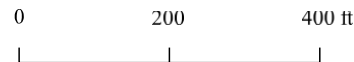
Idle events: 58 (11% ID, 19% ASID)
 Idle hours: 26.8 (8% ID, 13% ASID)
 Fuel used: 22.1 gal (7% ID, 10% ASID)



30+ minute idles

Idle events: 15 (7% ID, 10% ASID)
 Idle hours: 12.4 (6% ID, 8% ASID)
 Fuel used: 10.6 gal (5% ID, 6% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Alexandria Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 25 (7% ID*, 16% ASID*)
 Idle hours: 6.8 (9% ID, 19% ASID)
 Fuel used: 5.4 gal (8% ID, 16% ASID)



15+ minute idles

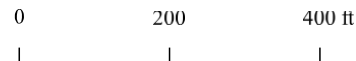
Idle events: 14 (20% ID, 37% ASID)
 Idle hours: 5.3 (17% ID, 28% ASID)
 Fuel used: 4.2 gal (16% ID, 26% ASID)



30+ minute idles

Idle events: 3 (21% ID, 30% ASID)
 Idle hours: 1.5 (13% ID, 16% ASID)
 Fuel used: 1.1 gal (12% ID, 15% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



District HQ, Detroit Lakes

ALL IDLE EVENTS



5+ minute idles

Idle events: 38 (2% ID*, 4% ASID*)
 Idle hours: 22.8 (4% ID, 8% ASID)
 Fuel used: 16.2 gal (3% ID, 5% ASID)



15+ minute idles

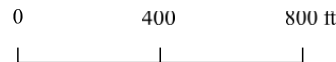
Idle events: 23 (4% ID, 7% ASID)
 Idle hours: 20.6 (6% ID, 10% ASID)
 Fuel used: 14.4 gal (4% ID, 7% ASID)



30+ minute idles

Idle events: 13 (6% ID, 9% ASID)
 Idle hours: 17.3 (8% ID, 11% ASID)
 Fuel used: 12.1 gal (5% ID, 7% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



District HQ, Detroit Lakes

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 4 (1% ID*, 3% ASID*)
 Idle hours: 5.2 (7% ID, 14% ASID)
 Fuel used: 3.1 gal (5% ID, 9% ASID)



15+ minute idles

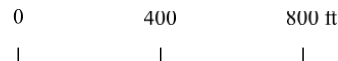
Idle events: 3 (4% ID, 8% ASID)
 Idle hours: 5.1 (17% ID, 27% ASID)
 Fuel used: 3 gal (11% ID, 19% ASID)



30+ minute idles

Idle events: 2 (14% ID, 20% ASID)
 Idle hours: 4.8 (40% ID, 50% ASID)
 Fuel used: 2.9 gal (31% ID, 40% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Evansville Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 51 (3% ID*, 6% ASID*)
 Idle hours: 22.3 (4% ID, 8% ASID)
 Fuel used: 20.1 gal (4% ID, 7% ASID)



15+ minute idles

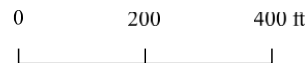
Idle events: 25 (5% ID, 8% ASID)
 Idle hours: 18.4 (6% ID, 9% ASID)
 Fuel used: 16.4 gal (5% ID, 8% ASID)



30+ minute idles

Idle events: 15 (7% ID, 10% ASID)
 Idle hours: 14.5 (7% ID, 9% ASID)
 Fuel used: 13.3 gal (6% ID, 8% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Evansville Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 4 (1% ID*, 3% ASID*)
Idle hours: 1.2 (2% ID, 3% ASID)
Fuel used: 0.8 gal (1% ID, 3% ASID)



15+ minute idles

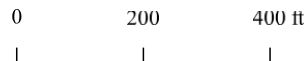
Idle events: 2 (3% ID, 5% ASID)
Idle hours: 0.9 (3% ID, 5% ASID)
Fuel used: 0.6 gal (2% ID, 4% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Fergus Falls Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 482 (25% ID*, 55% ASID*)
 Idle hours: 166.9 (32% ID, 57% ASID)
 Fuel used: 186 gal (37% ID, 63% ASID)



15+ minute idles

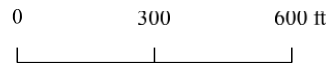
Idle events: 161 (30% ID, 52% ASID)
 Idle hours: 121.2 (37% ID, 58% ASID)
 Fuel used: 138.6 gal (43% ID, 64% ASID)



30+ minute idles

Idle events: 86 (40% ID, 59% ASID)
 Idle hours: 96.3 (44% ID, 62% ASID)
 Fuel used: 113 gal (50% ID, 69% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Fergus Falls Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 73 (19% ID*, 46% ASID*)
 Idle hours: 13.6 (18% ID, 38% ASID)
 Fuel used: 14.7 gal (22% ID, 45% ASID)



15+ minute idles

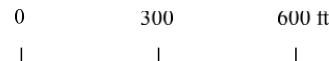
Idle events: 11 (16% ID, 29% ASID)
 Idle hours: 4.7 (15% ID, 25% ASID)
 Fuel used: 5.1 gal (19% ID, 32% ASID)



30+ minute idles

Idle events: 4 (29% ID, 40% ASID)
 Idle hours: 2.8 (23% ID, 29% ASID)
 Fuel used: 2.8 gal (31% ID, 39% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Henning Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 186 (10% ID*, 21% ASID*)
Idle hours: 44.2 (9% ID, 15% ASID)
Fuel used: 43.8 gal (9% ID, 15% ASID)



15+ minute idles

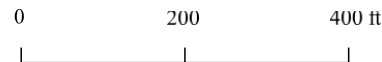
Idle events: 40 (8% ID, 13% ASID)
Idle hours: 22.4 (7% ID, 11% ASID)
Fuel used: 23.5 gal (7% ID, 11% ASID)



30+ minute idles

Idle events: 16 (7% ID, 11% ASID)
Idle hours: 14.3 (7% ID, 9% ASID)
Fuel used: 15.3 gal (7% ID, 9% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Henning Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 51 (14% ID*, 32% ASID*)
Idle hours: 9.3 (13% ID, 26% ASID)
Fuel used: 8.9 gal (13% ID, 27% ASID)



15+ minute idles

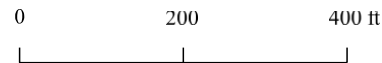
Idle events: 8 (11% ID, 21% ASID)
Idle hours: 2.7 (9% ID, 15% ASID)
Fuel used: 2.9 gal (11% ID, 18% ASID)



30+ minute idles

Idle events: 1 (7% ID, 10% ASID)
Idle hours: 0.5 (5% ID, 6% ASID)
Fuel used: 0.4 gal (5% ID, 6% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



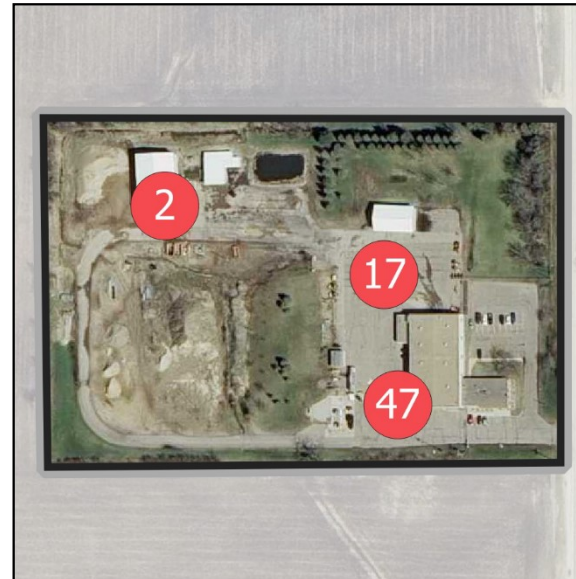
Albert Lea Truck Station

ALL IDLE EVENTS



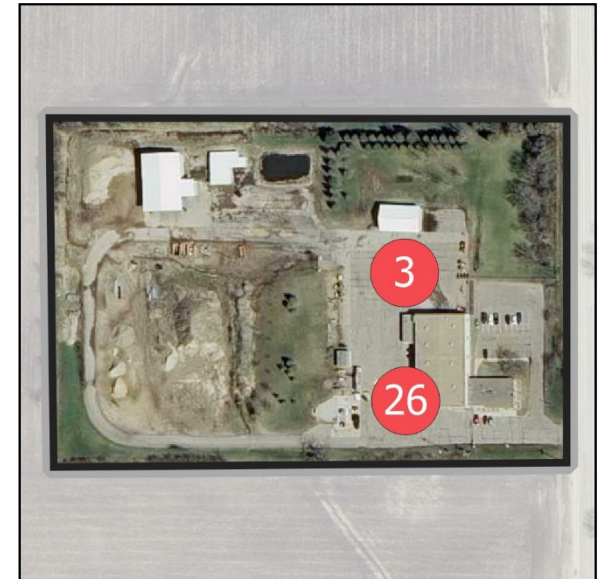
5+ minute idles

Idle events: 207 (5% ID*, 12% ASID*)
 Idle hours: 62.4 (6% ID, 14% ASID)
 Fuel used: 60.6 gal (7% ID, 15% ASID)



15+ minute idles

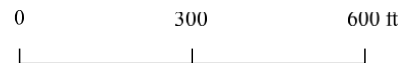
Idle events: 66 (6% ID, 16% ASID)
 Idle hours: 43.5 (7% ID, 16% ASID)
 Fuel used: 41.4 gal (7% ID, 16% ASID)



30+ minute idles

Idle events: 29 (6% ID, 16% ASID)
 Idle hours: 29.8 (7% ID, 15% ASID)
 Fuel used: 28.4 gal (7% ID, 15% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



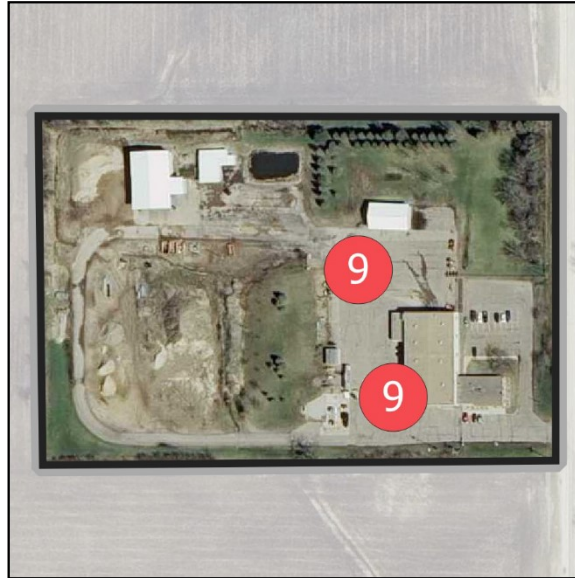
Albert Lea Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



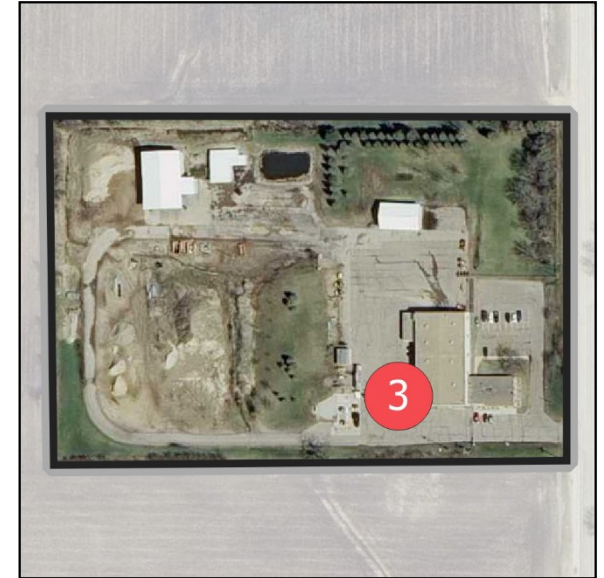
5+ minute idles

Idle events: 88 (6% ID*, 12% ASID*)
 Idle hours: 17.3 (5% ID, 10% ASID)
 Fuel used: 16.9 gal (6% ID, 11% ASID)



15+ minute idles

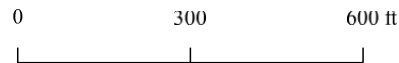
Idle events: 18 (6% ID, 12% ASID)
 Idle hours: 7.9 (5% ID, 9% ASID)
 Fuel used: 7.5 gal (5% ID, 9% ASID)



30+ minute idles

Idle events: 3 (3% ID, 5% ASID)
 Idle hours: 2.4 (2% ID, 4% ASID)
 Fuel used: 2.2 gal (2% ID, 4% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



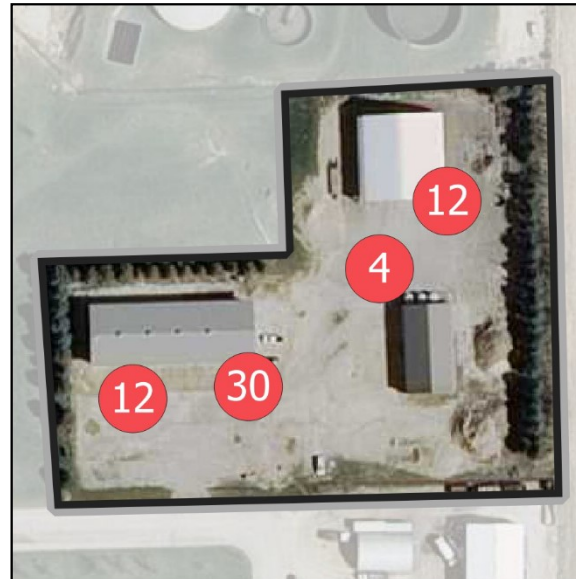
Caledonia Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 226 (5% ID*, 13% ASID*)
 Idle hours: 58.3 (6% ID, 13% ASID)
 Fuel used: 60 gal (6% ID, 15% ASID)



15+ minute idles

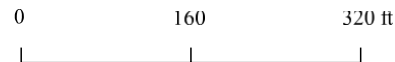
Idle events: 58 (6% ID, 14% ASID)
 Idle hours: 36.6 (6% ID, 13% ASID)
 Fuel used: 37.3 gal (7% ID, 15% ASID)



30+ minute idles

Idle events: 28 (6% ID, 15% ASID)
 Idle hours: 25.8 (6% ID, 13% ASID)
 Fuel used: 26.4 gal (7% ID, 14% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



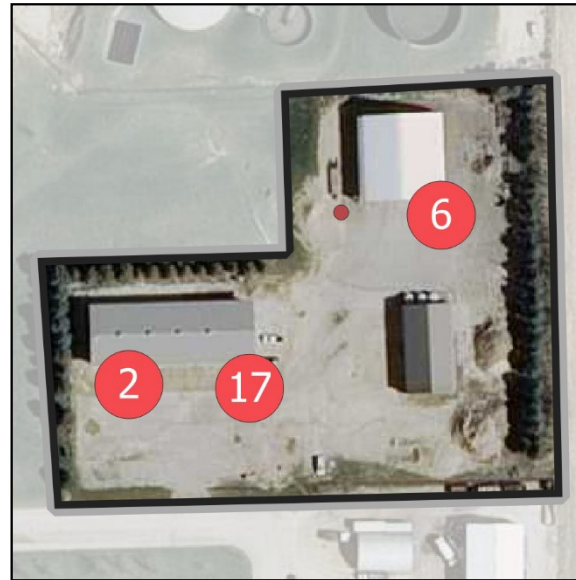
Caledonia Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



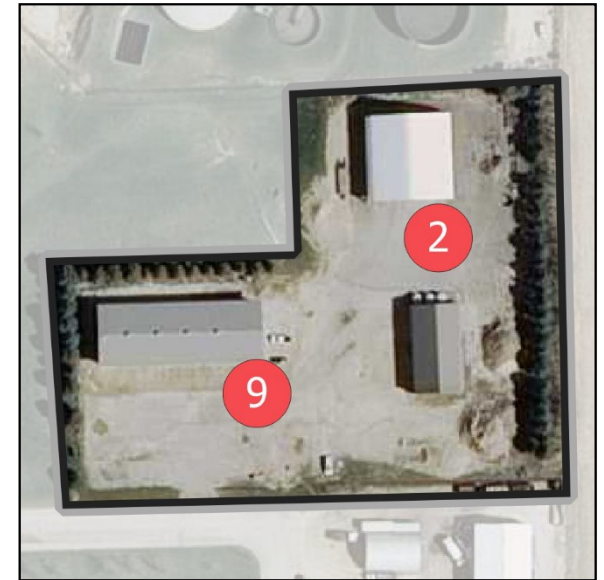
5+ minute idles

Idle events: 111 (7% ID*, 15% ASID*)
 Idle hours: 27.8 (8% ID, 16% ASID)
 Fuel used: 29.5 gal (10% ID, 20% ASID)



15+ minute idles

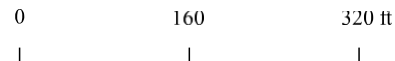
Idle events: 26 (9% ID, 18% ASID)
 Idle hours: 16.8 (10% ID, 19% ASID)
 Fuel used: 18.1 gal (12% ID, 23% ASID)



30+ minute idles

Idle events: 11 (9% ID, 18% ASID)
 Idle hours: 11.4 (11% ID, 19% ASID)
 Fuel used: 12.5 gal (13% ID, 23% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



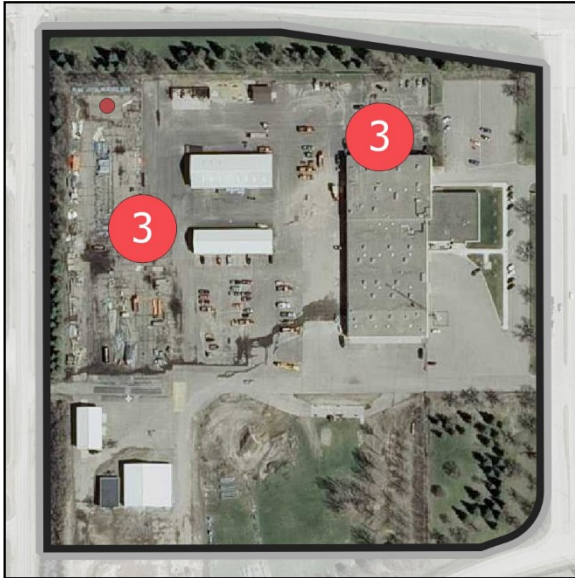
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Owatonna Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 7 (0% ID*, 0% ASID*)
Idle hours: 1.2 (0% ID, 0% ASID)
Fuel used: 1.4 gal (0% ID, 0% ASID)



15+ minute idles

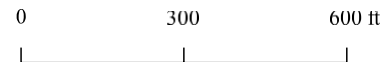
Idle events: 1 (0% ID, 0% ASID)
Idle hours: 0.3 (0% ID, 0% ASID)
Fuel used: 0.5 gal (0% ID, 0% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Owatonna Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 1 (0% ID*, 0% ASID*)
Idle hours: 0.2 (0% ID, 0% ASID)
Fuel used: 0.2 gal (0% ID, 0% ASID)



15+ minute idles

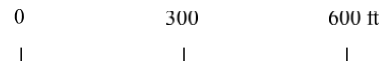
Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



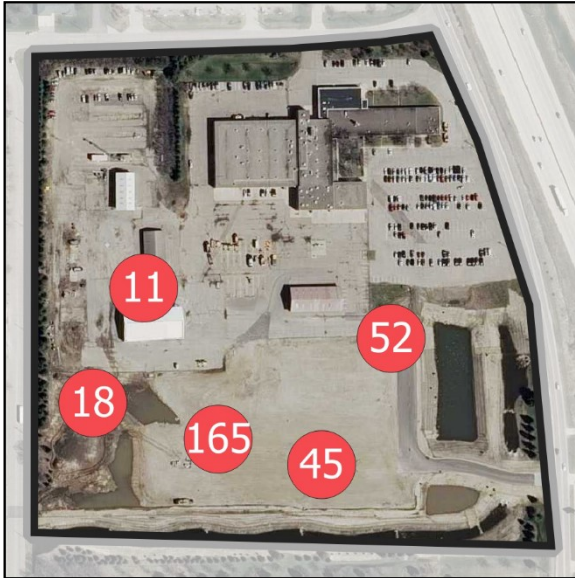
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Rochester Truck Station (Multi Use)

ALL IDLE EVENTS



5+ minute idles

Idle events: 291 (7% ID*, 17% ASID*)
 Idle hours: 56 (5% ID, 12% ASID)
 Fuel used: 50.5 gal (5% ID, 12% ASID)



15+ minute idles

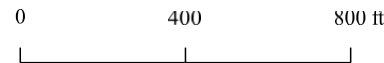
Idle events: 49 (5% ID, 12% ASID)
 Idle hours: 24.8 (4% ID, 9% ASID)
 Fuel used: 23.5 gal (4% ID, 9% ASID)



30+ minute idles

Idle events: 11 (2% ID, 6% ASID)
 Idle hours: 11.9 (3% ID, 6% ASID)
 Fuel used: 10.9 gal (3% ID, 6% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



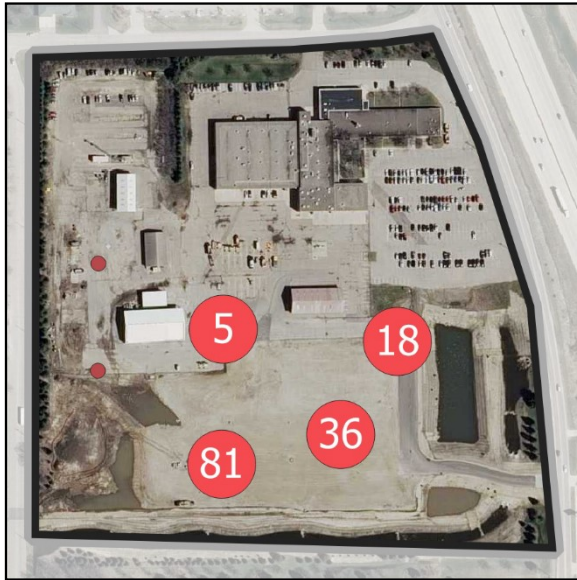
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota

DISTRICT 6 IDLE EVENTS ON HIGH-ACTIVITY DAYS



Rochester Truck Station (Multi Use)



5+ minute idles

Idle events: 142 (9% ID*, 19% ASID*)
 Idle hours: 21.6 (7% ID, 13% ASID)
 Fuel used: 17.3 gal (6% ID, 12% ASID)



15+ minute idles

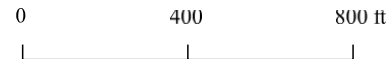
Idle events: 12 (4% ID, 8% ASID)
 Idle hours: 5.3 (3% ID, 6% ASID)
 Fuel used: 4 gal (3% ID, 5% ASID)



30+ minute idles

Idle events: 2 (2% ID, 3% ASID)
 Idle hours: 2 (2% ID, 3% ASID)
 Fuel used: 1.5 gal (2% ID, 3% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Stewartville Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 201 (5% ID*, 12% ASID*)
 Idle hours: 33.9 (3% ID, 8% ASID)
 Fuel used: 22.9 gal (2% ID, 6% ASID)



15+ minute idles

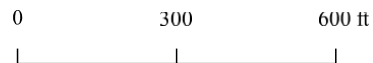
Idle events: 25 (2% ID, 6% ASID)
 Idle hours: 9.3 (1% ID, 3% ASID)
 Fuel used: 6.3 gal (1% ID, 2% ASID)



30+ minute idles

Idle events: 2 (0% ID, 1% ASID)
 Idle hours: 2.3 (1% ID, 1% ASID)
 Fuel used: 1.6 gal (0% ID, 1% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Stewartville Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 110 (7% ID*, 14% ASID*)
 Idle hours: 18.7 (6% ID, 11% ASID)
 Fuel used: 11.3 gal (4% ID, 8% ASID)



15+ minute idles

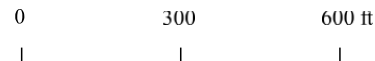
Idle events: 15 (5% ID, 10% ASID)
 Idle hours: 5.4 (3% ID, 6% ASID)
 Fuel used: 3.1 gal (2% ID, 4% ASID)



30+ minute idles

Idle events: 1 (1% ID, 2% ASID)
 Idle hours: 1.2 (1% ID, 2% ASID)
 Fuel used: 0.6 gal (1% ID, 1% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



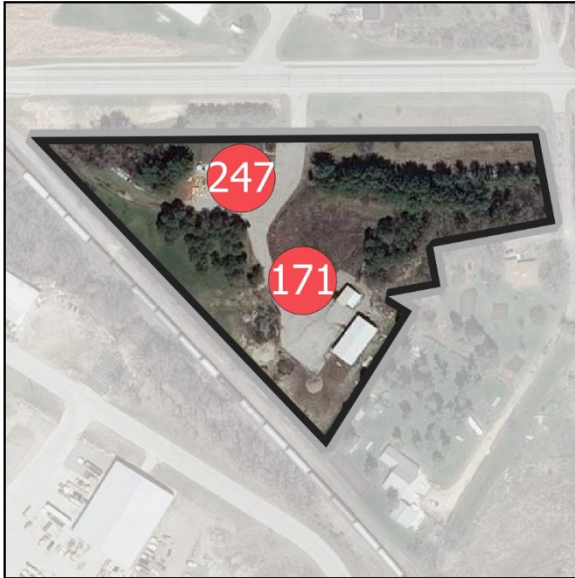
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Wabasha Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 418 (10% ID*, 25% ASID*)
 Idle hours: 157.5 (15% ID, 35% ASID)
 Fuel used: 136 gal (15% ID, 33% ASID)



15+ minute idles

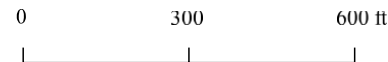
Idle events: 126 (12% ID, 31% ASID)
 Idle hours: 118.6 (19% ID, 43% ASID)
 Fuel used: 101.5 gal (18% ID, 40% ASID)



30+ minute idles

Idle events: 84 (18% ID, 45% ASID)
 Idle hours: 104 (24% ID, 52% ASID)
 Fuel used: 88.4 gal (22% ID, 48% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



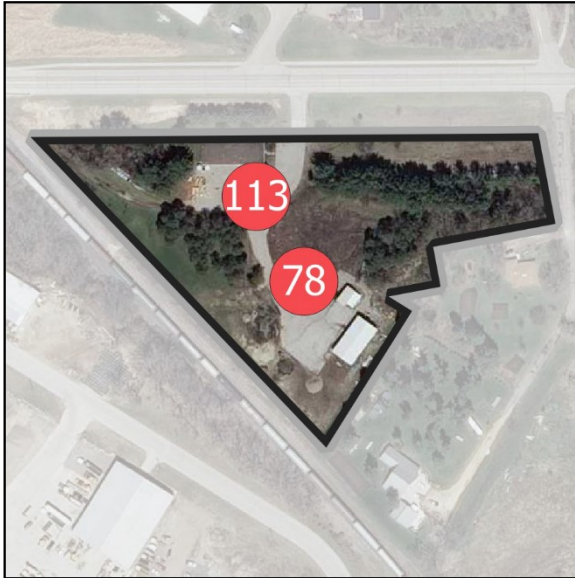
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Wabasha Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 191 (12% ID*, 25% ASID*)
 Idle hours: 61.4 (18% ID, 36% ASID)
 Fuel used: 53 gal (19% ID, 35% ASID)



15+ minute idles

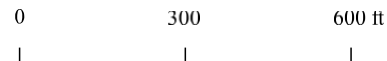
Idle events: 56 (18% ID, 38% ASID)
 Idle hours: 43.2 (25% ID, 48% ASID)
 Fuel used: 36.5 gal (25% ID, 46% ASID)



30+ minute idles

Idle events: 35 (30% ID, 56% ASID)
 Idle hours: 35.4 (33% ID, 59% ASID)
 Fuel used: 30.1 gal (32% ID, 56% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Winona Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 224 (5% ID*, 13% ASID*)
Idle hours: 51.4 (5% ID, 11% ASID)
Fuel used: 45 gal (5% ID, 11% ASID)



15+ minute idles

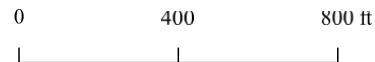
Idle events: 54 (5% ID, 13% ASID)
Idle hours: 28.4 (4% ID, 10% ASID)
Fuel used: 24.1 gal (4% ID, 10% ASID)



30+ minute idles

Idle events: 17 (4% ID, 9% ASID)
Idle hours: 15.3 (3% ID, 8% ASID)
Fuel used: 13.1 gal (3% ID, 7% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Winona Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 120 (8% ID*, 16% ASID*)
Idle hours: 25.1 (8% ID, 15% ASID)
Fuel used: 22.4 gal (8% ID, 15% ASID)



15+ minute idles

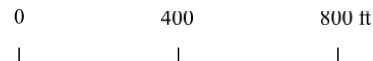
Idle events: 21 (7% ID, 14% ASID)
Idle hours: 12 (7% ID, 13% ASID)
Fuel used: 10.5 gal (7% ID, 13% ASID)



30+ minute idles

Idle events: 10 (8% ID, 16% ASID)
Idle hours: 8 (8% ID, 13% ASID)
Fuel used: 7.1 gal (8% ID, 13% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Le Sueur Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 73 (4% ID*, 9% ASID*)
 Idle hours: 20.3 (5% ID, 11% ASID)
 Fuel used: 24.3 gal (5% ID, 11% ASID)



15+ minute idles

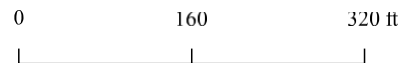
Idle events: 22 (6% ID, 13% ASID)
 Idle hours: 13 (6% ID, 13% ASID)
 Fuel used: 15.9 gal (6% ID, 13% ASID)



30+ minute idles

Idle events: 8 (6% ID, 13% ASID)
 Idle hours: 8.3 (6% ID, 13% ASID)
 Fuel used: 9.8 gal (5% ID, 12% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



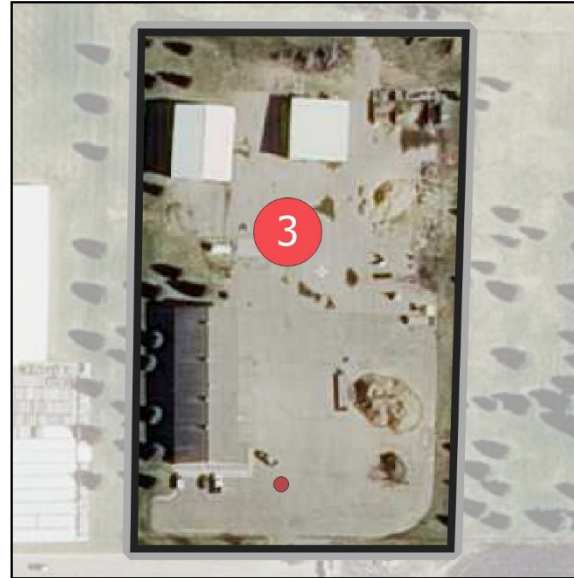
Le Sueur Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 18 (6% ID*, 14% ASID*)
Idle hours: 4.1 (9% ID, 20% ASID)
Fuel used: 4.9 gal (8% ID, 20% ASID)



15+ minute idles

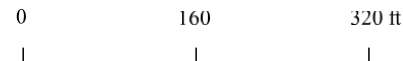
Idle events: 4 (11% ID, 29% ASID)
Idle hours: 2.1 (15% ID, 36% ASID)
Fuel used: 2.8 gal (14% ID, 39% ASID)



30+ minute idles

Idle events: 2 (33% ID, 67% ASID)
Idle hours: 1.5 (37% ID, 65% ASID)
Fuel used: 2.2 gal (34% ID, 73% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Waseca Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 198 (10% ID*, 25% ASID*)
 Idle hours: 29.8 (7% ID, 17% ASID)
 Fuel used: 32.3 gal (6% ID, 15% ASID)



15+ minute idles

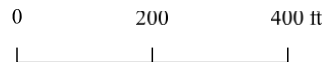
Idle events: 24 (6% ID, 14% ASID)
 Idle hours: 8.3 (4% ID, 8% ASID)
 Fuel used: 9.3 gal (3% ID, 8% ASID)



30+ minute idles

Idle events: 2 (1% ID, 3% ASID)
 Idle hours: 1.1 (1% ID, 2% ASID)
 Fuel used: 0.9 gal (0% ID, 1% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Waseca Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 43 (14% ID*, 33% ASID*)
Idle hours: 5.8 (12% ID, 29% ASID)
Fuel used: 6 gal (10% ID, 25% ASID)



15+ minute idles

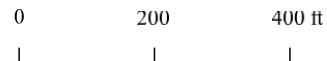
Idle events: 2 (5% ID, 14% ASID)
Idle hours: 0.8 (5% ID, 13% ASID)
Fuel used: 0.7 gal (4% ID, 10% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Wells Truck Station

ALL IDLE EVENTS



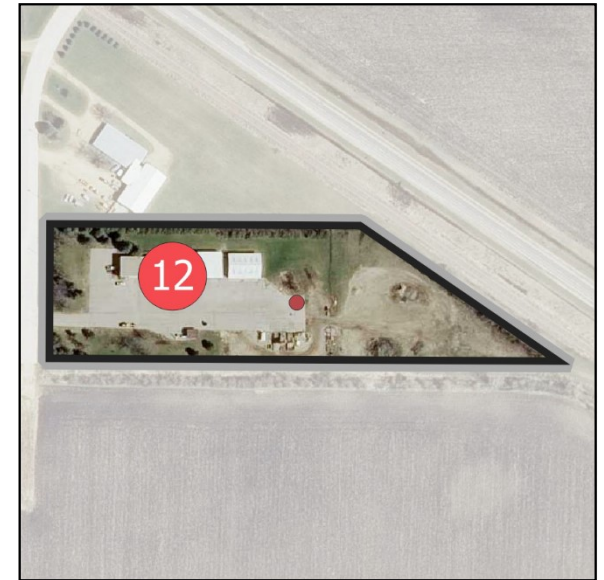
5+ minute idles

Idle events: 186 (9% ID*, 24% ASID*)
 Idle hours: 42.9 (10% ID, 24% ASID)
 Fuel used: 45.2 gal (9% ID, 21% ASID)



15+ minute idles

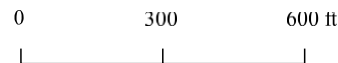
Idle events: 28 (8% ID, 17% ASID)
 Idle hours: 23.4 (11% ID, 23% ASID)
 Fuel used: 22.4 gal (8% ID, 18% ASID)



30+ minute idles

Idle events: 13 (9% ID, 20% ASID)
 Idle hours: 18.5 (13% ID, 28% ASID)
 Fuel used: 17 gal (10% ID, 21% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Wells Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 27 (9% ID*, 21% ASID*)
Idle hours: 3.1 (7% ID, 16% ASID)
Fuel used: 3.5 gal (6% ID, 14% ASID)



15+ minute idles

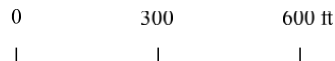
Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Windom Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 121 (6% ID*, 15% ASID*)
 Idle hours: 20.1 (5% ID, 11% ASID)
 Fuel used: 34.1 gal (7% ID, 16% ASID)



15+ minute idles

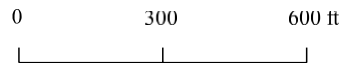
Idle events: 17 (5% ID, 10% ASID)
 Idle hours: 6.9 (3% ID, 7% ASID)
 Fuel used: 12.6 gal (5% ID, 10% ASID)



30+ minute idles

Idle events: 3 (2% ID, 5% ASID)
 Idle hours: 2.7 (2% ID, 4% ASID)
 Fuel used: 5.7 gal (3% ID, 7% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Windom Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 25 (8% ID*, 19% ASID*)
 Idle hours: 3.6 (8% ID, 18% ASID)
 Fuel used: 6.2 gal (11% ID, 25% ASID)



15+ minute idles

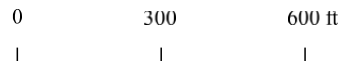
Idle events: 2 (5% ID, 14% ASID)
 Idle hours: 0.6 (4% ID, 11% ASID)
 Fuel used: 0.9 gal (4% ID, 12% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
 Idle hours: 0 (0% ID, 0% ASID)
 Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



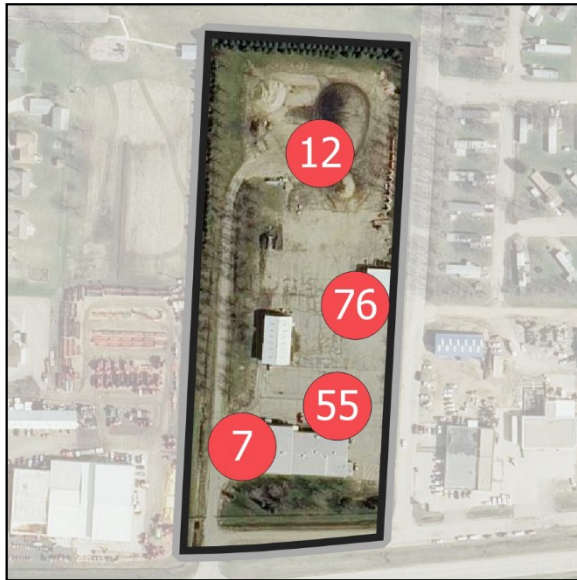
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



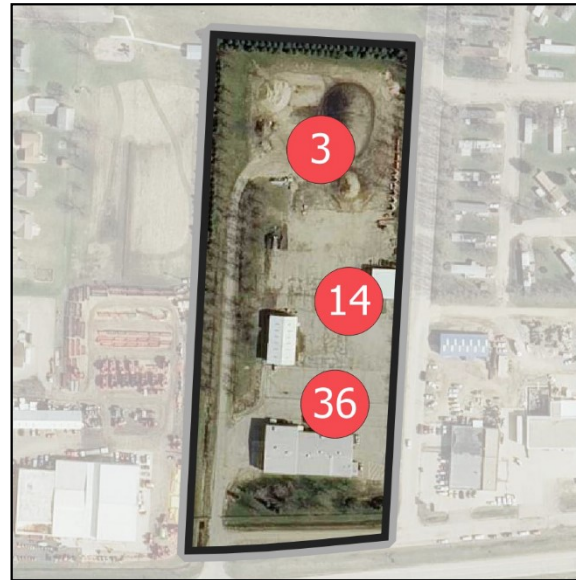
Worthington Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 150 (8% ID*, 19% ASID*)
 Idle hours: 45.9 (11% ID, 26% ASID)
 Fuel used: 57.9 gal (12% ID, 27% ASID)



15+ minute idles

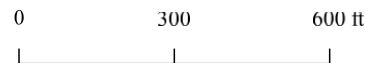
Idle events: 53 (14% ID, 32% ASID)
 Idle hours: 34 (15% ID, 34% ASID)
 Fuel used: 45 gal (16% ID, 37% ASID)



30+ minute idles

Idle events: 26 (18% ID, 41% ASID)
 Idle hours: 25 (17% ID, 38% ASID)
 Fuel used: 33.8 gal (19% ID, 42% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



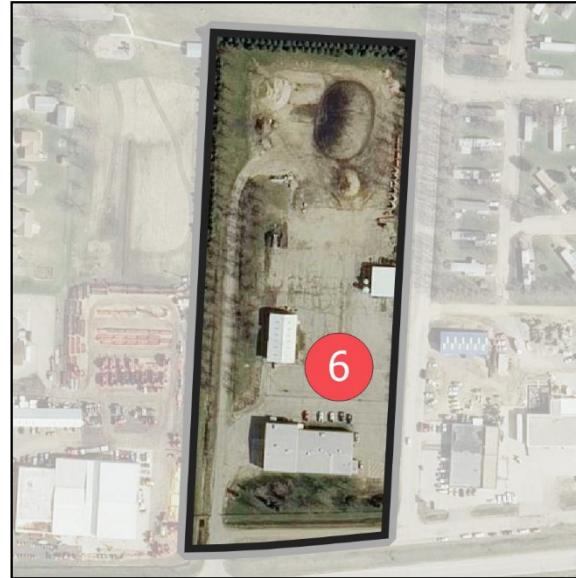
Worthington Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



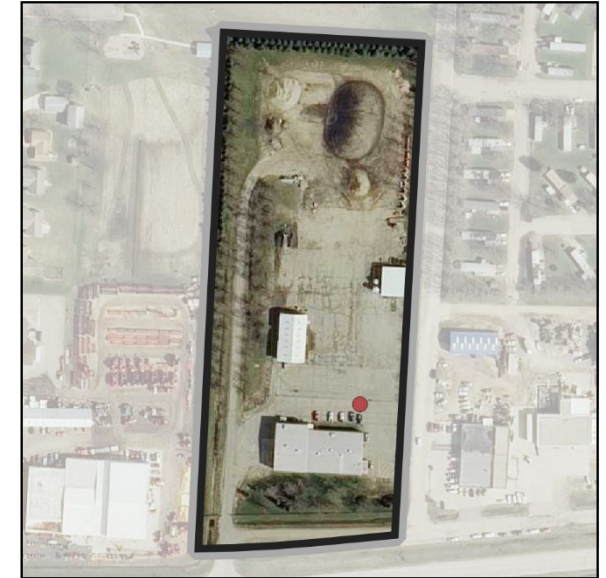
5+ minute idles

Idle events: 16 (5% ID*, 12% ASID*)
Idle hours: 3.5 (7% ID, 17% ASID)
Fuel used: 3.8 gal (6% ID, 16% ASID)



15+ minute idles

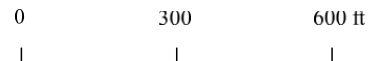
Idle events: 6 (16% ID, 43% ASID)
Idle hours: 2.4 (17% ID, 41% ASID)
Fuel used: 2.8 gal (14% ID, 39% ASID)



30+ minute idles

Idle events: 1 (17% ID, 33% ASID)
Idle hours: 0.8 (20% ID, 35% ASID)
Fuel used: 0.8 gal (13% ID, 27% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



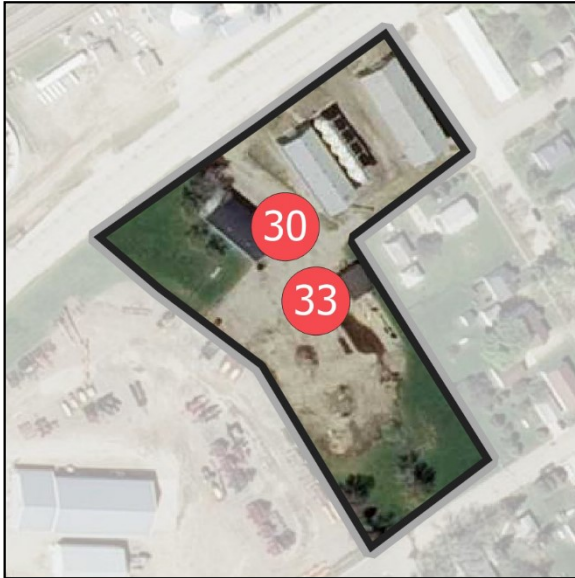
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



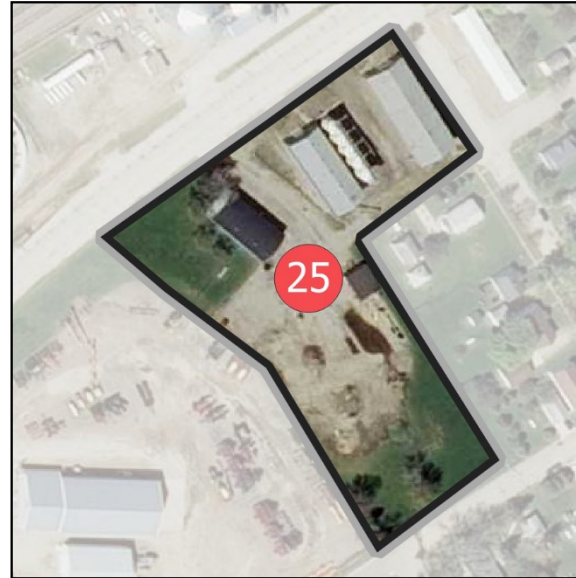
Clara City Truck Station

ALL IDLE EVENTS



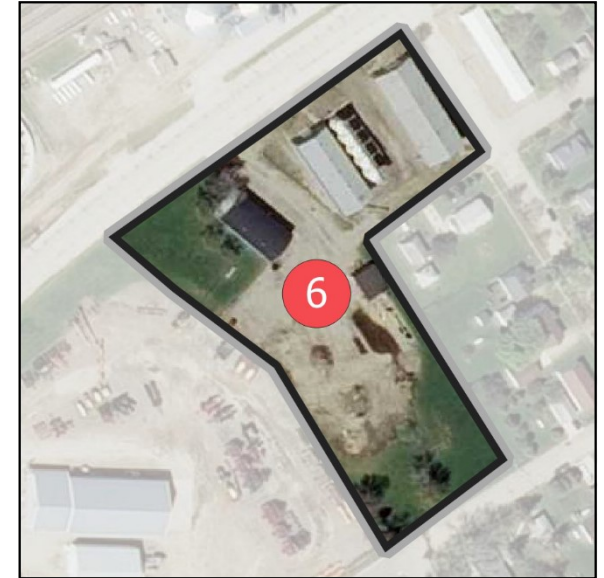
5+ minute idles

Idle events: 63 (2% ID*, 4% ASID*)
 Idle hours: 17.7 (3% ID, 5% ASID)
 Fuel used: 14.5 gal (2% ID, 4% ASID)



15+ minute idles

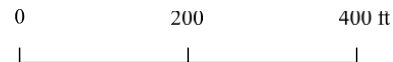
Idle events: 25 (4% ID, 8% ASID)
 Idle hours: 12.2 (3% ID, 6% ASID)
 Fuel used: 10.6 gal (2% ID, 5% ASID)



30+ minute idles

Idle events: 6 (2% ID, 4% ASID)
 Idle hours: 5.5 (2% ID, 4% ASID)
 Fuel used: 4.3 gal (1% ID, 3% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Clara City Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 8 (2% ID*, 3% ASID*)
Idle hours: 1.8 (2% ID, 4% ASID)
Fuel used: 1.8 gal (2% ID, 3% ASID)



15+ minute idles

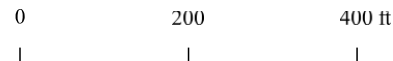
Idle events: 4 (5% ID, 9% ASID)
Idle hours: 1.2 (2% ID, 5% ASID)
Fuel used: 1.3 gal (2% ID, 4% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
Idle hours: 0 (0% ID, 0% ASID)
Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



District HQ, Willmar

ALL IDLE EVENTS



5+ minute idles

Idle events: 1351 (49% ID*, 80% ASID*)
 Idle hours: 295.7 (43% ID, 81% ASID)
 Fuel used: 285.6 gal (42% ID, 80% ASID)



15+ minute idles

Idle events: 255 (41% ID, 77% ASID)
 Idle hours: 159.7 (38% ID, 81% ASID)
 Fuel used: 165.6 gal (38% ID, 81% ASID)



30+ minute idles

Idle events: 109 (41% ID, 80% ASID)
 Idle hours: 109.2 (37% ID, 85% ASID)
 Fuel used: 113.6 gal (37% ID, 85% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



District HQ, Willmar

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 206 (49% ID*, 79% ASID*)
 Idle hours: 38.9 (41% ID, 79% ASID)
 Fuel used: 44 gal (45% ID, 81% ASID)



15+ minute idles

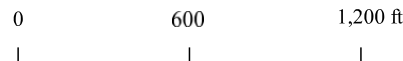
Idle events: 32 (40% ID, 70% ASID)
 Idle hours: 17.9 (35% ID, 77% ASID)
 Fuel used: 25.6 gal (43% ID, 82% ASID)



30+ minute idles

Idle events: 13 (43% ID, 87% ASID)
 Idle hours: 11.3 (32% ID, 88% ASID)
 Fuel used: 17.5 gal (43% ID, 92% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



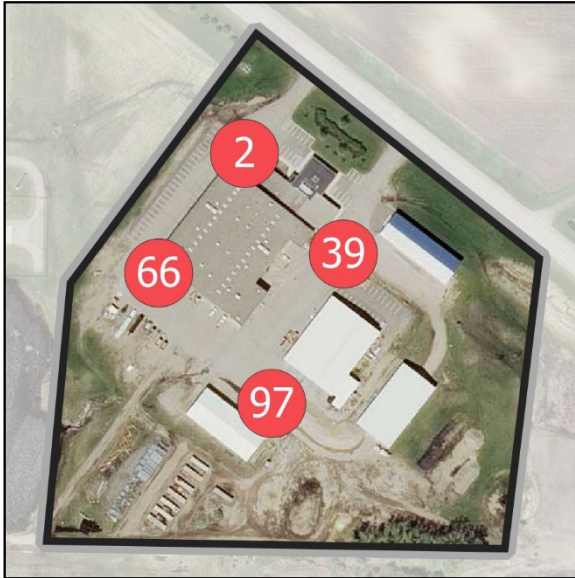
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Hutchinson Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 204 (7% ID*, 12% ASID*)
 Idle hours: 38.1 (6% ID, 10% ASID)
 Fuel used: 41.1 gal (6% ID, 12% ASID)



15+ minute idles

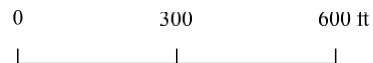
Idle events: 33 (5% ID, 10% ASID)
 Idle hours: 15.7 (4% ID, 8% ASID)
 Fuel used: 17.1 gal (4% ID, 8% ASID)



30+ minute idles

Idle events: 14 (5% ID, 10% ASID)
 Idle hours: 9.7 (3% ID, 8% ASID)
 Fuel used: 10.6 gal (3% ID, 8% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Hutchinson Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 46 (11% ID*, 18% ASID*)
Idle hours: 8.6 (9% ID, 17% ASID)
Fuel used: 8.7 gal (9% ID, 16% ASID)



15+ minute idles

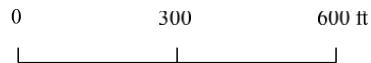
Idle events: 10 (13% ID, 22% ASID)
Idle hours: 4 (8% ID, 17% ASID)
Fuel used: 4.2 gal (7% ID, 13% ASID)



30+ minute idles

Idle events: 2 (7% ID, 13% ASID)
Idle hours: 1.5 (4% ID, 12% ASID)
Fuel used: 1.5 gal (4% ID, 8% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



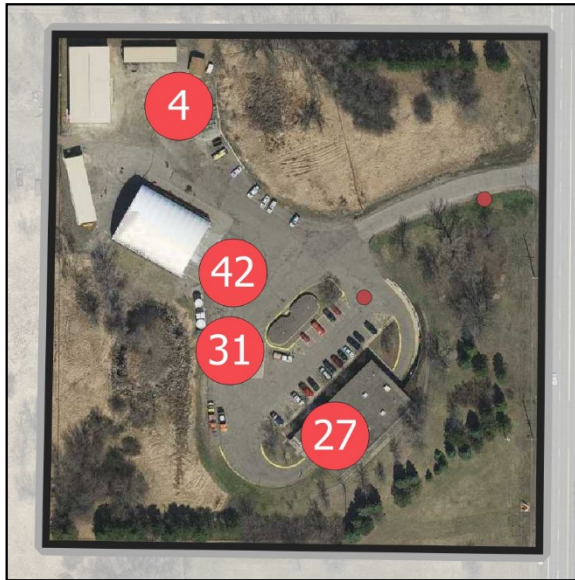
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



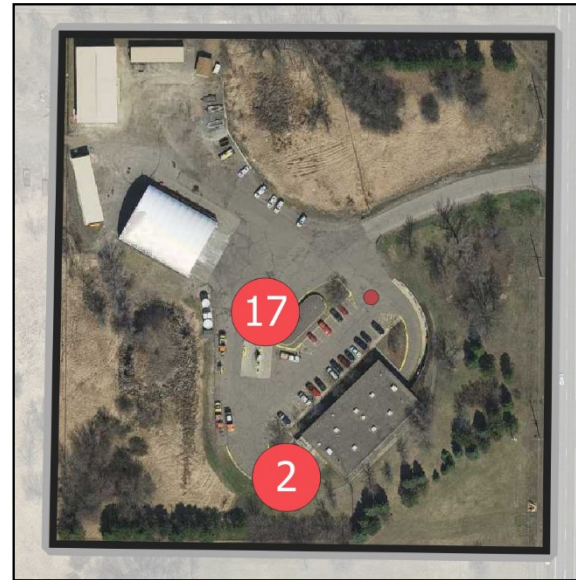
Anoka Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 106 (2% ID*, 5% ASID*)
 Idle hours: 28.6 (2% ID, 6% ASID)
 Fuel used: 29 gal (3% ID, 6% ASID)



15+ minute idles

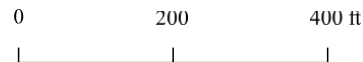
Idle events: 20 (2% ID, 4% ASID)
 Idle hours: 17 (2% ID, 6% ASID)
 Fuel used: 17.9 gal (3% ID, 6% ASID)



30+ minute idles

Idle events: 10 (2% ID, 5% ASID)
 Idle hours: 13.7 (3% ID, 7% ASID)
 Fuel used: 13.7 gal (3% ID, 7% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Anoka Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



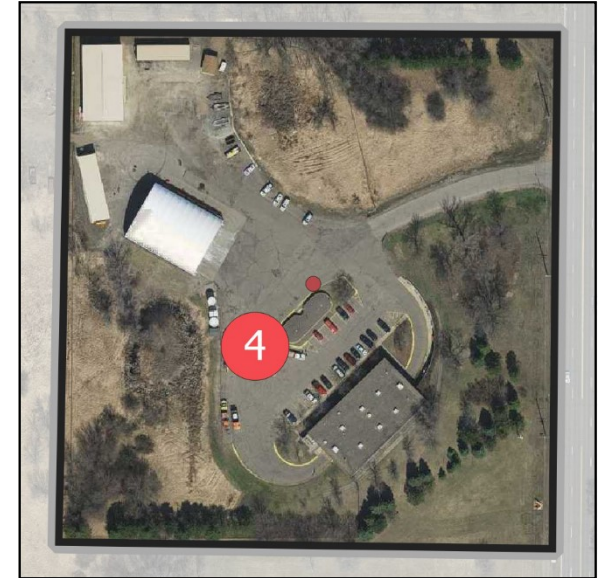
5+ minute idles

Idle events: 30 (3% ID*, 6% ASID*)
 Idle hours: 9.3 (5% ID, 9% ASID)
 Fuel used: 9.1 gal (5% ID, 9% ASID)



15+ minute idles

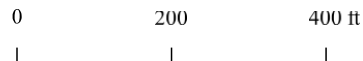
Idle events: 6 (3% ID, 8% ASID)
 Idle hours: 5.9 (6% ID, 12% ASID)
 Fuel used: 5.9 gal (6% ID, 13% ASID)



30+ minute idles

Idle events: 5 (7% ID, 15% ASID)
 Idle hours: 5.5 (8% ID, 15% ASID)
 Fuel used: 5.7 gal (10% ID, 19% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Forest Lake Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 178 (4% ID*, 8% ASID*)
 Idle hours: 50.9 (4% ID, 10% ASID)
 Fuel used: 53 gal (5% ID, 11% ASID)



15+ minute idles

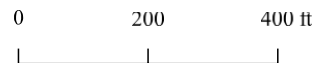
Idle events: 44 (4% ID, 9% ASID)
 Idle hours: 33.3 (5% ID, 11% ASID)
 Fuel used: 35.6 gal (5% ID, 13% ASID)



30+ minute idles

Idle events: 21 (4% ID, 10% ASID)
 Idle hours: 25.4 (5% ID, 13% ASID)
 Fuel used: 26.8 gal (6% ID, 14% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Forest Lake Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 86 (9% ID*, 18% ASID*)
 Idle hours: 25 (12% ID, 24% ASID)
 Fuel used: 22.1 gal (12% ID, 23% ASID)



15+ minute idles

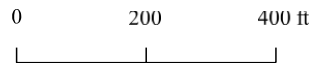
Idle events: 19 (11% ID, 25% ASID)
 Idle hours: 15.9 (16% ID, 31% ASID)
 Fuel used: 14.1 gal (15% ID, 31% ASID)



30+ minute idles

Idle events: 15 (22% ID, 45% ASID)
 Idle hours: 14.6 (22% ID, 41% ASID)
 Fuel used: 12.8 gal (22% ID, 43% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



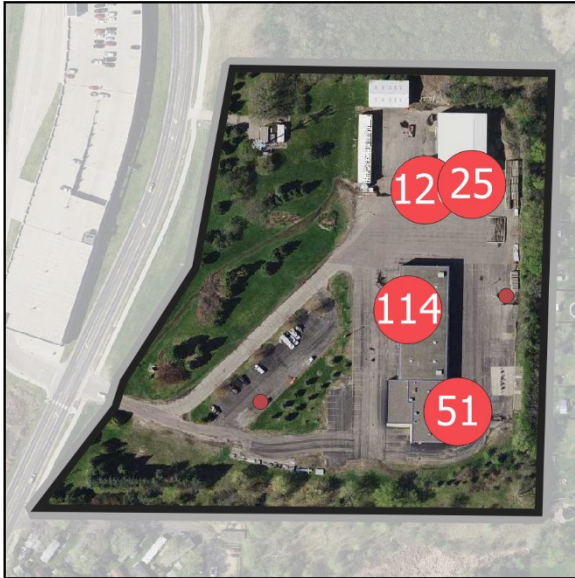
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



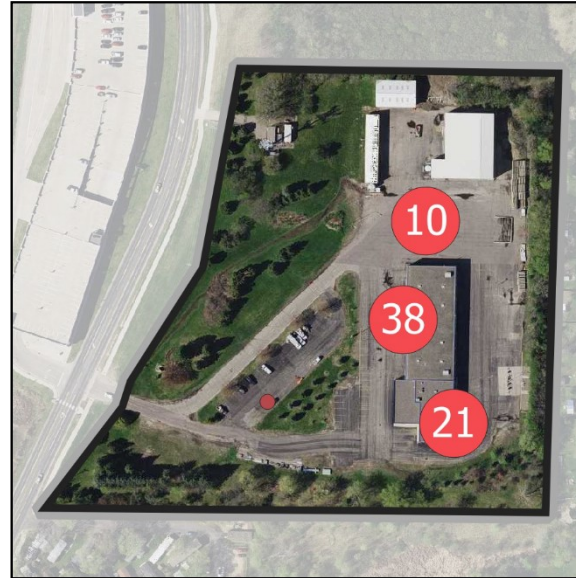
Lakeville Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 318 (6% ID*, 15% ASID*)
 Idle hours: 89.8 (7% ID, 17% ASID)
 Fuel used: 85.5 gal (8% ID, 17% ASID)



15+ minute idles

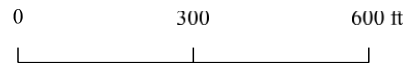
Idle events: 70 (6% ID, 15% ASID)
 Idle hours: 57.1 (8% ID, 20% ASID)
 Fuel used: 52.8 gal (8% ID, 19% ASID)



30+ minute idles

Idle events: 42 (9% ID, 21% ASID)
 Idle hours: 47.4 (10% ID, 24% ASID)
 Fuel used: 42.7 gal (9% ID, 22% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



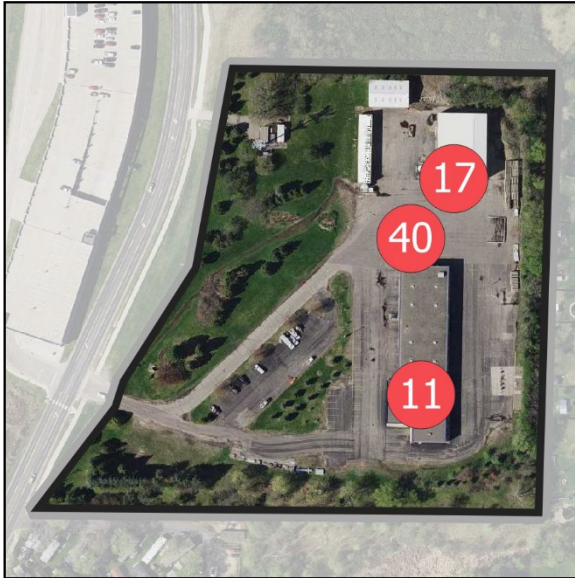
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



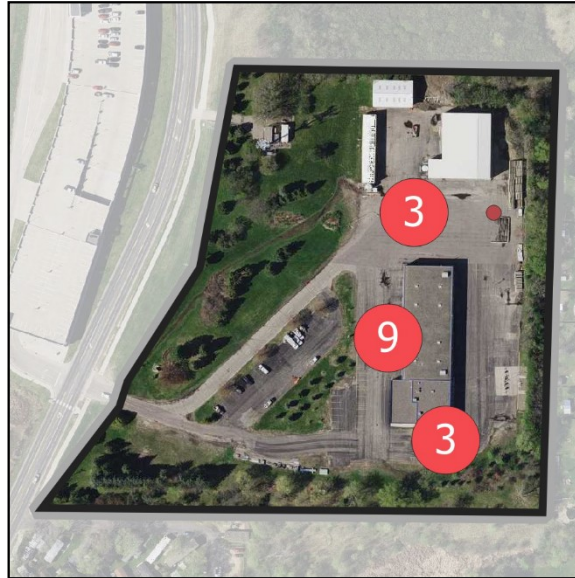
Lakeville Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



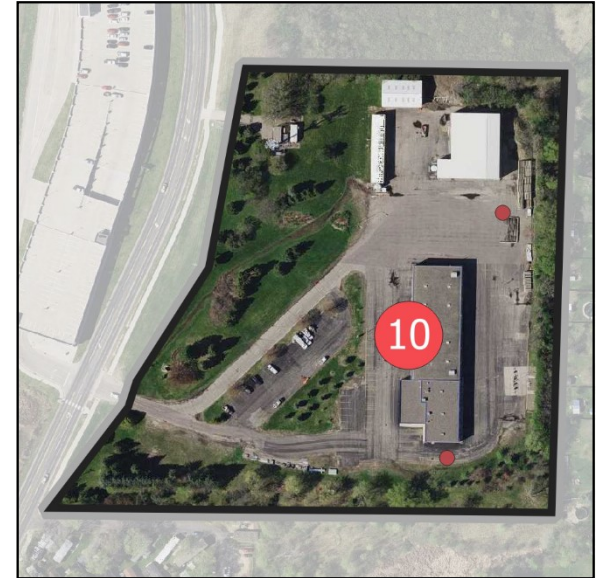
5+ minute idles

Idle events: 68 (7% ID*, 14% ASID*)
 Idle hours: 22.7 (11% ID, 22% ASID)
 Fuel used: 18.4 gal (10% ID, 19% ASID)



15+ minute idles

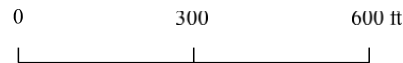
Idle events: 16 (9% ID, 21% ASID)
 Idle hours: 16.2 (16% ID, 32% ASID)
 Fuel used: 12.4 gal (13% ID, 27% ASID)



30+ minute idles

Idle events: 12 (17% ID, 36% ASID)
 Idle hours: 14.8 (23% ID, 42% ASID)
 Fuel used: 11 gal (18% ID, 37% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



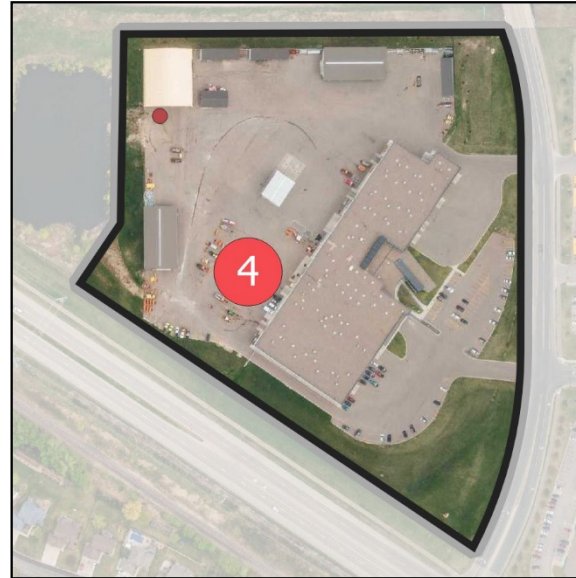
Maple Grove Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 8 (0% ID*, 0% ASID*)
Idle hours: 3.2 (0% ID, 1% ASID)
Fuel used: 3.6 gal (0% ID, 1% ASID)



15+ minute idles

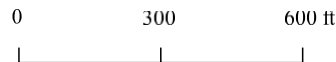
Idle events: 5 (0% ID, 1% ASID)
Idle hours: 2.7 (0% ID, 1% ASID)
Fuel used: 3.2 gal (0% ID, 1% ASID)



30+ minute idles

Idle events: 2 (0% ID, 1% ASID)
Idle hours: 1.5 (0% ID, 1% ASID)
Fuel used: 1.7 gal (0% ID, 1% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



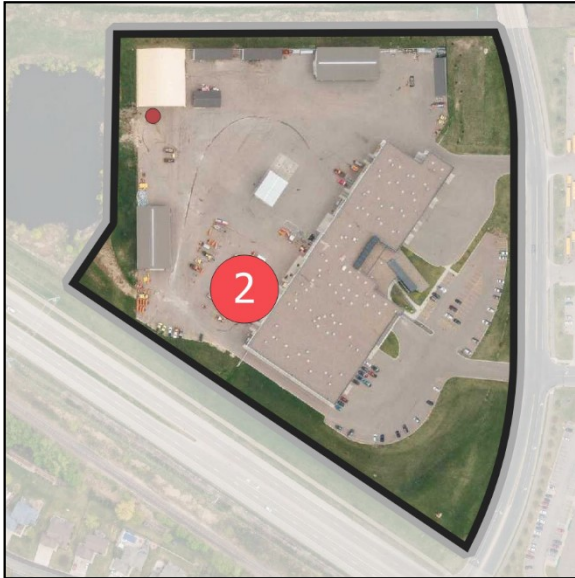
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Maple Grove Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



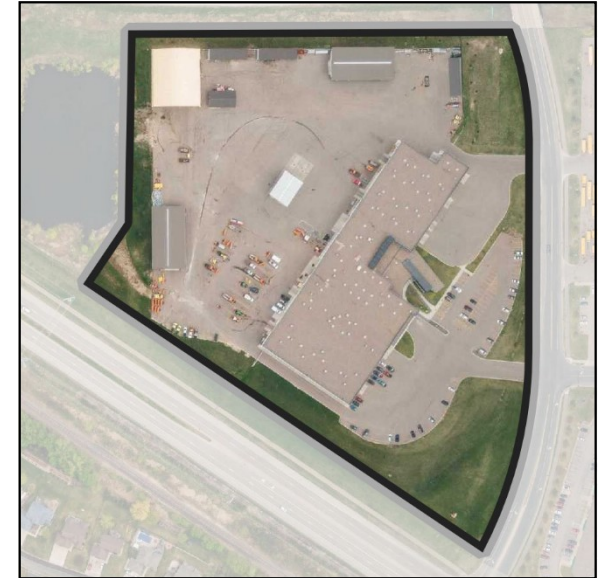
5+ minute idles

Idle events: 3 (0% ID*, 1% ASID*)
 Idle hours: 0.9 (0% ID, 1% ASID)
 Fuel used: 1.1 gal (1% ID, 1% ASID)



15+ minute idles

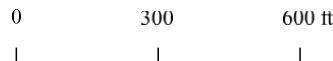
Idle events: 2 (1% ID, 3% ASID)
 Idle hours: 0.8 (1% ID, 2% ASID)
 Fuel used: 0.9 gal (1% ID, 2% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
 Idle hours: 0 (0% ID, 0% ASID)
 Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



Oakdale Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 546 (11% ID*, 25% ASID*)
 Idle hours: 138.4 (11% ID, 27% ASID)
 Fuel used: 145.2 gal (13% ID, 29% ASID)



15+ minute idles

Idle events: 152 (12% ID, 32% ASID)
 Idle hours: 87.6 (12% ID, 30% ASID)
 Fuel used: 97.5 gal (14% ID, 34% ASID)



30+ minute idles

Idle events: 62 (13% ID, 31% ASID)
 Idle hours: 56.3 (12% ID, 28% ASID)
 Fuel used: 63.9 gal (14% ID, 33% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Oakdale Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 73 (8% ID*, 15% ASID*)
 Idle hours: 12 (6% ID, 12% ASID)
 Fuel used: 12.9 gal (7% ID, 13% ASID)



15+ minute idles

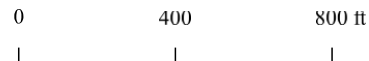
Idle events: 10 (6% ID, 13% ASID)
 Idle hours: 3.5 (3% ID, 7% ASID)
 Fuel used: 4.8 gal (5% ID, 11% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
 Idle hours: 0 (0% ID, 0% ASID)
 Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



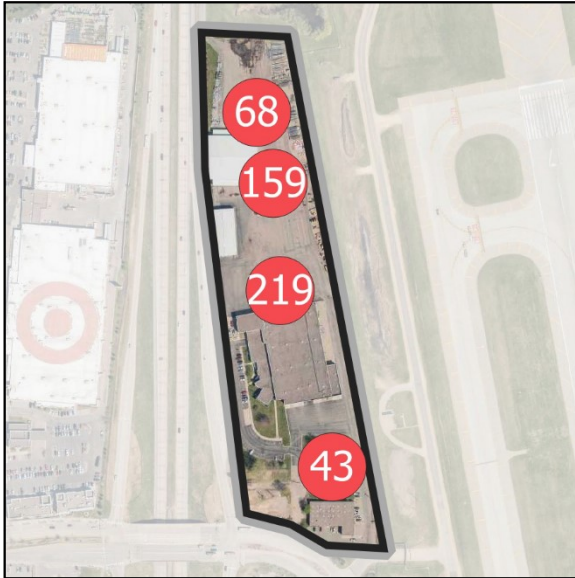
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



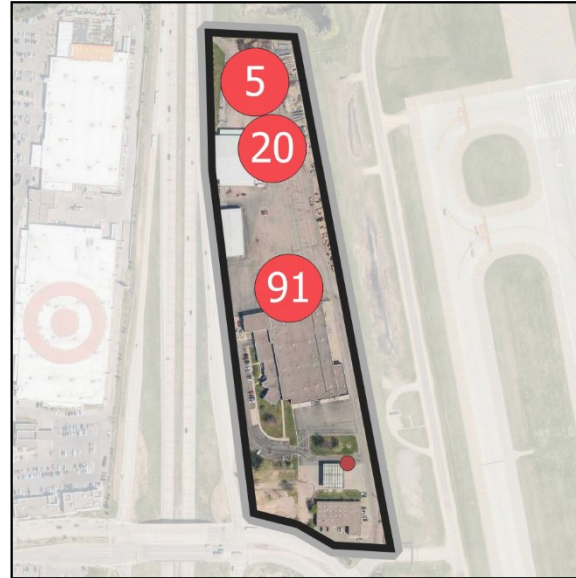
Richfield Truck Station

ALL IDLE EVENTS



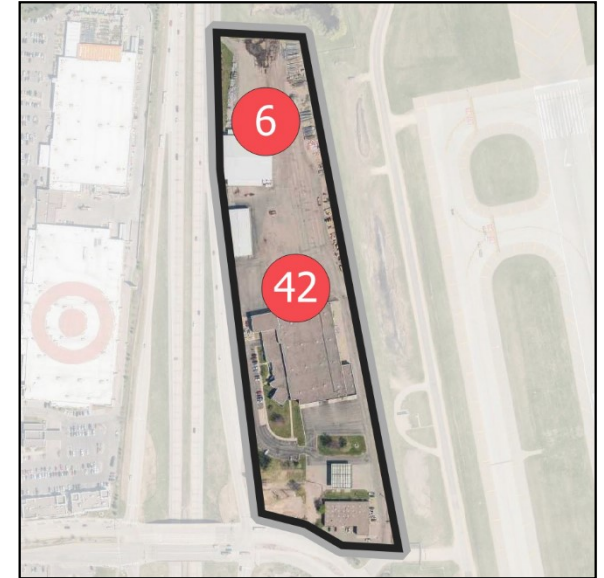
5+ minute idles

Idle events: 489 (10% ID*, 22% ASID*)
 Idle hours: 116.2 (9% ID, 22% ASID)
 Fuel used: 92 gal (8% ID, 19% ASID)



15+ minute idles

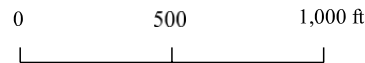
Idle events: 117 (10% ID, 25% ASID)
 Idle hours: 64.3 (9% ID, 22% ASID)
 Fuel used: 51.6 gal (8% ID, 18% ASID)



30+ minute idles

Idle events: 48 (10% ID, 24% ASID)
 Idle hours: 40 (8% ID, 20% ASID)
 Fuel used: 32.4 gal (7% ID, 17% ASID)

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Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



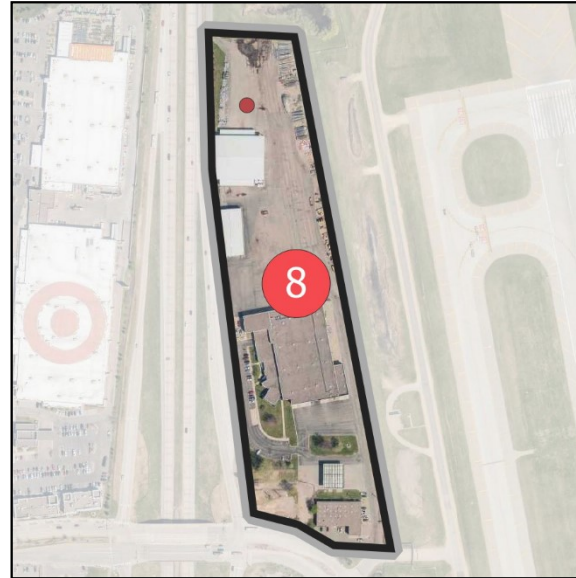
Richfield Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 49 (5% ID*, 10% ASID*)
 Idle hours: 8.7 (4% ID, 8% ASID)
 Fuel used: 6.7 gal (4% ID, 7% ASID)



15+ minute idles

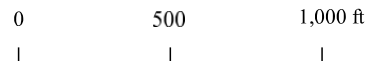
Idle events: 9 (5% ID, 12% ASID)
 Idle hours: 3.6 (4% ID, 7% ASID)
 Fuel used: 2.9 gal (3% ID, 6% ASID)



30+ minute idles

Idle events: 1 (1% ID, 3% ASID)
 Idle hours: 0.6 (1% ID, 2% ASID)
 Fuel used: 0.5 gal (1% ID, 2% ASID)

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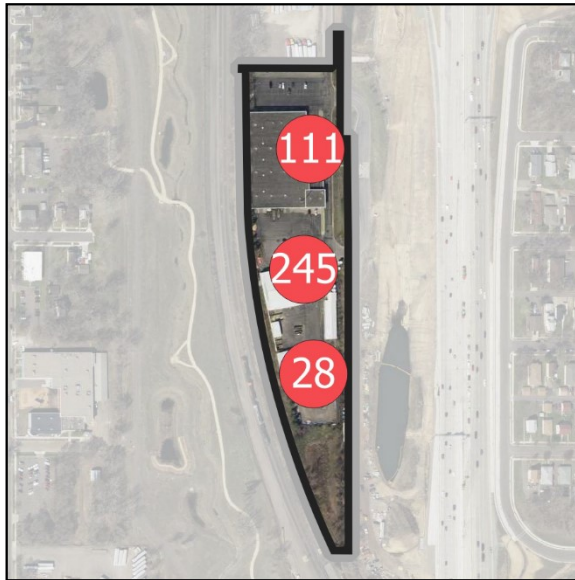
High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



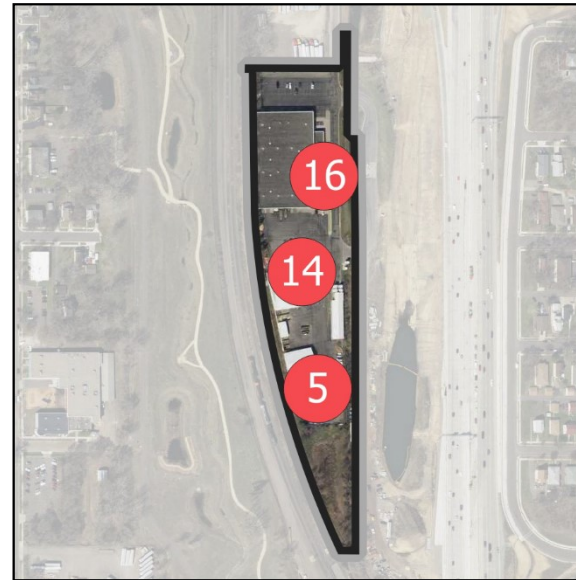
Saint Paul Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 384 (8% ID*, 18% ASID*)
 Idle hours: 58 (5% ID, 11% ASID)
 Fuel used: 62 gal (5% ID, 13% ASID)



15+ minute idles

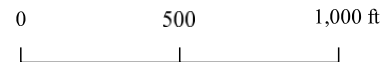
Idle events: 35 (3% ID, 7% ASID)
 Idle hours: 13.7 (2% ID, 5% ASID)
 Fuel used: 13.8 gal (2% ID, 5% ASID)



30+ minute idles

Idle events: 6 (1% ID, 3% ASID)
 Idle hours: 4.1 (1% ID, 2% ASID)
 Fuel used: 4.5 gal (1% ID, 2% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



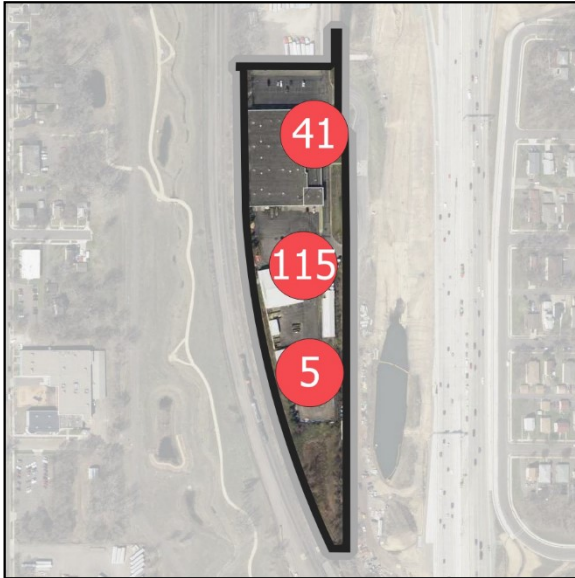
Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Saint Paul Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 161 (17% ID*, 33% ASID*)
 Idle hours: 22.8 (11% ID, 22% ASID)
 Fuel used: 23.7 gal (13% ID, 25% ASID)



15+ minute idles

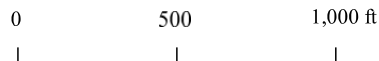
Idle events: 12 (7% ID, 16% ASID)
 Idle hours: 4.1 (4% ID, 8% ASID)
 Fuel used: 3.6 gal (4% ID, 8% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
 Idle hours: 0 (0% ID, 0% ASID)
 Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota



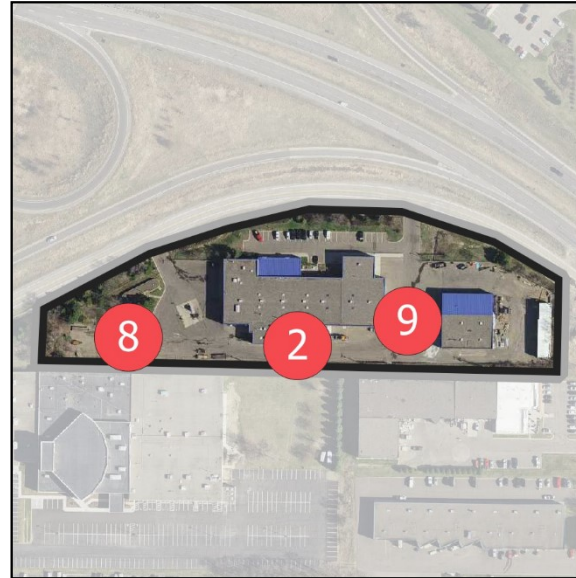
Spring Lake Park Truck Station

ALL IDLE EVENTS



5+ minute idles

Idle events: 120 (2% ID*, 5% ASID*)
 Idle hours: 22.3 (2% ID, 4% ASID)
 Fuel used: 15.4 gal (1% ID, 3% ASID)



15+ minute idles

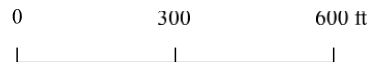
Idle events: 19 (2% ID, 4% ASID)
 Idle hours: 9.3 (1% ID, 3% ASID)
 Fuel used: 5.9 gal (1% ID, 2% ASID)



30+ minute idles

Idle events: 5 (1% ID, 2% ASID)
 Idle hours: 4.4 (1% ID, 2% ASID)
 Fuel used: 2.6 gal (1% ID, 1% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



Idle events from November 1, 2018 thru April 30, 2019 and November 1, 2019 thru April 17, 2020.

Imagery: MnGeo Composite Image Service for Minnesota



Spring Lake Park Truck Station

IDLE EVENTS ON HIGH-ACTIVITY DAYS



5+ minute idles

Idle events: 19 (2% ID*, 4% ASID*)
 Idle hours: 2.9 (1% ID, 3% ASID)
 Fuel used: 2.1 gal (1% ID, 2% ASID)



15+ minute idles

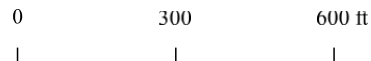
Idle events: 2 (1% ID, 3% ASID)
 Idle hours: 0.8 (1% ID, 2% ASID)
 Fuel used: 0.6 gal (1% ID, 1% ASID)



30+ minute idles

Idle events: 0 (0% ID, 0% ASID)
 Idle hours: 0 (0% ID, 0% ASID)
 Fuel used: 0 gal (0% ID, 0% ASID)

* Percent of in-district (ID) figures are based on all idle events for vehicles matched to the district and are not limited to idle events occurring at truck stations. Percent of at-station, in-district (ASID) excludes idle events not at truck stations.



High-activity days are defined, per district, in this appendix.

Imagery: MnGeo Composite Image Service for Minnesota