Materials Testing & Consulting, Inc.

Geotechnical Engineering • Special Inspection • Materials Testing • Environmental Consulting

Project:	East Eagle Harbor OU 2016 OMMP Monitoring	**Date Received:**	January 16, 2017
Project #:	17T001-003	**Sampled By:**	Others
Client :	Analytical Resources, Inc.	**Date Reported:**	February 7, 2017
Source:	Multiple	**Tested By:**	K. O'Connell
MTC Sample#:	Multiple		

CASE NARRATIVE

1. Seven samples were submitted for grain size analysis according to Puget Sound Estuary Protocol (PSEP) methodology.
2. The samples were run in a single batch and one sample from this job was chosen for triplicate analysis. The triplicate data is reported on the QA summary.
3. Four samples did not contain the required amount of fines (5-25 grams). A sample could not be resplit to meet the required amount of fines and stay within the capacity of the balance. The samples have been qualified on the QA summary.
4. Two samples contained organic matter which may have broken down, affecting the grain size analysis.
5. The data is provided in summary tables and plots.
6. There were no other noted anomalies in this project.

All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Reviewed by: _____

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Project: East Eagle Harbor OU 2016 OMMP Monitoring
Client: Analytical Resources, Inc.
Project #: 17T001-003
Date Received: January 16, 2017
Sampled by: Others
Date Tested: February 6, 2017
Tested by: K. O'Connell

Apparent Grain Size Distribution Summary

Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.0	15.6	7.8	3.9	2.0	1.0
17A0142-06	100.0	82.3	56.6	38.9	28.5	19.9	11.7	7.9	5.2	4.2	3.2	2.4	1.6	1.2
	100.0	77.2	53.0	37.2	26.3	18.2	10.6	7.2	5.0	4.0	3.1	2.3	1.6	1.1
	100.0	81.1	55.8	38.0	27.3	18.4	10.1	6.3	5.4	4.3	3.4	2.5	1.7	1.3
17A0142-01	100.0	83.8	69.5	58.4	42.9	23.3	12.1	8.1	6.2	5.4	4.6	3.5	2.4	1.6
17A0142-02	100.0	96.1	72.5	43.5	11.2	3.4	1.9	1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
17A0142-03	100.0	100.0	85.4	59.8	23.1	4.2	1.1	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
17A0142-04	100.0	97.9	79.5	62.4	31.3	3.0	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
17A0142-05	100.0	74.9	34.0	22.8	8.1	3.3	2.0	1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
17A0142-07	100.0	83.1	58.2	39.1	27.8	18.5	9.5	5.5	5.1	4.1	3.3	2.2	1.6	1.1

Notes to the Testing: Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

Reviewed by: Elizabeth Noble

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Project #: 17T001-003
Date Received: January 16, 2017
Date Tested: February 6, 2017

Client: Analytical Resources, Inc.
Sampled by: Others
Tested by: K. O'Connell

Apparent Grain Size Distribution Summary

Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	< -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	> 10	> 4
Sieve Size (microns)	> #10 (2000)	10-18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
17A0142-06	43.4	17.6	10.4	8.6	8.2	3.8	2.7	1.0	1.0	0.8	0.7	0.5	1.2	7.9
	47.0	15.7	10.9	8.2	7.6	3.4	2.2	1.0	0.9	0.8	0.7	0.5	1.1	7.2
	44.2	17.8	10.7	8.9	8.3	3.8	0.9	1.0	0.9	0.9	0.7	0.4	1.3	6.3
17A0142-01	30.5	11.1	15.5	19.6	11.2	3.9	1.9	0.8	0.8	1.1	1.0	0.9	1.6	8.1
17A0142-02	27.5	29.1	32.3	7.8	1.5	0.7	1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	1.1
17A0142-03	14.6	25.6	36.7	18.9	3.2	0.8	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2
17A0142-04	20.5	17.1	31.1	28.2	1.9	0.7	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
17A0142-05	66.0	11.2	14.7	4.8	1.4	0.8	1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	1.2
17A0142-07	41.8	19.1	11.3	9.4	9.0	4.0	0.4	0.9	0.8	1.1	0.6	0.5	1.1	5.5

Notes to the Testing: Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

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Project #: 17T001-003
Date Received: January 16, 2017
Date Tested: February 6, 2017

Client: Analytical Resources, Inc.
Sampled by: Others
Tested by: K. O'Connell

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
17A0142-06	100.0	82.3	56.6	38.9	28.5	19.9	11.7	7.9	5.2	4.2	3.2	2.4	1.6	1.2
	100.0	77.2	53.0	37.2	26.3	18.2	10.6	7.2	5.0	4.0	3.1	2.3	1.6	1.1
	100.0	81.1	55.8	38.0	27.3	18.4	10.1	6.3	5.4	4.3	3.4	2.5	1.7	1.3
AVE	100.0	80.2	55.1	38.1	27.4	18.8	10.8	7.1	5.2	4.2	3.2	2.4	1.7	1.2
STDEV	0.0	2.2	1.6	0.7	0.9	0.8	0.7	0.7	0.1	0.1	0.1	0.1	0.1	0.1
%RSD	0.0	2.7	2.8	1.8	3.3	4.0	6.3	9.3	2.8	3.4	3.6	2.5	3.3	6.1

The Triplicate Applies To The Following Samples

Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0-25.0g)
17A0142-06	1/14/2017	1/31/2017	2/6/2017	102.0		9.6
	1/14/2017	1/31/2017	2/6/2017	101.4		8.9
	1/14/2017	1/31/2017	2/6/2017	100.1		7.6
17A0142-01	1/13/2017	1/31/2017	2/6/2017	100.6		10.6
17A0142-02	1/13/2017	1/31/2017	2/6/2017	100.2	SS	1.6
17A0142-03	1/13/2017	1/31/2017	2/6/2017	98.9	SS	0.3
17A0142-04	1/14/2017	1/31/2017	2/6/2017	99.8	SS	0.7
17A0142-05	1/14/2017	1/31/2017	2/6/2017	99.3	SS	1.7
17A0142-07	1/14/2017	1/31/2017	2/6/2017	99.3		7.1

* MTC Internal QA limits = 95-105%

Notes to the Testing: Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

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Project #:	17T001-003	**Sampled By:**	Others
Client :	Analytical Resources, Inc.	**Date Tested:**	February 7, 2017
Source:	Multiple	**Tested By:**	K. O'Connell
MTC Sample#:	Multiple		

Data Qualifiers

PSEP Grain Size Analysis

SM - The sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations.

SS - The sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis.

W - The weight of the sample in some pipette aliquots was below the level required for accurate weighing.

F - The samples were frozen prior to particle size determination.

LV - Due to low sample volume provided, the samples could not be rerun to meet QA requirements.

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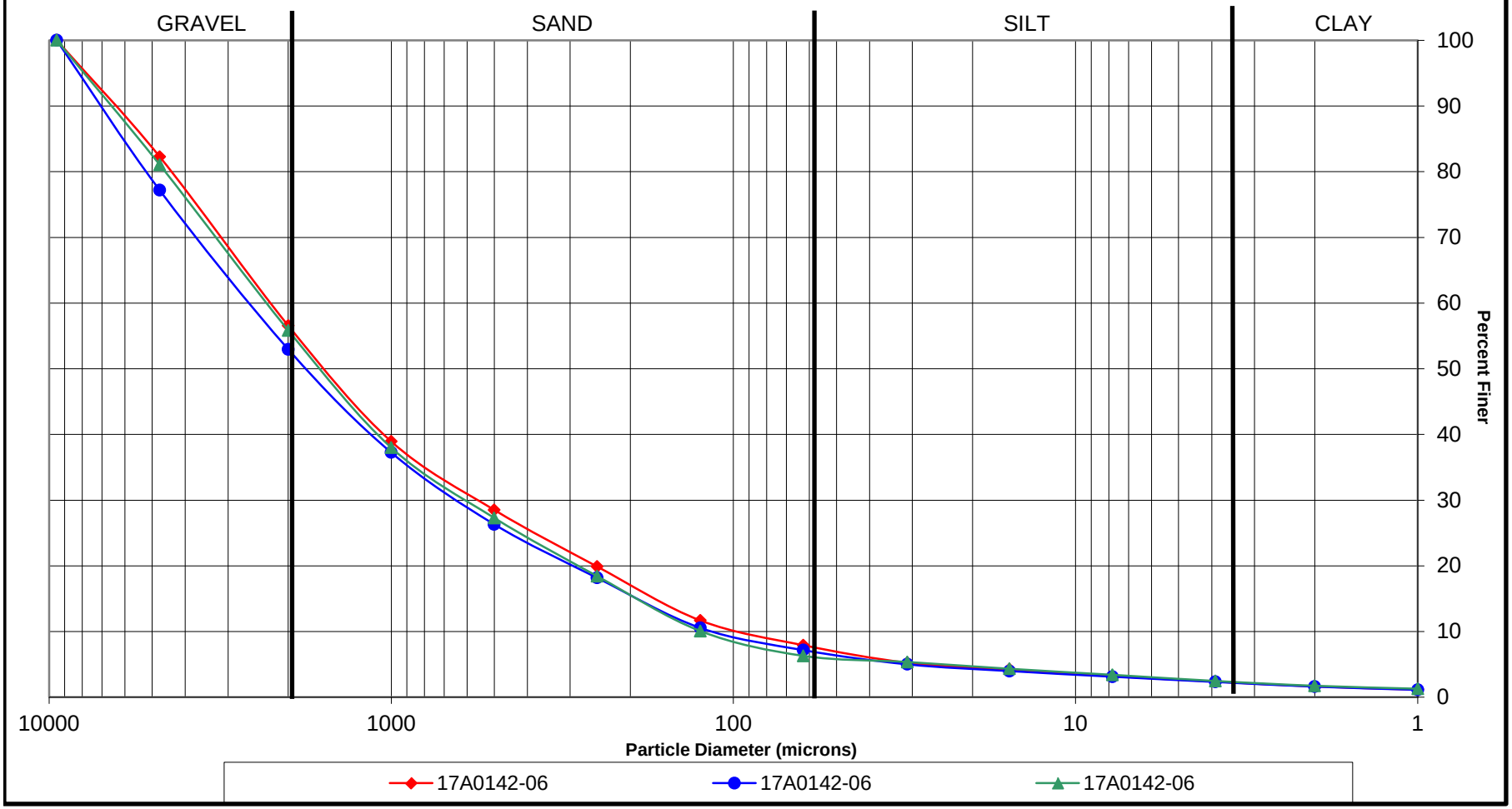
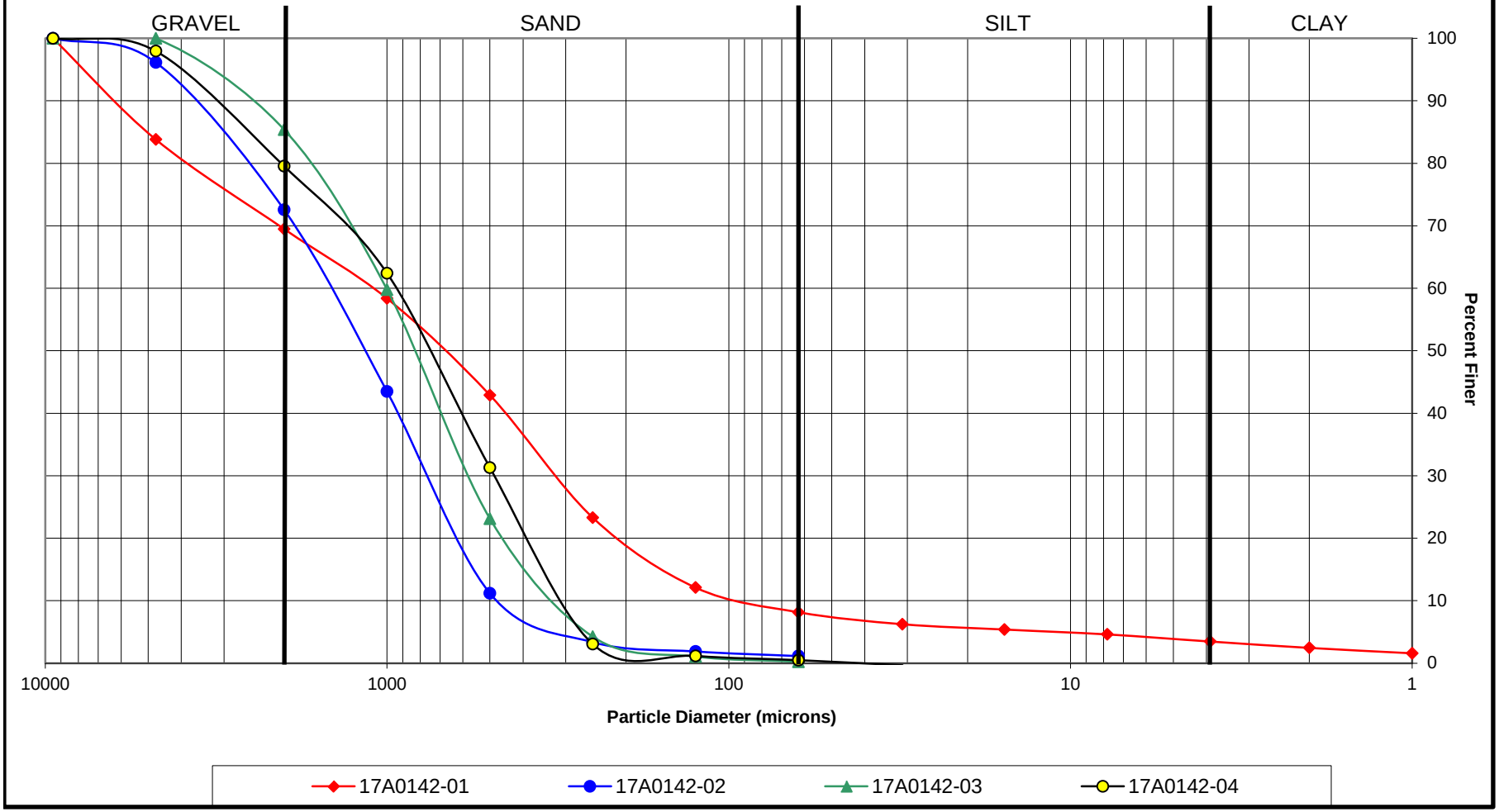
PSEP Grain Size Distribution

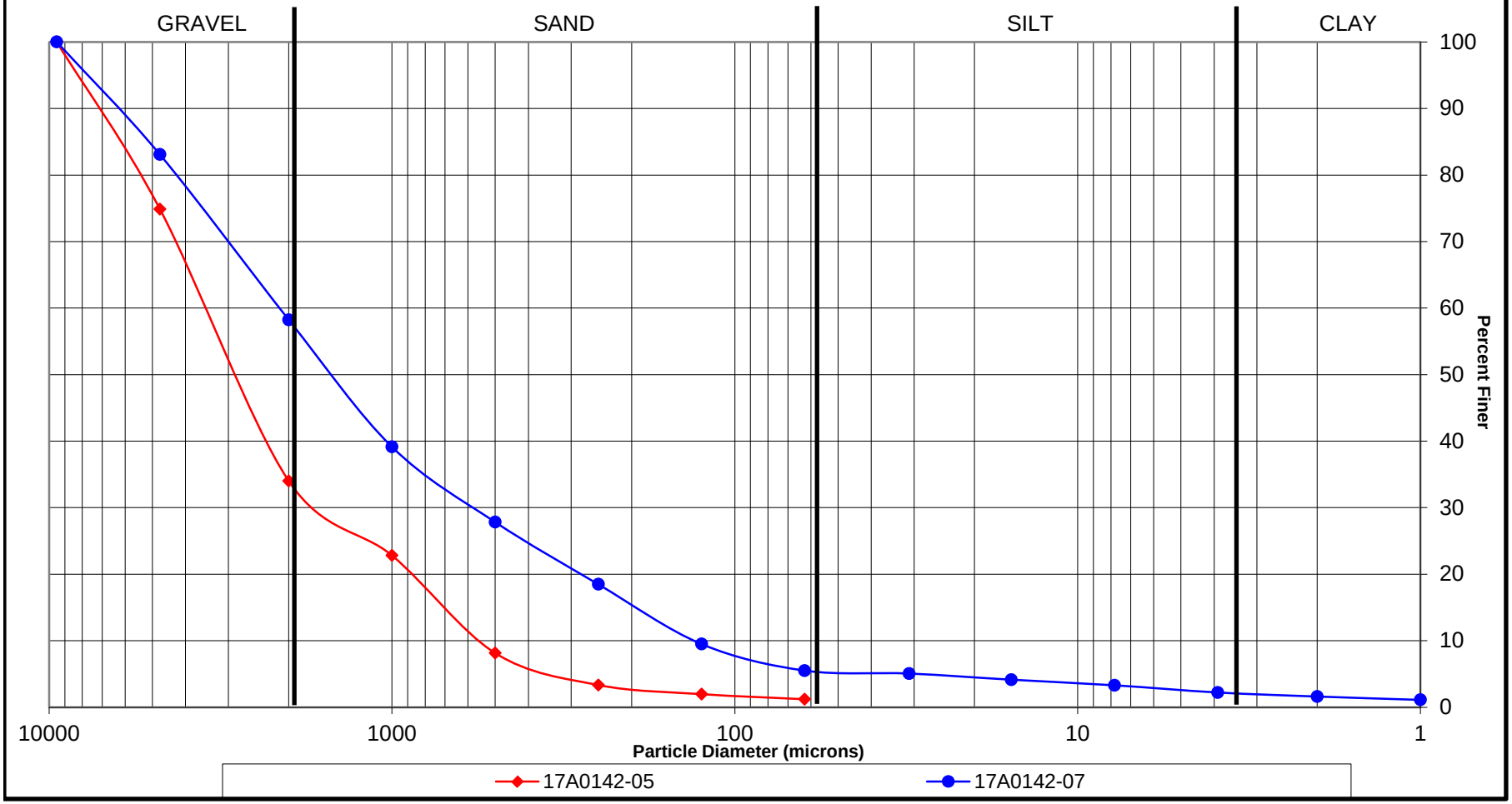
Triplicate Sample Plot



PSEP Grain Size Distribution



PSEP Grain Size Distribution



PSEP GRAIN SIZE ANALYSIS

Project: East Eagle Harbor OU 2016 CMMP Monitoring

Client: Analytical Resources

Project #: 17100.003

Sampled by: others

Location: 17A0142-06

Date Sampled: 01.14.17

Lab # 17-0136-1

Date Setup: 01.31.17

Description: Grey gravelly sand w/some silt & organic debris & shell fragments

Equipment Used: TCA-001, TCA-002, TSA-1060-7

SOLIDS CONTENT

Moisture Content	Initials: KO
Tare #	140
Tare Weight	1.4326
Wet Weight+Tare	26.8762
Dry Weight+Tare	22.8248

Test Sample	Initials: KO
Tare #	140
Tare Weight	51.1464
Wet Weight+Tare	196.2666
Dry Weight+Tare	164.1787

Calgon Batch #:	326

SIEVE ANALYSIS

Sieve Date: 02.01.17

Sieve Set #: 1

Initials: KO

Sieve Size	Weight Retained
Tare	51.1569
#4	72.7856
#10	104.1594
#18	125.6707
#35	138.3792
#60	148.9114
#120	158.9073
#230	1673.5094
PAN	0.7178

PIPETTE ANALYSIS

2/3/2017

Temp:22

Initials: KO

TIME	Tare #	Tare Wt	Dry Wt+Tare
11:48:00	0136-1 1	1.5251	1.6811
11:48:20	0136-1 2	1.5258	1.6609
11:49:49	0136-1 3	1.5251	1.6360
11:55:15	0136-1 4	1.5321	1.6286 KO
12:16:59	0136-1 5	1.5333	~~1.5607~~ KO 1.5998 KO
13:44:00	0136-1 6	1.5188	1.5676
17:22:00	0136-1 7	1.5349	1.5722
10:56:00			

SALT CORRECTION

Date: _____ Initials: _____

Tare Weight	
Dry Weight+Tare	

Triplicate Batch # B0035

PSEP GRAIN SIZE ANALYSIS

Project: East Eagle Harbor OU 2016 OMMP Monitoring

Client: Analytical Resources

Project #: ~~T17~~ 17T001-003

Sampled by: Others

Location: 17A0142-06

Date Sampled: 1-14-17

Lab # T17-936-2

Date Setup: 01-31-17

Description: grey gravelly sand w/some silt, organic debris & shell fragments

Equipment Used: TCA-001, TCA-002, TSA-1067

SOLIDS CONTENT

Moisture Content	Initials: KO
Tare #	149
Tare Weight	1.4337
Wet Weight+Tare	23.7670
Dry Weight+Tare	KO ~~195.2634~~

~~19.9547~~ 205095

Test Sample	Initials: KO
Tare #	149
Tare Weight	49.7496
Wet Weight+Tare	195.2634
Dry Weight+Tare	165.8241

Calgon Batch #: 336

SIEVE ANALYSIS

Sieve Date: 02-01-17

Sieve Set #: 2

Initials: KO

Sieve Size	Weight Retained
Tare	49.7540
#4	78.1289
#10	108.2185
#18	127.7465
#35	141.3344
#60	151.4690
#120	160.9229
#230	165.1301
PAN	0.7414

2/3/2017

Temp:22

PIPETTE ANALYSIS

Initials: KO

TIME	Tare #	Tare Wt	Dry Wt+Tare
11:51:00	0136-2 1	1.5437	1.6978
11:51:20	0136-2 2	1.5387	1.6710
11:52:49	0136-2 3	1.5314	1.6387
11:58:15	0136-2 4	1.5394	1.6256
12:19:59	0136-2 5	1.5343	1.6009
13:47:00	0136-2 ~~4~~ 6	1.5333	1.5824
17:25:00	0136-2 7	1.5412	~~1.5~~ KO
10:59:00			

1.5783

SALT CORRECTION

Date: _____ Initials: _____

Tare Weight	
Dry Weight+Tare	

Triplicate Batch # BU35

PSEP GRAIN SIZE ANALYSIS

Project: ~~17T~~ East Eagle Harbor 04 2014 OMMP Monitoring Client: Analytical Resources

Project #: 17T001-003 Sampled by: Othese

Location: 17A0142-06 Date Sampled: 1.14.17

Lab # TT7-0136-3 Date Setup: 01.31.17

Description: grey gravelly sand w/ some silt's organic debris & shell fragments Equipment Used: RA-001 RA-002 TSA-1067

SOLIDS CONTENT

Moisture Content	Initials: KO
Tare #	190
Tare Weight	1.4307
Wet Weight+Tare	23.1981
Dry Weight+Tare	19.4425

Test Sample	Initials: KO
Tare #	190
Tare Weight	51.3899
Wet Weight+Tare	197.5085
Dry Weight+Tare	165.3722

Calgon Batch #: 336

SIEVE ANALYSIS

Sieve Date: 02.01.17

Sieve Set #: 1

Initials: KO

Sieve Size	Weight Retained
Tare	51.4079
#4	74.3171
#10	104.7999
#18	126.3765
#35	139.3112
#60	150.0377
#120	~~158~~ KO 160.1289
#230	164.7019
PAN	0.6685

PIPETTE ANALYSIS

2/3/2017
Temp:22

Initials: KO

TIME	Tare #	Tare Wt	Dry Wt+Tare
11:54:00			
11:54:20	0136-3 1	1.5279	1.6875
11:55:49	0136-3 2	1.5384	1.6775
12:01:15	0136-3 3	1.5267	1.6408
12:22:59	0136-3 4	1.5359	1.6278
13:50:00	0136-3 5	1.5157	1.5849
17:28:00	0136-3 ~~0136~~ 6	1.5178	1.5694
11:02:00	0136-3 7	1.5170	1.5578

SALT CORRECTION

Date: _____ Initials: _____

Tare Weight	
Dry Weight+Tare	

Triplicate Batch # B0035

PSEP GRAIN SIZE ANALYSIS

Project: ~~17T00~~ KO East Eagle Harbor Q12016 MMP Monitoring

Client: Analytical Resources

Project #: 17T001-003

Sampled by: others

Location: 17A0142-01

Date Sampled: 1.13.17

Lab # 017-0131

Date Setup: 01.31.17

Description: Olive Grey Gravelly Sand w/some silt

Equipment Used: TCA-001, TCA-002, TSA 1067

SOLIDS CONTENT

Moisture Content	Initials: KO
Tare #	192
Tare Weight	1.4332
Wet Weight+Tare	66.3085
Dry Weight+Tare	57.2903

Test Sample	Initials: KO
Tare #	192
Tare Weight	50.2442
Wet Weight+Tare	201.8342
Dry Weight+Tare	170.8494

Calgon Batch #: 336

SIEVE ANALYSIS

Sieve Date: 02.01.17

Sieve Set #: 2

Initials: KO

Sieve Size	Weight Retained
Tare	50.2516
#4	71.3956
#10	90.0977
#18	104.6017
#35	124.7877
#60	150.3847
#120	164.9925
#230	170.1380
PAN	0.7397

PIPETTE ANALYSIS

2/3/2017

Temp:22

Initials: KO

TIME	Tare #	Tare Wt	Dry Wt+Tare
11:57:00	0131 1	1.5248	1.7320
11:57:20	0131 2	1.5144	1.6856
11:58:49	0131 3	1.5238	1.6730
12:04:15	0131 4	1.5194	1.6483
12:25:59	0131 5	1.5232	~~1.5998~~ KO 1.6226
13:53:00	0131 6	1.5188	1.5917
17:31:00	0131 7	1.5135	1.5640
11:05:00			

SALT CORRECTION

Date: _____ Initials: _____

Tare Weight	
Dry Weight+Tare	

Triplicate Batch # B0035

PSEP GRAIN SIZE ANALYSIS

Project: East Eagle Harbor OU2016 OMMP Monitoring

Client: Analytical Resources

Project #: 17T001-003

Sampled by: others

Location: 17A0142-02

Date Sampled: 1.13.17

Lab # 17-0132

Date Setup: 01.31.17

Description: Brown Coarse Sand w/ some gravel

Equipment Used: TCA-001, TCA-002, TSA-067

SOLIDS CONTENT

Moisture Content	Initials: KO
Tare #	200
Tare Weight	1.4302
Wet Weight+Tare	40.7643
Dry Weight+Tare	39.2311

Test Sample	Initials:
Tare #	200
Tare Weight	49.8429
Wet Weight+Tare	199.4325
Dry Weight+Tare	192.1715

Calgon Batch #: 330

SIEVE ANALYSIS

Sieve Date: ~~01~~ KO 02.01.17

Sieve Set #: 1

Initials: KO

Sieve Size	Weight Retained
Tare	49.8496
#4	55.4165
#10	89.3182
#18	~~130.~~ KO 131.1398
#35	177.5378
#60	188.7852
#120	190.9246
#230	191.9811
PAN	0.2962

PIPETTE ANALYSIS

2/3/2017

Temp:22

Initials: KO

TIME	Tare #	Tare Wt	Dry Wt+Tare
12:03:00	0132	1.5091	1.5450
12:03:20	1		
~~12:04:49~~			
~~12:10:15~~			
~~12:31:59~~			
~~13:59:00~~			
~~17:37:00~~			
~~11:11:00~~			

SALT CORRECTION

1.6g

Date: _____ Initials: _____

Tare Weight	
Dry Weight+Tare	

Triplicate Batch # B0035

PSEP GRAIN SIZE ANALYSIS

Project: East Eagle Harbor OU 2016 CMMP Monitoring Client: Analytical Resources

Project #: 17TOU-0003 Sampled by: Others

Location: 17A0142-03 Date Sampled: 1.13.17

Lab # J17-0133 Date Setup: 01.31.17

Description: Gray & Brown Coarse Sand Equipment Used: TCA-001, TCA-002, TSA-1067

SOLIDS CONTENT

Moisture Content	Initials: KO
Tare #	202
Tare Weight	1.4484
Wet Weight+Tare	33.4488
Dry Weight+Tare	31.6600

Test Sample	Initials: KO
Tare #	202
Tare Weight	49.8231
Wet Weight+Tare	201.4356
Dry Weight+Tare	192.8261

Calgon Batch #:	336

SIEVE ANALYSIS

Sieve Date: 02.01.17

Sieve Set #: 2

Initials: KO

Sieve Size	Weight Retained
Tare	49.8257
#4	49.8776
#10	70.7713
#18	107.3924
#35	159.8650
#60	186.8915
#120	191.4524
#230	192.6381
PAN	0.1170

2/3/2017

Temp:22

PIPETTE ANALYSIS

Initials: KO

TIME	Tare #	Tare Wt	Dry Wt+Tare
12:06:00			
12:06:20	0133 1	1.5050 ~~40~~	1.5524
~~12:07:49~~			
~~12:13:15~~			
~~12:34:59~~			
~~14:02:00~~			
~~17:40:00~~			
~~11:14:00~~			

SALT CORRECTION

0.3g

Date: _____ Initials: _____

Tare Weight	
Dry Weight+Tare	

Triplicate Batch # B0035

PSEP GRAIN SIZE ANALYSIS

Project: East Eagle Harbor OU2016 OMMP Monitoring

Client: Analytical Resources

Project #: 17T001.003

Sampled by: Others

Location: 17A0142-04

Date Sampled: 01.14.17

Lab # 17-0134

Date Setup: 01.31.17

Description: Light Brown & Gray Coarse Sand

Equipment Used: TCA-001, TCA-002, TSA-1067

SOLIDS CONTENT

Moisture Content	Initials: KO
Tare #	213
Tare Weight	1.4328
Wet Weight+Tare	51.0087
Dry Weight+Tare	47.8471

Test Sample	Initials: KO
Tare #	213
Tare Weight	50.4368
Wet Weight+Tare	700.7097
Dry Weight+Tare	190.6308

Calgon Batch #:	336

SIEVE ANALYSIS

Sieve Date: 02.01.17

Sieve Set #: 1

Initials: KO

Sieve Size	Weight Retained
Tare	50.4478
#4	53.3479
#10	79.2631
#18	103.3576
#35	147.1220
#60	186.8570
#120	189.5005
#230	190.49599
PAN	0.0932

2/3/2017

Temp:22

PIPETTE ANALYSIS

Initials: KJ

TIME	Tare #	Tare Wt	Dry Wt+Tare
12:09:00	0134	1.5251	1.5542
12:09:20			
~~12:10:49~~			
~~12:16:15~~			
~~12:37:59~~			
~~14:05:00~~			
~~17:43:00~~			
~~11:17:00~~			

SALT CORRECTION

0.7g

Date: _____ Initials: _____

Tare Weight	
Dry Weight+Tare	

Triplicate Batch # 60035

PSEP GRAIN SIZE ANALYSIS

Project: East Eagle Harbor OU 2016 OMMP Monitoring

Client: Analytical Resources

Project #: 17T001.003

Sampled by: Ohese

Location: 17A0142-05

Date Sampled: 1.14.17

Lab # T17-0135

Date Setup: 01.31.17

Description: Gray & light Brown Sand w/ gravel (coarse)

Equipment Used: TRA-001 TRA-002 TBA-1067

SOLIDS CONTENT

Moisture Content	Initials: KO
Tare #	214
Tare Weight	1.4475
Wet Weight+Tare	57.2600
Dry Weight+Tare	54.4478

Test Sample	Initials: KO
Tare #	214
Tare Weight	50.1679
Wet Weight+Tare	203.8226
Dry Weight+Tare	194.5303

Calgon Batch #: 336

SIEVE ANALYSIS

Sieve Date: 02-01-17

Sieve Set #: 1

Initials: KO.

Sieve Size	Weight Retained
Tare	50.1755
#4	86.8429
#10	146.4624
#18	162.7918
#35	184.2101
#60	191.2193
#120	193.2157
#230	194.3362
PAN	0.2396

2/3/2017

Temp:22

PIPETTE ANALYSIS

Initials: KO

TIME	Tare #	Tare Wt	Dry Wt+Tare
12:12:00	0135	1.5272	1.5934
12:12:20	/		
~~12:13:49~~			
~~12:19:15~~			
~~12:40:59~~			
~~14:08:00~~			
~~17:46:00~~			
~~11:20:00~~			

SALT CORRECTION

1.7g

Date: _____ Initials: _____

Tare Weight	
Dry Weight+Tare	

Triplicate Batch # B0035

PSEP GRAIN SIZE ANALYSIS

Project: East Eagle Harbor OU2016 OMMP Monitoring
Client: Analytical Resources
Project #: ~~17700~~ 17701-003
Sampled by: others
Location: 17A0142-07 KO
Date Sampled: 1.14.17
Lab # 17-0137
Date Setup: 01-31-17
Description: Gray Sandy Silt w/ some organic debris
Equipment Used: TRA-001 TRA-002 TBA-1067

SOLIDS CONTENT

Moisture Content	Initials: KO
Tare #	225
Tare Weight	1.4452
Wet Weight+Tare	64.0543
Dry Weight+Tare	~~17~~ ~~528414~~ 52.8414 KO

Test Sample	Initials: KO
Tare #	225
Tare Weight	49.3060
Wet Weight+Tare	206.3664
Dry Weight+Tare	171.8534

Calgon Batch #:	336

SIEVE ANALYSIS

Sieve Date: ~~01~~ 02-01-17
Sieve Set #: 1
Initials: KO

Sieve Size	Weight Retained
Tare	49.3164
#4	71.1362
#10	103.1599
#18	127.7830
#35	142.3636
#60	154.4267
#120	166.0053
#230	171.1426
PAN	0.7802

2/3/2017
Temp:22

PIPETTE ANALYSIS

Initials: KO

TIME	Tare #	Tare Wt	Dry Wt+Tare
12:00:00	0137 1	1.5246	1.6931
12:00:20	0137 2	1.5146	1.6556
12:01:49	0137 3	1.5230	1.6400
12:07:15	0137 4	1.5095	1.6046
12:28:59	0137 5	1.5201	1.5871
13:56:00	0137 6	1.5222	1.5735
17:34:00	0137 7	1.5314	1.5696
11:08:00			

SALT CORRECTION

Date: _____ Initials: _____

Tare Weight	
Dry Weight+Tare	

Triplicate Batch # B0035

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SUBCONTRACT ORDER
To: Materials Testing & Consulting, Inc. (Tukwila)
ARI Work Order:17A0142 MTC JOB# 17T001-003

SENDING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, Suite 100
Tukwila, WA 98168
Phone: (206) 695-6200
Fax: (206) 695-6201
Project Manager: Cheronne Oreiro

RECEIVING LABORATORY:

Materials Testing & Consulting, Inc. (Tukwila)
4611 S 134th Place, Ste 200
Tukwila, WA 98296
Phone :-
Fax: -

CLIENT: HDR
PROJECT: East Eagle Harbor
OU 2016 ommp monitoring

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 17A0142-01	**Solid**	**Sampled:13-Jan-2017 21:11**	T17-0131	Need PKG - N/C Need TRIP on - 06 (N/C)
Grainsize PSEP (Subc)	30-Jan-2017 15:00	15-Jul-2017 13:59		
Containers Supplied:				
17A0142-01 D Glass WM, Clear, 8 oz				
Sample ID: 17A0142-02	**Solid**	**Sampled:13-Jan-2017 22:47**	T17-0132	
Grainsize PSEP (Subc)	30-Jan-2017 15:00	15-Jul-2017 15:35		
Containers Supplied:				
17A0142-02 D Glass WM, Clear, 8 oz				
Sample ID: 17A0142-03	**Solid**	**Sampled:13-Jan-2017 23:32**	T17-0133	
Grainsize PSEP (Subc)	30-Jan-2017 15:00	15-Jul-2017 16:20		
Containers Supplied:				
17A0142-03 D Glass WM, Clear, 8 oz				
Sample ID: 17A0142-04	**Solid**	**Sampled:14-Jan-2017 00:16**	T17-0134	
Grainsize PSEP (Subc)	30-Jan-2017 15:00	15-Jul-2017 17:04		
Containers Supplied:				
17A0142-04 D Glass WM, Clear, 8 oz				
Sample ID: 17A0142-05	**Solid**	**Sampled:14-Jan-2017 01:17**	T17-0135	
Grainsize PSEP (Subc)	30-Jan-2017 15:00	15-Jul-2017 18:05		
Containers Supplied:				
17A0142-05 D Glass WM, Clear, 8 oz				

Released By	Date	Received By	Date
Paul Mork	01/16/2017	[signature]	1.16.17@ 1335

10.2°C

Printed: 1/16/2017 12:02:26PM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SUBCONTRACT ORDER
To: Materials Testing & Consulting, Inc. (Tukwila)
ARI Work Order:17A0142 MTC JOB# 17T001-003

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 17A0142-06	**Solid**	**Sampled:14-Jan-2017 01:55**	T17-0136	~~MS/MSD~~ need triplicate
Grainsize PSEP (Subc)	30-Jan-2017 15:00	15-Jul-2017 18:43		
Containers Supplied:				
17A0142-06 D Glass WM, Clear, 8 oz				

* Sample Consumed 01.30.17

Sample ID: 17A0142-07	**Solid**	**Sampled:14-Jan-2017 01:55**	T17-0137	
Grainsize PSEP (Subc)	30-Jan-2017 15:00	15-Jul-2017 18:43		
Containers Supplied:				
17A0142-07 D Glass WM, Clear, 8 oz				

Paul Mook
~~01/16/2~~

Released By	Date	Received By	Date
	01/16/2017	1.16.17 @ 1335	10.2°c

Printed: 1/16/2017 12:02:26PM