



Bob Cullen: “Welcome the Transportation Librarians Roundtable (TLR) for Thursday, July 12, 2018: “Introducing AASHTO re:source”.

Kim will give an overview of the services offered by AASHTO re:source and focus on various types of information (their newsletter, other documents, data) that are available for librarians and others via their recently revamped website (<http://www.aashtoresource.org/>). This promises to be a helpful non-technical presentation on technical sources that many in our community will find readily applicable for themselves and those whom they serve.

Our speaker today is Kim Swanson. She is the Communications Manager for the AASHTO: resource program (previously known as AMRL), which is based in Frederick, Maryland. AASHTO: resource is a part of AASHTO’s Engineering and Technical Services division. The program provides assessments and other types of information for construction materials testing laboratories.

Kim Swanson has been the Communications Manager at AASHTO re:source for the last 5 years. She started her career with AASHTO re:source as an Administrative Assistant, where she learned the ins and out of the organization and its programs.

As Communications Manager, Kim works to enhance AASHTO re:source's image and position within the construction materials industry and facilitates internal and external communication. She manages the organization's marketing efforts and social media presence. She also is project manager for the *AASHTO re:source In Focus* newsletter.

Kim has a bachelor's degree from Central Michigan University in Broadcasting and Cinematic Arts. Prior to working with AASHTO, Kim was a newscast director for a local television station. "

Kimberly Swanson  
*Communications Manager*  
July 12, 2018

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# Introducing AASHTO re:source



Kim Swanson:

“Hello and thanks for joining me today. I’m Kim Swanson; I have been a part of the AASHTO team for eight years and have been AASHTO re:source’s Communications Manager for just over 5 years.”

## Introducing AASHTO re:source

- Who we are, who we serve, and what we do
- Summary programs
- Accessing public data
- AASHTO re:University
- Technical Exchange

Today I'm going to tell you a little more about AASHTO re:source and the types of information we have available to the public. What I discuss today is available to anyone without needing to be a registered customer. Customers do have access to more individualized information and data that we legally are unable provide to everyone.

## Who is AASHTO re:source?

Formerly AASHTO Materials Reference Laboratory (AMRL)

### We are...

- a Technical Service of AASHTO

### We are **NOT**...

- a laboratory (or library)



You are most likely not familiar with AASHTO re:source. We are one of the many Technical Service programs of [AASHTO](#). In 2016, we changed our name from AMRL, or the AASHTO Materials Reference Laboratory. Our former name did lead to a lot of confusion, where people (even within AASHTO) thought we *were* a laboratory. We *have* a laboratory, but we are not a laboratory. Oddly, we've also had people think the "L" in AMRL stood for library. I'm not really sure where that one came from.

## Who is AASHTO re:source?

Formerly AASHTO Materials Reference Laboratory (AMRL)

### We are...

- a Technical Service of AASHTO
- part of the standards development process

### We are **NOT**...

- a laboratory (or library)
- [AASHTO](#) or [ASTM](#) Publications



Some people can also get confused because our staff is actively involved in the AASHTO and ASTM standards development process. We work closely with the standards, but we can't help you with purchasing or accessing the standards. If you need assistance with that, you should contact the publication departments directly.

## Our customers

Test the materials used in the construction and preservation of roads, bridges, and vertical infrastructure



Our primary customers test the materials used in the construction and preservation of roads, bridges, and vertical infrastructure.

## Our customers

- DOT's
- universities
- research facilities
- material producers
- commercial



We have been evaluating construction materials testing laboratories for over 50 years and have been accrediting labs for decades.

Participants in our programs include:

- state DOT's and other government laboratories,
- universities,
- research facilities,
- material producers, and
- commercial testing laboratories.



## Our Programs

AASHTO  
Accreditation  
Program



Laboratory  
Assessment  
Program



Proficiency  
Sample  
Program



We were established in 1965 and have been working to encourage quality and conformity in the construction materials testing industry.

The scope of our services were pretty limited in the beginning, but we now offer a full range of services that primarily include AASHTO Accreditation, laboratory assessment, and proficiency samples.

## AASHTO Accreditation Program

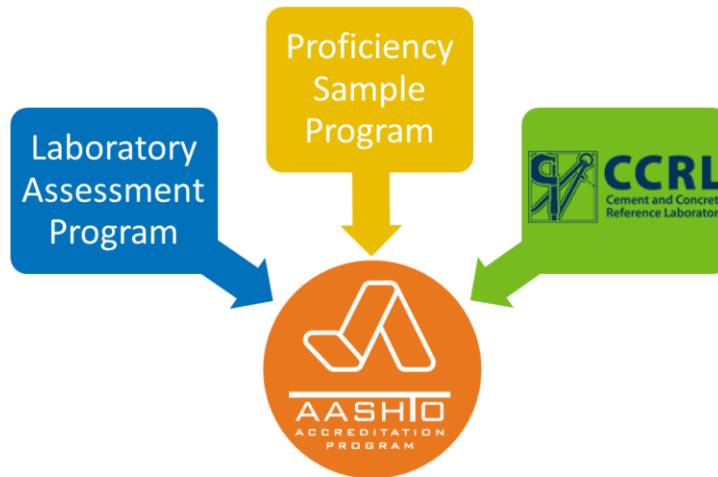


- Required by DOTs and project owners
- Shows a commitment to quality
- Provides confidence in testing results

The AASHTO Accreditation Program is our main program.

Many project owners and DOTs require laboratories to maintain AASHTO Accreditation in order work on their projects. Accreditation is a good way for a laboratory to show their commitment to quality, and for project owners to have confidence in a laboratory's testing results.

## AASHTO Accreditation Program



Findings from our Laboratory Assessment Program and our Proficiency Sample Program feed directly into the AASHTO Accreditation program. The programs of the Cement and Concrete Reference Laboratory, or CCRL, also feed into AASHTO Accreditation.

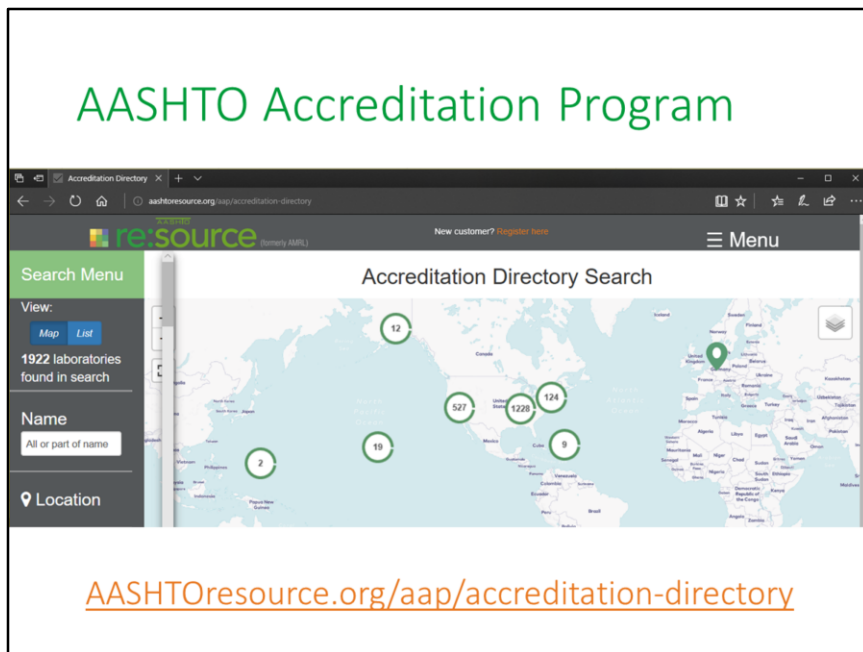
## AASHTO Accreditation Program

Accredits laboratories for over 650 AASHTO, ASTM, state, and industry standards in the following fields of testing:

- aggregate
- asphalt binder
- asphalt mixtures
- concrete
- emulsified asphalt
- hydraulic cement
- iron and steel
- masonry
- pavement preservation
- pozzolan
- slag cement
- soil
- sprayed fire-resistive materials (SFRM)

AASHTO accredits testing laboratories for over 650 standards in 13 fields of testing. As you can see, there is a wide range of materials covered.

# AASHTO Accreditation Program



[AASHTOresource.org/aap/accreditation-directory](https://AASHTOresource.org/aap/accreditation-directory)

Our interactive AASHTO Accreditation Directory allows the project owners and the public to search for an accredited laboratory by name, location, or standard.

We currently have over 1,900 accredited laboratories throughout North America, with one in Europe and two in Guam.

This directory allows anyone to see the complete and current accreditation status of any AASHTO Accredited facility. It is easily accessed from the homepage of our website.

## Laboratory Assessment Program

- On-site assessments
- Review of laboratory practices and documents
- Assessment report
- Corrective actions
- *Private information*



The Laboratory Assessment Program sends assessors into laboratories around the world to audit and evaluate them.

Our staff performs a thorough review of their Quality Management System and other records, and actually watches technicians as they do testing.

An assessment report will show the areas where the lab is not in conformance to the standards.

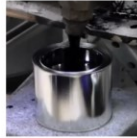
To gain AASHTO Accreditation, a laboratory will need to go through a corrective action process to address the nonconformities that were found.

All of the findings and information within a laboratory's on-site assessment report is private information. A laboratory may choose to share this information with project owners, but we are not able to provide this type of information to the public.

## Types of Testing Assessed



Soil



Asphalt  
Binder



Pavement  
Preservation



Aggregate



Hot-Mix  
Asphalt



Iron and Steel



Sprayed Fire-  
Resistive  
Materials (SFRM)

The assessment program covers 7 types of construction materials. This is a more limited scope than what's included in the AASHTO Accreditation Program. The materials not listed here, are covered by our counterparts at CCRL.



## Proficiency Sample Program

The largest construction materials sample program in the world, with over 3,000 testing labs.



Through the Proficiency Sample Program, we basically send boxes of rocks, and other materials, to testing labs around the world. The labs test the material and send us their results for analysis.

Our Proficiency Sample Program is the largest of its kind. Last year we became an ISO/IEC 17043 accredited proficiency testing provider. With this recognition we are able to grow our program even more internationally.



## Proficiency Sample Program Basics

- Design mix
- Prepare and package



Our staff creates and designs the samples, then prepares and packages raw material in-house.

## Proficiency Sample Program Basics

- Design mix
- Prepare and package
- Ship
- Participants test and submit data



We then ship the samples to laboratories who test it according the specific standards and instructions.

## Proficiency Sample Program Basics

- Design mix
- Prepare and package
- Ship
- Participants test and submit data
- Analyze data and report results



After laboratories submit their data, we analyze it and report back their results.

## Proficiency Sample Program Basics

- Design mix
- Prepare and package
- Ship
- Participants test and submit data
- Analyze data and report results

Lab	Lab Data	Avg	15	Z-Score	Rating	Lab Data	Avg	15	Z-Score	Rating	
4	1648	87.8	86.80	0.67	1.49	4	85.3	85.03	0.75	0.36	5

Sieve Analysis of Aggregates  
Total Material Passing the 1.18-mm (No. 16) Sieve (0.1 percent) - T27/C136  
View Student Diagram | View Performance Chart

Sample 179						Sample 180					
Total Labs	Lab Data	Avg	15	Z-Score	Rating	Lab Data	Avg	15	Z-Score	Rating	
5	1648	72.8	71.95	0.40	2.13	2	71.3	70.48	0.39	2.09	2

Sieve Analysis of Aggregates  
Total Material Passing the 600-µm (No. 30) Sieve (0.1 percent) - T27/C136  
View Student Diagram | View Performance Chart

Sample 179						Sample 180					
Total Labs	Lab Data	Avg	15	Z-Score	Rating	Lab Data	Avg	15	Z-Score	Rating	
6	1646	53.3	52.17	0.80	1.41	4	52.2	51.09	0.80	1.38	4

Sieve Analysis of Aggregates  
Total Material Passing the 300-µm (No. 50) Sieve (0.1 percent) - T27/C136  
View Student Diagram | View Performance Chart

Sample 179						Sample 180					
Total Labs	Lab Data	Avg	15	Z-Score	Rating	Lab Data	Avg	15	Z-Score	Rating	
7	1647	21.5	20.43	0.68	1.57	3	20.9	20.05	0.68	1.25	4

Sieve Analysis of Aggregates  
Total Material Passing the 150-µm (No. 100) Sieve (0.1 percent) - T27/C136  
View Student Diagram | View Performance Chart

Sample 179						Sample 180					
Total Labs	Lab Data	Avg	15	Z-Score	Rating	Lab Data	Avg	15	Z-Score	Rating	
8	1648	5.0	4.33	0.34	1.96	3	4.9	4.45	0.37	1.24	4

Sieve Analysis of Aggregates  
Total Material Passing the 75-µm (No. 200) Sieve (0.01 percent) - T27/C136  
View Student Diagram | View Performance Chart

Sample 179						Sample 180					
Total Labs	Lab Data	Avg	15	Z-Score	Rating	Lab Data	Avg	15	Z-Score	Rating	
9	1647	1.62	1.093	0.245	2.15	2	1.64	1.307	0.263	1.27	4

Fine Aggregate Specific Gravity and Absorption  
Bulk Specific Gravity (or Relative Density, Oven Dry for C128) - T84/C128  
View Student Diagram | View Performance Chart

Sample 179						Sample 180					
Total Labs	Lab Data	Avg	15	Z-Score	Rating	Lab Data	Avg	15	Z-Score	Rating	
10	1481	2.621	2.6044	0.0139	1.20	4	2.612	2.6046	0.0141	0.53	5

Fine Aggregate Specific Gravity and Absorption  
Bulk Specific Gravity, SSD (or Relative Density, SSD for C128) - T84/C128  
View Student Diagram | View Performance Chart

Sample 179						Sample 180					
Total Labs	Lab Data	Avg	15	Z-Score	Rating	Lab Data	Avg	15	Z-Score	Rating	
11	1482	2.629	2.6207	0.0111	0.75	5	2.624	2.6206	0.0108	0.32	5

Fine Aggregate Specific Gravity and Absorption  
Apparent Specific Gravity (or Apparent Relative Density for C128) - T84/C128  
View Student Diagram | View Performance Chart

Sample 179						Sample 180					
Total Labs	Lab Data	Avg	15	Z-Score	Rating	Lab Data	Avg	15	Z-Score	Rating	

Each laboratory receives specialized reports, showing how their results compare to their peers.

## Public data may be used for research, precision estimates, or standards development.

For help interpreting data, contact

John Malusky, *Proficiency Sample Program Manager*

[jmalusky@ashtoresource.org](mailto:jmalusky@ashtoresource.org)

We are able to make *some* of the proficiency sample data information available to the public. People may use this data for:

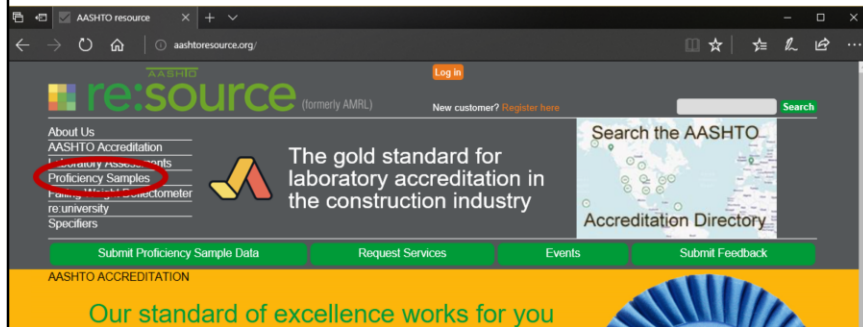
- research,
- precision estimates, or
- in various other ways when writing or proposing changes to testing standards.

I'm going to briefly go over how to access this information from our website. Fair warning, the details of this data go way over my head. So if you, or anyone else, want help interpreting the data on our site, the best person to contact is Program Manager, John Malusky. He lives and breathes this stuff and would be happy to help.

## Accessing Public Data

- Two specific reports available to the public
  - Sample Round Analysis
  - Compilation of Statistics

[AASHTOresource.org](https://www.aashtoresource.org)



The types of data we have available to the public are the Sample Round Analysis and the Compilation of Statistics. This information is available for each of the samples types covered in by the program. Honestly, not many people go looking for this information, so bare with me as I walk you though how to access it.

The first step is to go to our website, AASHTOresource.org, and click on the Proficiency Samples link in the upper left side of the homepage.

The screenshot shows the AASHTO re:source website. The header includes the logo and navigation links. The main content area features a yellow banner with the text "Samples that drive quality" and a quote from Alan Hansen, Director of Materials & Research Administrator, New Hampshire Department of Transportation. Below the banner is a navigation menu with links: Overview, Submit Sample Data, View Your PSP Ratings, Datasheets & Instructions, Reports (circled in red), Order Proficiency Samples, Schedule, Sample Types/Tests, Enrollment Request Form, and FAQs. The main heading is "Proficiency Sample Program". The text describes the program as the largest construction materials sample program in the world, with a customer base of approximately 3,000 testing laboratories. It mentions that the program was introduced in March 1966 and has grown to fifteen different sample types. A "Benefits" section lists three points: comparing individual testing results to a large pool of results, verifying testing apparatus and operator under actual testing conditions, and showing evidence of conformance to testing procedures and protocols.

You can then access the Reports link in the left column of the page.

# Sample Round Analysis

Overview [AASHTO resource / Reports](#)

[Submit Sample Data](#)

[View Your PSP Ratings](#)

[Datasheets & Instructions](#)

[Fees](#)

[Reports](#)

[Extra Proficiency Samples](#)

[Schedule](#)

[Sample Types/Tests](#)

[Enrollment Request Form](#)

[FAQs](#)

Proficiency Sample Data

Documents

Enroll in our program

## Reports

### Proficiency Sample Reports

In order to view your individual reports for Proficiency Samples, you must first be logged in with a valid laboratory account. Upon logging in, select "View Your PSP Ratings".

You can also view the general results of a Sample Round Analysis and a Compilation of Statistics.



50 years of experience

## Data Reports

Statistical Summary Tables

[AASHTOresource.org/psp/reports](https://AASHTOresource.org/psp/reports)

From the Reports page, use the links for either the Sample Round Analysis or the Compilation of Statistics. We'll first take a look at the Sample Round Analysis.



# Sample Round Analysis



(formerly AASHTO)

New customer? [Register here](#)

Menu

## View Sample Round Analysis

Select a sample round:

- Viscosity Graded Asphalt Cement
- Performance Graded Asphalt Binder
- Emulsified Asphalt
- Coarse Aggregate
- Fine Aggregate
- Hot Mix Asphalt Solvent Extraction
- Hot Mix Asphalt Ignition Oven
- Hot Mix Asphalt Marshall Design
- Hot Mix Asphalt Hveem Design
- Hot Mix Asphalt Gyratory
- Soil Classification and Compaction
- Soil Resistance R-Value
- Soil California Bearing Ratio (CBR)
- Paint
- Slurry and Micro Systems

253/254

Submit

description of our PSP Analysis Method.

[AASHTOresource.org/psp/sample-round-analysis](https://AASHTOresource.org/psp/sample-round-analysis)

You will need to select the sample type and round you wish view from the dropdown menus.

# Sample Round Analysis

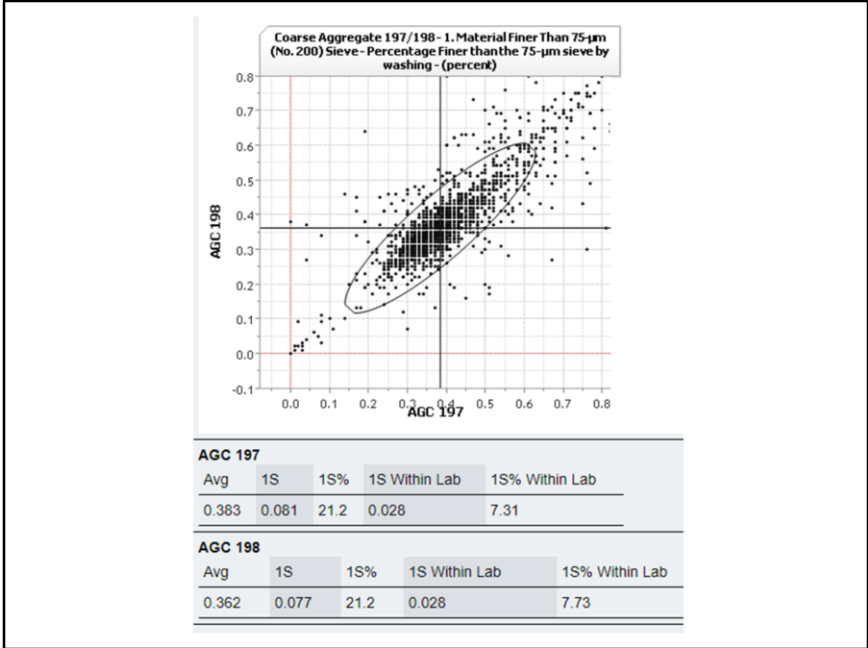
## Coarse Aggregate

Final Report Date: 12/21/2017

\*The within lab statistics are currently unavailable. Please contact AASHTO resource if you need any further information.

	Test Property	Sample 197			Sample 198			
		Total Labs	Avg	1S	1S%	Avg	1S	1S%
1	<b>Material Finer Than 75-<math>\mu</math>m (No. 200) Sieve</b> Percentage Finer than the 75- $\mu$ m sieve by washing (0.01 percent)	1514	0.383	0.081	21.2	0.362	0.077	21.2
2	<b>Sieve Analysis of Aggregates</b> Total Material Passing the 25.0-mm (1-in.) Sieve (0.1 percent)	1423	100.00	**	**	100.00	**	**
3	<b>Sieve Analysis of Aggregates</b> Total Material Passing the 19.0-mm (3/4-in.) Sieve (0.1 percent)	1604	91.46	0.58	0.637	90.61	0.59	0.647
4	<b>Sieve Analysis of Aggregates</b> Total Material Passing the 12.5-mm (1/2-in.) Sieve (0.1 percent)	1582	55.01	0.94	1.71	55.18	0.96	1.74
5	<b>Sieve Analysis of Aggregates</b> Total Material Passing the 9.5-mm (3/8-in.) Sieve (0.1 percent)	1627	21.59	0.74	3.41	21.24	0.79	3.70
6	<b>Sieve Analysis of Aggregates</b> Total Material Passing the 4.75-mm (No. 4) Sieve (0.1 percent)	1628	0.95	0.35	37.0	0.91	0.35	38.4

This is an example of a Coarse Aggregate analysis. It shows information for all participating labs. The second column is the test property, and the columns to the right has results and information for that specific test.



You can click the icon in the far left column to see the Youden diagram for a particular test property.

# Compilation of Statistics

Overview [AASHTO resource / Reports](#)

[Submit Sample Data](#)

[View Your PSP Ratings](#)

[Datasheets & Instructions](#)

[Fees](#)

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[Extra Proficiency Samples](#)

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[FAQs](#)

Proficiency Sample Data

Documents

Enroll in our program

## Reports

### Proficiency Sample Reports

In order to view your individual reports for Proficiency Samples, you must first be logged in with a valid laboratory account. Upon logging in, select 'View Your PSP Ratings'.

You can also view the general results of a Sample Round Analysis and [Compilation of Statistics](#).

re:

50 years of experience

## Data Reports

Statistical Summary Tables

[AASHTOresource.org/psp/reports](https://www.AASHTOresource.org/psp/reports)

The link to access the Compilation of Statistics can be found back on the Reports page.

# Compilation of Statistics

[AASHTO resource](#) / Compilation of Statistics

Proficiency Sample Data

Documents

Enroll in our program

Select a sample type:

Viscosity Graded Asphalt Cement ▾

Submit

[AASHTOresource.org/psp/compilation-of-statistics](https://AASHTOresource.org/psp/compilation-of-statistics)

Again, you will want to select the sample type from a dropdown menu.

# Compilation of Statistics

## Viscosity Graded Asphalt Cement

### Test

Penetration of Bituminous Materials

Penetration of Original Sample at 25 °C, 100 g, 5 s

Penetration of Bituminous Materials

Penetration of Original Sample at 4 °C, 200 g, 60 s

Flash Point by Cleveland Open Cup

Corrected Flash Point

Specific Gravity of Asphalt Cement

Specific Gravity (Relative Density) at 25/25 °C

Kinematic Viscosity of Asphalts

Kinematic Viscosity of Original Asphalt at 135 °C

Viscosity by Vacuum Capillary

Viscosity of Original Asphalt at 60 °C

Rolling Thin-Film Oven Test

Change in Mass: use a negative number to report a loss

Penetration of RTFO Residue

Penetration of RTFO Residue at 25 °C, 100 g, 5 s

Penetration of RTFO Residue

Penetration of RTFO Residue at 4 °C, 200 g, 60 s

Viscosity by Vacuum Capillary RTFO

Clicking the test name, will show you all of the stats for that specific test.

# Compilation of Statistics

Viscosity Graded Asphalt Cement

Penetration of Bituminous Materials- Penetration of Original Sample at 25 °C, 100 g, 5 s

Sample No	No. Labs	MULTILABORATORY PRECISION					MULTILABORATORY PRECISION					SINGLE OPERATOR PRECISION					
		1st Sample					2nd Sample					1st SMPL		2nd SMPL			
		Avg.	1S	D2S	1S%	D2S%	Avg.	1S	D2S	1S%	D2S%	1S	D2S	1S%	D2S%	1S%	D2S%
251/252	151	83.9	3.1	8.8	3.69	10.4	84.1	3.1	8.9	3.74	10.6	1.0	2.9	1.24	3.51	1.24	3.50
249/250	168	58.0	3.0	8.4	5.14	14.5	58.0	2.8	7.9	4.83	13.7	0.9	2.7	1.63	4.61	1.63	4.61
247/248	146	118.2	4.0	11.4	3.41	9.63	118.4	4.1	11.5	3.44	9.72	1.5	4.1	1.24	3.50	1.24	3.50
245/246	148	67.0	3.2	9.0	4.74	13.4	67.4	3.1	8.8	4.60	13.0	1.0	2.8	1.50	4.24	1.49	4.22
243/244	143	52.5	2.3	6.5	4.36	12.3	65.3	3.1	8.9	4.80	13.6	1.7	4.9	3.27	9.24	2.63	7.43
241/242	133	80.8	3.0	8.6	3.77	10.6	80.8	3.2	8.9	3.91	11.0	1.0	2.9	1.26	3.55	1.26	3.55
239/240	142	80.4	3.1	8.8	3.87	10.9	80.0	3.1	8.9	3.93	11.1	1.0	2.9	1.26	3.57	1.27	3.59
237/238	144	54.0	2.8	8.0	5.22	14.8	54.0	3.0	8.4	5.49	15.5	1.0	3.0	1.94	5.48	1.94	5.47
235/236	145	120.0	5.5	15.5	4.58	12.9	119.7	5.7	16.0	4.72	13.4	1.8	5.1	1.49	4.22	1.50	4.23
233/234	153	63.8	3.3	9.4	5.18	14.7	61.4	3.2	9.1	5.25	14.9	1.7	4.8	2.66	7.52	2.76	7.81
231/232	141	55.2	3.2	9.0	5.74	16.2	54.9	3.3	9.2	5.93	16.8	0.9	2.5	1.59	4.49	1.60	4.51
229/230	137	55.5	2.4	6.8	4.35	12.3	56.1	2.6	7.4	4.64	13.1	1.1	3.0	1.90	5.39	1.88	5.32

You can get even further into the weeds, with all of these statistics...honestly this many numbers on a screen is overwhelming and I personally can't tell you what all this information actually means. But, I can tell you, if you click on the sample numbers in the left column, it will take you to that particular Sample Around Analysis.

## Bulk Data and Interpretation

John Malusky, *Proficiency Sample Program Manager*

[jmalusky@ashtoresource.org](mailto:jmalusky@ashtoresource.org)

240.436.4825

Our website only allows the public to *view* this data, if you want to export it you will need to contact the program manager. Again, John is happy to provide you with the data and help you interpret it, if needed.





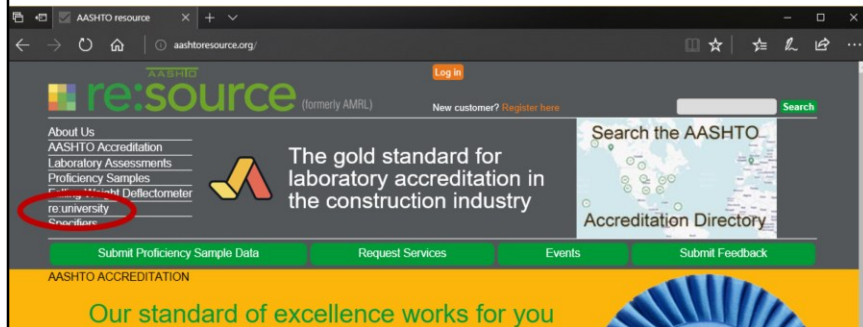
Now, moving away from the scary numbers...

The AASHTO re:University section of website is where we house a verity of educational resources for our customers and the public. A lot of my responsibilities focus on this section of the website.

## re:University

- Document Library, Newsletter Archive, & Video Gallery

[AASHTOresource.org](http://AASHTOresource.org)



The re:University is home to our document library, newsletter archive, video gallery, and more.

You can access this section of the website, from the upper left side of our homepage.

The screenshot displays the AASHTO re:source website interface. At the top, there is a navigation bar with the 're:source' logo (formerly AASHTO), a 'New customer? Register here' link, and a 'Menu' icon. Below the navigation bar, the 'AASHTO re:university' logo is prominently displayed. A search bar is located to the right of the logo.

The main content area features a video player titled 'AASHTO resource Overview' showing two men in an outdoor setting. Below the video, the text reads: 'AASHTO re:source Overview Video. The primary vision of AASHTO re:source is to be the center for promoting quality and achievement of excellence in construction materials testing (CMT). We provide services and tools through our three major programs: the Laboratory Assessment Program (LAP), the Proficiency Sample Program (PSP), and the AASHTO Accreditation Program (AAP). Through these activities, we evaluate testing competency, promote continual improvement, and instill confidence in the laboratories and specifiers that use our programs.'

To the right of the video, there is a 're:docs' section with a search bar and a 'View Complete Document Library' link. Below this is a 'FEATURED DOCUMENTS' list:

- Proficiency Sample Enrollment Request Form (DOCX, 461.45 KB)
- Procedures Manual for the Accreditation of Construction Materials Testing Laboratories (PDF, 553.86 KB)
- AASHTO Accreditation Policy on Publicizing Accreditation (PDF, 527.08 KB)
- Assessment Corrective Action Report Form (PDF, 432.92 KB)
- Annual Accreditation Review Form (PDF, 814.44 KB)

At the bottom of the featured documents list, there are navigation links '1' and '2'. Below the documents is a 're:articles' section with a search bar and a 'View All Articles' link. At the bottom left, there is a 're:videos' section with a search bar and a 'View complete Video Gallery' link. The bottom right corner features the 'In Focus' section with the title 'A Beginner's Guide to AASHTO Accreditation'.

This is a quick-access view of the different resources accessible through the re:University. On this page, you can click on the icon, or associated text link, to see the complete section.

**Document Library**

- Policy
- Forms
- Assessment Prep List
- Informational

re:source (Formerly AASHTO) New customer? [Register here](#)

re:university | [AASHTO resource](#) / Document Library

re:docs

**Policy**

- [AASHTO Accreditation Policy and Guidance on False Claims of Accreditation](#)  
PDF, 167.61 KB
- [AASHTO Accreditation Policy and Guidance on Fees](#)  
PDF, 161.99 KB
- [AASHTO Accreditation Policy and Guidance on Laboratory Name Changes](#)  
PDF, 154.28 KB
- [AASHTO Accreditation Policy and Guidance on Laboratory Relocation](#)  
PDF, 218.08 KB
- [AASHTO Accreditation Policy and Guidance on PSP Suspension Requests](#)  
PDF, 218.19 KB
- [AASHTO Accreditation Policy and Guidance on Refusal of Service](#)  
PDF, 147.53 KB
- [AASHTO Accreditation Policy and Guidance on Temporary Laboratory Relocation](#)  
PDF, 391.75 KB
- [AASHTO Accreditation Policy and Guidance on Thermometer Selection](#)  
PDF, 735.10 KB
- [AASHTO Accreditation Policy on Accreditation Decisions](#)  
PDF, 173.86 KB
- [AASHTO Accreditation Policy on Appeals](#)  
PDF, 470.18 KB
- [AASHTO Accreditation Policy on Certifications](#)

re: 50 years of experience

3,000+ PSP participants


23,000+ samples shipped per year

1,000 laboratory assessments per year

1,900+ accredited labs

Our document library is geared to current and potential customers, and the documents they need to participate in our programs. Currently we have about 60 documents in the library that are broken into 4 categories, policy, forms, assessment prep, and informational. You can see a glimpse of the Policy section here. We've recently begun breaking the lengthy AASHTO Accreditation Procedures Manual, up into smaller, more digestible documents. So, look for this section to continue to grow.

[AASHTO re:source](#) / Newsletters



## In Focus Newsletter

- 100+ articles
- Wide range of topics

**What You Need to Know About Biographical Sketches and Position Descriptions**  
 Understanding the requirements of biographical sketches and position descriptions will save time during the quality system review and annual review. It will also help your organization increase its effectiveness.  
[Full story](#)

**How to Resolve AASHTO re:source and CCRL Report Findings**  
 While a laboratory may have effectively resolved a nonconformity internally, it is also possible that evidence need to be submitted to the AASHTO Accreditation Program. In some cases, the laboratory may not address, or resolve the nonconformity, and further corrective action(s) will be required. This article provides guidance on how to best resolve the various types of nonconformities and provide the information requested for additional supporting information.  
[Full story](#)

**Proficiency Sample Program Gains ISO/IEC 17043 Accreditation**  
 In March 2017, the AASHTO re:source Proficiency Sample Program (PSP) gained accreditation to the ISO/IEC 17043 Requirements for Proficiency Testing. Accreditation to this standard means our sample program meets international requirements relating to the operation of a proficiency testing program. This includes the development and implementation of the proficiency testing program; homogeneity and stability of materials; packaging of materials; data analysis, management requirements; and corrective action.  
[Full story](#)

Our In Focus Newsletter has over 100 articles in its archives. Topics range from programmatic insights and core concepts of testing, to detailed explanations and guidance on how to perform an aspect of a specific standard.

## Newsletter Archives By Date

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[View By Topic](#)

[2010](#) [2011](#) [2012](#) [2013](#) [2014](#) [2015](#) [2016](#) [2017](#)

### 2017

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[How to Publicize Your Laboratory's AASHTO Accreditation](#)

[How to Resolve AASHTO re:source and CCRL Report Findings](#)

[Proficiency Sample Program Gains ISO/IEC 17043 Accreditation](#)

[What You Need to Know About Biographical Sketches and Position Descriptions](#)

[Back to Top](#)

The default newsletter archive view is by date, but you can also view the list by topic.

## Newsletter Archives By Topic

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[View By Date](#)

- [Accreditation](#)
- [Assessments](#)
- [Samples](#)
- [Falling Weight Deflectometer \(FWD\)](#)
- [About Us / History](#)
- [Did You Know? and Ask AASHTO re:source](#)
- [Quality](#)
- [Safety](#)
- [Equipment](#)
  - [Calibration and Standardization](#)
  - [Sieves and Mechanical Shakers](#)
  - [Thermometers](#)
- [Precision & Bias](#)
- [Metrology](#)
- [Infographics](#)

### Accreditation

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[A Beginner's Guide to AASHTO Accreditation](#)

[A Day in the Life of a Quality Analyst](#)


[Changes to the AASHTO Accreditation Program](#)

This view helps you find articles related to a topic more easily. You can see we have a wide range of topics covered. You can also use the search feature on the website to quickly look for articles and documents containing your key words.

re:source formerly ARL New customer? [Register here](#) Menu

## Pycnometers, Calibrations, and Insulated Containers: A Guide to Understanding ASTM D 854, Soil Specific Gravity

Posted: April 2011



re: **50** years of experience

**3,000+** PSP participants


**23,000+** samples shipped per year

**1,000** laboratory assessments per year

**1,900+** accredited labs

When planning an assessment for a laboratory that will be running ASTM D 854, many thoughts race through my mind. For example, does the technician know that there are significant differences between AASHTO T 100 and ASTM D 854? Have the calibrations been performed correctly? Or, is all of the right equipment available? ASTM D 854 can be a difficult test, and many people are not familiar with the intricacies involved with running it. In this article I will talk through the portions of the test that seem to cause the most confusion, explain reasons behind certain steps, and also offer helpful tips and suggestions.

**Importance**  
Specific gravity is the ratio of the mass of a certain volume of a material to the mass of the same volume of water. This may be difficult to visualize, but think of it this way: Let's say that a block of metal has a specific gravity of 6.29. This means that the metal block weighs 6.29 times the mass of a block of water that is the same volume.



In the articles themselves, we try to include images and graphics whenever possible.



Pycnometers, Calibrations, and Insulated Containers: A Guide to Understanding ASTM D 854, Soil Specific Gravity

Posted: April 2011

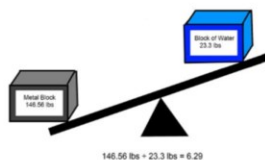
Printer  
Friendly  
Version



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Soil specific gravity is used to define the phase relationships of soil, define compactibility and density, and in conversions and calculations for other test procedures. With this number influencing others, it is important to be as accurate as possible when determining this soil property.

**Apples and Oranges**

I have seen more things go wrong than right with this test in my time as a laboratory assessor. Many times the laboratory signs up for both methods (AASHTO and ASTM) assuming that, like most other tests, the two procedures are nearly identical. If you fall into this category, let me be the first to tell you that the differences

Most articles also have a printer friendly version that allows customers to more easily share the content within their laboratories.

re:source  
Primary (MP)

New customer? [Register here](#)

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Featured

Document Library

News & Announcements

Newsletters

Newsletter Archives

Video Gallery

AASHTO re:source / Video Gallery

re: videos

## Video Gallery

- Tutorials
- Informational
- Promotional

50 years of experience

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### Videos

- Finding an Accredited Calibration Laboratory
- Using the AASHTO Accreditation Directory
- Soil Classification and Compaction Sample Preparation
- Asphalt Mixture Ignition Oven Sample Preparation
- AASHTO Accreditation Process
- AASHTO Accreditation Overview
- Proficiency Sample Benefits
- Proficiency Sample Program Overview
- Laboratory Assessment Process
- Laboratory Assessment Overview
- AASHTO resource Overview
- Becoming AASHTO re:source


### Videos

#### Finding an Accredited Calibration Laboratory

What's Required?


Tutorial on finding reference equipment AASHTO R 18. T and calibration ce


Another good resource in our re:University is the Video Gallery. We frequently add videos to our YouTube channel and this gallery. Topics range from promotional and informational to specific guides and tutorials. The “Becoming AASHTO re:source” video at the bottom of the list was a fun announcement we did when we changed our name. But we also have videos that show the complete preparation and packaging process of a couple proficiency samples, as well as a guide for on how to best find an accredited calibration agency. We do add videos regularly so make sure to check back periodically.




**re: social**

Follow us on social media

 [@aashtoresource](https://twitter.com/aashtoresource)

 [www.linkedin.com/company/aashto-re-source](https://www.linkedin.com/company/aashto-re-source)

 [AASHTO re:source](https://www.youtube.com/AASHTO-re-source)

[AASHTOresource.org/university](https://AASHTOresource.org/university)

**re: docs**

All the documents you need for accreditation, assessments, and proficiency samples are available in our library.

**re: articles**

**In Focus**

100+ articles available in our newsletter archives. Topics vary from equipment uses and technical guidance to programmatic and informational.

To subscribe, email [subscribe@ashtoresource.org](mailto:subscribe@ashtoresource.org)

A good way to stay connected to us is through social media. We are most active on Twitter, and routinely tweet links to the documents and articles we have in the re:University. If you want to subscribe to the In Focus newsletter, send an email to [subscribe@ashtoresource.org](mailto:subscribe@ashtoresource.org) to be added to the list.

# AASHTO re:source Technical Exchange

The final thing I'm going to briefly touch on is the AASHTO re:source Technical Exchange. This is our in-person meeting, conference, and workshop.

## Technical Exchange

- Open to the public
- 200+ attendees
- Workshops
- Training
- [#resourceTechEx](https://twitter.com/resourceTechEx)
- [AASHTOresource.org/events](https://www.aashtore:source.org/events)
- 2019 announcement coming soon



The event is a great place for laboratory managers, quality managers, supervisors, and technicians to learn about pertinent industry topics presented by AASHTO re:source staff and other subject matter experts. Attendees have a chance to provide input into our programs and interact with their peers in workshop settings. At this year's event, we had over 200 attendees from both DOTs and private companies. Attendees do not need to be registered customers of AASHTO re:source to attend.

We currently don't provide event materials or presentations after the event. But attendees are able to walk away with workbooks, handouts, and other resources to share with their organization.

You can search the Twitter hashtag "resourceTechEx" to get a feel for the event. You can also go the Events page on our website for more details and to see past programs.

We will be announcing the date and location of next year's event in the next few weeks. I can say, it will be held in the Southeast region of the US.



Kimberly Swanson  
*Communications Manager*  
*AASHTO re:source*

[kswanson@ashtoresource.org](mailto:kswanson@ashtoresource.org)  
240.436.4807

Thank you taking time out of your day to learn more about AASHTO re:source. We'll be taking some your questions next, but here's my contact information. Feel free to reach out to me directly if you need anything, or want to know more about AASHTO re:source.



Questions and Discussion

Thank you for attending!  
Join us August 9, 2018:



*TLR Open Discussion*  
The TLR Community

For Past Episodes, Visit the TLR Archive at:  
<https://rosap.ntl.bts.gov/browse/collections>

Bob Cullen:

Please join us August 9, 2018, at 2:00 pm Eastern, for our annual “TLR Open Discussion”