Appendix F

Particle Size Data and Graphs

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28803-1
Sdg Number: 28803

Client Sample ID: **SW15-SLB14-SURF**

Lab Sample ID: 200-28803-2
Client Matrix: Sediment

Date Sampled: 07/07/2015 1540
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91164	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28803-G-2.txt
Dilution:	1.0			Initial Weight/Volume:	180 g
Analysis Date:	07/10/2015 1141			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		99.7			
Sieve Size #40 - Percent Finer		99.6			
Sieve Size #60 - Percent Finer		98.2			
Sieve Size #80 - Percent Finer		95.8			
Sieve Size #100 - Percent Finer		94.1			
Sieve Size #200 - Percent Finer		90.0			
Hydrometer Reading 1 - Percent Finer		69.1			
Hydrometer Reading 2 - Percent Finer		54.1			
Hydrometer Reading 3 - Percent Finer		49.1			
Hydrometer Reading 4 - Percent Finer		41.6			
Hydrometer Reading 5 - Percent Finer		36.6			
Hydrometer Reading 6 - Percent Finer		27.2			
Hydrometer Reading 7 - Percent Finer		19.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28803-1
Sdg Number: 28803

Client Sample ID: **SW15-SLB14-SURF**

Lab Sample ID: 200-28803-2
Client Matrix: Sediment

Date Sampled: 07/07/2015 1540
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91164	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28803-G-2.txt
Dilution:	1.0			Initial Weight/Volume:	180 g
Analysis Date:	07/10/2015 1141			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		10.0			
Coarse Sand		0.0			
Medium Sand		0.4			
Fine Sand		9.6			
Silt		53.4			
Clay		36.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28803-1
Sdg Number: 28803

Client Sample ID: **SW15-SLB13-SURF**

Lab Sample ID: 200-28803-6
Client Matrix: Sediment

Date Sampled: 07/07/2015 0950
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91164	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28803-G-6.txt
Dilution:	1.0			Initial Weight/Volume:	159.67 g
Analysis Date:	07/10/2015 1142			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.1			
Sieve Size #20 - Percent Finer		99.0			
Sieve Size #40 - Percent Finer		98.9			
Sieve Size #60 - Percent Finer		97.9			
Sieve Size #80 - Percent Finer		96.4			
Sieve Size #100 - Percent Finer		95.4			
Sieve Size #200 - Percent Finer		93.8			
Hydrometer Reading 1 - Percent Finer		78.0			
Hydrometer Reading 2 - Percent Finer		71.2			
Hydrometer Reading 3 - Percent Finer		62.2			
Hydrometer Reading 4 - Percent Finer		55.5			
Hydrometer Reading 5 - Percent Finer		48.7			
Hydrometer Reading 6 - Percent Finer		35.8			
Hydrometer Reading 7 - Percent Finer		24.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28803-1
Sdg Number: 28803

Client Sample ID: **SW15-SLB13-SURF**

Lab Sample ID: 200-28803-6
Client Matrix: Sediment

Date Sampled: 07/07/2015 0950
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91164	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28803-G-6.txt
Dilution:	1.0			Initial Weight/Volume:	159.67 g
Analysis Date:	07/10/2015 1142			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		6.2			
Coarse Sand		0.9			
Medium Sand		0.2			
Fine Sand		5.1			
Silt		45.1			
Clay		48.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28803-1
Sdg Number: 28803

Client Sample ID: **SW15-SLB11-SURF**

Lab Sample ID: 200-28803-11
Client Matrix: Sediment

Date Sampled: 07/07/2015 0853
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91164	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28803-D-11.txt
Dilution:	1.0			Initial Weight/Volume:	174.18 g
Analysis Date:	07/10/2015 1205			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		87.1			
Sieve Size #10 - Percent Finer		72.2			
Sieve Size #20 - Percent Finer		65.6			
Sieve Size #40 - Percent Finer		60.7			
Sieve Size #60 - Percent Finer		51.6			
Sieve Size #80 - Percent Finer		45.0			
Sieve Size #100 - Percent Finer		42.1			
Sieve Size #200 - Percent Finer		35.9			
Hydrometer Reading 1 - Percent Finer		28.7			
Hydrometer Reading 2 - Percent Finer		26.4			
Hydrometer Reading 3 - Percent Finer		24.1			
Hydrometer Reading 4 - Percent Finer		22.6			
Hydrometer Reading 5 - Percent Finer		19.5			
Hydrometer Reading 6 - Percent Finer		15.1			
Hydrometer Reading 7 - Percent Finer		11.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28803-1
Sdg Number: 28803

Client Sample ID: **SW15-SLB11-SURF**

Lab Sample ID: 200-28803-11
Client Matrix: Sediment

Date Sampled: 07/07/2015 0853
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91164	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28803-D-11.txt
Dilution:	1.0			Initial Weight/Volume:	174.18 g
Analysis Date:	07/10/2015 1205			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		12.9			
Sand		51.2			
Coarse Sand		14.9			
Medium Sand		11.5			
Fine Sand		24.8			
Silt		16.4			
Clay		19.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28803-1
Sdg Number: 28803

Client Sample ID: **SW15-SLB10-SURF**

Lab Sample ID: 200-28803-15
Client Matrix: Sediment

Date Sampled: 07/07/2015 1645
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91164	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28803-D-15.txt
Dilution:	1.0			Initial Weight/Volume:	162.87 g
Analysis Date:	07/10/2015 1206			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.7			
Sieve Size #20 - Percent Finer		98.7			
Sieve Size #40 - Percent Finer		97.8			
Sieve Size #60 - Percent Finer		96.4			
Sieve Size #80 - Percent Finer		94.8			
Sieve Size #100 - Percent Finer		92.8			
Sieve Size #200 - Percent Finer		67.1			
Hydrometer Reading 1 - Percent Finer		21.8			
Hydrometer Reading 2 - Percent Finer		18.5			
Hydrometer Reading 3 - Percent Finer		15.2			
Hydrometer Reading 4 - Percent Finer		13.6			
Hydrometer Reading 5 - Percent Finer		11.9			
Hydrometer Reading 6 - Percent Finer		8.0			
Hydrometer Reading 7 - Percent Finer		6.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28803-1
Sdg Number: 28803

Client Sample ID: **SW15-SLB10-SURF**

Lab Sample ID: 200-28803-15
Client Matrix: Sediment

Date Sampled: 07/07/2015 1645
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91164	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28803-D-15.txt
Dilution:	1.0			Initial Weight/Volume:	162.87 g
Analysis Date:	07/10/2015 1206			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		32.9			
Coarse Sand		0.3			
Medium Sand		1.9			
Fine Sand		30.7			
Silt		55.2			
Clay		11.9			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28803-1
Sdg Number: 28803

Client Sample ID: **SW15-SLB12-SURF**

Lab Sample ID: 200-28803-20
Client Matrix: Sediment

Date Sampled: 07/07/2015 1525
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91164	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28803-D-20.txt
Dilution:	1.0			Initial Weight/Volume:	168.39 g
Analysis Date:	07/10/2015 1207			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.7			
Sieve Size #20 - Percent Finer		99.2			
Sieve Size #40 - Percent Finer		98.4			
Sieve Size #60 - Percent Finer		95.7			
Sieve Size #80 - Percent Finer		92.3			
Sieve Size #100 - Percent Finer		89.7			
Sieve Size #200 - Percent Finer		69.1			
Hydrometer Reading 1 - Percent Finer		35.9			
Hydrometer Reading 2 - Percent Finer		32.4			
Hydrometer Reading 3 - Percent Finer		27.1			
Hydrometer Reading 4 - Percent Finer		25.3			
Hydrometer Reading 5 - Percent Finer		21.7			
Hydrometer Reading 6 - Percent Finer		14.0			
Hydrometer Reading 7 - Percent Finer		10.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28803-1
Sdg Number: 28803

Client Sample ID: **SW15-SLB12-SURF**

Lab Sample ID: 200-28803-20
Client Matrix: Sediment

Date Sampled: 07/07/2015 1525
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91164	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28803-D-20.txt
Dilution:	1.0			Initial Weight/Volume:	168.39 g
Analysis Date:	07/10/2015 1207			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		30.9			
Coarse Sand		0.3			
Medium Sand		1.3			
Fine Sand		29.3			
Silt		47.4			
Clay		21.7			

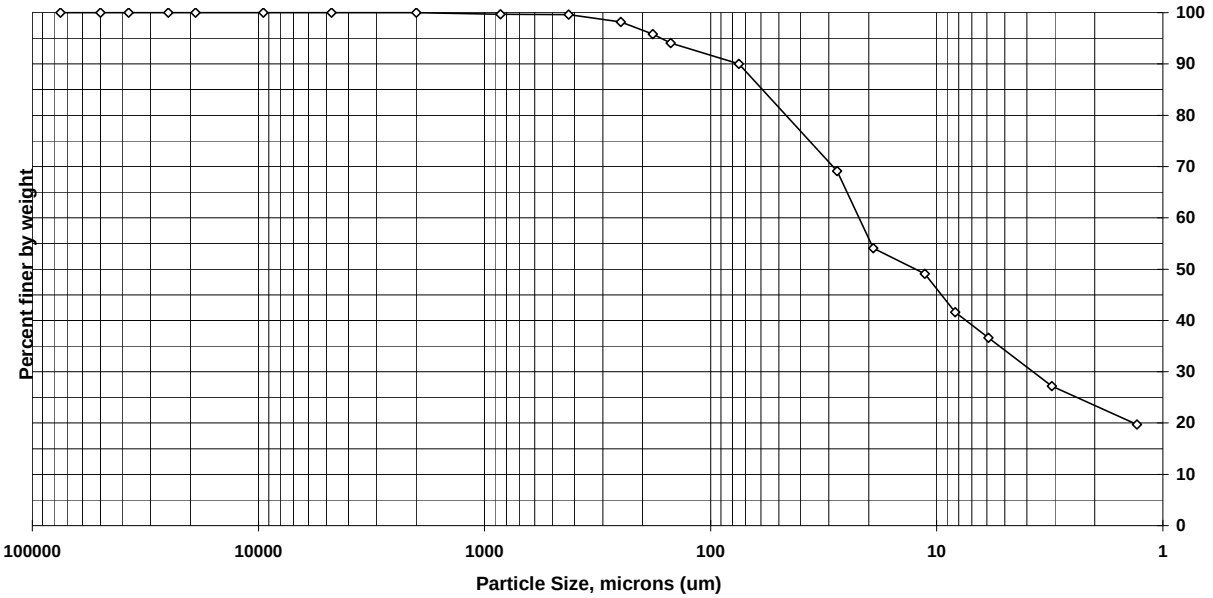
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB14-SURF	**Percent Solids:**	35.7%	**Start Date:**	7/10/2015
Lab ID:	200-28803-G-2	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.7	0.3
#40	425	99.6	0.1
#60	250	98.2	1.4
#80	180	95.8	2.4
#100	150	94.1	1.7
#200	75	90.0	4.1
Hyd1	27.6	69.1	20.9
Hyd2	19.1	54.1	15.0
Hyd3	11.3	49.1	5.0
Hyd4	8.3	41.6	7.5
Hyd5	5.9	36.6	5.0
Hyd6	3.1	27.2	9.4
Hyd7	1.3	19.7	7.5

Soil Classification	Percent of sample
Gravel	0.0
Sand	10.0
Coarse Sand	0.0
Medium Sand	0.4
Fine Sand	9.6
Silt	53.4
Clay	36.6

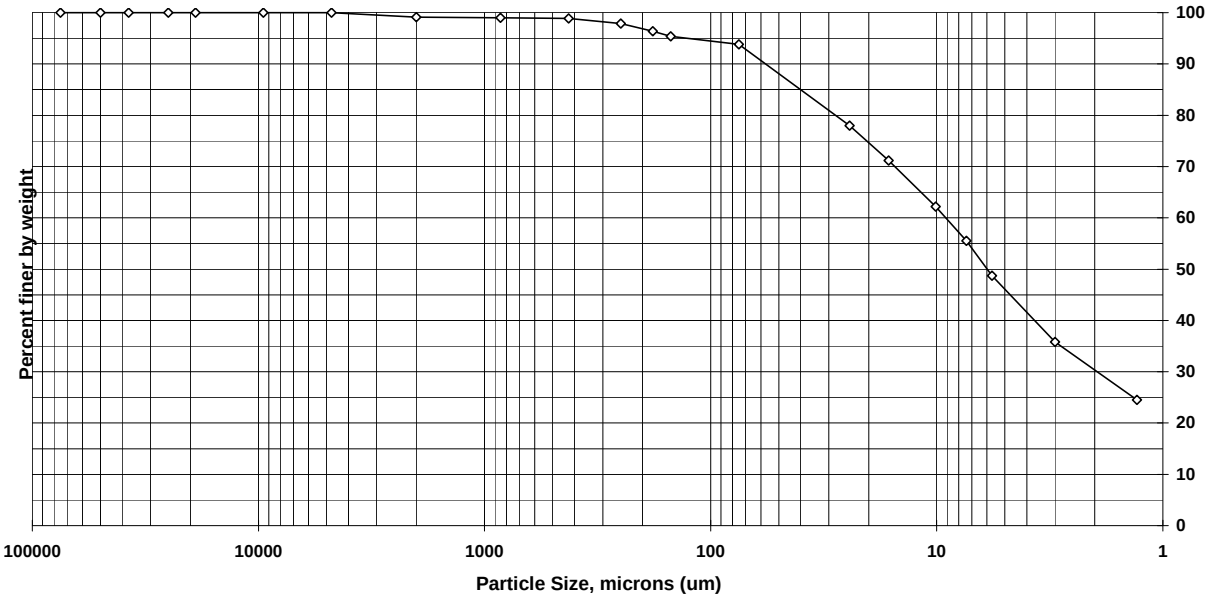
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB13-SURF	**Percent Solids:**	44.7%	**Start Date:**	7/10/2015
Lab ID:	200-28803-G-6	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): na

Non-soil material: shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.1	0.9
#20	850	99.0	0.1
#40	425	98.9	0.1
#60	250	97.9	1.0
#80	180	96.4	1.5
#100	150	95.4	1.0
#200	75	93.8	1.6
Hyd1	24.3	78.0	15.8
Hyd2	16.3	71.2	6.8
Hyd3	10.1	62.2	9.0
Hyd4	7.4	55.5	6.7
Hyd5	5.7	48.7	6.8
Hyd6	3	35.8	12.9
Hyd7	1.3	24.5	11.3

Soil Classification	Percent of sample
Gravel	0.0
Sand	6.2
Coarse Sand	0.9
Medium Sand	0.2
Fine Sand	5.1
Silt	45.1
Clay	48.7

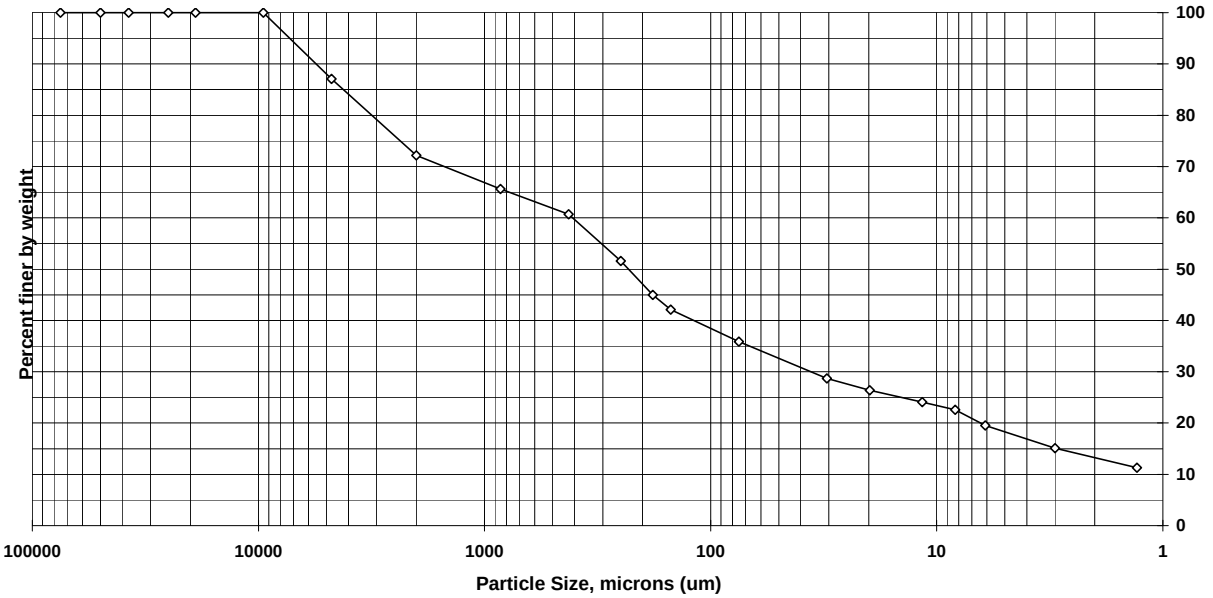
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB11-SURF	**Percent Solids:**	60.4%	**Start Date:**	7/10/2015
Lab ID:	200-28803-D-11	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): subangular

Non-soil material: plant,wood

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	87.1	12.9
#10	2000	72.2	14.9
#20	850	65.6	6.6
#40	425	60.7	4.9
#60	250	51.6	9.1
#80	180	45.0	6.6
#100	150	42.1	2.9
#200	75	35.9	6.2
Hyd1	30.6	28.7	7.2
Hyd2	19.8	26.4	2.3
Hyd3	11.6	24.1	2.3
Hyd4	8.3	22.6	1.5
Hyd5	6.1	19.5	3.1
Hyd6	3	15.1	4.4
Hyd7	1.3	11.3	3.8

Soil Classification	Percent of sample
Gravel	12.9
Sand	51.2
Coarse Sand	14.9
Medium Sand	11.5
Fine Sand	24.8
Silt	16.4
Clay	19.5

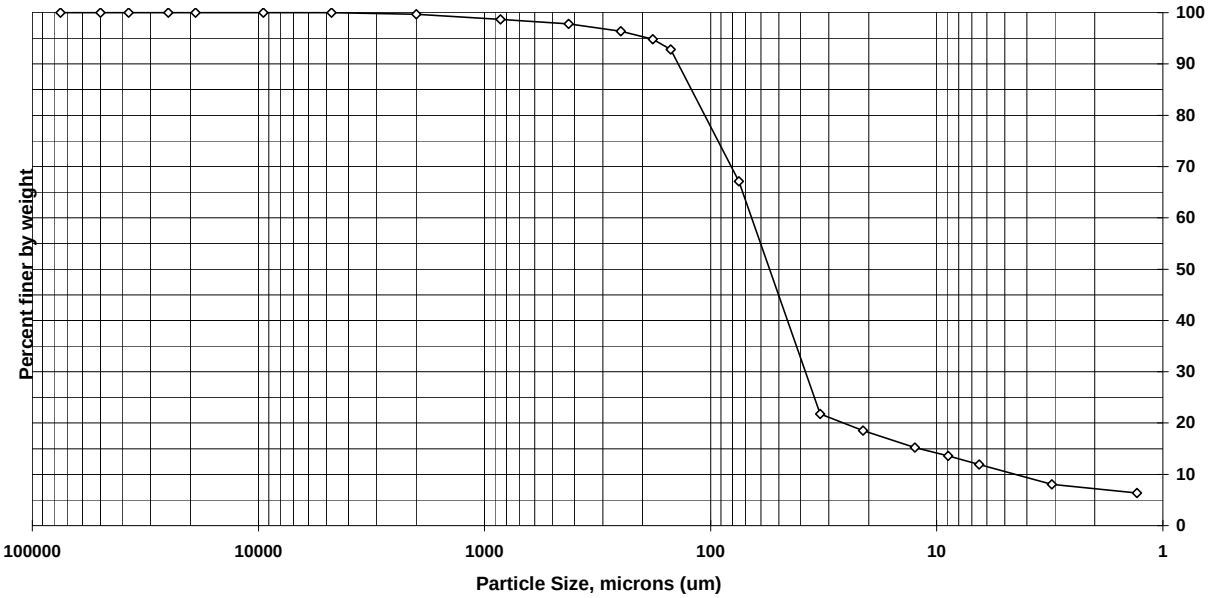
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB10-SURF	**Percent Solids:**	59.9%	**Start Date:**	7/10/2015
Lab ID:	200-28803-D-15	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.7	0.3
#20	850	98.7	1.0
#40	425	97.8	0.9
#60	250	96.4	1.4
#80	180	94.8	1.6
#100	150	92.8	2.0
#200	75	67.1	25.7
Hyd1	32.8	21.8	45.3
Hyd2	21.2	18.5	3.3
Hyd3	12.5	15.2	3.3
Hyd4	8.9	13.6	1.6
Hyd5	6.5	11.9	1.7
Hyd6	3.1	8.0	3.9
Hyd7	1.3	6.4	1.6

Soil Classification	Percent of sample
Gravel	0.0
Sand	32.9
Coarse Sand	0.3
Medium Sand	1.9
Fine Sand	30.7
Silt	55.2
Clay	11.9

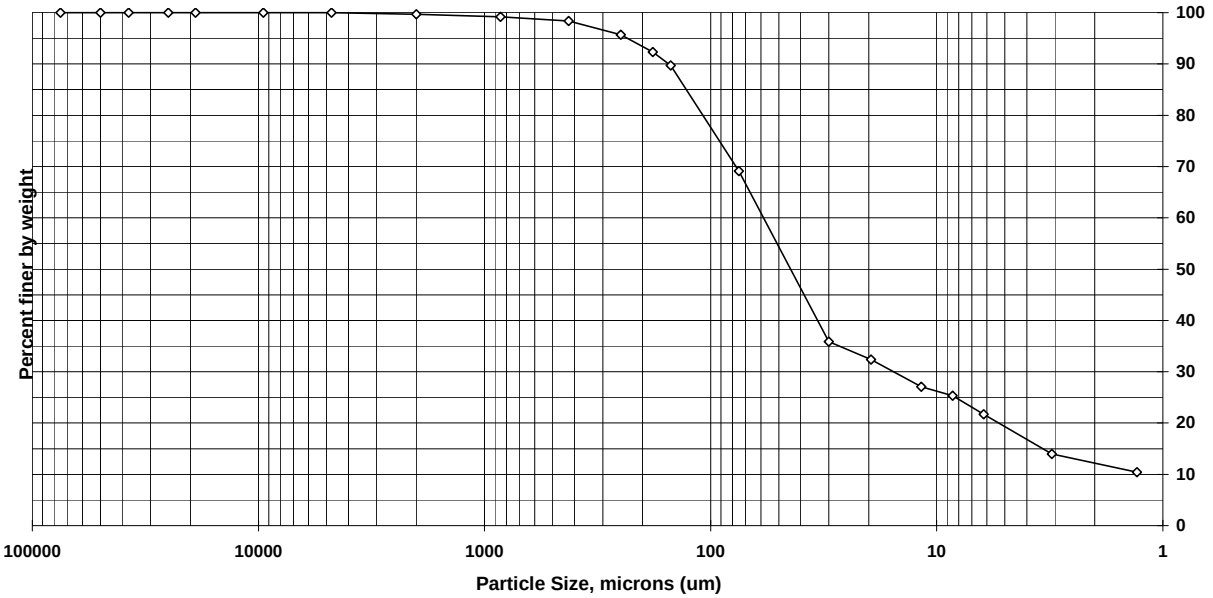
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB12-SURF	**Percent Solids:**	53.8%	**Start Date:**	7/10/2015
Lab ID:	200-28803-D-20	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.7	0.3
#20	850	99.2	0.5
#40	425	98.4	0.8
#60	250	95.7	2.7
#80	180	92.3	3.4
#100	150	89.7	2.6
#200	75	69.1	20.6
Hyd1	30	35.9	33.2
Hyd2	19.5	32.4	3.5
Hyd3	11.7	27.1	5.3
Hyd4	8.5	25.3	1.8
Hyd5	6.2	21.7	3.6
Hyd6	3.1	14.0	7.7
Hyd7	1.3	10.4	3.6

Soil Classification	Percent of sample
Gravel	0.0
Sand	30.9
Coarse Sand	0.3
Medium Sand	1.3
Fine Sand	29.3
Silt	47.4
Clay	21.7

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/9/2015
Client Sample ID	SW15-SLB14-SURF	Start Date	07/10/2015 11:41
Lab Sample ID	200-28803-G-2	End Date	07/15/2015 11:27

Dry Weight Determination

Tin Weight	4.08	g
Wet Sample + Tin	139.28	g
Dry Sample + Tin	52.31	g
% Moisture	64.33	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na
Date/Time in oven	07/10/2015 11:41
Date/Time out of oven	07/11/2015 10:44

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	58.01	238.01	180
Sample Weight (Oven Dried)			64.2

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			64.2
% Passing #10			35.7

Hydrometer Data	
Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	390.00	390.17	0.17	g	99.7	Sand	Medium
#40	425	367.73	367.77	0.04	g	99.6	Sand	Medium
#60	250	349.51	350.42	0.91	g	98.2	Sand	Fine
#80	180	331.91	333.45	1.54	g	95.8	Sand	Fine
#100	150	331.09	332.16	1.07	g	94.1	Sand	Fine
#200	75	330.99	333.61	2.62	g	90.0	Sand	Fine
				0.00	g	90.0		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	64.2

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0310	19.5	27.6	69.1	Silt	
5	5	1.0250	19.5	19.1	54.1	Silt	
15	15	1.0230	19.5	11.3	49.1	Silt	
30	30	1.0200	19.5	8.3	41.6	Silt	
60	63	1.0180	19.5	5.9	36.6	Silt	
250	241	1.0140	20.5	3.1	27.2	Clay	
1440	1388	1.0110	20.5	1.3	19.7	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SLB13-SURF
Lab Sample ID	200-28803-G-6

Date Received	7/9/2015
Start Date	07/10/2015 11:42
End Date	07/15/2015 11:40

Dry Weight Determination

Tin Weight	4.33	g
Wet Sample + Tin	149.28	g
Dry Sample + Tin	69.07	g
% Moisture	55.34	%

Non-soil material:	shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/10/2015 11:42
Date/Time out of oven	07/11/2015 10:45

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.70	207.37	159.67
Sample Weight (Oven Dried)			71.3

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.64
Sample <#10			70.7
% Passing #10			44.3

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	463.56	0.64	g	99.1	Sand	Coarse
#20	850	390.00	390.06	0.06	g	99.0	Sand	Medium
#40	425	367.73	367.78	0.05	g	98.9	Sand	Medium
#60	250	349.51	350.24	0.73	g	97.9	Sand	Fine
#80	180	331.91	333.01	1.10	g	96.4	Sand	Fine
#100	150	331.09	331.79	0.70	g	95.4	Sand	Fine
#200	75	330.99	332.10	1.11	g	93.8	Sand	Fine
				0.00	g	93.8		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	71.3

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0380	19.5	24.3	78	Silt	
5	5	1.0350	19.5	16.3	71.2	Silt	
15	15	1.0310	19.5	10.1	62.2	Silt	
30	31	1.0280	19.5	7.4	55.5	Silt	
60	57	1.0250	19.5	5.7	48.7	Silt	
250	235	1.0190	20.5	3	35.8	Clay	
1440	1382	1.0140	20.5	1.3	24.5	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/9/2015
Client Sample ID	SW15-SLB11-SURF	Start Date	07/10/2015 12:05
Lab Sample ID	200-28803-D-11	End Date	07/15/2015 11:51

Dry Weight Determination

Tin Weight	4.37	g
Wet Sample + Tin	151.92	g
Dry Sample + Tin	93.45	g
% Moisture	39.63	%

Non-soil material:	plant,wood
Shape (> #10):	subangular
Hardness (> #10):	hard
Date/Time in oven	07/10/2015 12:05
Date/Time out of oven	

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.81	221.99	174.18
Sample Weight (Oven Dried)			105

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			29.2
Sample <#10			75.8
% Passing #10			43.5

Hydrometer Data

Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.25	501.76	13.51	g	87.1	Gravel	
#10	2000	462.92	478.56	15.64	g	72.2	Sand	Coarse
#20	850	381.13	388.10	6.97	g	65.6	Sand	Medium
#40	425	354.21	359.40	5.19	g	60.7	Sand	Medium
#60	250	352.25	361.76	9.51	g	51.6	Sand	Fine
#80	180	338.96	345.84	6.88	g	45.0	Sand	Fine
#100	150	329.55	332.64	3.09	g	42.1	Sand	Fine
#200	75	323.15	329.67	6.52	g	35.9	Sand	Fine
				0.00	g	35.9		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	105

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0235	20.0	30.6	28.7	Silt	
5	5	1.0220	20.0	19.8	26.4	Silt	
15	15	1.0205	20.0	11.6	24.1	Silt	
30	30	1.0195	20.0	8.3	22.6	Silt	
60	59	1.0175	20.0	6.1	19.5	Silt	
250	256	1.0145	20.5	3	15.1	Clay	
1440	1440	1.0120	20.5	1.3	11.3	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SLB10-SURF
Lab Sample ID	200-28803-D-15

Date Received	7/9/2015
Start Date	07/10/2015 12:06
End Date	07/15/2015 12:06

Dry Weight Determination

Tin Weight	4.44	g
Wet Sample + Tin	159.56	g
Dry Sample + Tin	97.39	g
% Moisture	40.08	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/10/2015 12:06
Date/Time out of oven	07/11/2015 10:45

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.81	210.68	162.87
Sample Weight (Oven Dried)			97.6

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.31
Sample <#10			97.3
% Passing #10			59.7

Hydrometer Data

Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	463.23	0.31	g	99.7	Sand	Coarse
#20	850	381.13	382.08	0.95	g	98.7	Sand	Medium
#40	425	354.21	355.08	0.87	g	97.8	Sand	Medium
#60	250	352.25	353.59	1.34	g	96.4	Sand	Fine
#80	180	338.96	340.55	1.59	g	94.8	Sand	Fine
#100	150	329.55	331.51	1.96	g	92.8	Sand	Fine
#200	75	323.15	348.19	25.04	g	67.1	Sand	Fine
				0.00	g	67.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	97.6

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0180	20.0	32.8	21.8	Silt	
5	5	1.0160	20.0	21.2	18.5	Silt	
15	15	1.0140	20.0	12.5	15.2	Silt	
30	30	1.0130	20.0	8.9	13.6	Silt	
60	58	1.0120	20.0	6.5	11.9	Silt	
250	256	1.0095	20.5	3.1	8.02	Clay	
1440	1440	1.0085	20.5	1.3	6.38	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SLB12-SURF
Lab Sample ID	200-28803-D-20

Date Received	7/9/2015
Start Date	07/10/2015 12:07
End Date	07/15/2015 12:22

Dry Weight Determination

Tin Weight	4.26	g
Wet Sample + Tin	151.54	g
Dry Sample + Tin	83.44	g
% Moisture	46.24	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/10/2015 12:07
Date/Time out of oven	07/11/2015 10:46

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.40	218.79	168.39
Sample Weight (Oven Dried)			90.5

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.29
Sample <#10			90.2
% Passing #10			53.6

Hydrometer Data

Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	463.21	0.29	g	99.7	Sand	Coarse
#20	850	381.13	381.60	0.47	g	99.2	Sand	Medium
#40	425	354.21	354.92	0.71	g	98.4	Sand	Medium
#60	250	352.25	354.72	2.47	g	95.7	Sand	Fine
#80	180	338.96	342.05	3.09	g	92.3	Sand	Fine
#100	150	329.55	331.93	2.38	g	89.7	Sand	Fine
#200	75	323.15	341.81	18.66	g	69.1	Sand	Fine
				0.00	g	69.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	90.5

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0250	20.0	30	35.9	Silt	
5	5	1.0230	20.0	19.5	32.4	Silt	
15	15	1.0200	20.0	11.7	27.1	Silt	
30	29	1.0190	20.0	8.5	25.3	Silt	
60	58	1.0170	20.0	6.2	21.7	Silt	
250	250	1.0125	20.5	3.1	14	Clay	
1440	1434	1.0105	20.5	1.3	10.4	Clay	

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB08-SURF**

Lab Sample ID: 200-28805-2
Client Matrix: Sediment

Date Sampled: 07/08/2015 1150
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-E-2.txt
Dilution:	1.0			Initial Weight/Volume:	170.42 g
Analysis Date:	07/10/2015 1254			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		100.0			
Sieve Size #40 - Percent Finer		99.9			
Sieve Size #60 - Percent Finer		99.7			
Sieve Size #80 - Percent Finer		98.9			
Sieve Size #100 - Percent Finer		97.9			
Sieve Size #200 - Percent Finer		92.0			
Hydrometer Reading 1 - Percent Finer		71.7			
Hydrometer Reading 2 - Percent Finer		57.4			
Hydrometer Reading 3 - Percent Finer		49.2			
Hydrometer Reading 4 - Percent Finer		44.4			
Hydrometer Reading 5 - Percent Finer		38.5			
Hydrometer Reading 6 - Percent Finer		25.8			
Hydrometer Reading 7 - Percent Finer		19.8			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB08-SURF**

Lab Sample ID: 200-28805-2
Client Matrix: Sediment

Date Sampled: 07/08/2015 1150
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-E-2.txt
Dilution:	1.0			Initial Weight/Volume:	170.42 g
Analysis Date:	07/10/2015 1254			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		8.0			
Coarse Sand		0.0			
Medium Sand		0.1			
Fine Sand		7.9			
Silt		53.5			
Clay		38.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB15-SURF**

Lab Sample ID: 200-28805-6
Client Matrix: Sediment

Date Sampled: 07/08/2015 1440
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-C-6.txt
Dilution:	1.0			Initial Weight/Volume:	150.02 g
Analysis Date:	07/10/2015 1255			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.6			
Sieve Size #20 - Percent Finer		99.2			
Sieve Size #40 - Percent Finer		98.6			
Sieve Size #60 - Percent Finer		95.6			
Sieve Size #80 - Percent Finer		89.5			
Sieve Size #100 - Percent Finer		84.1			
Sieve Size #200 - Percent Finer		53.3			
Hydrometer Reading 1 - Percent Finer		27.5			
Hydrometer Reading 2 - Percent Finer		18.2			
Hydrometer Reading 3 - Percent Finer		15.6			
Hydrometer Reading 4 - Percent Finer		13.9			
Hydrometer Reading 5 - Percent Finer		12.3			
Hydrometer Reading 6 - Percent Finer		8.0			
Hydrometer Reading 7 - Percent Finer		5.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB15-SURF**

Lab Sample ID: 200-28805-6
Client Matrix: Sediment

Date Sampled: 07/08/2015 1440
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-C-6.txt
Dilution:	1.0			Initial Weight/Volume:	150.02 g
Analysis Date:	07/10/2015 1255			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		46.7			
Coarse Sand		0.4			
Medium Sand		1.0			
Fine Sand		45.3			
Silt		41.0			
Clay		12.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB16-SURF**

Lab Sample ID: 200-28805-10
Client Matrix: Sediment

Date Sampled: 07/07/2015 1340
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-C-10.txt
Dilution:	1.0			Initial Weight/Volume:	156.66 g
Analysis Date:	07/10/2015 1257			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		98.8			
Sieve Size #20 - Percent Finer		98.4			
Sieve Size #40 - Percent Finer		97.9			
Sieve Size #60 - Percent Finer		95.6			
Sieve Size #80 - Percent Finer		91.8			
Sieve Size #100 - Percent Finer		89.2			
Sieve Size #200 - Percent Finer		76.1			
Hydrometer Reading 1 - Percent Finer		54.6			
Hydrometer Reading 2 - Percent Finer		42.2			
Hydrometer Reading 3 - Percent Finer		36.6			
Hydrometer Reading 4 - Percent Finer		32.1			
Hydrometer Reading 5 - Percent Finer		27.6			
Hydrometer Reading 6 - Percent Finer		18.6			
Hydrometer Reading 7 - Percent Finer		13.2			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB16-SURF**

Lab Sample ID: 200-28805-10
Client Matrix: Sediment

Date Sampled: 07/07/2015 1340
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-C-10.txt
Dilution:	1.0			Initial Weight/Volume:	156.66 g
Analysis Date:	07/10/2015 1257			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		23.9			
Coarse Sand		1.2			
Medium Sand		0.9			
Fine Sand		21.8			
Silt		48.5			
Clay		27.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB09-SURF**

Lab Sample ID: 200-28805-14
Client Matrix: Sediment

Date Sampled: 07/08/2015 1030
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-E-14.txt
Dilution:	1.0			Initial Weight/Volume:	158.56 g
Analysis Date:	07/10/2015 1259			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.1			
Sieve Size #20 - Percent Finer		99.1			
Sieve Size #40 - Percent Finer		99.1			
Sieve Size #60 - Percent Finer		98.6			
Sieve Size #80 - Percent Finer		96.5			
Sieve Size #100 - Percent Finer		94.2			
Sieve Size #200 - Percent Finer		84.3			
Hydrometer Reading 1 - Percent Finer		65.9			
Hydrometer Reading 2 - Percent Finer		51.4			
Hydrometer Reading 3 - Percent Finer		44.1			
Hydrometer Reading 4 - Percent Finer		39.3			
Hydrometer Reading 5 - Percent Finer		32.0			
Hydrometer Reading 6 - Percent Finer		21.2			
Hydrometer Reading 7 - Percent Finer		15.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB09-SURF**

Lab Sample ID: 200-28805-14
Client Matrix: Sediment

Date Sampled: 07/08/2015 1030
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-E-14.txt
Dilution:	1.0			Initial Weight/Volume:	158.56 g
Analysis Date:	07/10/2015 1259			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		15.7			
Coarse Sand		0.9			
Medium Sand		0.0			
Fine Sand		14.8			
Silt		52.3			
Clay		32.0			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB09-SURF-FD**

Lab Sample ID: 200-28805-15FD
Client Matrix: Sediment

Date Sampled: 07/08/2015 1030
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-D-15.txt
Dilution:	1.0			Initial Weight/Volume:	150.66 g
Analysis Date:	07/10/2015 1301			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.1			
Sieve Size #20 - Percent Finer		99.1			
Sieve Size #40 - Percent Finer		99.1			
Sieve Size #60 - Percent Finer		98.6			
Sieve Size #80 - Percent Finer		96.5			
Sieve Size #100 - Percent Finer		94.3			
Sieve Size #200 - Percent Finer		84.6			
Hydrometer Reading 1 - Percent Finer		68.7			
Hydrometer Reading 2 - Percent Finer		53.0			
Hydrometer Reading 3 - Percent Finer		42.5			
Hydrometer Reading 4 - Percent Finer		37.3			
Hydrometer Reading 5 - Percent Finer		30.7			
Hydrometer Reading 6 - Percent Finer		19.0			
Hydrometer Reading 7 - Percent Finer		15.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB09-SURF-FD**

Lab Sample ID: 200-28805-15FD
Client Matrix: Sediment

Date Sampled: 07/08/2015 1030
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-D-15.txt
Dilution:	1.0			Initial Weight/Volume:	150.66 g
Analysis Date:	07/10/2015 1301			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		15.4			
Coarse Sand		0.9			
Medium Sand		0.0			
Fine Sand		14.5			
Silt		53.9			
Clay		30.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB17-SURF**

Lab Sample ID: 200-28805-16
Client Matrix: Sediment

Date Sampled: 07/08/2015 0845
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-D-16.txt
Dilution:	1.0			Initial Weight/Volume:	140.85 g
Analysis Date:	07/10/2015 1304			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		98.4			
Sieve Size #10 - Percent Finer		95.2			
Sieve Size #20 - Percent Finer		92.9			
Sieve Size #40 - Percent Finer		88.0			
Sieve Size #60 - Percent Finer		81.0			
Sieve Size #80 - Percent Finer		73.2			
Sieve Size #100 - Percent Finer		68.3			
Sieve Size #200 - Percent Finer		50.7			
Hydrometer Reading 1 - Percent Finer		32.5			
Hydrometer Reading 2 - Percent Finer		22.1			
Hydrometer Reading 3 - Percent Finer		20.2			
Hydrometer Reading 4 - Percent Finer		17.4			
Hydrometer Reading 5 - Percent Finer		13.7			
Hydrometer Reading 6 - Percent Finer		9.9			
Hydrometer Reading 7 - Percent Finer		8.2			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB17-SURF**

Lab Sample ID: 200-28805-16
Client Matrix: Sediment

Date Sampled: 07/08/2015 0845
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-D-16.txt
Dilution:	1.0			Initial Weight/Volume:	140.85 g
Analysis Date:	07/10/2015 1304			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		1.6			
Sand		47.7			
Coarse Sand		3.2			
Medium Sand		7.2			
Fine Sand		37.3			
Silt		37.0			
Clay		13.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB18-SURF**

Lab Sample ID: 200-28805-17
Client Matrix: Sediment

Date Sampled: 07/08/2015 0945
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-D-17.txt
Dilution:	1.0			Initial Weight/Volume:	175.52 g
Analysis Date:	07/10/2015 1307			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		94.5			
Sieve Size #10 - Percent Finer		91.6			
Sieve Size #20 - Percent Finer		91.0			
Sieve Size #40 - Percent Finer		89.9			
Sieve Size #60 - Percent Finer		87.6			
Sieve Size #80 - Percent Finer		83.8			
Sieve Size #100 - Percent Finer		81.0			
Sieve Size #200 - Percent Finer		69.4			
Hydrometer Reading 1 - Percent Finer		53.5			
Hydrometer Reading 2 - Percent Finer		42.5			
Hydrometer Reading 3 - Percent Finer		35.2			
Hydrometer Reading 4 - Percent Finer		31.6			
Hydrometer Reading 5 - Percent Finer		27.9			
Hydrometer Reading 6 - Percent Finer		19.7			
Hydrometer Reading 7 - Percent Finer		14.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28805-1
Sdg Number: 28805

Client Sample ID: **SW15-SLB18-SURF**

Lab Sample ID: 200-28805-17
Client Matrix: Sediment

Date Sampled: 07/08/2015 0945
Date Received: 07/09/2015 1015

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91168	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28805-D-17.txt
Dilution:	1.0			Initial Weight/Volume:	175.52 g
Analysis Date:	07/10/2015 1307			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		5.5			
Sand		25.1			
Coarse Sand		2.9			
Medium Sand		1.7			
Fine Sand		20.5			
Silt		41.5			
Clay		27.9			

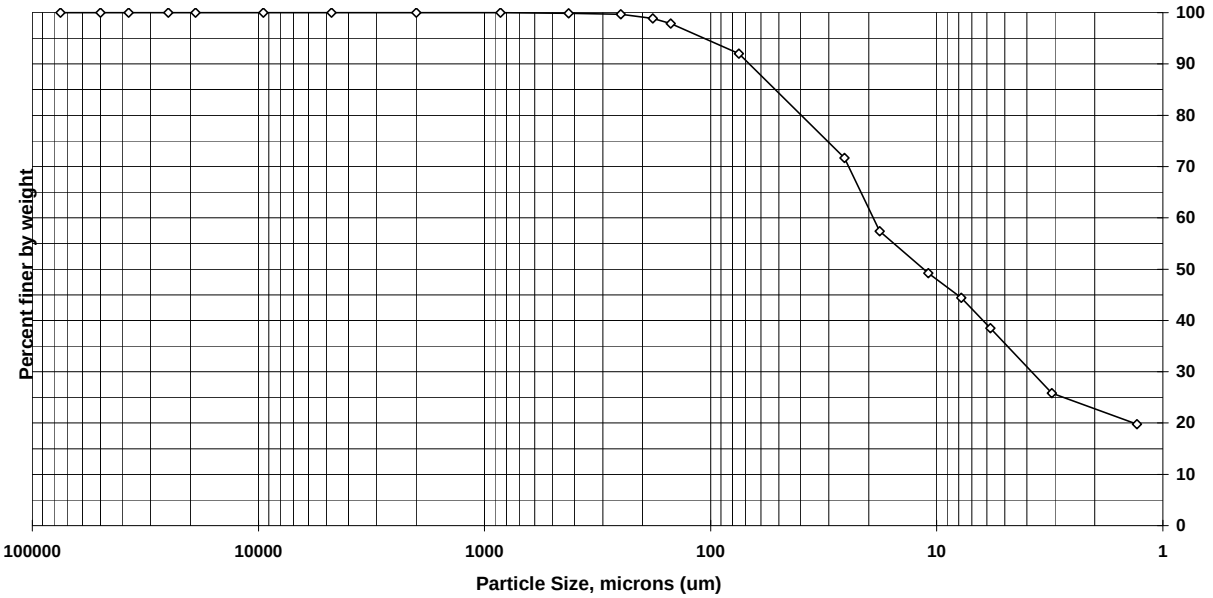
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB08-SURF	**Percent Solids:**	39.8%	**Start Date:**	7/10/2015
Lab ID:	200-28805-E-2	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	100.0	0.0
#40	425	99.9	0.1
#60	250	99.7	0.2
#80	180	98.9	0.8
#100	150	97.9	1.0
#200	75	92.0	5.9
Hyd1	25.6	71.7	20.3
Hyd2	17.9	57.4	14.3
Hyd3	10.9	49.2	8.2
Hyd4	7.8	44.4	4.8
Hyd5	5.8	38.5	5.9
Hyd6	3.1	25.8	12.7
Hyd7	1.3	19.8	6.0

Soil Classification	Percent of sample
Gravel	0.0
Sand	8.0
Coarse Sand	0.0
Medium Sand	0.1
Fine Sand	7.9
Silt	53.5
Clay	38.5

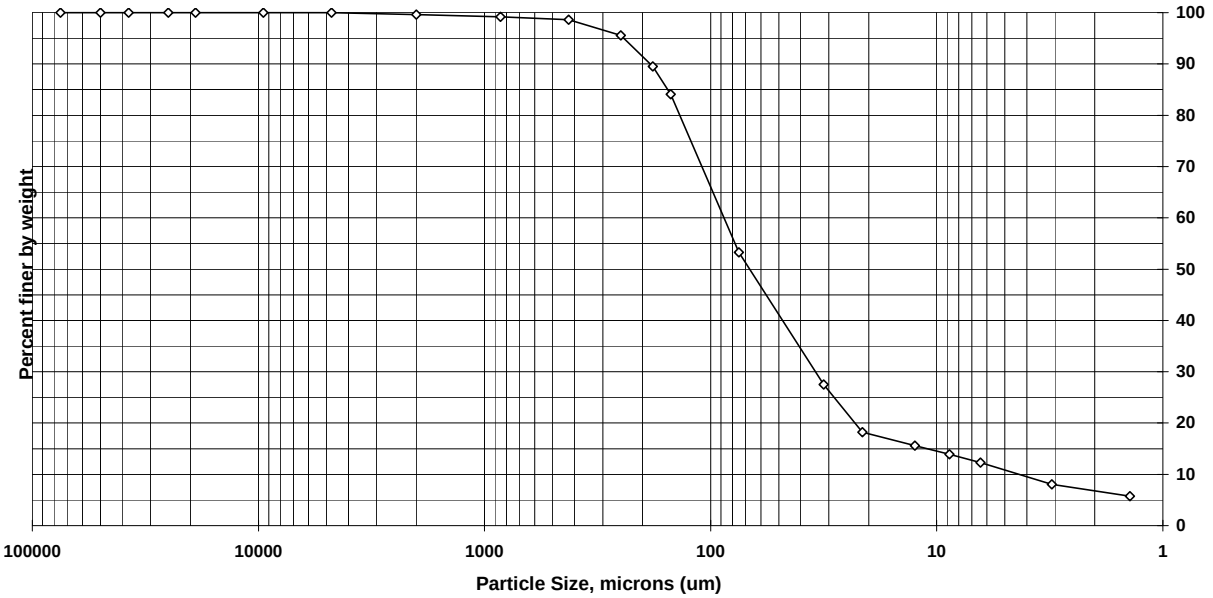
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB15-SURF	**Percent Solids:**	63.3%	**Start Date:**	7/10/2015
Lab ID:	200-28805-C-6	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): subangular

Non-soil material: plant,wood

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.6	0.4
#20	850	99.2	0.4
#40	425	98.6	0.6
#60	250	95.6	3.0
#80	180	89.5	6.1
#100	150	84.1	5.4
#200	75	53.3	30.8
Hyd1	31.6	27.5	25.8
Hyd2	21.3	18.2	9.3
Hyd3	12.5	15.6	2.6
Hyd4	8.8	13.9	1.7
Hyd5	6.4	12.3	1.6
Hyd6	3.1	8.0	4.3
Hyd7	1.4	5.7	2.3

Soil Classification	Percent of sample
Gravel	0.0
Sand	46.7
Coarse Sand	0.4
Medium Sand	1.0
Fine Sand	45.3
Silt	41.0
Clay	12.3

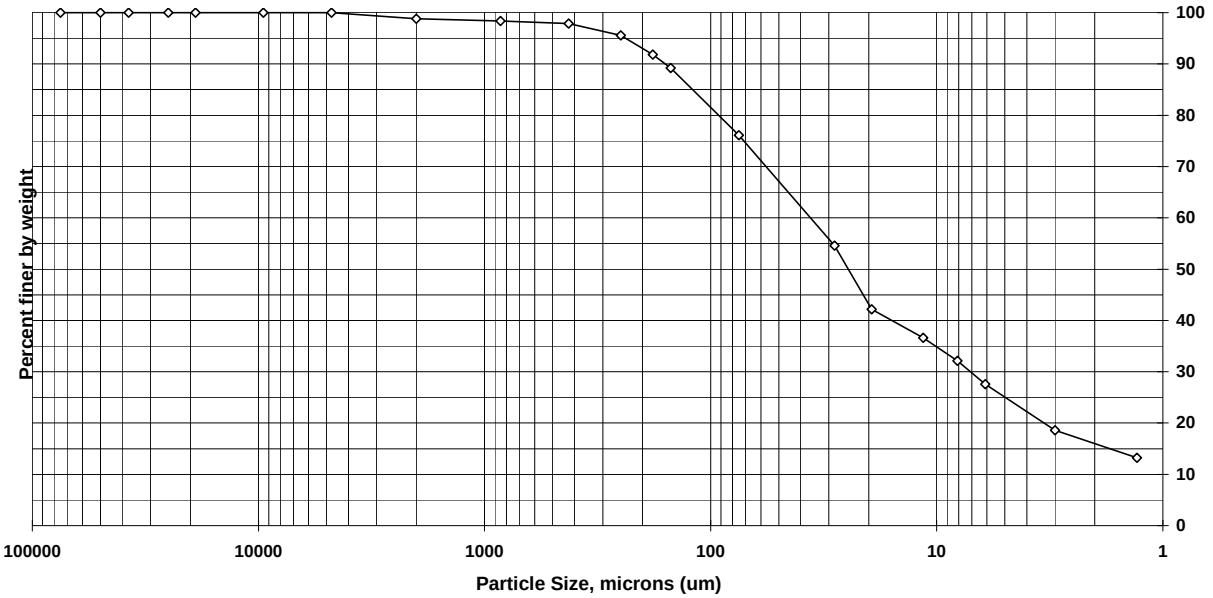
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB16-SURF	**Percent Solids:**	45.5%	**Start Date:**	7/10/2015
Lab ID:	200-28805-C-10	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): subangular

Non-soil material: plant,wood

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	98.8	1.2
#20	850	98.4	0.4
#40	425	97.9	0.5
#60	250	95.6	2.3
#80	180	91.8	3.8
#100	150	89.2	2.6
#200	75	76.1	13.1
Hyd1	28.3	54.6	21.5
Hyd2	19.4	42.2	12.4
Hyd3	11.5	36.6	5.6
Hyd4	8.1	32.1	4.5
Hyd5	6.1	27.6	4.5
Hyd6	3	18.6	9.0
Hyd7	1.3	13.2	5.4

Soil Classification	Percent of sample
Gravel	0.0
Sand	23.9
Coarse Sand	1.2
Medium Sand	0.9
Fine Sand	21.8
Silt	48.5
Clay	27.6

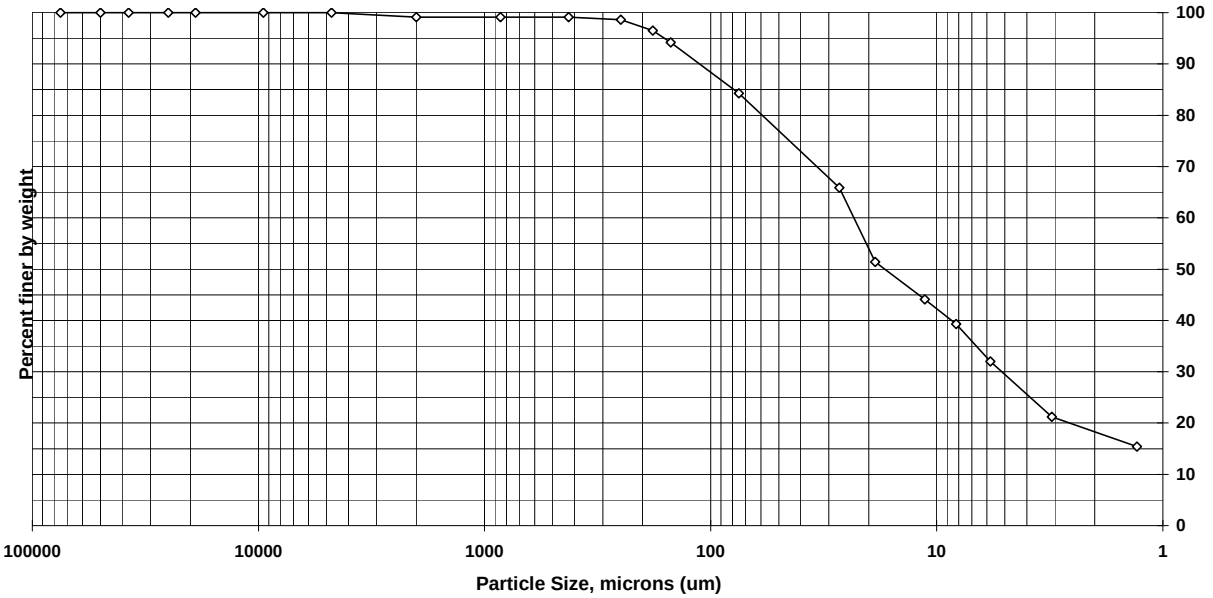
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB09-SURF	**Percent Solids:**	41.9%	**Start Date:**	7/10/2015
Lab ID:	200-28805-E-14	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.1	0.9
#20	850	99.1	0.0
#40	425	99.1	0.0
#60	250	98.6	0.5
#80	180	96.5	2.1
#100	150	94.2	2.3
#200	75	84.3	9.9
Hyd1	27	65.9	18.4
Hyd2	18.7	51.4	14.5
Hyd3	11.3	44.1	7.3
Hyd4	8.2	39.3	4.8
Hyd5	5.8	32.0	7.3
Hyd6	3.1	21.2	10.8
Hyd7	1.3	15.4	5.8

Soil Classification	Percent of sample
Gravel	0.0
Sand	15.7
Coarse Sand	0.9
Medium Sand	0.0
Fine Sand	14.8
Silt	52.3
Clay	32.0

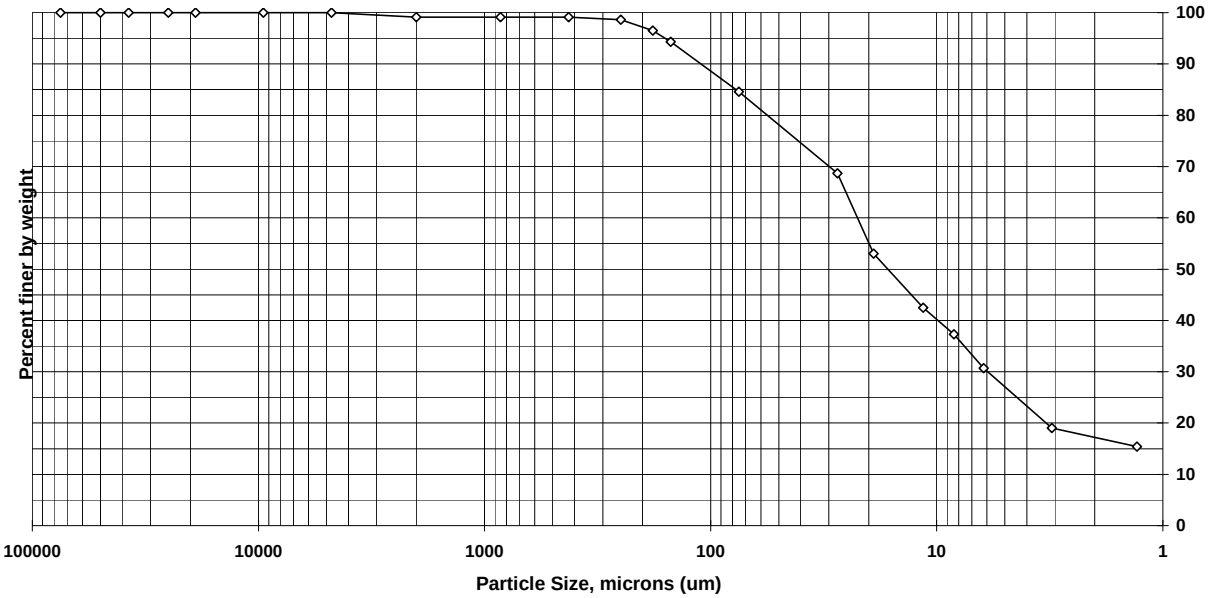
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB09-SURF-FD	**Percent Solids:**	40.7%	**Start Date:**	7/10/2015
Lab ID:	200-28805-D-15	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.1	0.9
#20	850	99.1	0.0
#40	425	99.1	0.0
#60	250	98.6	0.5
#80	180	96.5	2.1
#100	150	94.3	2.2
#200	75	84.6	9.7
Hyd1	27.5	68.7	15.9
Hyd2	19	53.0	15.7
Hyd3	11.5	42.5	10.5
Hyd4	8.4	37.3	5.2
Hyd5	6.2	30.7	6.6
Hyd6	3.1	19.0	11.7
Hyd7	1.3	15.4	3.6

Soil Classification	Percent of sample
Gravel	0.0
Sand	15.4
Coarse Sand	0.9
Medium Sand	0.0
Fine Sand	14.5
Silt	53.9
Clay	30.7

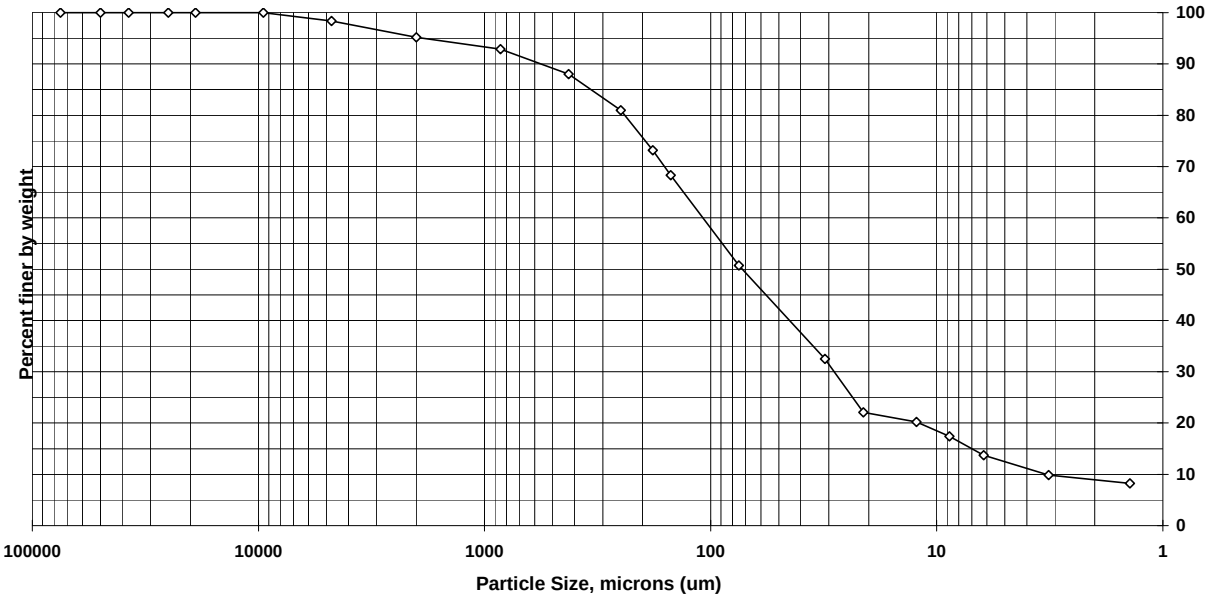
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB17-SURF	**Percent Solids:**	60.6%	**Start Date:**	7/10/2015
Lab ID:	200-28805-D-16	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): subrounded

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	98.4	1.6
#10	2000	95.2	3.2
#20	850	92.9	2.3
#40	425	88.0	4.9
#60	250	81.0	7.0
#80	180	73.2	7.8
#100	150	68.3	4.9
#200	75	50.7	17.6
Hyd1	31.2	32.5	18.2
Hyd2	21.1	22.1	10.4
Hyd3	12.3	20.2	1.9
Hyd4	8.8	17.4	2.8
Hyd5	6.2	13.7	3.7
Hyd6	3.2	9.9	3.8
Hyd7	1.4	8.2	1.6

Soil Classification	Percent of sample
Gravel	1.6
Sand	47.7
Coarse Sand	3.2
Medium Sand	7.2
Fine Sand	37.3
Silt	37.0
Clay	13.7

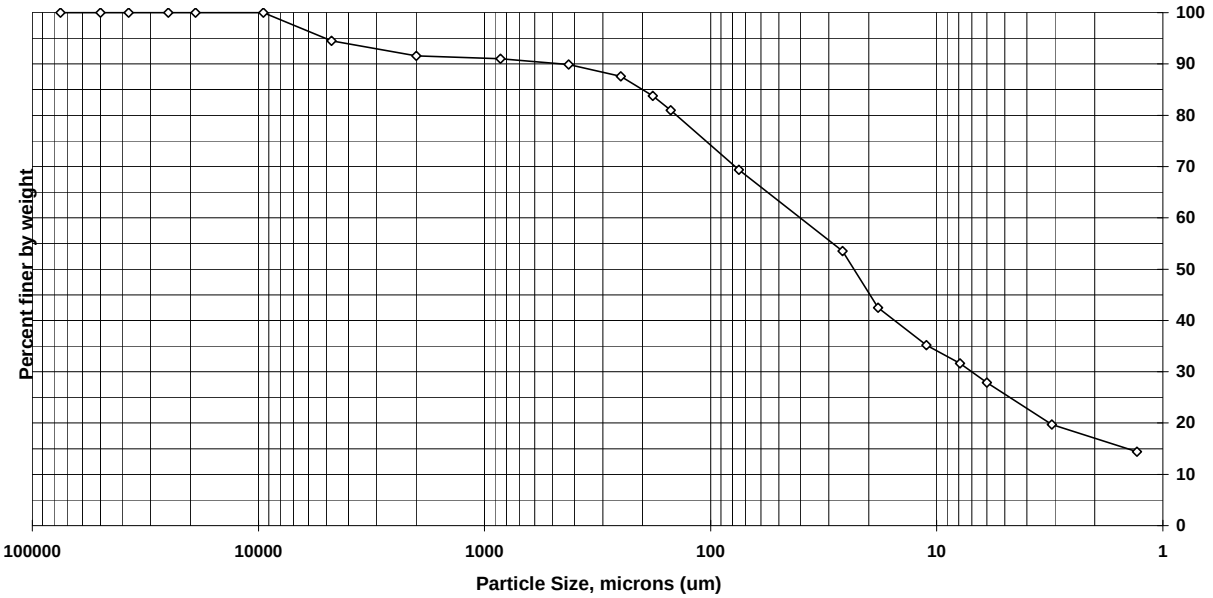
Particle Size of Soils by ASTM D422

				Date Received:	7/9/2015
Sample ID:	SW15-SLB18-SURF	**Percent Solids:**	50.1%	**Start Date:**	7/10/2015
Lab ID:	200-28805-D-17	**Specific Gravity:**	2.650	**End Date:**	7/15/2015

Shape (> #10): subangular

Non-soil material: plant

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	94.5	5.5
#10	2000	91.6	2.9
#20	850	91.0	0.6
#40	425	89.9	1.1
#60	250	87.6	2.3
#80	180	83.8	3.8
#100	150	81.0	2.8
#200	75	69.4	11.6
Hyd1	26.1	53.5	15.9
Hyd2	18.2	42.5	11.0
Hyd3	11.1	35.2	7.3
Hyd4	7.9	31.6	3.6
Hyd5	6	27.9	3.7
Hyd6	3.1	19.7	8.2
Hyd7	1.3	14.4	5.3

Soil Classification	Percent of sample
Gravel	5.5
Sand	25.1
Coarse Sand	2.9
Medium Sand	1.7
Fine Sand	20.5
Silt	41.5
Clay	27.9

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/9/2015
Client Sample ID	SW15-SLB08-SURF	Start Date	07/10/2015 12:54
Lab Sample ID	200-28805-E-2	End Date	07/15/2015 13:18

Dry Weight Determination

Tin Weight	4.35	g
Wet Sample + Tin	126.26	g
Dry Sample + Tin	52.82	g
% Moisture	60.24	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/10/2015 12:54
Date/Time out of oven	07/11/2015 10:47

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.12	220.54	170.42
Sample Weight (Oven Dried)			67.8

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			67.8
% Passing #10			39.8

Hydrometer Data

Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	381.13	381.13	0.00	g	100.0	Sand	Medium
#40	425	354.21	354.29	0.08	g	99.9	Sand	Medium
#60	250	352.25	352.38	0.13	g	99.7	Sand	Fine
#80	180	338.96	339.49	0.53	g	98.9	Sand	Fine
#100	150	329.55	330.21	0.66	g	97.9	Sand	Fine
#200	75	323.15	327.13	3.98	g	92.0	Sand	Fine
				0.00	g	92.0		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	67.8

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0350	20.0	25.6	71.7	Silt	
5	5	1.0290	20.0	17.9	57.4	Silt	
15	15	1.0255	20.0	10.9	49.2	Silt	
30	31	1.0235	20.0	7.8	44.4	Silt	
60	59	1.0210	20.0	5.8	38.5	Silt	
250	234	1.0155	20.5	3.1	25.8	Clay	
1440	1418	1.0130	20.5	1.3	19.8	Clay	

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Sediment Grain Size - D422

Client		Date Received	7/9/2015
Client Sample ID	SW15-SLB15-SURF	Start Date	07/10/2015 12:55
Lab Sample ID	200-28805-C-6	End Date	07/15/2015 11:53

Dry Weight Determination

Tin Weight	4.32	g
Wet Sample + Tin	188.02	g
Dry Sample + Tin	120.64	g
% Moisture	36.68	%

Non-soil material:	plant,wood
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/10/2015 12:55
Date/Time out of oven	07/11/2015 10:46

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	51.58	201.60	150.02
Sample Weight (Oven Dried)			95

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.4
Sample <#10			94.6
% Passing #10			63.1

Hydrometer Data

Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	463.32	0.40	g	99.6	Sand	Coarse
#20	850	390.00	390.40	0.40	g	99.2	Sand	Medium
#40	425	367.73	368.34	0.61	g	98.6	Sand	Medium
#60	250	349.51	352.38	2.87	g	95.6	Sand	Fine
#80	180	331.91	337.68	5.77	g	89.5	Sand	Fine
#100	150	331.09	336.18	5.09	g	84.1	Sand	Fine
#200	75	330.99	360.28	29.29	g	53.3	Sand	Fine
				0.00	g	53.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	95

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0210	20.0	31.6	27.5	Silt	
5	5	1.0155	20.0	21.3	18.2	Silt	
15	15	1.0140	20.0	12.5	15.6	Silt	
30	31	1.0130	20.0	8.8	13.9	Silt	
60	59	1.0120	20.0	6.4	12.3	Silt	
250	265	1.0095	20.0	3.1	8.03	Clay	
1440	1412	1.0080	20.5	1.4	5.71	Clay	

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Sediment Grain Size - D422

Client		Date Received	7/9/2015
Client Sample ID	SW15-SLB16-SURF	Start Date	07/10/2015 12:57
Lab Sample ID	200-28805-C-10	End Date	07/15/2015 12:08

Dry Weight Determination

Tin Weight	4.14	g
Wet Sample + Tin	148.62	g
Dry Sample + Tin	69.94	g
% Moisture	54.46	%

Non-soil material:	plant,wood
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/10/2015 12:57
Date/Time out of oven	07/11/2015 10:46

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.99	214.65	156.66
Sample Weight (Oven Dried)			71.3

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.84
Sample <#10			70.5
% Passing #10			45

Hydrometer Data	
Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	463.76	0.84	g	98.8	Sand	Coarse
#20	850	390.00	390.31	0.31	g	98.4	Sand	Medium
#40	425	367.73	368.08	0.35	g	97.9	Sand	Medium
#60	250	349.51	351.15	1.64	g	95.6	Sand	Fine
#80	180	331.91	334.61	2.70	g	91.8	Sand	Fine
#100	150	331.09	332.96	1.87	g	89.2	Sand	Fine
#200	75	330.99	340.35	9.36	g	76.1	Sand	Fine
				0.00	g	76.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	71.3

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0290	20.0	28.3	54.6	Silt	
5	5	1.0235	20.0	19.4	42.2	Silt	
15	15	1.0210	20.0	11.5	36.6	Silt	
30	32	1.0190	20.0	8.1	32.1	Silt	
60	60	1.0170	20.0	6.1	27.6	Silt	
250	259	1.0130	20.0	3	18.6	Clay	
1440	1406	1.0105	20.5	1.3	13.2	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SLB09-SURF
Lab Sample ID	200-28805-E-14

Date Received	7/9/2015
Start Date	07/10/2015 12:59
End Date	07/15/2015 12:27

Dry Weight Determination

Tin Weight	4.28	g
Wet Sample + Tin	162.34	g
Dry Sample + Tin	70.52	g
% Moisture	58.09	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/10/2015 12:59
Date/Time out of oven	07/11/2015 10:47

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.87	216.43	158.56
Sample Weight (Oven Dried)			66.4

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.58
Sample <#10			65.8
% Passing #10			41.5

Hydrometer Data

Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	463.50	0.58	g	99.1	Sand	Coarse
#20	850	390.00	390.00	0.00	g	99.1	Sand	Medium
#40	425	367.73	367.73	0.00	g	99.1	Sand	Medium
#60	250	349.51	349.81	0.30	g	98.6	Sand	Fine
#80	180	331.91	333.33	1.42	g	96.5	Sand	Fine
#100	150	331.09	332.63	1.54	g	94.2	Sand	Fine
#200	75	330.99	337.55	6.56	g	84.3	Sand	Fine
				0.00	g	84.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	66.4

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0320	20.0	27	65.9	Silt	
5	5	1.0260	20.0	18.7	51.4	Silt	
15	15	1.0230	20.0	11.3	44.1	Silt	
30	30	1.0210	20.0	8.2	39.3	Silt	
60	63	1.0180	20.0	5.8	32	Silt	
250	253	1.0135	20.0	3.1	21.2	Clay	
1440	1400	1.0110	20.5	1.3	15.4	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SLB09-SURF-FD
Lab Sample ID	200-28805-D-15

Date Received	7/9/2015
Start Date	07/10/2015 13:01
End Date	07/15/2015 12:41

Dry Weight Determination

Tin Weight	4.39	g
Wet Sample + Tin	165.54	g
Dry Sample + Tin	70.05	g
% Moisture	59.26	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/10/2015 13:01
Date/Time out of oven	07/11/2015 10:47

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	58.00	208.66	150.66
Sample Weight (Oven Dried)			61.4

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.54
Sample <#10			60.9
% Passing #10			40.4

Hydrometer Data

Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	463.46	0.54	g	99.1	Sand	Coarse
#20	850	390.00	390.00	0.00	g	99.1	Sand	Medium
#40	425	367.73	367.73	0.00	g	99.1	Sand	Medium
#60	250	349.51	349.82	0.31	g	98.6	Sand	Fine
#80	180	331.91	333.22	1.31	g	96.5	Sand	Fine
#100	150	331.09	332.42	1.33	g	94.3	Sand	Fine
#200	75	330.99	336.96	5.97	g	84.6	Sand	Fine
				0.00	g	84.6		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	61.4

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0310	20.0	27.5	68.7	Silt	
5	5	1.0250	20.0	19	53	Silt	
15	15	1.0210	20.0	11.5	42.5	Silt	
30	30	1.0190	20.0	8.4	37.3	Silt	
60	57	1.0165	20.0	6.2	30.7	Silt	
250	247	1.0120	20.0	3.1	19	Clay	
1440	1394	1.0105	20.5	1.3	15.4	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SLB17-SURF
Lab Sample ID	200-28805-D-16

Date Received	7/9/2015
Start Date	07/10/2015 13:04
End Date	07/15/2015 12:55

Dry Weight Determination

Tin Weight	4.17	g
Wet Sample + Tin	178.45	g
Dry Sample + Tin	109.77	g
% Moisture	39.41	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subrounded
Hardness (> #10):	hard

Date/Time in oven	07/10/2015 13:04
Date/Time out of oven	07/11/2015 10:47

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.73	198.58	140.85
Sample Weight (Oven Dried)			85.3

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			4.1
Sample <#10			81.2
% Passing #10			57.6

Hydrometer Data

Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.25	489.64	1.39	g	98.4	Gravel	
#10	2000	462.92	465.63	2.71	g	95.2	Sand	Coarse
#20	850	390.00	391.95	1.95	g	92.9	Sand	Medium
#40	425	367.73	371.93	4.20	g	88.0	Sand	Medium
#60	250	349.51	355.51	6.00	g	81.0	Sand	Fine
#80	180	331.91	338.59	6.68	g	73.2	Sand	Fine
#100	150	331.09	335.29	4.20	g	68.3	Sand	Fine
#200	75	330.99	345.97	14.98	g	50.7	Sand	Fine
				0.00	g	50.7		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	85.3

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0220	20.0	31.2	32.5	Silt	
5	5	1.0165	20.0	21.1	22.1	Silt	
15	15	1.0155	20.0	12.3	20.2	Silt	
30	30	1.0140	20.0	8.8	17.4	Silt	
60	63	1.0120	20.0	6.2	13.7	Silt	
250	241	1.0100	20.0	3.2	9.88	Clay	
1440	1388	1.0090	20.5	1.4	8.24	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SLB18-SURF
Lab Sample ID	200-28805-D-17

Date Received	7/9/2015
Start Date	07/10/2015 13:07
End Date	07/15/2015 13:20

Dry Weight Determination

Tin Weight	4.25	g
Wet Sample + Tin	150.95	g
Dry Sample + Tin	77.67	g
% Moisture	49.95	%

Non-soil material:	plant
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/10/2015 13:07
Date/Time out of oven	07/11/2015 10:47

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.79	223.31	175.52
Sample Weight (Oven Dried)			87.8

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			7.38
Sample <#10			80.4
% Passing #10			45.8

Hydrometer Data

Serial Number	410848
Calib. Date (mm/dd/yyyy)	06/14/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0055
High Temp (C)	23.0
Reading at High Temp	1.0040
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00975
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.25	493.07	4.82	g	94.5	Gravel	
#10	2000	462.92	465.48	2.56	g	91.6	Sand	Coarse
#20	850	390.00	390.51	0.51	g	91.0	Sand	Medium
#40	425	367.73	368.71	0.98	g	89.9	Sand	Medium
#60	250	349.51	351.54	2.03	g	87.6	Sand	Fine
#80	180	331.91	335.26	3.35	g	83.8	Sand	Fine
#100	150	331.09	333.53	2.44	g	81.0	Sand	Fine
#200	75	330.99	341.16	10.17	g	69.4	Sand	Fine
				0.00	g	69.4		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	87.8

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0340	20.0	26.1	53.5	Silt	
5	5	1.0280	20.0	18.2	42.5	Silt	
15	15	1.0240	20.0	11.1	35.2	Silt	
30	31	1.0220	20.0	7.9	31.6	Silt	
60	57	1.0200	20.0	6	27.9	Silt	
250	235	1.0155	20.0	3.1	19.7	Clay	
1440	1382	1.0125	20.5	1.3	14.4	Clay	

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28831-1
Sdg Number: 28831

Client Sample ID: **SW15-SLB01-SURF**

Lab Sample ID: 200-28831-7
Client Matrix: Sediment

Date Sampled: 07/09/2015 0845
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91248	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28831-C-7.txt
Dilution:	1.0			Initial Weight/Volume:	160.99 g
Analysis Date:	07/11/2015 1246			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		99		
Sieve Size #10 - Percent Finer		98		
Sieve Size #20 - Percent Finer		97		
Sieve Size #40 - Percent Finer		96		
Sieve Size #60 - Percent Finer		94		
Sieve Size #80 - Percent Finer		89		
Sieve Size #100 - Percent Finer		81		
Sieve Size #200 - Percent Finer		37		
Hydrometer Reading 1 - Percent Finer		11		
Hydrometer Reading 2 - Percent Finer		11		
Hydrometer Reading 3 - Percent Finer		8.4		
Hydrometer Reading 4 - Percent Finer		7.7		
Hydrometer Reading 5 - Percent Finer		6.9		
Hydrometer Reading 6 - Percent Finer		4.7		
Hydrometer Reading 7 - Percent Finer		3.9		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28831-1
Sdg Number: 28831

Client Sample ID: **SW15-SLB01-SURF**

Lab Sample ID: 200-28831-7
Client Matrix: Sediment

Date Sampled: 07/09/2015 0845
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91248	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28831-C-7.txt
Dilution:	1.0			Initial Weight/Volume:	160.99 g
Analysis Date:	07/11/2015 1246			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		1.2		
Sand		62		
Coarse Sand		0.80		
Medium Sand		1.7		
Fine Sand		59		
Silt		30		
Clay		6.9		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28831-1
Sdg Number: 28831

Client Sample ID: **SW15-SLB02-SURF**

Lab Sample ID: 200-28831-12
Client Matrix: Sediment

Date Sampled: 07/09/2015 1110
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91248	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28831-E-12.txt
Dilution:	1.0			Initial Weight/Volume:	154.5 g
Analysis Date:	07/11/2015 1248			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		100		
Sieve Size #10 - Percent Finer		99		
Sieve Size #20 - Percent Finer		98		
Sieve Size #40 - Percent Finer		96		
Sieve Size #60 - Percent Finer		87		
Sieve Size #80 - Percent Finer		79		
Sieve Size #100 - Percent Finer		74		
Sieve Size #200 - Percent Finer		53		
Hydrometer Reading 1 - Percent Finer		26		
Hydrometer Reading 2 - Percent Finer		21		
Hydrometer Reading 3 - Percent Finer		16		
Hydrometer Reading 4 - Percent Finer		15		
Hydrometer Reading 5 - Percent Finer		12		
Hydrometer Reading 6 - Percent Finer		7.8		
Hydrometer Reading 7 - Percent Finer		6.1		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28831-1
Sdg Number: 28831

Client Sample ID: **SW15-SLB02-SURF**

Lab Sample ID: 200-28831-12
Client Matrix: Sediment

Date Sampled: 07/09/2015 1110
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91248	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28831-E-12.txt
Dilution:	1.0			Initial Weight/Volume:	154.5 g
Analysis Date:	07/11/2015 1248			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		0.30		
Sand		47		
Coarse Sand		0.70		
Medium Sand		3.3		
Fine Sand		43		
Silt		41		
Clay		12		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28831-1
Sdg Number: 28831

Client Sample ID: **SW15-SLB03-SURF**

Lab Sample ID: 200-28831-18
Client Matrix: Sediment

Date Sampled: 07/09/2015 0945
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91248	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28831-E-18.txt
Dilution:	1.0			Initial Weight/Volume:	159.61 g
Analysis Date:	07/11/2015 1249			Final Weight/Volume:	
Prep Date:	N/A				

Analyte DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer	100		
Sieve Size 2 inch - Percent Finer	100		
Sieve Size 1.5 inch - Percent Finer	100		
Sieve Size 1 inch - Percent Finer	100		
Sieve Size 0.75 inch - Percent Finer	100		
Sieve Size 0.375 inch - Percent Finer	100		
Sieve Size #4 - Percent Finer	100		
Sieve Size #10 - Percent Finer	95		
Sieve Size #20 - Percent Finer	94		
Sieve Size #40 - Percent Finer	91		
Sieve Size #60 - Percent Finer	84		
Sieve Size #80 - Percent Finer	77		
Sieve Size #100 - Percent Finer	72		
Sieve Size #200 - Percent Finer	58		
Hydrometer Reading 1 - Percent Finer	32		
Hydrometer Reading 2 - Percent Finer	29		
Hydrometer Reading 3 - Percent Finer	25		
Hydrometer Reading 4 - Percent Finer	24		
Hydrometer Reading 5 - Percent Finer	22		
Hydrometer Reading 6 - Percent Finer	14		
Hydrometer Reading 7 - Percent Finer	11		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28831-1
Sdg Number: 28831

Client Sample ID: **SW15-SLB03-SURF**

Lab Sample ID: 200-28831-18
Client Matrix: Sediment

Date Sampled: 07/09/2015 0945
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91248	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28831-E-18.txt
Dilution:	1.0			Initial Weight/Volume:	159.61 g
Analysis Date:	07/11/2015 1249			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		0.00		
Sand		43		
Coarse Sand		4.8		
Medium Sand		4.5		
Fine Sand		33		
Silt		35		
Clay		22		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28831-1
Sdg Number: 28831

Client Sample ID: **SW15-SLB03-SURF-FD**

Lab Sample ID: 200-28831-19FD
Client Matrix: Sediment

Date Sampled: 07/09/2015 0945
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91248	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28831-C-19.txt
Dilution:	1.0			Initial Weight/Volume:	168.2 g
Analysis Date:	07/11/2015 1250			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		100		
Sieve Size #10 - Percent Finer		95		
Sieve Size #20 - Percent Finer		93		
Sieve Size #40 - Percent Finer		90		
Sieve Size #60 - Percent Finer		83		
Sieve Size #80 - Percent Finer		76		
Sieve Size #100 - Percent Finer		71		
Sieve Size #200 - Percent Finer		57		
Hydrometer Reading 1 - Percent Finer		31		
Hydrometer Reading 2 - Percent Finer		27		
Hydrometer Reading 3 - Percent Finer		25		
Hydrometer Reading 4 - Percent Finer		22		
Hydrometer Reading 5 - Percent Finer		20		
Hydrometer Reading 6 - Percent Finer		14		
Hydrometer Reading 7 - Percent Finer		11		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28831-1
Sdg Number: 28831

Client Sample ID: **SW15-SLB03-SURF-FD**

Lab Sample ID: 200-28831-19FD
Client Matrix: Sediment

Date Sampled: 07/09/2015 0945
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91248	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28831-C-19.txt
Dilution:	1.0			Initial Weight/Volume:	168.2 g
Analysis Date:	07/11/2015 1250			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		0.00		
Sand		43		
Coarse Sand		5.2		
Medium Sand		5.0		
Fine Sand		33		
Silt		38		
Clay		20		

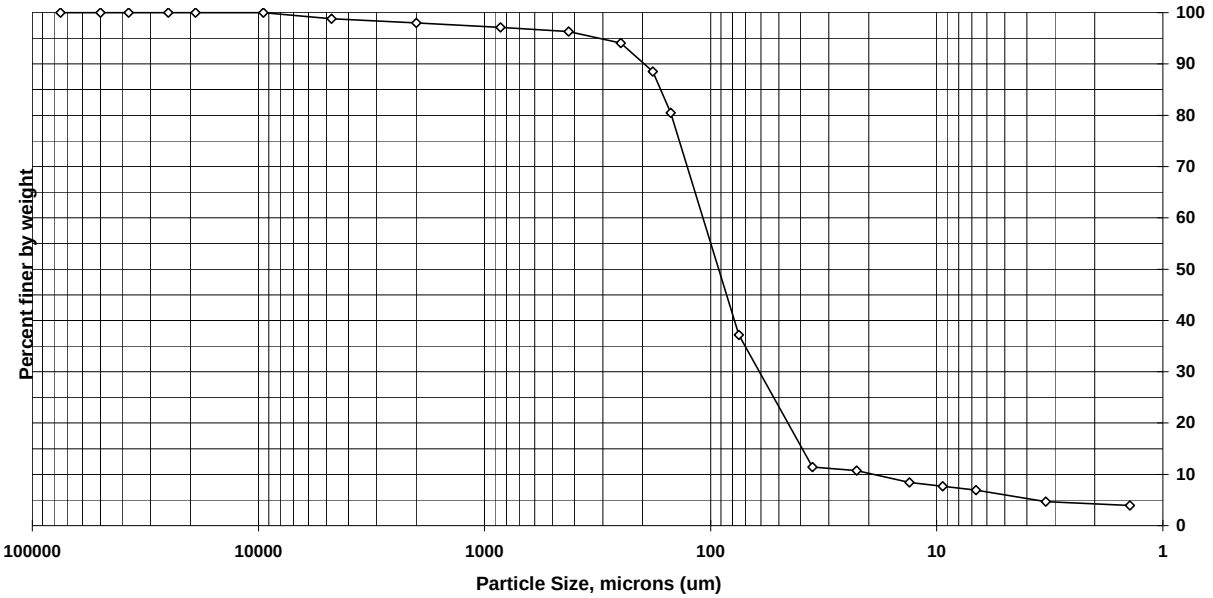
Particle Size of Soils by ASTM D422

				Date Received:	7/10/2015
Sample ID:	SW15-SLB01-SURF	**Percent Solids:**	66.2%	**Start Date:**	7/11/2015
Lab ID:	200-28831-C-7	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	98.8	1.2
#10	2000	98.0	0.8
#20	850	97.1	0.9
#40	425	96.3	0.8
#60	250	94.1	2.2
#80	180	88.5	5.6
#100	150	80.5	8.0
#200	75	37.2	43.3
Hyd1	35.5	11.4	25.8
Hyd2	22.6	10.7	0.7
Hyd3	13.2	8.4	2.3
Hyd4	9.4	7.7	0.8
Hyd5	6.7	6.9	0.8
Hyd6	3.3	4.7	2.3
Hyd7	1.4	3.9	0.8

Soil Classification	Percent of sample
Gravel	1.2
Sand	61.6
Coarse Sand	0.8
Medium Sand	1.7
Fine Sand	59.1
Silt	30.3
Clay	6.9

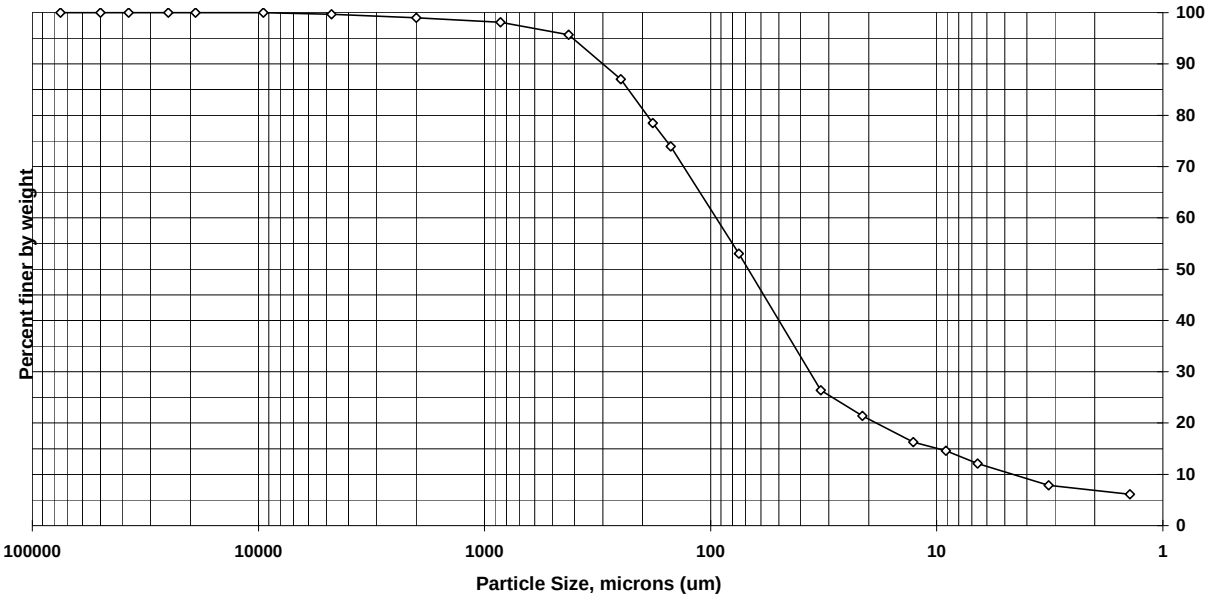
Particle Size of Soils by ASTM D422

				Date Received:	7/10/2015
Sample ID:	SW15-SLB02-SURF	**Percent Solids:**	61.5%	**Start Date:**	7/11/2015
Lab ID:	200-28831-E-12	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	99.7	0.3
#10	2000	99.0	0.7
#20	850	98.1	0.9
#40	425	95.7	2.4
#60	250	87.0	8.7
#80	180	78.5	8.5
#100	150	73.9	4.6
#200	75	53.0	20.9
Hyd1	32.6	26.4	26.6
Hyd2	21.3	21.4	5.0
Hyd3	12.7	16.3	5.1
Hyd4	9.1	14.6	1.7
Hyd5	6.6	12.1	2.5
Hyd6	3.2	7.8	4.3
Hyd7	1.4	6.1	1.7

Soil Classification	Percent of sample
Gravel	0.3
Sand	46.7
Coarse Sand	0.7
Medium Sand	3.3
Fine Sand	42.7
Silt	40.9
Clay	12.1

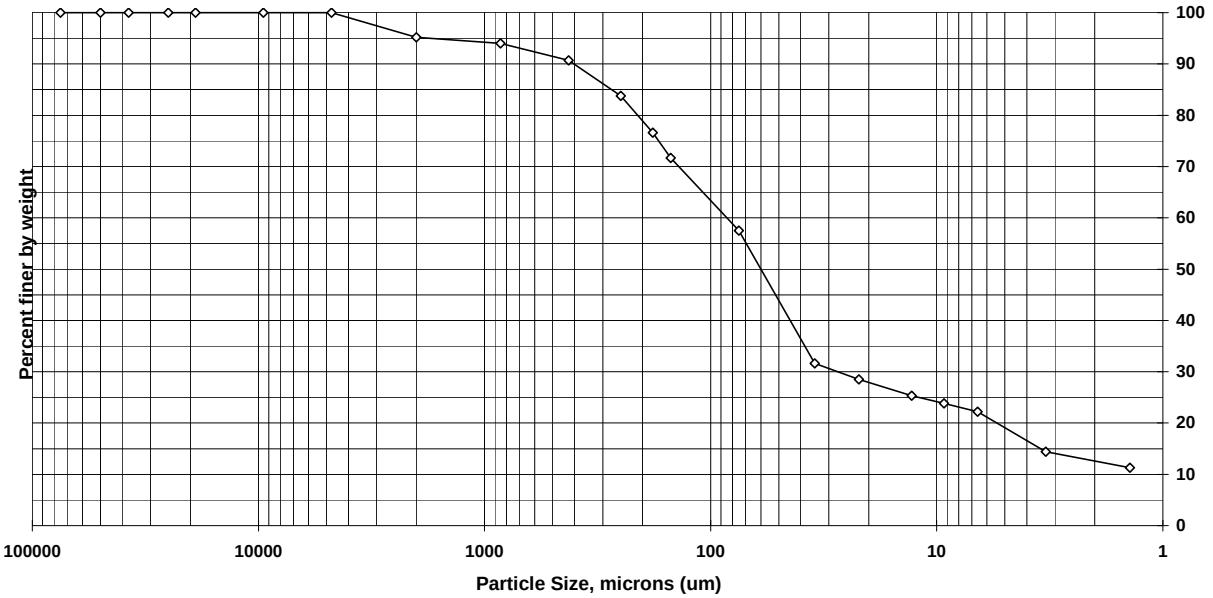
Particle Size of Soils by ASTM D422

				Date Received:	7/10/2015
Sample ID:	SW15-SLB03-SURF	**Percent Solids:**	32.3%	**Start Date:**	7/11/2015
Lab ID:	200-28831-E-18	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	95.2	4.8
#20	850	94.0	1.2
#40	425	90.7	3.3
#60	250	83.8	6.9
#80	180	76.6	7.2
#100	150	71.7	4.9
#200	75	57.5	14.2
Hyd1	34.6	31.6	25.9
Hyd2	22.1	28.5	3.1
Hyd3	12.9	25.3	3.2
Hyd4	9.3	23.8	1.5
Hyd5	6.6	22.2	1.6
Hyd6	3.3	14.4	7.8
Hyd7	1.4	11.3	3.1

Soil Classification	Percent of sample
Gravel	0.0
Sand	42.5
Coarse Sand	4.8
Medium Sand	4.5
Fine Sand	33.2
Silt	35.3
Clay	22.2

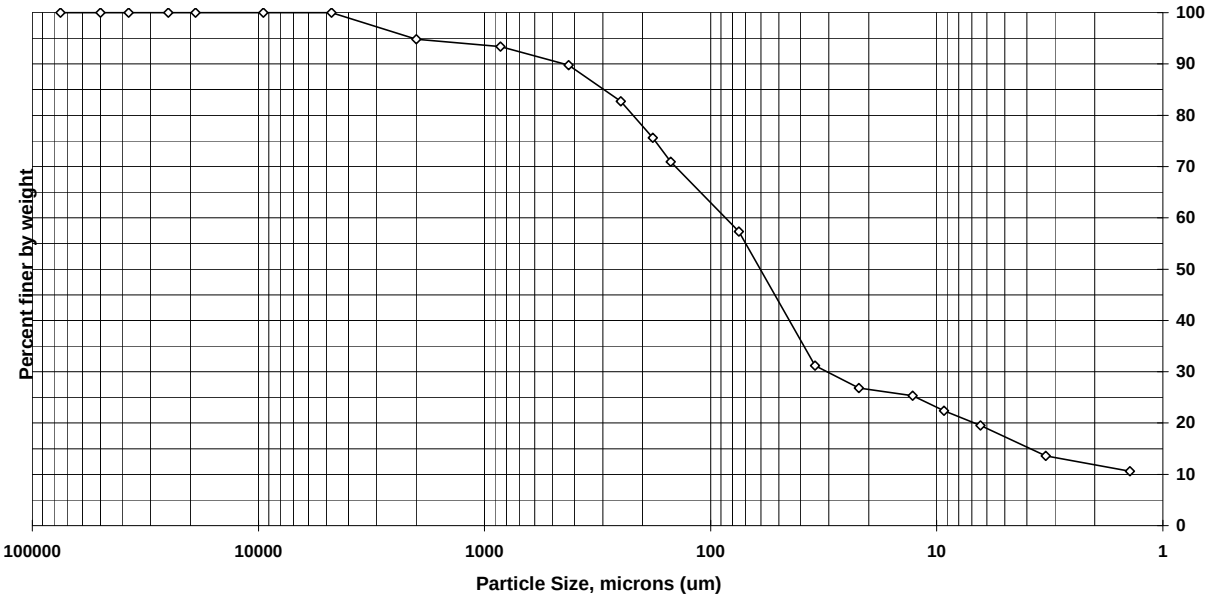
Particle Size of Soils by ASTM D422

				Date Received:	7/10/2015
Sample ID:	SW15-SLB03-SURF-FD	**Percent Solids:**	32.5%	**Start Date:**	7/11/2015
Lab ID:	200-28831-C-19	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	94.8	5.2
#20	850	93.4	1.4
#40	425	89.8	3.6
#60	250	82.7	7.1
#80	180	75.6	7.1
#100	150	70.9	4.7
#200	75	57.3	13.6
Hyd1	34.5	31.2	26.1
Hyd2	22.1	26.8	4.4
Hyd3	12.8	25.3	1.5
Hyd4	9.3	22.4	2.9
Hyd5	6.4	19.5	2.9
Hyd6	3.3	13.6	5.9
Hyd7	1.4	10.6	3.0

Soil Classification	Percent of sample
Gravel	0.0
Sand	42.7
Coarse Sand	5.2
Medium Sand	5.0
Fine Sand	32.5
Silt	37.8
Clay	19.5

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SLB01-SURF
Lab Sample ID	200-28831-C-7

Date Received	7/10/2015
Start Date	07/11/2015 12:46
End Date	07/16/2015 10:45

Dry Weight Determination

Tin Weight	4.07	g
Wet Sample + Tin	177.75	g
Dry Sample + Tin	119.11	g
% Moisture	33.76	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/11/2015 12:46
Date/Time out of oven	07/12/2015 10:04

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.81	208.80	160.99
Sample Weight (Oven Dried)			107

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			2.12
Sample <#10			105
% Passing #10			65.2

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.23	489.54	1.31	g	98.8	Gravel	
#10	2000	462.94	463.75	0.81	g	98.0	Sand	Coarse
#20	850	380.77	381.71	0.94	g	97.1	Sand	Medium
#40	425	354.10	354.98	0.88	g	96.3	Sand	Medium
#60	250	351.87	354.19	2.32	g	94.1	Sand	Fine
#80	180	338.75	344.72	5.97	g	88.5	Sand	Fine
#100	150	329.44	338.03	8.59	g	80.5	Sand	Fine
#200	75	323.11	369.46	46.35	g	37.2	Sand	Fine
				0.00	g	37.2		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	107

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0110	19.5	35.5	11.4	Silt	
5	5	1.0105	19.5	22.6	10.7	Silt	
15	15	1.0090	19.5	13.2	8.44	Silt	
30	30	1.0085	19.5	9.4	7.69	Silt	
60	59	1.0080	19.5	6.7	6.94	Silt	
250	256	1.0065	19.5	3.3	4.69	Clay	
1440	1440	1.0060	19.5	1.4	3.94	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/10/2015
Client Sample ID	SW15-SLB02-SURF	Start Date	07/11/2015 12:48
Lab Sample ID	200-28831-E-12	End Date	07/16/2015 11:02

Dry Weight Determination

Tin Weight	4.08	g
Wet Sample + Tin	174.85	g
Dry Sample + Tin	109.02	g
% Moisture	38.55	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/11/2015 12:48
Date/Time out of oven	07/12/2015 10:05

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	51.43	205.93	154.5
Sample Weight (Oven Dried)			94.9

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.93
Sample <#10			94
% Passing #10			60.8

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.23	488.53	0.30	g	99.7	Gravel	
#10	2000	462.94	463.57	0.63	g	99.0	Sand	Coarse
#20	850	380.77	381.61	0.84	g	98.1	Sand	Medium
#40	425	354.10	356.36	2.26	g	95.7	Sand	Medium
#60	250	351.87	360.12	8.25	g	87.0	Sand	Fine
#80	180	338.75	346.79	8.04	g	78.5	Sand	Fine
#100	150	329.44	333.77	4.33	g	73.9	Sand	Fine
#200	75	323.11	342.91	19.80	g	53.0	Sand	Fine
				0.00	g	53.0		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	94.9

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0190	19.5	32.6	26.4	Silt	
5	5	1.0160	19.5	21.3	21.4	Silt	
15	15	1.0130	19.5	12.7	16.3	Silt	
30	30	1.0120	19.5	9.1	14.6	Silt	
60	58	1.0105	19.5	6.6	12.1	Silt	
250	256	1.0080	19.5	3.2	7.83	Clay	
1440	1440	1.0070	19.5	1.4	6.13	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/10/2015
Client Sample ID	SW15-SLB03-SURF	Start Date	07/11/2015 12:49
Lab Sample ID	200-28831-E-18	End Date	07/16/2015 11:16

Dry Weight Determination

Tin Weight	4.41	g
Wet Sample + Tin	149.01	g
Dry Sample + Tin	51.04	g
% Moisture	67.75	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/11/2015 12:49
Date/Time out of oven	07/12/2015 10:06

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.75	207.36	159.61
Sample Weight (Oven Dried)			51.5

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			2.47
Sample <#10			49
% Passing #10			30.7

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	465.41	2.47	g	95.2	Sand	Coarse
#20	850	380.77	381.40	0.63	g	94.0	Sand	Medium
#40	425	354.10	355.81	1.71	g	90.7	Sand	Medium
#60	250	351.87	355.41	3.54	g	83.8	Sand	Fine
#80	180	338.75	342.44	3.69	g	76.6	Sand	Fine
#100	150	329.44	331.95	2.51	g	71.7	Sand	Fine
#200	75	323.11	330.44	7.33	g	57.5	Sand	Fine
				0.00	g	57.5		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	51.5

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0135	19.5	34.6	31.6	Silt	
5	5	1.0125	19.5	22.1	28.5	Silt	
15	15	1.0115	19.5	12.9	25.3	Silt	
30	29	1.0110	19.5	9.3	23.8	Silt	
60	58	1.0105	19.5	6.6	22.2	Silt	
250	250	1.0080	19.5	3.3	14.4	Clay	
1440	1434	1.0070	19.5	1.4	11.3	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/10/2015
Client Sample ID	SW15-SLB03-SURF-FD	Start Date	07/11/2015 12:50
Lab Sample ID	200-28831-C-19	End Date	07/16/2015 11:30

Dry Weight Determination

Tin Weight	4.18	g
Wet Sample + Tin	137.18	g
Dry Sample + Tin	47.42	g
% Moisture	67.49	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/11/2015 12:50
Date/Time out of oven	07/12/2015 10:06

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	51.25	219.45	168.2
Sample Weight (Oven Dried)			54.7

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			2.84
Sample <#10			51.9
% Passing #10			30.9

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	465.78	2.84	g	94.8	Sand	Coarse
#20	850	380.77	381.54	0.77	g	93.4	Sand	Medium
#40	425	354.10	356.09	1.99	g	89.8	Sand	Medium
#60	250	351.87	355.78	3.91	g	82.7	Sand	Fine
#80	180	338.75	342.66	3.91	g	75.6	Sand	Fine
#100	150	329.44	332.03	2.59	g	70.9	Sand	Fine
#200	75	323.11	330.53	7.42	g	57.3	Sand	Fine
				0.00	g	57.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	54.7

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0140	19.5	34.5	31.2	Silt	
5	5	1.0125	19.5	22.1	26.8	Silt	
15	15	1.0120	19.5	12.8	25.3	Silt	
30	29	1.0110	19.5	9.3	22.4	Silt	
60	63	1.0100	19.5	6.4	19.5	Silt	
250	250	1.0080	19.5	3.3	13.6	Clay	
1440	1434	1.0070	19.5	1.4	10.6	Clay	

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SLB05-SURF**

Lab Sample ID: 200-28839-4
Client Matrix: Sediment

Date Sampled: 07/08/2015 1625
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91255	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28839-D-4.txt
Dilution:	1.0			Initial Weight/Volume:	159.31 g
Analysis Date:	07/11/2015 1251			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		100		
Sieve Size #10 - Percent Finer		100		
Sieve Size #20 - Percent Finer		100		
Sieve Size #40 - Percent Finer		99		
Sieve Size #60 - Percent Finer		97		
Sieve Size #80 - Percent Finer		94		
Sieve Size #100 - Percent Finer		92		
Sieve Size #200 - Percent Finer		76		
Hydrometer Reading 1 - Percent Finer		40		
Hydrometer Reading 2 - Percent Finer		34		
Hydrometer Reading 3 - Percent Finer		28		
Hydrometer Reading 4 - Percent Finer		23		
Hydrometer Reading 5 - Percent Finer		21		
Hydrometer Reading 6 - Percent Finer		16		
Hydrometer Reading 7 - Percent Finer		6.8		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SLB05-SURF**

Lab Sample ID: 200-28839-4
Client Matrix: Sediment

Date Sampled: 07/08/2015 1625
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91255	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28839-D-4.txt
Dilution:	1.0			Initial Weight/Volume:	159.31 g
Analysis Date:	07/11/2015 1251			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		0.00		
Sand		24		
Coarse Sand		0.00		
Medium Sand		1.1		
Fine Sand		23		
Silt		55		
Clay		21		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SLB06-SURF**

Lab Sample ID: 200-28839-9
Client Matrix: Sediment

Date Sampled: 07/08/2015 1538
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91255	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28839-D-9.txt
Dilution:	1.0			Initial Weight/Volume:	160.79 g
Analysis Date:	07/11/2015 1252			Final Weight/Volume:	
Prep Date:	N/A				

Analyte DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer	100		
Sieve Size 2 inch - Percent Finer	100		
Sieve Size 1.5 inch - Percent Finer	100		
Sieve Size 1 inch - Percent Finer	100		
Sieve Size 0.75 inch - Percent Finer	100		
Sieve Size 0.375 inch - Percent Finer	100		
Sieve Size #4 - Percent Finer	100		
Sieve Size #10 - Percent Finer	99		
Sieve Size #20 - Percent Finer	99		
Sieve Size #40 - Percent Finer	99		
Sieve Size #60 - Percent Finer	98		
Sieve Size #80 - Percent Finer	98		
Sieve Size #100 - Percent Finer	97		
Sieve Size #200 - Percent Finer	92		
Hydrometer Reading 1 - Percent Finer	63		
Hydrometer Reading 2 - Percent Finer	56		
Hydrometer Reading 3 - Percent Finer	48		
Hydrometer Reading 4 - Percent Finer	42		
Hydrometer Reading 5 - Percent Finer	38		
Hydrometer Reading 6 - Percent Finer	25		
Hydrometer Reading 7 - Percent Finer	15		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SLB06-SURF**

Lab Sample ID: 200-28839-9
Client Matrix: Sediment

Date Sampled: 07/08/2015 1538
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91255	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28839-D-9.txt
Dilution:	1.0			Initial Weight/Volume:	160.79 g
Analysis Date:	07/11/2015 1252			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		0.00		
Sand		7.6		
Coarse Sand		0.70		
Medium Sand		0.30		
Fine Sand		6.6		
Silt		55		
Clay		38		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SLB07-SURF**

Lab Sample ID: 200-28839-10
Client Matrix: Sediment

Date Sampled: 07/08/2015 1440
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91255	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28839-D-10.txt
Dilution:	1.0			Initial Weight/Volume:	167.11 g
Analysis Date:	07/11/2015 1253			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		91		
Sieve Size #10 - Percent Finer		84		
Sieve Size #20 - Percent Finer		78		
Sieve Size #40 - Percent Finer		72		
Sieve Size #60 - Percent Finer		59		
Sieve Size #80 - Percent Finer		49		
Sieve Size #100 - Percent Finer		44		
Sieve Size #200 - Percent Finer		30		
Hydrometer Reading 1 - Percent Finer		23		
Hydrometer Reading 2 - Percent Finer		20		
Hydrometer Reading 3 - Percent Finer		16		
Hydrometer Reading 4 - Percent Finer		14		
Hydrometer Reading 5 - Percent Finer		12		
Hydrometer Reading 6 - Percent Finer		8.6		
Hydrometer Reading 7 - Percent Finer		6.1		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SLB07-SURF**

Lab Sample ID: 200-28839-10
Client Matrix: Sediment

Date Sampled: 07/08/2015 1440
Date Received: 07/10/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91255	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28839-D-10.txt
Dilution:	1.0			Initial Weight/Volume:	167.11 g
Analysis Date:	07/11/2015 1253			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		9.2		
Sand		61		
Coarse Sand		7.3		
Medium Sand		12		
Fine Sand		41		
Silt		18		
Clay		12		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SB02-SURF**

Lab Sample ID: 200-28848-4
Client Matrix: Sediment

Date Sampled: 07/09/2015 1338
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91262	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28848-D-4.txt
Dilution:	1.0			Initial Weight/Volume:	155.15 g
Analysis Date:	07/12/2015 1236			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		100		
Sieve Size #10 - Percent Finer		99		
Sieve Size #20 - Percent Finer		99		
Sieve Size #40 - Percent Finer		98		
Sieve Size #60 - Percent Finer		96		
Sieve Size #80 - Percent Finer		92		
Sieve Size #100 - Percent Finer		89		
Sieve Size #200 - Percent Finer		82		
Hydrometer Reading 1 - Percent Finer		63		
Hydrometer Reading 2 - Percent Finer		58		
Hydrometer Reading 3 - Percent Finer		49		
Hydrometer Reading 4 - Percent Finer		44		
Hydrometer Reading 5 - Percent Finer		38		
Hydrometer Reading 6 - Percent Finer		27		
Hydrometer Reading 7 - Percent Finer		19		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SB02-SURF**

Lab Sample ID: 200-28848-4
Client Matrix: Sediment

Date Sampled: 07/09/2015 1338
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91262	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28848-D-4.txt
Dilution:	1.0			Initial Weight/Volume:	155.15 g
Analysis Date:	07/12/2015 1236			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		0.00		
Sand		18		
Coarse Sand		0.80		
Medium Sand		0.90		
Fine Sand		17		
Silt		44		
Clay		38		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SB02-SURF-FD**

Lab Sample ID: 200-28848-5FD
Client Matrix: Sediment

Date Sampled: 07/09/2015 1338
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91262	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28848-D-5.txt
Dilution:	1.0			Initial Weight/Volume:	159.36 g
Analysis Date:	07/12/2015 1237			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		100		
Sieve Size #10 - Percent Finer		100		
Sieve Size #20 - Percent Finer		100		
Sieve Size #40 - Percent Finer		99		
Sieve Size #60 - Percent Finer		97		
Sieve Size #80 - Percent Finer		94		
Sieve Size #100 - Percent Finer		91		
Sieve Size #200 - Percent Finer		84		
Hydrometer Reading 1 - Percent Finer		62		
Hydrometer Reading 2 - Percent Finer		56		
Hydrometer Reading 3 - Percent Finer		51		
Hydrometer Reading 4 - Percent Finer		45		
Hydrometer Reading 5 - Percent Finer		37		
Hydrometer Reading 6 - Percent Finer		28		
Hydrometer Reading 7 - Percent Finer		18		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SB02-SURF-FD**

Lab Sample ID: 200-28848-5FD
Client Matrix: Sediment

Date Sampled: 07/09/2015 1338
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91262	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28848-D-5.txt
Dilution:	1.0			Initial Weight/Volume:	159.36 g
Analysis Date:	07/12/2015 1237			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		0.00		
Sand		16		
Coarse Sand		0.00		
Medium Sand		0.70		
Fine Sand		16		
Silt		47		
Clay		37		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SB03-SURF**

Lab Sample ID: 200-28848-8
Client Matrix: Sediment

Date Sampled: 07/09/2015 1650
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91262	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28848-G-8.txt
Dilution:	1.0			Initial Weight/Volume:	212.13 g
Analysis Date:	07/12/2015 1238			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		97		
Sieve Size #10 - Percent Finer		95		
Sieve Size #20 - Percent Finer		94		
Sieve Size #40 - Percent Finer		90		
Sieve Size #60 - Percent Finer		78		
Sieve Size #80 - Percent Finer		45		
Sieve Size #100 - Percent Finer		27		
Sieve Size #200 - Percent Finer		4.6		
Hydrometer Reading 1 - Percent Finer		2.6		
Hydrometer Reading 2 - Percent Finer		2.1		
Hydrometer Reading 3 - Percent Finer		1.6		
Hydrometer Reading 4 - Percent Finer		1.6		
Hydrometer Reading 5 - Percent Finer		1.6		
Hydrometer Reading 6 - Percent Finer		1.1		
Hydrometer Reading 7 - Percent Finer		1.1		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SB03-SURF**

Lab Sample ID: 200-28848-8
Client Matrix: Sediment

Date Sampled: 07/09/2015 1650
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91262	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28848-G-8.txt
Dilution:	1.0			Initial Weight/Volume:	212.13 g
Analysis Date:	07/12/2015 1238			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		3.3		
Sand		92		
Coarse Sand		2.1		
Medium Sand		4.2		
Fine Sand		86		
Silt		3.0		
Clay		1.6		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SB36-SURF**

Lab Sample ID: 200-28848-11
Client Matrix: Sediment

Date Sampled: 07/09/2015 1550
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91262	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28848-C-11.txt
Dilution:	1.0			Initial Weight/Volume:	151.34 g
Analysis Date:	07/12/2015 1239			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	RL
Sieve Size 3 inch - Percent Finer		100		
Sieve Size 2 inch - Percent Finer		100		
Sieve Size 1.5 inch - Percent Finer		100		
Sieve Size 1 inch - Percent Finer		100		
Sieve Size 0.75 inch - Percent Finer		100		
Sieve Size 0.375 inch - Percent Finer		100		
Sieve Size #4 - Percent Finer		100		
Sieve Size #10 - Percent Finer		99		
Sieve Size #20 - Percent Finer		98		
Sieve Size #40 - Percent Finer		96		
Sieve Size #60 - Percent Finer		92		
Sieve Size #80 - Percent Finer		88		
Sieve Size #100 - Percent Finer		85		
Sieve Size #200 - Percent Finer		75		
Hydrometer Reading 1 - Percent Finer		65		
Hydrometer Reading 2 - Percent Finer		61		
Hydrometer Reading 3 - Percent Finer		54		
Hydrometer Reading 4 - Percent Finer		50		
Hydrometer Reading 5 - Percent Finer		42		
Hydrometer Reading 6 - Percent Finer		30		
Hydrometer Reading 7 - Percent Finer		21		

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28839-1
Sdg Number: 28839

Client Sample ID: **SW15-SB36-SURF**

Lab Sample ID: 200-28848-11
Client Matrix: Sediment

Date Sampled: 07/09/2015 1550
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91262	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28848-C-11.txt
Dilution:	1.0			Initial Weight/Volume:	151.34 g
Analysis Date:	07/12/2015 1239			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	RL
Gravel		0.00		
Sand		25		
Coarse Sand		0.90		
Medium Sand		3.0		
Fine Sand		21		
Silt		33		
Clay		42		

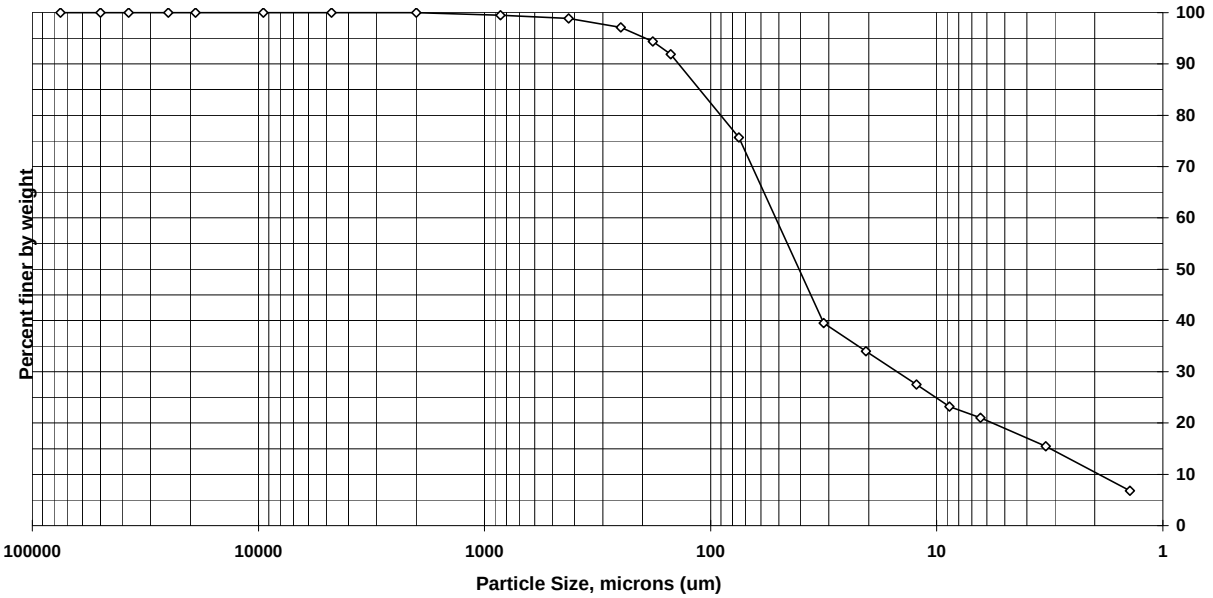
Particle Size of Soils by ASTM D422

				Date Received:	7/10/2015
Sample ID:	SW15-SLB05-SURF	**Percent Solids:**	46.3%	**Start Date:**	7/11/2015
Lab ID:	200-28839-D-4	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.5	0.5
#40	425	98.9	0.6
#60	250	97.1	1.8
#80	180	94.4	2.7
#100	150	91.9	2.5
#200	75	75.7	16.2
Hyd1	31.6	39.5	36.2
Hyd2	20.6	34.0	5.5
Hyd3	12.3	27.5	6.5
Hyd4	8.8	23.2	4.3
Hyd5	6.4	21.0	2.2
Hyd6	3.3	15.5	5.5
Hyd7	1.4	6.8	8.7

Soil Classification	Percent of sample
Gravel	0.0
Sand	24.3
Coarse Sand	0.0
Medium Sand	1.1
Fine Sand	23.2
Silt	54.7
Clay	21.0

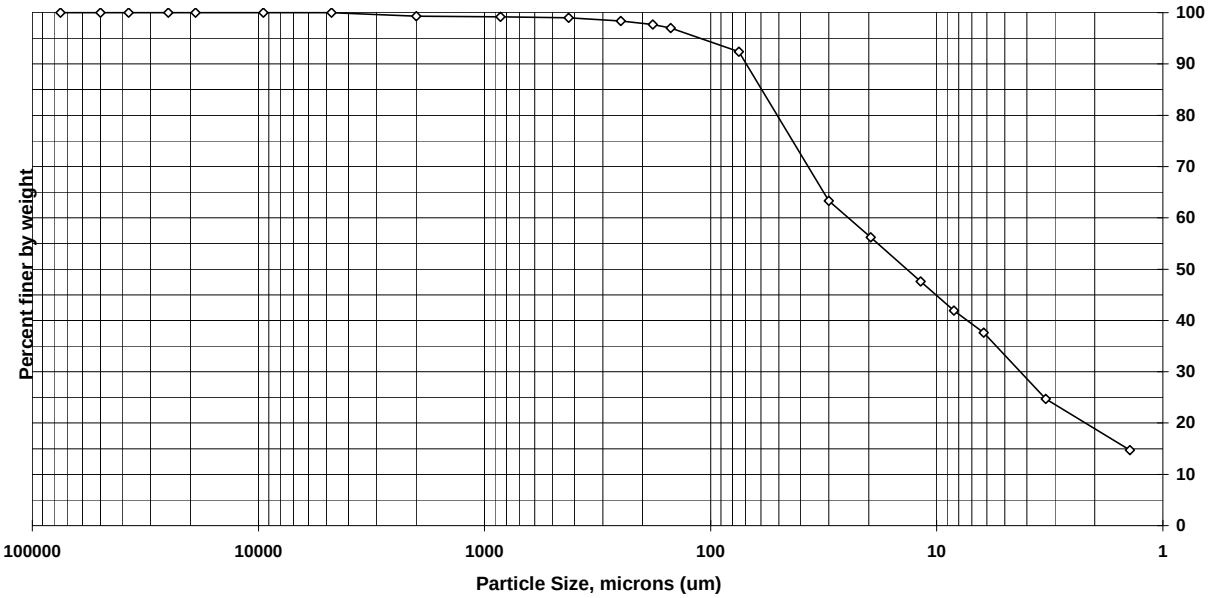
Particle Size of Soils by ASTM D422

				Date Received:	7/10/2015
Sample ID:	SW15-SLB06-SURF	**Percent Solids:**	34.9%	**Start Date:**	7/11/2015
Lab ID:	200-28839-D-9	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.3	0.7
#20	850	99.2	0.1
#40	425	99.0	0.2
#60	250	98.4	0.6
#80	180	97.7	0.7
#100	150	97.0	0.7
#200	75	92.4	4.6
Hyd1	30	63.3	29.1
Hyd2	19.6	56.2	7.1
Hyd3	11.8	47.6	8.6
Hyd4	8.4	41.9	5.7
Hyd5	6.2	37.6	4.3
Hyd6	3.3	24.7	12.9
Hyd7	1.4	14.7	10.0

Soil Classification	Percent of sample
Gravel	0.0
Sand	7.6
Coarse Sand	0.7
Medium Sand	0.3
Fine Sand	6.6
Silt	54.8
Clay	37.6

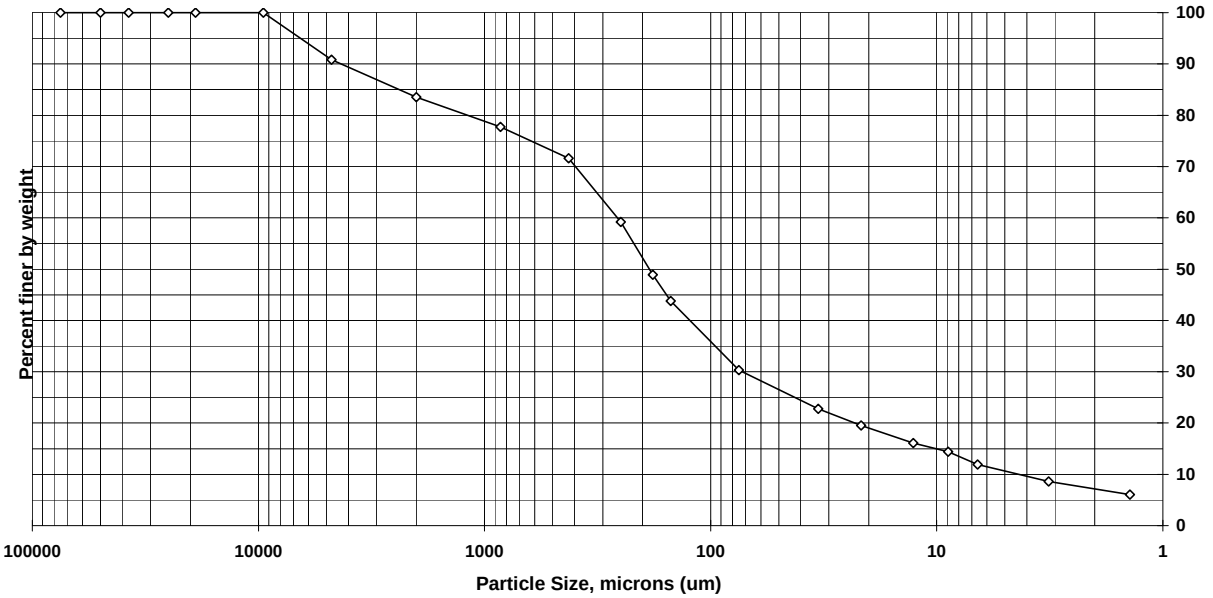
Particle Size of Soils by ASTM D422

				Date Received:	7/10/2015
Sample ID:	SW15-SLB07-SURF	**Percent Solids:**	57.4%	**Start Date:**	7/11/2015
Lab ID:	200-28839-D-10	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): subangular

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	90.8	9.2
#10	2000	83.5	7.3
#20	850	77.7	5.8
#40	425	71.6	6.1
#60	250	59.2	12.4
#80	180	48.9	10.3
#100	150	43.8	5.1
#200	75	30.3	13.5
Hyd1	33.4	22.8	7.5
Hyd2	21.6	19.5	3.3
Hyd3	12.7	16.1	3.4
Hyd4	8.9	14.4	1.7
Hyd5	6.6	11.9	2.5
Hyd6	3.2	8.6	3.3
Hyd7	1.4	6.1	2.5

Soil Classification	Percent of sample
Gravel	9.2
Sand	60.5
Coarse Sand	7.3
Medium Sand	11.9
Fine Sand	41.3
Silt	18.4
Clay	11.9

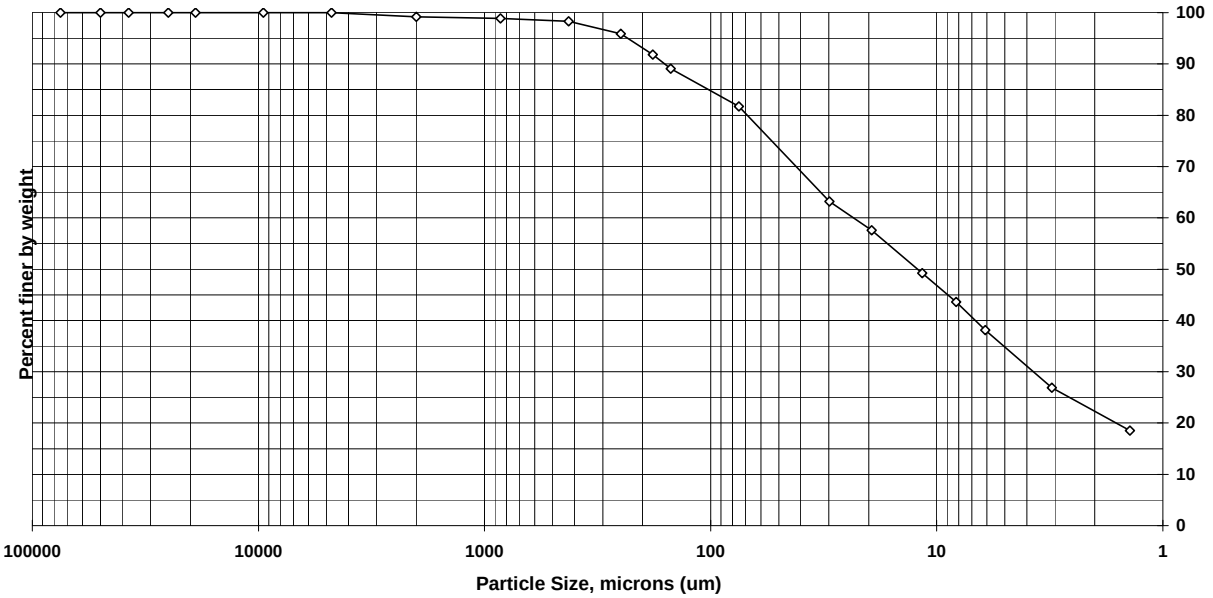
Particle Size of Soils by ASTM D422

				Date Received:	7/11/2015
Sample ID:	SW15-SB02-SURF	**Percent Solids:**	37.1%	**Start Date:**	7/12/2015
Lab ID:	200-28848-D-4	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.2	0.8
#20	850	98.9	0.3
#40	425	98.3	0.6
#60	250	95.9	2.4
#80	180	91.8	4.1
#100	150	89.1	2.7
#200	75	81.7	7.4
Hyd1	29.8	63.2	18.5
Hyd2	19.4	57.6	5.6
Hyd3	11.6	49.2	8.4
Hyd4	8.2	43.6	5.6
Hyd5	6.1	38.1	5.5
Hyd6	3.1	26.9	11.2
Hyd7	1.4	18.5	8.4

Soil Classification	Percent of sample
Gravel	0.0
Sand	18.3
Coarse Sand	0.8
Medium Sand	0.9
Fine Sand	16.6
Silt	43.6
Clay	38.1

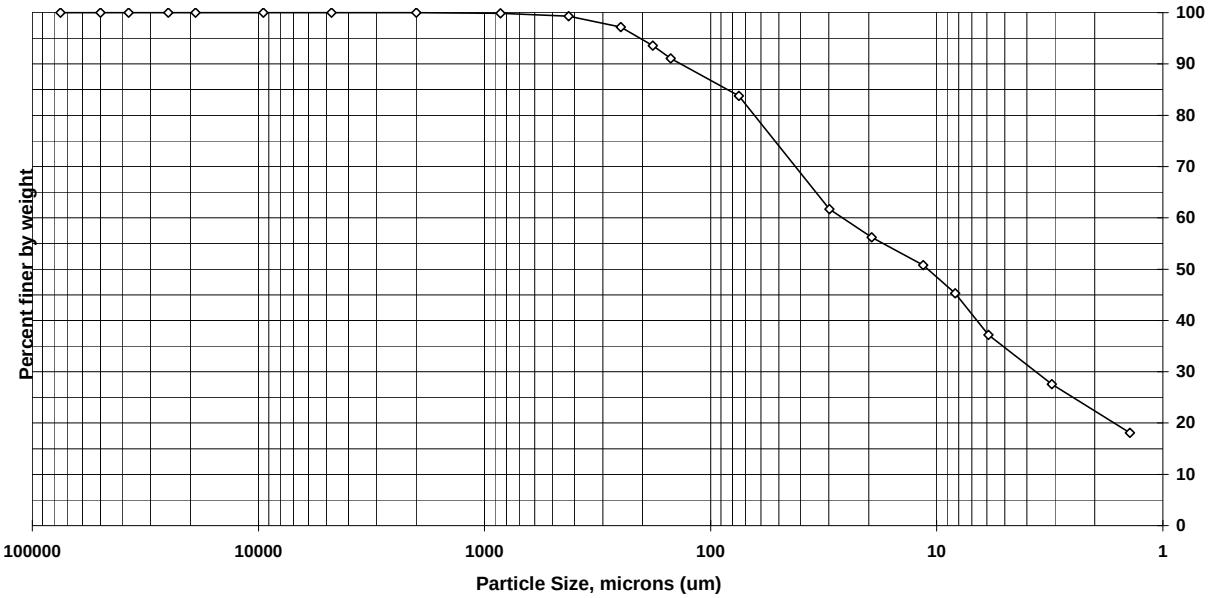
Particle Size of Soils by ASTM D422

				Date Received:	7/11/2015
Sample ID:	SW15-SB02-SURF-FD	**Percent Solids:**	37.0%	**Start Date:**	7/12/2015
Lab ID:	200-28848-D-5	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.9	0.1
#40	425	99.3	0.6
#60	250	97.2	2.1
#80	180	93.6	3.6
#100	150	91.1	2.5
#200	75	83.8	7.3
Hyd1	29.8	61.7	22.1
Hyd2	19.4	56.2	5.5
Hyd3	11.5	50.8	5.4
Hyd4	8.3	45.3	5.5
Hyd5	5.9	37.2	8.1
Hyd6	3.1	27.6	9.6
Hyd7	1.4	18.1	9.5

Soil Classification	Percent of sample
Gravel	0.0
Sand	16.2
Coarse Sand	0.0
Medium Sand	0.7
Fine Sand	15.5
Silt	46.6
Clay	37.2

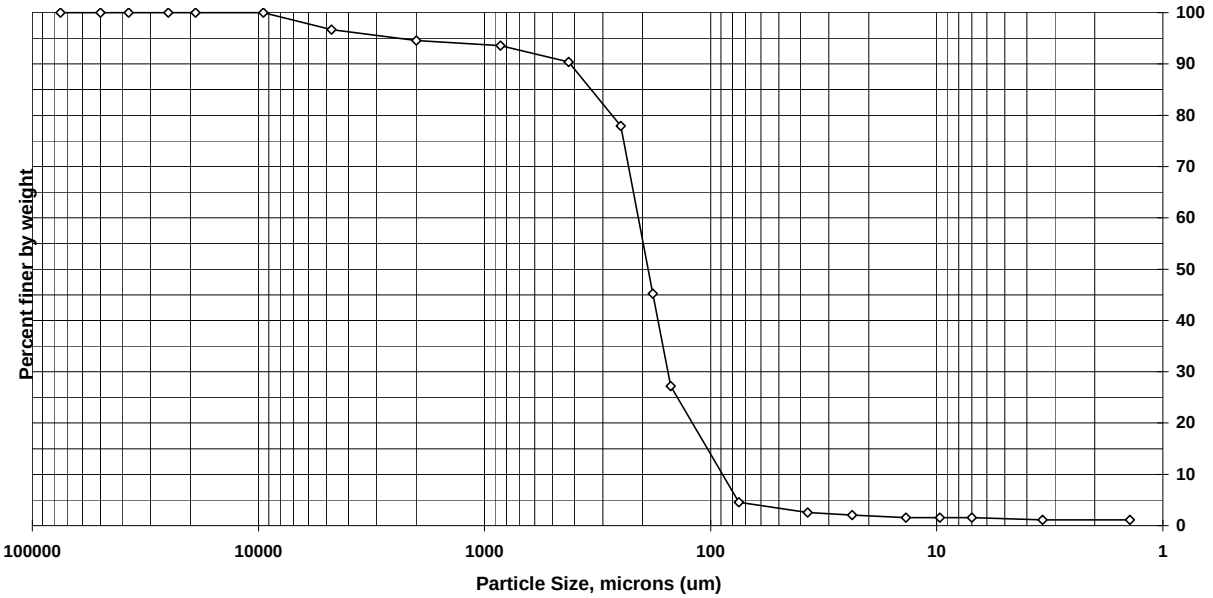
Particle Size of Soils by ASTM D422

				Date Received:	7/11/2015
Sample ID:	SW15-SB03-SURF	**Percent Solids:**	77.4%	**Start Date:**	7/12/2015
Lab ID:	200-28848-G-8	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): subrounded

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	96.7	3.3
#10	2000	94.6	2.1
#20	850	93.6	1.0
#40	425	90.4	3.2
#60	250	77.9	12.5
#80	180	45.2	32.7
#100	150	27.2	18.0
#200	75	4.6	22.6
Hyd1	37.2	2.6	2.0
Hyd2	23.7	2.1	0.5
Hyd3	13.7	1.6	0.5
Hyd4	9.7	1.6	0.0
Hyd5	7	1.6	0.0
Hyd6	3.4	1.1	0.5
Hyd7	1.4	1.1	0.0

Soil Classification	Percent of sample
Gravel	3.3
Sand	92.1
Coarse Sand	2.1
Medium Sand	4.2
Fine Sand	85.8
Silt	3.0
Clay	1.6

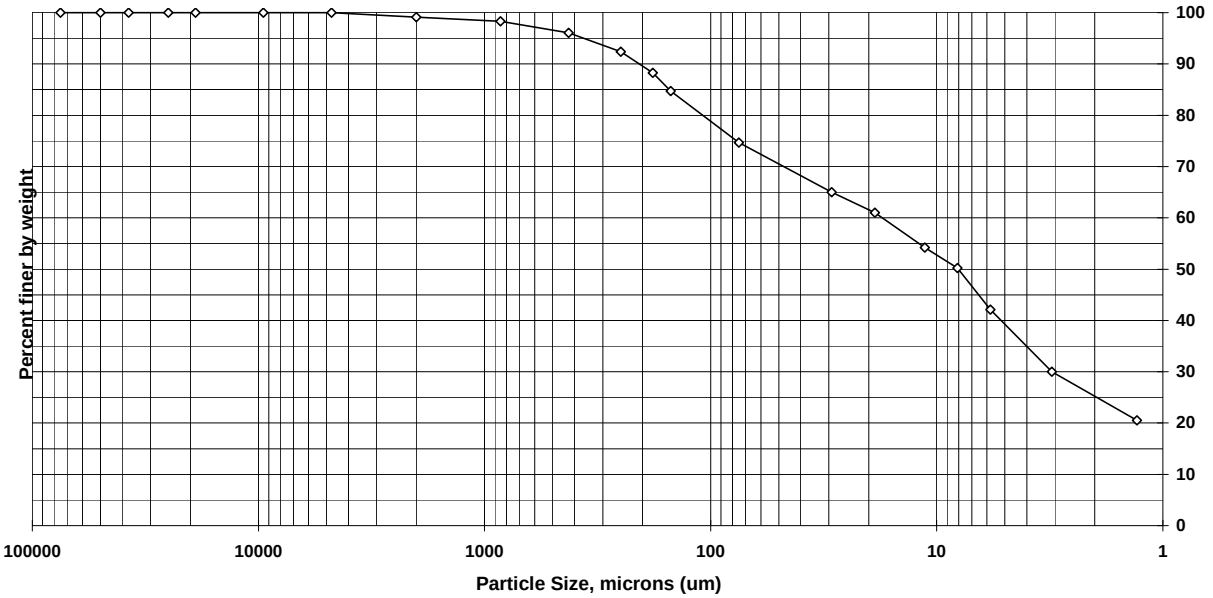
Particle Size of Soils by ASTM D422

				Date Received:	7/11/2015
Sample ID:	SW15-SB36-SURF	**Percent Solids:**	39.4%	**Start Date:**	7/12/2015
Lab ID:	200-28848-C-11	**Specific Gravity:**	2.650	**End Date:**	7/16/2015

Shape (> #10): na

Non-soil material: plant,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.1	0.9
#20	850	98.3	0.8
#40	425	96.1	2.2
#60	250	92.4	3.7
#80	180	88.3	4.1
#100	150	84.7	3.6
#200	75	74.7	10.0
Hyd1	29.2	65.0	9.7
Hyd2	18.8	61.0	4.0
Hyd3	11.3	54.2	6.8
Hyd4	8.1	50.2	4.0
Hyd5	5.8	42.1	8.1
Hyd6	3.1	30.0	12.1
Hyd7	1.3	20.5	9.5

Soil Classification	Percent of sample
Gravel	0.0
Sand	25.3
Coarse Sand	0.9
Medium Sand	3.0
Fine Sand	21.4
Silt	32.6
Clay	42.1

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SLB05-SURF
Lab Sample ID	200-28839-D-4

Date Received	7/10/2015
Start Date	07/11/2015 12:51
End Date	07/16/2015 11:42

Dry Weight Determination

Tin Weight	4.14	g
Wet Sample + Tin	198.25	g
Dry Sample + Tin	93.99	g
% Moisture	53.71	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/11/2015 12:51
Date/Time out of oven	07/12/2015 10:06

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	51.04	210.35	159.31
Sample Weight (Oven Dried)			73.7

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			73.7
% Passing #10			46.3

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	380.77	381.11	0.34	g	99.5	Sand	Medium
#40	425	354.10	354.54	0.44	g	98.9	Sand	Medium
#60	250	351.87	353.22	1.35	g	97.1	Sand	Fine
#80	180	338.75	340.71	1.96	g	94.4	Sand	Fine
#100	150	329.44	331.27	1.83	g	91.9	Sand	Fine
#200	75	323.11	335.08	11.97	g	75.7	Sand	Fine
				0.00	g	75.7		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	73.7

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0215	19.5	31.6	39.5	Silt	
5	5	1.0190	19.5	20.6	34	Silt	
15	15	1.0160	19.5	12.3	27.5	Silt	
30	31	1.0140	19.5	8.8	23.2	Silt	
60	60	1.0130	19.5	6.4	21	Silt	
250	240	1.0105	19.5	3.3	15.5	Clay	
1440	1424	1.0065	19.5	1.4	6.81	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/10/2015
Client Sample ID	SW15-SLB06-SURF	Start Date	07/11/2015 12:52
Lab Sample ID	200-28839-D-9	End Date	07/16/2015 12:08

Dry Weight Determination

Tin Weight	4.23	g
Wet Sample + Tin	147.32	g
Dry Sample + Tin	54.13	g
% Moisture	65.13	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/11/2015 12:52
Date/Time out of oven	07/12/2015 10:06

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	51.52	212.31	160.79
Sample Weight (Oven Dried)			56.1

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.38
Sample <#10			55.7
% Passing #10			34.6

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	463.32	0.38	g	99.3	Sand	Coarse
#20	850	380.77	380.80	0.03	g	99.2	Sand	Medium
#40	425	354.10	354.24	0.14	g	99.0	Sand	Medium
#60	250	351.87	352.23	0.36	g	98.4	Sand	Fine
#80	180	338.75	339.16	0.41	g	97.7	Sand	Fine
#100	150	329.44	329.86	0.42	g	97.0	Sand	Fine
#200	75	323.11	325.71	2.60	g	92.4	Sand	Fine
				0.00	g	92.4		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	56.1

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0255	19.5	30	63.3	Silt	
5	5	1.0230	19.5	19.6	56.2	Silt	
15	15	1.0200	19.5	11.8	47.6	Silt	
30	31	1.0180	19.5	8.4	41.9	Silt	
60	59	1.0165	19.5	6.2	37.6	Silt	
250	234	1.0120	19.5	3.3	24.7	Clay	
1440	1418	1.0085	19.5	1.4	14.7	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SLB07-SURF
Lab Sample ID	200-28839-D-10

Date Received	7/10/2015
Start Date	07/11/2015 12:53
End Date	07/16/2015 12:25

Dry Weight Determination

Tin Weight	4.24	g
Wet Sample + Tin	175.04	g
Dry Sample + Tin	102.30	g
% Moisture	42.59	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/11/2015 12:53
Date/Time out of oven	07/12/2015 10:06

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.67	217.78	167.11
Sample Weight (Oven Dried)			95.9

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			15.8
Sample <#10			80.1
% Passing #10			47.9

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.23	497.03	8.80	g	90.8	Gravel	
#10	2000	462.94	469.96	7.02	g	83.5	Sand	Coarse
#20	850	380.77	386.34	5.57	g	77.7	Sand	Medium
#40	425	354.10	359.95	5.85	g	71.6	Sand	Medium
#60	250	351.87	363.75	11.88	g	59.2	Sand	Fine
#80	180	338.75	348.58	9.83	g	48.9	Sand	Fine
#100	150	329.44	334.36	4.92	g	43.8	Sand	Fine
#200	75	323.11	336.03	12.92	g	30.3	Sand	Fine
				0.00	g	30.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	95.9

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0170	19.5	33.4	22.8	Silt	
5	5	1.0150	19.5	21.6	19.5	Silt	
15	15	1.0130	19.5	12.7	16.1	Silt	
30	31	1.0120	19.5	8.9	14.4	Silt	
60	59	1.0105	19.5	6.6	11.9	Silt	
250	265	1.0085	19.5	3.2	8.58	Clay	
1440	1412	1.0070	19.5	1.4	6.07	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/11/2015
Client Sample ID	SW15-SB02-SURF	Start Date	07/12/2015 12:36
Lab Sample ID	200-28848-D-4	End Date	07/16/2015 12:39

Dry Weight Determination

Tin Weight	4.26	g
Wet Sample + Tin	153.82	g
Dry Sample + Tin	59.67	g
% Moisture	62.95	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/12/2015 12:36
Date/Time out of oven	07/13/2015 10:02

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	58.21	213.36	155.15
Sample Weight (Oven Dried)			57.5

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.46
Sample <#10			57
% Passing #10			36.7

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	463.40	0.46	g	99.2	Sand	Coarse
#20	850	380.77	380.96	0.19	g	98.9	Sand	Medium
#40	425	354.10	354.46	0.36	g	98.3	Sand	Medium
#60	250	351.87	353.23	1.36	g	95.9	Sand	Fine
#80	180	338.75	341.12	2.37	g	91.8	Sand	Fine
#100	150	329.44	330.99	1.55	g	89.1	Sand	Fine
#200	75	323.11	327.37	4.26	g	81.7	Sand	Fine
				0.00	g	81.7		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	57.5

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0260	19.5	29.8	63.2	Silt	
5	5	1.0240	19.5	19.4	57.6	Silt	
15	15	1.0210	19.5	11.6	49.2	Silt	
30	32	1.0190	19.5	8.2	43.6	Silt	
60	60	1.0170	19.5	6.1	38.1	Silt	
250	259	1.0130	19.5	3.1	26.9	Clay	
1440	1406	1.0100	19.5	1.4	18.5	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB02-SURF-FD
Lab Sample ID	200-28848-D-5

Date Received	7/11/2015
Start Date	07/12/2015 12:37
End Date	07/16/2015 12:52

Dry Weight Determination

Tin Weight	4.32	g
Wet Sample + Tin	179.19	g
Dry Sample + Tin	68.96	g
% Moisture	63.04	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/12/2015 12:37
Date/Time out of oven	07/13/2015 10:02

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.46	209.82	159.36
Sample Weight (Oven Dried)			58.9

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			58.9
% Passing #10			37

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	380.77	380.83	0.06	g	99.9	Sand	Medium
#40	425	354.10	354.44	0.34	g	99.3	Sand	Medium
#60	250	351.87	353.11	1.24	g	97.2	Sand	Fine
#80	180	338.75	340.88	2.13	g	93.6	Sand	Fine
#100	150	329.44	330.90	1.46	g	91.1	Sand	Fine
#200	75	323.11	327.42	4.31	g	83.8	Sand	Fine
				0.00	g	83.8		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	58.9

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0260	19.5	29.8	61.7	Silt	
5	5	1.0240	19.5	19.4	56.2	Silt	
15	15	1.0220	19.5	11.5	50.8	Silt	
30	30	1.0200	19.5	8.3	45.3	Silt	
60	63	1.0170	19.5	5.9	37.2	Silt	
250	253	1.0135	19.5	3.1	27.6	Clay	
1440	1400	1.0100	19.5	1.4	18.1	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/11/2015
Client Sample ID	SW15-SB03-SURF	Start Date	07/12/2015 12:38
Lab Sample ID	200-28848-G-8	End Date	07/16/2015 13:05

Dry Weight Determination

Tin Weight	4.12	g
Wet Sample + Tin	241.40	g
Dry Sample + Tin	187.85	g
% Moisture	22.57	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subrounded
Hardness (> #10):	hard

Date/Time in oven	07/12/2015 12:38
Date/Time out of oven	07/13/2015 10:02

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.77	259.90	212.13
Sample Weight (Oven Dried)			164

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			8.88
Sample <#10			155
% Passing #10			73.1

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.23	493.64	5.41	g	96.7	Gravel	
#10	2000	462.94	466.41	3.47	g	94.6	Sand	Coarse
#20	850	380.77	382.39	1.62	g	93.6	Sand	Medium
#40	425	354.10	359.38	5.28	g	90.4	Sand	Medium
#60	250	351.87	372.42	20.55	g	77.9	Sand	Fine
#80	180	338.75	392.36	53.61	g	45.2	Sand	Fine
#100	150	329.44	358.96	29.52	g	27.2	Sand	Fine
#200	75	323.11	360.20	37.09	g	4.6	Sand	Fine
				0.00	g	4.6		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	164

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0060	19.5	37.2	2.57	Silt	
5	5	1.0055	19.5	23.7	2.08	Silt	
15	15	1.0050	19.5	13.7	1.59	Silt	
30	30	1.0050	19.5	9.7	1.59	Silt	
60	57	1.0050	19.5	7	1.59	Silt	
250	247	1.0045	19.5	3.4	1.1	Clay	
1440	1394	1.0045	19.5	1.4	1.1	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB36-SURF
Lab Sample ID	200-28848-C-11

Date Received	7/11/2015
Start Date	07/12/2015 12:39
End Date	07/16/2015 13:18

Dry Weight Determination

Tin Weight	4.06	g
Wet Sample + Tin	164.13	g
Dry Sample + Tin	67.08	g
% Moisture	60.63	%

Non-soil material:	plant,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/12/2015 12:39
Date/Time out of oven	07/13/2015 10:02

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.73	209.07	151.34
Sample Weight (Oven Dried)			59.6

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.52
Sample <#10			59.1
% Passing #10			39.1

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	463.46	0.52	g	99.1	Sand	Coarse
#20	850	380.77	381.22	0.45	g	98.3	Sand	Medium
#40	425	354.10	355.41	1.31	g	96.1	Sand	Medium
#60	250	351.87	354.05	2.18	g	92.4	Sand	Fine
#80	180	338.75	341.18	2.43	g	88.3	Sand	Fine
#100	150	329.44	331.56	2.12	g	84.7	Sand	Fine
#200	75	323.11	329.06	5.95	g	74.7	Sand	Fine
				0.00	g	74.7		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	59.6

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0275	19.5	29.2	65	Silt	
5	5	1.0260	19.5	18.8	61	Silt	
15	15	1.0235	19.5	11.3	54.2	Silt	
30	30	1.0220	19.5	8.1	50.2	Silt	
60	63	1.0190	19.5	5.8	42.1	Silt	
250	241	1.0145	19.5	3.1	30	Clay	
1440	1388	1.0110	19.5	1.3	20.5	Clay	

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB28-SURF**

Lab Sample ID: 200-28849-4
Client Matrix: Sediment

Date Sampled: 07/09/2015 1500
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91339	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28849-D-4.txt
Dilution:	1.0			Initial Weight/Volume:	194.87 g
Analysis Date:	07/12/2015 1241			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		96.7			
Sieve Size #40 - Percent Finer		86.1			
Sieve Size #60 - Percent Finer		69.1			
Sieve Size #80 - Percent Finer		52.9			
Sieve Size #100 - Percent Finer		36.1			
Sieve Size #200 - Percent Finer		22.8			
Hydrometer Reading 1 - Percent Finer		20.9			
Hydrometer Reading 2 - Percent Finer		19.7			
Hydrometer Reading 3 - Percent Finer		18.4			
Hydrometer Reading 4 - Percent Finer		15.9			
Hydrometer Reading 5 - Percent Finer		13.4			
Hydrometer Reading 6 - Percent Finer		10.3			
Hydrometer Reading 7 - Percent Finer		9.1			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB28-SURF**

Lab Sample ID: 200-28849-4
Client Matrix: Sediment

Date Sampled: 07/09/2015 1500
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91339	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28849-D-4.txt
Dilution:	1.0			Initial Weight/Volume:	194.87 g
Analysis Date:	07/12/2015 1241			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		77.2			
Coarse Sand		0.0			
Medium Sand		13.9			
Fine Sand		63.3			
Silt		9.4			
Clay		13.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB04-SURF**

Lab Sample ID: 200-28849-7
Client Matrix: Sediment

Date Sampled: 07/10/2015 1022
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91339	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28849-F-7.txt
Dilution:	1.0			Initial Weight/Volume:	196.42 g
Analysis Date:	07/12/2015 1243			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		98.9			
Sieve Size #10 - Percent Finer		95.9			
Sieve Size #20 - Percent Finer		94.9			
Sieve Size #40 - Percent Finer		92.4			
Sieve Size #60 - Percent Finer		76.4			
Sieve Size #80 - Percent Finer		45.8			
Sieve Size #100 - Percent Finer		33.5			
Sieve Size #200 - Percent Finer		22.9			
Hydrometer Reading 1 - Percent Finer		11.4			
Hydrometer Reading 2 - Percent Finer		9.8			
Hydrometer Reading 3 - Percent Finer		8.7			
Hydrometer Reading 4 - Percent Finer		7.6			
Hydrometer Reading 5 - Percent Finer		5.9			
Hydrometer Reading 6 - Percent Finer		4.0			
Hydrometer Reading 7 - Percent Finer		2.9			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB04-SURF**

Lab Sample ID: 200-28849-7
Client Matrix: Sediment

Date Sampled: 07/10/2015 1022
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91339	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28849-F-7.txt
Dilution:	1.0			Initial Weight/Volume:	196.42 g
Analysis Date:	07/12/2015 1243			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		1.1			
Sand		76.0			
Coarse Sand		3.0			
Medium Sand		3.5			
Fine Sand		69.5			
Silt		17.0			
Clay		5.9			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB07-SURF**

Lab Sample ID: 200-28849-10
Client Matrix: Sediment

Date Sampled: 07/10/2015 0830
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91339	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28849-F-10.txt
Dilution:	1.0			Initial Weight/Volume:	206.92 g
Analysis Date:	07/12/2015 1244			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		98.8			
Sieve Size #10 - Percent Finer		97.4			
Sieve Size #20 - Percent Finer		94.5			
Sieve Size #40 - Percent Finer		87.9			
Sieve Size #60 - Percent Finer		59.7			
Sieve Size #80 - Percent Finer		28.5			
Sieve Size #100 - Percent Finer		17.4			
Sieve Size #200 - Percent Finer		5.8			
Hydrometer Reading 1 - Percent Finer		4.9			
Hydrometer Reading 2 - Percent Finer		4.3			
Hydrometer Reading 3 - Percent Finer		4.3			
Hydrometer Reading 4 - Percent Finer		3.7			
Hydrometer Reading 5 - Percent Finer		3.7			
Hydrometer Reading 6 - Percent Finer		1.3			
Hydrometer Reading 7 - Percent Finer		1.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB07-SURF**

Lab Sample ID: 200-28849-10
Client Matrix: Sediment

Date Sampled: 07/10/2015 0830
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91339	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28849-F-10.txt
Dilution:	1.0			Initial Weight/Volume:	206.92 g
Analysis Date:	07/12/2015 1244			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		1.2			
Sand		93.0			
Coarse Sand		1.4			
Medium Sand		9.5			
Fine Sand		82.1			
Silt		2.0			
Clay		3.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB09-SURF**

Lab Sample ID: 200-28849-15
Client Matrix: Sediment

Date Sampled: 07/10/2015 0940
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91339	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28849-F-15.txt
Dilution:	1.0			Initial Weight/Volume:	178.51 g
Analysis Date:	07/12/2015 1245			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		97.4			
Sieve Size #10 - Percent Finer		94.9			
Sieve Size #20 - Percent Finer		94.5			
Sieve Size #40 - Percent Finer		94.0			
Sieve Size #60 - Percent Finer		91.9			
Sieve Size #80 - Percent Finer		90.1			
Sieve Size #100 - Percent Finer		89.1			
Sieve Size #200 - Percent Finer		87.9			
Hydrometer Reading 1 - Percent Finer		33.8			
Hydrometer Reading 2 - Percent Finer		28.3			
Hydrometer Reading 3 - Percent Finer		25.2			
Hydrometer Reading 4 - Percent Finer		22.7			
Hydrometer Reading 5 - Percent Finer		19.0			
Hydrometer Reading 6 - Percent Finer		12.5			
Hydrometer Reading 7 - Percent Finer		9.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB09-SURF**

Lab Sample ID: 200-28849-15
Client Matrix: Sediment

Date Sampled: 07/10/2015 0940
Date Received: 07/11/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91339	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28849-F-15.txt
Dilution:	1.0			Initial Weight/Volume:	178.51 g
Analysis Date:	07/12/2015 1245			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		2.6			
Sand		9.5			
Coarse Sand		2.5			
Medium Sand		0.9			
Fine Sand		6.1			
Silt		68.9			
Clay		19.0			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB29-SURF**

Lab Sample ID: 200-28880-2
Client Matrix: Sediment

Date Sampled: 07/14/2015 1200
Date Received: 07/15/2015 1100

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91341	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28880-E-2.txt
Dilution:	1.0			Initial Weight/Volume:	290.25 g
Analysis Date:	07/15/2015 1358			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		99.5			
Sieve Size #40 - Percent Finer		98.6			
Sieve Size #60 - Percent Finer		95.4			
Sieve Size #80 - Percent Finer		93.1			
Sieve Size #100 - Percent Finer		92.0			
Sieve Size #200 - Percent Finer		91.1			
Hydrometer Reading 1 - Percent Finer		54.9			
Hydrometer Reading 2 - Percent Finer		41.4			
Hydrometer Reading 3 - Percent Finer		37.2			
Hydrometer Reading 4 - Percent Finer		34.1			
Hydrometer Reading 5 - Percent Finer		29.9			
Hydrometer Reading 6 - Percent Finer		20.0			
Hydrometer Reading 7 - Percent Finer		14.8			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB29-SURF**

Lab Sample ID: 200-28880-2
Client Matrix: Sediment

Date Sampled: 07/14/2015 1200
Date Received: 07/15/2015 1100

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91341	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28880-E-2.txt
Dilution:	1.0			Initial Weight/Volume:	290.25 g
Analysis Date:	07/15/2015 1358			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		8.9			
Coarse Sand		0.0			
Medium Sand		1.4			
Fine Sand		7.5			
Silt		61.2			
Clay		29.9			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB31-SURF**

Lab Sample ID: 200-28880-4
Client Matrix: Sediment

Date Sampled: 07/14/2015 1245
Date Received: 07/15/2015 1100

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91341	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28880-D-4.txt
Dilution:	1.0			Initial Weight/Volume:	180.51 g
Analysis Date:	07/15/2015 1359			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.2			
Sieve Size #20 - Percent Finer		98.5			
Sieve Size #40 - Percent Finer		97.0			
Sieve Size #60 - Percent Finer		79.3			
Sieve Size #80 - Percent Finer		64.3			
Sieve Size #100 - Percent Finer		60.6			
Sieve Size #200 - Percent Finer		58.4			
Hydrometer Reading 1 - Percent Finer		55.8			
Hydrometer Reading 2 - Percent Finer		42.2			
Hydrometer Reading 3 - Percent Finer		37.1			
Hydrometer Reading 4 - Percent Finer		32.0			
Hydrometer Reading 5 - Percent Finer		26.9			
Hydrometer Reading 6 - Percent Finer		17.5			
Hydrometer Reading 7 - Percent Finer		12.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SB31-SURF**

Lab Sample ID: 200-28880-4
Client Matrix: Sediment

Date Sampled: 07/14/2015 1245
Date Received: 07/15/2015 1100

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91341	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28880-D-4.txt
Dilution:	1.0			Initial Weight/Volume:	180.51 g
Analysis Date:	07/15/2015 1359			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		41.6			
Coarse Sand		0.8			
Medium Sand		2.2			
Fine Sand		38.6			
Silt		31.5			
Clay		26.9			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SLB04-SURF**

Lab Sample ID: 200-28880-6
Client Matrix: Sediment

Date Sampled: 07/14/2015 1400
Date Received: 07/15/2015 1100

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91341	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28880-C-6.txt
Dilution:	1.0			Initial Weight/Volume:	159.61 g
Analysis Date:	07/15/2015 1400			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.3			
Sieve Size #20 - Percent Finer		99.0			
Sieve Size #40 - Percent Finer		98.7			
Sieve Size #60 - Percent Finer		97.9			
Sieve Size #80 - Percent Finer		96.8			
Sieve Size #100 - Percent Finer		95.4			
Sieve Size #200 - Percent Finer		77.4			
Hydrometer Reading 1 - Percent Finer		43.8			
Hydrometer Reading 2 - Percent Finer		26.2			
Hydrometer Reading 3 - Percent Finer		21.3			
Hydrometer Reading 4 - Percent Finer		18.3			
Hydrometer Reading 5 - Percent Finer		15.4			
Hydrometer Reading 6 - Percent Finer		10.0			
Hydrometer Reading 7 - Percent Finer		7.1			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28849-1
Sdg Number: 28849

Client Sample ID: **SW15-SLB04-SURF**

Lab Sample ID: 200-28880-6
Client Matrix: Sediment

Date Sampled: 07/14/2015 1400
Date Received: 07/15/2015 1100

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91341	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28880-C-6.txt
Dilution:	1.0			Initial Weight/Volume:	159.61 g
Analysis Date:	07/15/2015 1400			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		22.6			
Coarse Sand		0.7			
Medium Sand		0.6			
Fine Sand		21.3			
Silt		62.0			
Clay		15.4			

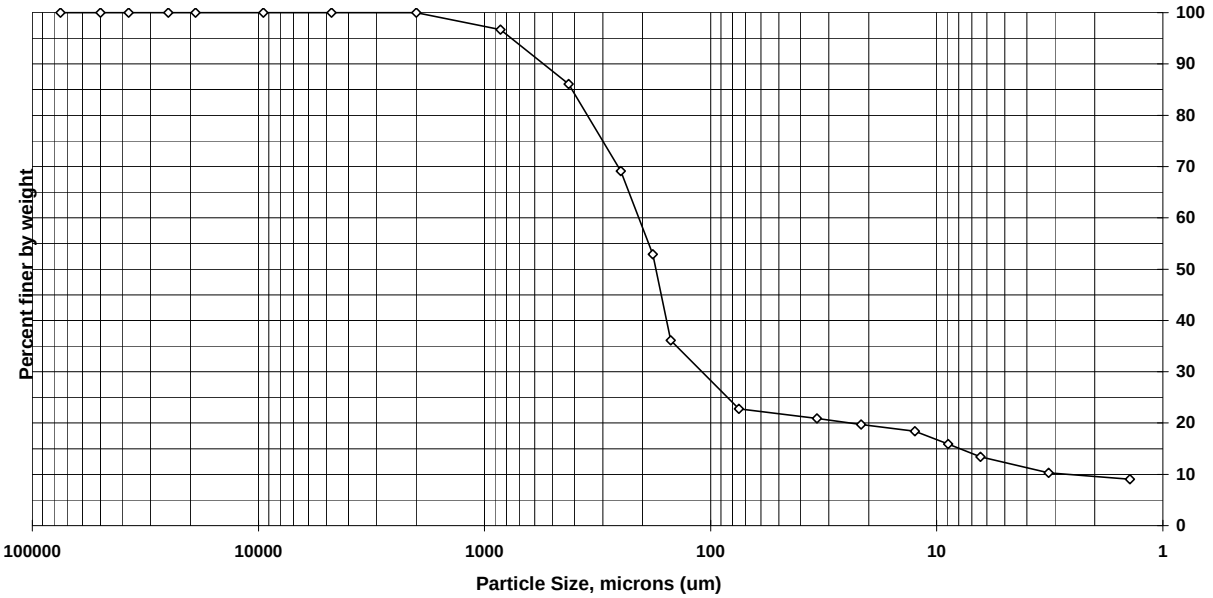
Particle Size of Soils by ASTM D422

				Date Received:	7/11/2015
Sample ID:	SW15-SB28-SURF	**Percent Solids:**	33.0%	**Start Date:**	7/12/2015
Lab ID:	200-28849-D-4	**Specific Gravity:**	2.650	**End Date:**	7/17/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	96.7	3.3
#40	425	86.1	10.6
#60	250	69.1	17.0
#80	180	52.9	16.2
#100	150	36.1	16.8
#200	75	22.8	13.3
Hyd1	33.9	20.9	1.9
Hyd2	21.6	19.7	1.2
Hyd3	12.5	18.4	1.3
Hyd4	8.9	15.9	2.5
Hyd5	6.4	13.4	2.5
Hyd6	3.2	10.3	3.1
Hyd7	1.4	9.1	1.3

Soil Classification	Percent of sample
Gravel	0.0
Sand	77.2
Coarse Sand	0.0
Medium Sand	13.9
Fine Sand	63.3
Silt	9.4
Clay	13.4

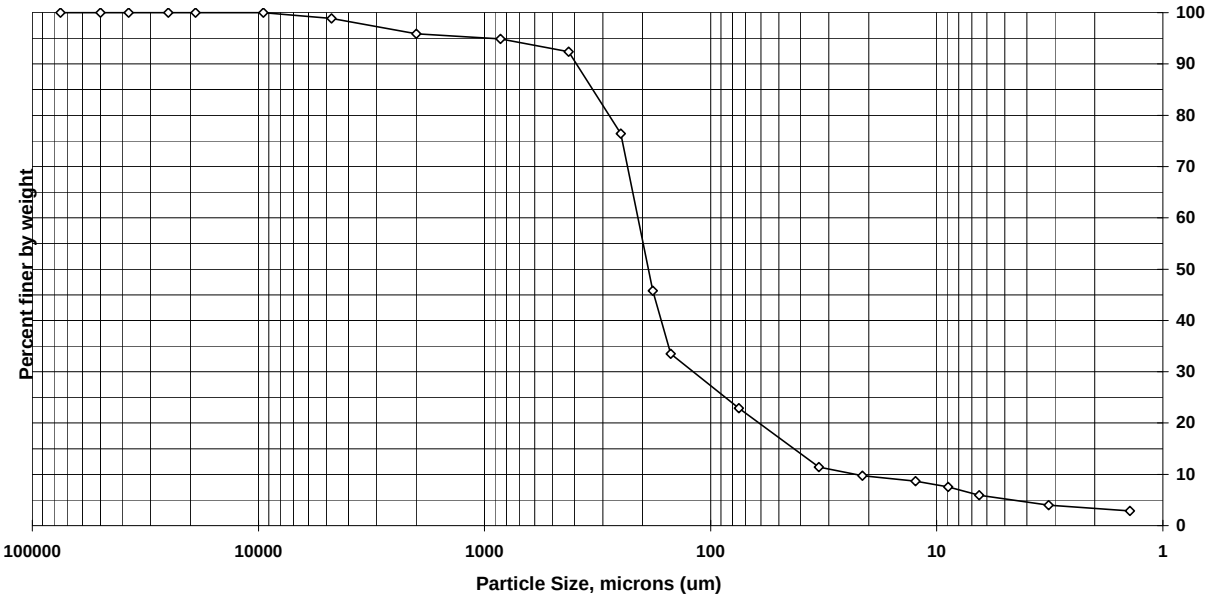
Particle Size of Soils by ASTM D422

				Date Received:	7/11/2015
Sample ID:	SW15-SB04-SURF	**Percent Solids:**	74.1%	**Start Date:**	7/12/2015
Lab ID:	200-28849-F-7	**Specific Gravity:**	2.650	**End Date:**	7/17/2015

Shape (> #10): subangular

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	98.9	1.1
#10	2000	95.9	3.0
#20	850	94.9	1.0
#40	425	92.4	2.5
#60	250	76.4	16.0
#80	180	45.8	30.6
#100	150	33.5	12.3
#200	75	22.9	10.6
Hyd1	33.2	11.4	11.5
Hyd2	21.3	9.8	1.6
Hyd3	12.4	8.7	1.1
Hyd4	8.9	7.6	1.1
Hyd5	6.5	5.9	1.7
Hyd6	3.2	4.0	1.9
Hyd7	1.4	2.9	1.1

Soil Classification	Percent of sample
Gravel	1.1
Sand	76.0
Coarse Sand	3.0
Medium Sand	3.5
Fine Sand	69.5
Silt	17.0
Clay	5.9

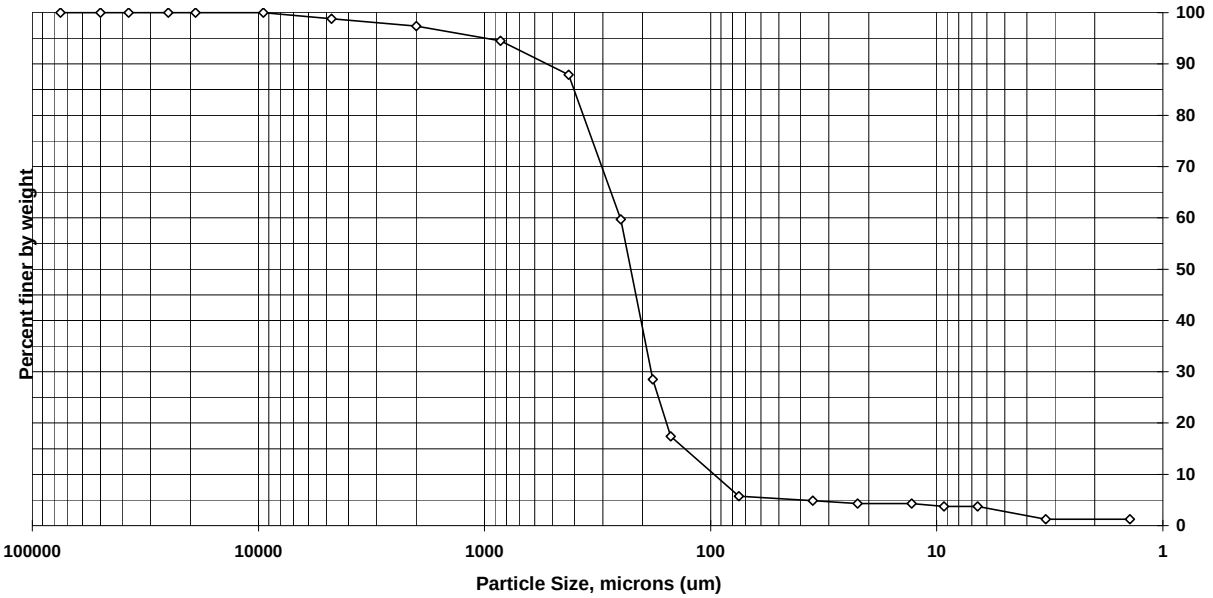
Particle Size of Soils by ASTM D422

				Date Received:	7/11/2015
Sample ID:	SW15-SB07-SURF	**Percent Solids:**	69.9%	**Start Date:**	7/12/2015
Lab ID:	200-28849-F-10	**Specific Gravity:**	2.650	**End Date:**	7/17/2015

Shape (> #10): subangular

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	98.8	1.2
#10	2000	97.4	1.4
#20	850	94.5	2.9
#40	425	87.9	6.6
#60	250	59.7	28.2
#80	180	28.5	31.2
#100	150	17.4	11.1
#200	75	5.8	11.6
Hyd1	35.3	4.9	0.9
Hyd2	22.4	4.3	0.6
Hyd3	12.9	4.3	0.0
Hyd4	9.3	3.7	0.6
Hyd5	6.6	3.7	0.0
Hyd6	3.3	1.3	2.5
Hyd7	1.4	1.3	0.0

Soil Classification	Percent of sample
Gravel	1.2
Sand	93.0
Coarse Sand	1.4
Medium Sand	9.5
Fine Sand	82.1
Silt	2.0
Clay	3.7

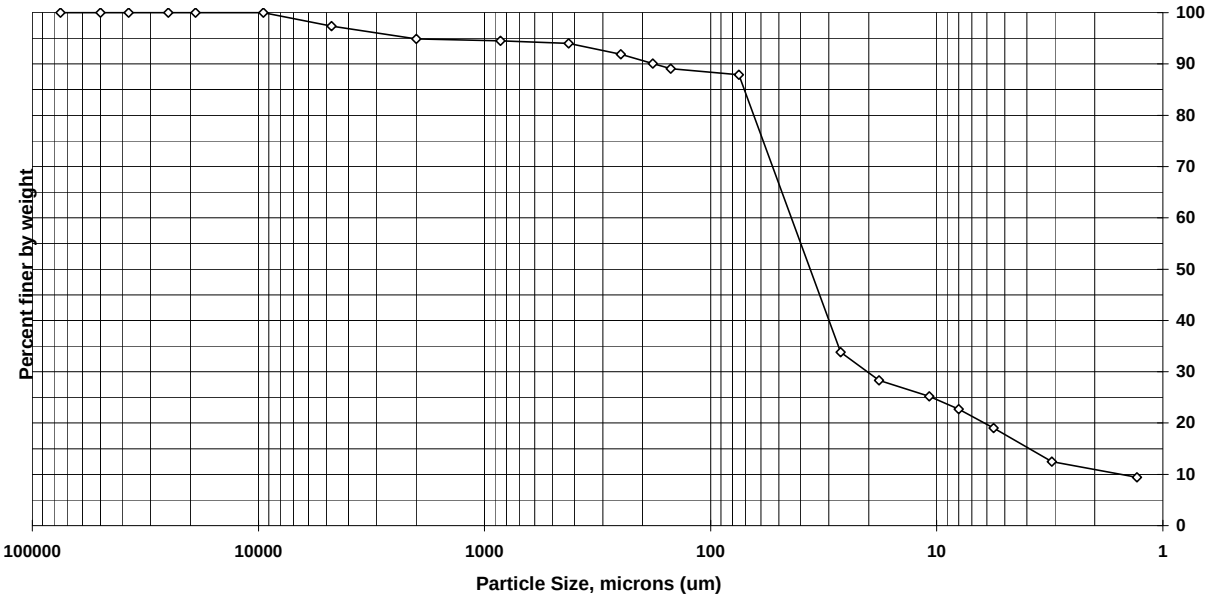
Particle Size of Soils by ASTM D422

				Date Received:	7/11/2015
Sample ID:	SW15-SB09-SURF	**Percent Solids:**	72.8%	**Start Date:**	7/12/2015
Lab ID:	200-28849-F-15	**Specific Gravity:**	2.650	**End Date:**	7/17/2015

Shape (> #10): subangular

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	97.4	2.6
#10	2000	94.9	2.5
#20	850	94.5	0.4
#40	425	94.0	0.5
#60	250	91.9	2.1
#80	180	90.1	1.8
#100	150	89.1	1.0
#200	75	87.9	1.2
Hyd1	26.6	33.8	54.1
Hyd2	18	28.3	5.5
Hyd3	10.8	25.2	3.1
Hyd4	8	22.7	2.5
Hyd5	5.6	19.0	3.7
Hyd6	3.1	12.5	6.5
Hyd7	1.3	9.4	3.1

Soil Classification	Percent of sample
Gravel	2.6
Sand	9.5
Coarse Sand	2.5
Medium Sand	0.9
Fine Sand	6.1
Silt	68.9
Clay	19.0

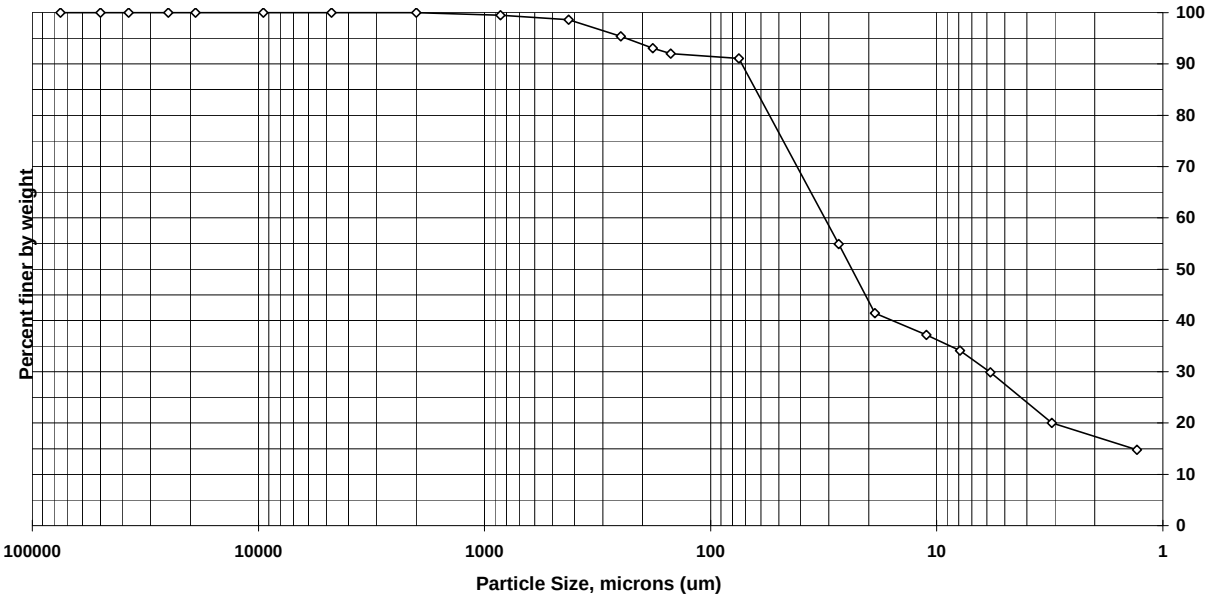
Particle Size of Soils by ASTM D422

				Date Received:	7/15/2015
Sample ID:	SW15-SB29-SURF	**Percent Solids:**	26.6%	**Start Date:**	7/15/2015
Lab ID:	200-28880-E-2	**Specific Gravity:**	2.650	**End Date:**	7/17/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.5	0.5
#40	425	98.6	0.9
#60	250	95.4	3.2
#80	180	93.1	2.3
#100	150	92.0	1.1
#200	75	91.1	0.9
Hyd1	27.1	54.9	36.2
Hyd2	18.8	41.4	13.5
Hyd3	11.1	37.2	4.2
Hyd4	7.9	34.1	3.1
Hyd5	5.8	29.9	4.2
Hyd6	3.1	20.0	9.9
Hyd7	1.3	14.8	5.2

Soil Classification	Percent of sample
Gravel	0.0
Sand	8.9
Coarse Sand	0.0
Medium Sand	1.4
Fine Sand	7.5
Silt	61.2
Clay	29.9

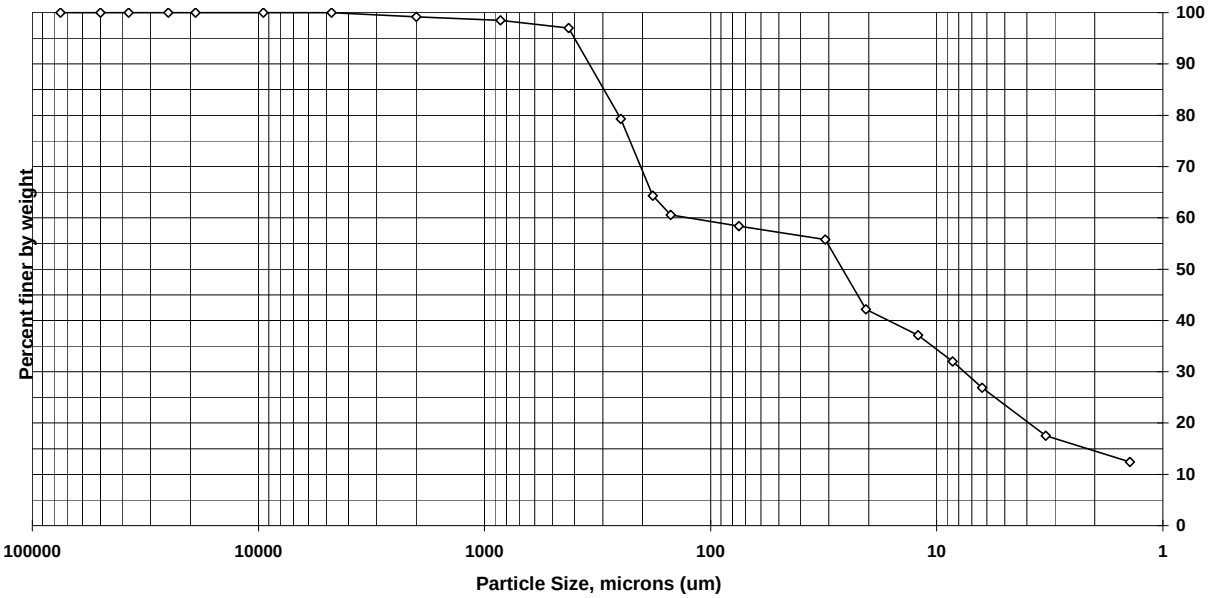
Particle Size of Soils by ASTM D422

				Date Received:	7/15/2015
Sample ID:	SW15-SB31-SURF	**Percent Solids:**	26.1%	**Start Date:**	7/15/2015
Lab ID:	200-28880-D-4	**Specific Gravity:**	2.650	**End Date:**	7/17/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.2	0.8
#20	850	98.5	0.7
#40	425	97.0	1.5
#60	250	79.3	17.7
#80	180	64.3	15.0
#100	150	60.6	3.7
#200	75	58.4	2.2
Hyd1	31.1	55.8	2.6
Hyd2	20.6	42.2	13.6
Hyd3	12.1	37.1	5.1
Hyd4	8.5	32.0	5.1
Hyd5	6.3	26.9	5.1
Hyd6	3.3	17.5	9.4
Hyd7	1.4	12.4	5.1

Soil Classification	Percent of sample
Gravel	0.0
Sand	41.6
Coarse Sand	0.8
Medium Sand	2.2
Fine Sand	38.6
Silt	31.5
Clay	26.9

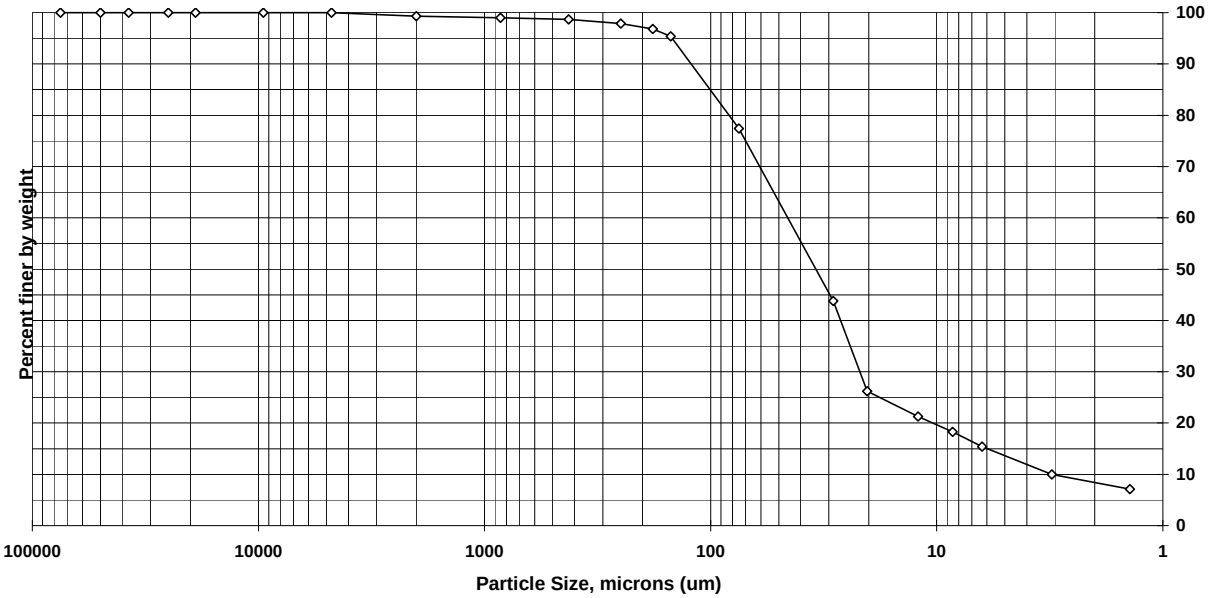
Particle Size of Soils by ASTM D422

				Date Received:	7/15/2015
Sample ID:	SW15-SB04-SURF	**Percent Solids:**	51.4%	**Start Date:**	7/15/2015
Lab ID:	200-28880-C-6	**Specific Gravity:**	2.650	**End Date:**	7/17/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.3	0.7
#20	850	99.0	0.3
#40	425	98.7	0.3
#60	250	97.9	0.8
#80	180	96.8	1.1
#100	150	95.4	1.4
#200	75	77.4	18.0
Hyd1	28.7	43.8	33.6
Hyd2	20.3	26.2	17.6
Hyd3	12.1	21.3	4.9
Hyd4	8.5	18.3	3.0
Hyd5	6.3	15.4	2.9
Hyd6	3.1	10.0	5.4
Hyd7	1.4	7.1	2.9

Soil Classification	Percent of sample
Gravel	0.0
Sand	22.6
Coarse Sand	0.7
Medium Sand	0.6
Fine Sand	21.3
Silt	62.0
Clay	15.4

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB28-SURF
Lab Sample ID	200-28849-D-4

Date Received	7/11/2015
Start Date	07/12/2015 12:41
End Date	07/17/2015 11:01

Dry Weight Determination

Tin Weight	4.04	g
Wet Sample + Tin	161.03	g
Dry Sample + Tin	55.81	g
% Moisture	67.02	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/12/2015 12:41
Date/Time out of oven	07/13/2015 10:03

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.42	245.29	194.87
Sample Weight (Oven Dried)			64.3

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			64.3
% Passing #10			33

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	380.53	382.64	2.11	g	96.7	Sand	Medium
#40	425	353.92	360.72	6.80	g	86.1	Sand	Medium
#60	250	352.14	363.06	10.92	g	69.1	Sand	Fine
#80	180	338.82	349.23	10.41	g	52.9	Sand	Fine
#100	150	329.46	340.27	10.81	g	36.1	Sand	Fine
#200	75	323.18	331.72	8.54	g	22.8	Sand	Fine
				0.00	g	22.8		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	64.3

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0120	22.5	33.9	20.9	Silt	
5	5	1.0115	22.5	21.6	19.7	Silt	
15	15	1.0110	22.5	12.5	18.4	Silt	
30	30	1.0100	22.5	8.9	15.9	Silt	
60	59	1.0090	22.5	6.4	13.4	Silt	
250	256	1.0085	19.5	3.2	10.3	Clay	
1440	1440	1.0080	19.5	1.4	9.05	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB04-SURF
Lab Sample ID	200-28849-F-7

Date Received	7/11/2015
Start Date	07/12/2015 12:43
End Date	07/17/2015 11:19

Dry Weight Determination

Tin Weight	4.05	g
Wet Sample + Tin	170.39	g
Dry Sample + Tin	127.31	g
% Moisture	25.90	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/12/2015 12:43
Date/Time out of oven	07/13/2015 10:03

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.91	244.33	196.42
Sample Weight (Oven Dried)			146

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			6.01
Sample <#10			140
% Passing #10			71.3

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.20	489.85	1.65	g	98.9	Gravel	
#10	2000	462.91	467.27	4.36	g	95.9	Sand	Coarse
#20	850	380.53	381.99	1.46	g	94.9	Sand	Medium
#40	425	353.92	357.63	3.71	g	92.4	Sand	Medium
#60	250	352.14	375.56	23.42	g	76.4	Sand	Fine
#80	180	338.82	383.46	44.64	g	45.8	Sand	Fine
#100	150	329.46	347.48	18.02	g	33.5	Sand	Fine
#200	75	323.18	338.66	15.48	g	22.9	Sand	Fine
				0.00	g	22.9		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	146

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0140	22.5	33.2	11.4	Silt	
5	5	1.0125	22.5	21.3	9.76	Silt	
15	15	1.0115	22.5	12.4	8.66	Silt	
30	30	1.0105	22.5	8.9	7.56	Silt	
60	58	1.0090	22.5	6.5	5.91	Silt	
250	256	1.0080	19.5	3.2	3.99	Clay	
1440	1440	1.0070	19.5	1.4	2.89	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB07-SURF
Lab Sample ID	200-28849-F-10

Date Received	7/11/2015
Start Date	07/12/2015 12:44
End Date	07/17/2015 11:37

Dry Weight Determination

Tin Weight	4.10	g
Wet Sample + Tin	159.14	g
Dry Sample + Tin	112.54	g
% Moisture	30.06	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/12/2015 12:44
Date/Time out of oven	07/13/2015 10:03

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	51.88	258.80	206.92
Sample Weight (Oven Dried)			145

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			3.82
Sample <#10			141
% Passing #10			68.1

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.20	489.93	1.73	g	98.8	Gravel	
#10	2000	462.91	465.00	2.09	g	97.4	Sand	Coarse
#20	850	380.53	384.71	4.18	g	94.5	Sand	Medium
#40	425	353.92	363.51	9.59	g	87.9	Sand	Medium
#60	250	352.14	392.96	40.82	g	59.7	Sand	Fine
#80	180	338.82	384.02	45.20	g	28.5	Sand	Fine
#100	150	329.46	345.56	16.10	g	17.4	Sand	Fine
#200	75	323.18	340.04	16.86	g	5.8	Sand	Fine
				0.00	g	5.8		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	145

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0080	22.5	35.3	4.85	Silt	
5	5	1.0075	22.5	22.4	4.29	Silt	
15	15	1.0075	22.5	12.9	4.29	Silt	
30	29	1.0070	22.5	9.3	3.74	Silt	
60	58	1.0070	22.5	6.6	3.74	Silt	
250	250	1.0055	19.5	3.3	1.25	Clay	
1440	1434	1.0055	19.5	1.4	1.25	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB09-SURF
Lab Sample ID	200-28849-F-15

Date Received	7/11/2015
Start Date	07/12/2015 12:45
End Date	07/17/2015 12:04

Dry Weight Determination

Tin Weight	4.05	g
Wet Sample + Tin	165.91	g
Dry Sample + Tin	121.83	g
% Moisture	27.23	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/12/2015 12:45
Date/Time out of oven	07/13/2015 10:03

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.75	226.26	178.51
Sample Weight (Oven Dried)			130

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			6.62
Sample <#10			123
% Passing #10			68.9

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.20	491.60	3.40	g	97.4	Gravel	
#10	2000	462.91	466.13	3.22	g	94.9	Sand	Coarse
#20	850	380.53	381.00	0.47	g	94.5	Sand	Medium
#40	425	353.92	354.60	0.68	g	94.0	Sand	Medium
#60	250	352.14	354.82	2.68	g	91.9	Sand	Fine
#80	180	338.82	341.10	2.28	g	90.1	Sand	Fine
#100	150	329.46	330.75	1.29	g	89.1	Sand	Fine
#200	75	323.18	324.75	1.57	g	87.9	Sand	Fine
				0.00	g	87.9		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	130

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0310	22.5	26.6	33.8	Silt	
5	5	1.0265	22.5	18	28.3	Silt	
15	15	1.0240	22.5	10.8	25.2	Silt	
30	29	1.0220	22.5	8	22.7	Silt	
60	63	1.0190	22.5	5.6	19	Silt	
250	250	1.0145	19.5	3.1	12.5	Clay	
1440	1434	1.0120	19.5	1.3	9.42	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB29-SURF
Lab Sample ID	200-28880-E-2

Date Received	7/15/2015
Start Date	07/15/2015 13:58
End Date	07/17/2015 12:20

Dry Weight Determination

Tin Weight	4.41	g
Wet Sample + Tin	160.01	g
Dry Sample + Tin	45.75	g
% Moisture	73.43	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/15/2015 13:58
Date/Time out of oven	07/16/2015 9:33

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	48.04	338.29	290.25
Sample Weight (Oven Dried)			77.1

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			77.1
% Passing #10			26.6

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	380.53	380.95	0.42	g	99.5	Sand	Medium
#40	425	353.92	354.59	0.67	g	98.6	Sand	Medium
#60	250	352.14	354.60	2.46	g	95.4	Sand	Fine
#80	180	338.82	340.59	1.77	g	93.1	Sand	Fine
#100	150	329.46	330.31	0.85	g	92.0	Sand	Fine
#200	75	323.18	323.87	0.69	g	91.1	Sand	Fine
				0.00	g	91.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	77.1

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0300	22.5	27.1	54.9	Silt	
5	5	1.0235	22.5	18.8	41.4	Silt	
15	15	1.0215	22.5	11.1	37.2	Silt	
30	31	1.0200	22.5	7.9	34.1	Silt	
60	60	1.0180	22.5	5.8	29.9	Silt	
250	240	1.0140	19.5	3.1	20	Clay	
1440	1424	1.0115	19.5	1.3	14.8	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB31-SURF
Lab Sample ID	200-28880-D-4

Date Received	7/15/2015
Start Date	07/15/2015 13:59
End Date	07/17/2015 12:37

Dry Weight Determination

Tin Weight	4.15	g
Wet Sample + Tin	161.81	g
Dry Sample + Tin	45.30	g
% Moisture	73.90	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/15/2015 13:59
Date/Time out of oven	07/16/2015 9:32

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	48.11	228.62	180.51
Sample Weight (Oven Dried)			47.1

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.37
Sample <#10			46.7
% Passing #10			25.9

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.91	463.28	0.37	g	99.2	Sand	Coarse
#20	850	380.53	380.87	0.34	g	98.5	Sand	Medium
#40	425	353.92	354.64	0.72	g	97.0	Sand	Medium
#60	250	352.14	360.46	8.32	g	79.3	Sand	Fine
#80	180	338.82	345.87	7.05	g	64.3	Sand	Fine
#100	150	329.46	331.18	1.72	g	60.6	Sand	Fine
#200	75	323.18	324.22	1.04	g	58.4	Sand	Fine
				0.00	g	58.4		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	47.1

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0200	22.5	31.1	55.8	Silt	
5	5	1.0160	22.5	20.6	42.2	Silt	
15	15	1.0145	22.5	12.1	37.1	Silt	
30	31	1.0130	22.5	8.5	32	Silt	
60	59	1.0115	22.5	6.3	26.9	Silt	
250	234	1.0095	19.5	3.3	17.5	Clay	
1440	1418	1.0080	19.5	1.4	12.4	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/15/2015
Client Sample ID	SW15-SB04-SURF	Start Date	07/15/2015 14:00
Lab Sample ID	200-28880-C-6	End Date	07/17/2015 11:07

Dry Weight Determination

Tin Weight	4.00	g
Wet Sample + Tin	196.94	g
Dry Sample + Tin	103.24	g
% Moisture	48.56	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/15/2015 14:00
Date/Time out of oven	07/16/2015 9:32

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	58.17	217.78	159.61
Sample Weight (Oven Dried)			82.1

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.58
Sample <#10			81.5
% Passing #10			51.1

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.91	463.49	0.58	g	99.3	Sand	Coarse
#20	850	389.96	390.17	0.21	g	99.0	Sand	Medium
#40	425	367.50	367.75	0.25	g	98.7	Sand	Medium
#60	250	349.36	350.02	0.66	g	97.9	Sand	Fine
#80	180	331.67	332.58	0.91	g	96.8	Sand	Fine
#100	150	330.97	332.10	1.13	g	95.4	Sand	Fine
#200	75	330.94	345.70	14.76	g	77.4	Sand	Fine
				0.00	g	77.4		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	82.1

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0260	22.5	28.7	43.8	Silt	
5	5	1.0170	22.5	20.3	26.2	Silt	
15	15	1.0145	22.5	12.1	21.3	Silt	
30	31	1.0130	22.5	8.5	18.3	Silt	
60	59	1.0115	22.5	6.3	15.4	Silt	
250	265	1.0095	19.5	3.1	10	Clay	
1440	1412	1.0080	19.5	1.4	7.09	Clay	

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB33-SURF**

Lab Sample ID: 200-28895-2
Client Matrix: Sediment

Date Sampled: 07/14/2015 1540
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-F-2.txt
Dilution:	1.0			Initial Weight/Volume:	174.54 g
Analysis Date:	07/16/2015 1400			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.7			
Sieve Size #20 - Percent Finer		99.4			
Sieve Size #40 - Percent Finer		97.6			
Sieve Size #60 - Percent Finer		70.4			
Sieve Size #80 - Percent Finer		42.4			
Sieve Size #100 - Percent Finer		34.0			
Sieve Size #200 - Percent Finer		25.3			
Hydrometer Reading 1 - Percent Finer		7.4			
Hydrometer Reading 2 - Percent Finer		6.3			
Hydrometer Reading 3 - Percent Finer		5.8			
Hydrometer Reading 4 - Percent Finer		5.2			
Hydrometer Reading 5 - Percent Finer		4.2			
Hydrometer Reading 6 - Percent Finer		2.1			
Hydrometer Reading 7 - Percent Finer		1.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB33-SURF**

Lab Sample ID: 200-28895-2
Client Matrix: Sediment

Date Sampled: 07/14/2015 1540
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-F-2.txt
Dilution:	1.0			Initial Weight/Volume:	174.54 g
Analysis Date:	07/16/2015 1400			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		74.7			
Coarse Sand		0.3			
Medium Sand		2.1			
Fine Sand		72.3			
Silt		21.2			
Clay		4.2			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB38-SURF**

Lab Sample ID: 200-28895-5
Client Matrix: Sediment

Date Sampled: 07/14/2015 1620
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-C-5.txt
Dilution:	1.0			Initial Weight/Volume:	181.4 g
Analysis Date:	07/16/2015 1401			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		98.3			
Sieve Size #20 - Percent Finer		97.6			
Sieve Size #40 - Percent Finer		92.8			
Sieve Size #60 - Percent Finer		47.1			
Sieve Size #80 - Percent Finer		23.0			
Sieve Size #100 - Percent Finer		17.6			
Sieve Size #200 - Percent Finer		13.5			
Hydrometer Reading 1 - Percent Finer		10.8			
Hydrometer Reading 2 - Percent Finer		9.5			
Hydrometer Reading 3 - Percent Finer		8.8			
Hydrometer Reading 4 - Percent Finer		8.2			
Hydrometer Reading 5 - Percent Finer		7.6			
Hydrometer Reading 6 - Percent Finer		3.9			
Hydrometer Reading 7 - Percent Finer		3.2			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB38-SURF**

Lab Sample ID: 200-28895-5
Client Matrix: Sediment

Date Sampled: 07/14/2015 1620
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-C-5.txt
Dilution:	1.0			Initial Weight/Volume:	181.4 g
Analysis Date:	07/16/2015 1401			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		86.5			
Coarse Sand		1.7			
Medium Sand		5.5			
Fine Sand		79.3			
Silt		6.0			
Clay		7.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB41-SURF**

Lab Sample ID: 200-28895-8
Client Matrix: Sediment

Date Sampled: 07/14/2015 1710
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-E-8.txt
Dilution:	1.0			Initial Weight/Volume:	169.78 g
Analysis Date:	07/16/2015 1402			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.6			
Sieve Size #20 - Percent Finer		97.3			
Sieve Size #40 - Percent Finer		82.8			
Sieve Size #60 - Percent Finer		45.5			
Sieve Size #80 - Percent Finer		25.8			
Sieve Size #100 - Percent Finer		17.8			
Sieve Size #200 - Percent Finer		8.3			
Hydrometer Reading 1 - Percent Finer		6.7			
Hydrometer Reading 2 - Percent Finer		5.5			
Hydrometer Reading 3 - Percent Finer		5.5			
Hydrometer Reading 4 - Percent Finer		4.8			
Hydrometer Reading 5 - Percent Finer		4.2			
Hydrometer Reading 6 - Percent Finer		1.3			
Hydrometer Reading 7 - Percent Finer		0.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB41-SURF**

Lab Sample ID: 200-28895-8
Client Matrix: Sediment

Date Sampled: 07/14/2015 1710
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-E-8.txt
Dilution:	1.0			Initial Weight/Volume:	169.78 g
Analysis Date:	07/16/2015 1402			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		91.7			
Coarse Sand		0.4			
Medium Sand		16.8			
Fine Sand		74.5			
Silt		4.1			
Clay		4.2			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB34-SURF**

Lab Sample ID: 200-28895-10
Client Matrix: Sediment

Date Sampled: 07/15/2015 1145
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-E-10.txt
Dilution:	1.0			Initial Weight/Volume:	246.75 g
Analysis Date:	07/16/2015 1404			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		99.9			
Sieve Size #40 - Percent Finer		97.6			
Sieve Size #60 - Percent Finer		60.6			
Sieve Size #80 - Percent Finer		22.8			
Sieve Size #100 - Percent Finer		11.6			
Sieve Size #200 - Percent Finer		3.5			
Hydrometer Reading 1 - Percent Finer		1.2			
Hydrometer Reading 2 - Percent Finer		1.2			
Hydrometer Reading 3 - Percent Finer		1.2			
Hydrometer Reading 4 - Percent Finer		1.2			
Hydrometer Reading 5 - Percent Finer		0.8			
Hydrometer Reading 6 - Percent Finer		0.0			
Hydrometer Reading 7 - Percent Finer		0.0			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB34-SURF**

Lab Sample ID: 200-28895-10
Client Matrix: Sediment

Date Sampled: 07/15/2015 1145
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-E-10.txt
Dilution:	1.0			Initial Weight/Volume:	246.75 g
Analysis Date:	07/16/2015 1404			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		96.6			
Coarse Sand		0.0			
Medium Sand		2.4			
Fine Sand		94.2			
Silt		2.7			
Clay		0.8			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB37-SURF**

Lab Sample ID: 200-28895-12
Client Matrix: Sediment

Date Sampled: 07/15/2015 1045
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-C-12.txt
Dilution:	1.0			Initial Weight/Volume:	220.19 g
Analysis Date:	07/16/2015 1404			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.8			
Sieve Size #20 - Percent Finer		99.3			
Sieve Size #40 - Percent Finer		94.5			
Sieve Size #60 - Percent Finer		49.2			
Sieve Size #80 - Percent Finer		16.1			
Sieve Size #100 - Percent Finer		7.9			
Sieve Size #200 - Percent Finer		3.5			
Hydrometer Reading 1 - Percent Finer		3.2			
Hydrometer Reading 2 - Percent Finer		3.2			
Hydrometer Reading 3 - Percent Finer		3.2			
Hydrometer Reading 4 - Percent Finer		3.2			
Hydrometer Reading 5 - Percent Finer		2.7			
Hydrometer Reading 6 - Percent Finer		1			
Hydrometer Reading 7 - Percent Finer		0.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB37-SURF**

Lab Sample ID: 200-28895-12
Client Matrix: Sediment

Date Sampled: 07/15/2015 1045
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-C-12.txt
Dilution:	1.0			Initial Weight/Volume:	220.19 g
Analysis Date:	07/16/2015 1404			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		96.5			
Coarse Sand		0.2			
Medium Sand		5.3			
Fine Sand		91.0			
Silt		0.8			
Clay		2.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB37-SURF-FD**

Lab Sample ID: 200-28895-13FD
Client Matrix: Sediment

Date Sampled: 07/15/2015 1045
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-C-13.txt
Dilution:	1.0			Initial Weight/Volume:	190.88 g
Analysis Date:	07/16/2015 1406			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		99.4			
Sieve Size #40 - Percent Finer		94.5			
Sieve Size #60 - Percent Finer		49.4			
Sieve Size #80 - Percent Finer		16.4			
Sieve Size #100 - Percent Finer		8.3			
Sieve Size #200 - Percent Finer		3.9			
Hydrometer Reading 1 - Percent Finer		3.2			
Hydrometer Reading 2 - Percent Finer		2.7			
Hydrometer Reading 3 - Percent Finer		2.7			
Hydrometer Reading 4 - Percent Finer		2.7			
Hydrometer Reading 5 - Percent Finer		2.1			
Hydrometer Reading 6 - Percent Finer		0.6			
Hydrometer Reading 7 - Percent Finer		0.0			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB37-SURF-FD**

Lab Sample ID: 200-28895-13FD
Client Matrix: Sediment

Date Sampled: 07/15/2015 1045
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-C-13.txt
Dilution:	1.0			Initial Weight/Volume:	190.88 g
Analysis Date:	07/16/2015 1406			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		96.1			
Coarse Sand		0.0			
Medium Sand		5.5			
Fine Sand		90.6			
Silt		1.8			
Clay		2.1			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB39-SURF**

Lab Sample ID: 200-28895-16
Client Matrix: Sediment

Date Sampled: 07/15/2015 1000
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-C-16.txt
Dilution:	1.0			Initial Weight/Volume:	167.11 g
Analysis Date:	07/16/2015 1407			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		96.6			
Sieve Size #20 - Percent Finer		93.9			
Sieve Size #40 - Percent Finer		88.0			
Sieve Size #60 - Percent Finer		72.8			
Sieve Size #80 - Percent Finer		53.4			
Sieve Size #100 - Percent Finer		41.2			
Sieve Size #200 - Percent Finer		20.0			
Hydrometer Reading 1 - Percent Finer		16.6			
Hydrometer Reading 2 - Percent Finer		11.5			
Hydrometer Reading 3 - Percent Finer		10.8			
Hydrometer Reading 4 - Percent Finer		9.3			
Hydrometer Reading 5 - Percent Finer		6.9			
Hydrometer Reading 6 - Percent Finer		5.1			
Hydrometer Reading 7 - Percent Finer		2.9			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB39-SURF**

Lab Sample ID: 200-28895-16
Client Matrix: Sediment

Date Sampled: 07/15/2015 1000
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-C-16.txt
Dilution:	1.0			Initial Weight/Volume:	167.11 g
Analysis Date:	07/16/2015 1407			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		80.0			
Coarse Sand		3.4			
Medium Sand		8.6			
Fine Sand		68.0			
Silt		13.1			
Clay		6.9			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB40-SURF**

Lab Sample ID: 200-28895-18
Client Matrix: Sediment

Date Sampled: 07/15/2015 0830
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-C-18.txt
Dilution:	1.0			Initial Weight/Volume:	187.81 g
Analysis Date:	07/16/2015 1408			Final Weight/Volume:	
Prep Date:	N/A				

Analyte DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer	100.0			
Sieve Size 2 inch - Percent Finer	100.0			
Sieve Size 1.5 inch - Percent Finer	100.0			
Sieve Size 1 inch - Percent Finer	100.0			
Sieve Size 0.75 inch - Percent Finer	100.0			
Sieve Size 0.375 inch - Percent Finer	100.0			
Sieve Size #4 - Percent Finer	91.7			
Sieve Size #10 - Percent Finer	83.3			
Sieve Size #20 - Percent Finer	74.1			
Sieve Size #40 - Percent Finer	57.5			
Sieve Size #60 - Percent Finer	28.8			
Sieve Size #80 - Percent Finer	15.0			
Sieve Size #100 - Percent Finer	10.7			
Sieve Size #200 - Percent Finer	6.5			
Hydrometer Reading 1 - Percent Finer	5.8			
Hydrometer Reading 2 - Percent Finer	5.2			
Hydrometer Reading 3 - Percent Finer	4.6			
Hydrometer Reading 4 - Percent Finer	4.0			
Hydrometer Reading 5 - Percent Finer	2.7			
Hydrometer Reading 6 - Percent Finer	1.8			
Hydrometer Reading 7 - Percent Finer	0.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28895-1
Sdg Number: 28895

Client Sample ID: **SW15-SB40-SURF**

Lab Sample ID: 200-28895-18
Client Matrix: Sediment

Date Sampled: 07/15/2015 0830
Date Received: 07/16/2015 1030

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91421	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28895-C-18.txt
Dilution:	1.0			Initial Weight/Volume:	187.81 g
Analysis Date:	07/16/2015 1408			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		8.3			
Sand		85.2			
Coarse Sand		8.4			
Medium Sand		25.8			
Fine Sand		51.0			
Silt		3.8			
Clay		2.7			

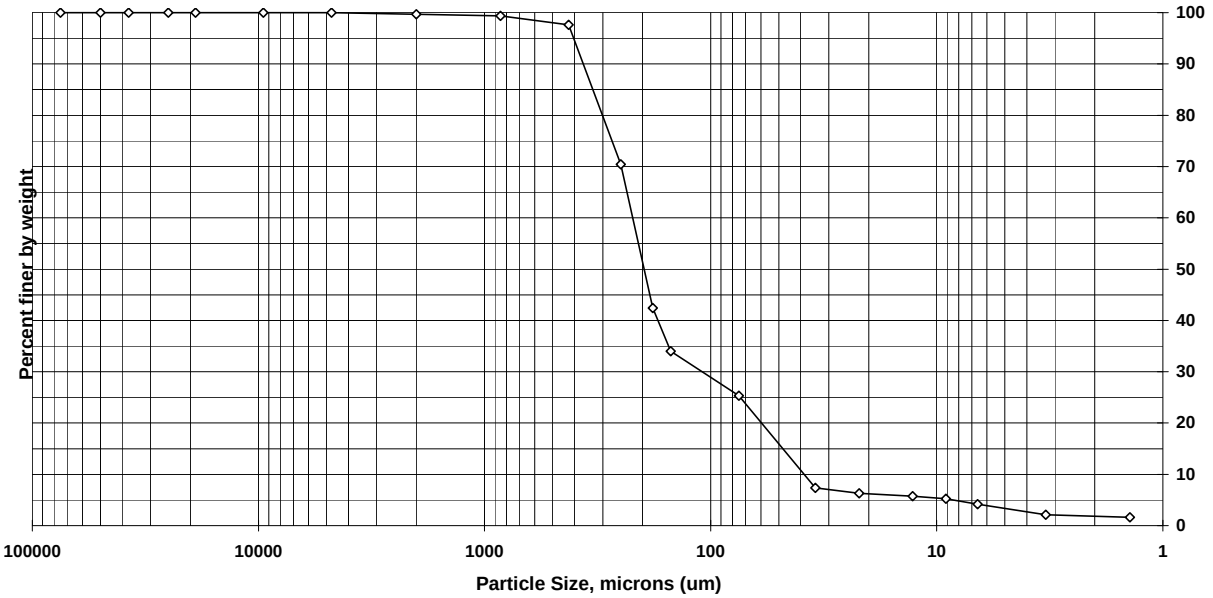
Particle Size of Soils by ASTM D422

				Date Received:	7/16/2015
Sample ID:	SW15-SB33-SURF	**Percent Solids:**	86.1%	**Start Date:**	7/16/2015
Lab ID:	200-28895-F-2	**Specific Gravity:**	2.650	**End Date:**	7/19/2015

Shape (> #10): subangular

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.7	0.3
#20	850	99.4	0.3
#40	425	97.6	1.8
#60	250	70.4	27.2
#80	180	42.4	28.0
#100	150	34.0	8.4
#200	75	25.3	8.7
Hyd1	34.4	7.4	17.9
Hyd2	22	6.3	1.1
Hyd3	12.8	5.8	0.5
Hyd4	9.1	5.2	0.5
Hyd5	6.6	4.2	1.1
Hyd6	3.3	2.1	2.0
Hyd7	1.4	1.6	0.5

Soil Classification	Percent of sample
Gravel	0.0
Sand	74.7
Coarse Sand	0.3
Medium Sand	2.1
Fine Sand	72.3
Silt	21.2
Clay	4.2

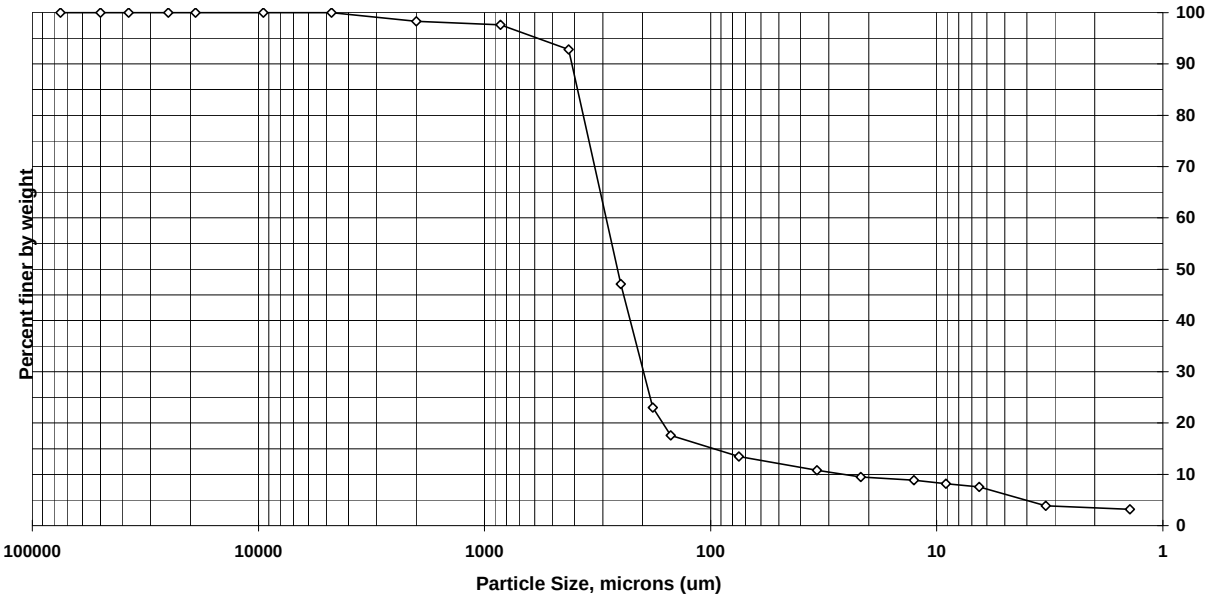
Particle Size of Soils by ASTM D422

				Date Received:	7/16/2015
Sample ID:	SW15-SB38-SURF	**Percent Solids:**	68.7%	**Start Date:**	7/16/2015
Lab ID:	200-28895-C-5	**Specific Gravity:**	2.650	**End Date:**	7/19/2015

Shape (> #10): subangular

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	98.3	1.7
#20	850	97.6	0.7
#40	425	92.8	4.8
#60	250	47.1	45.7
#80	180	23.0	24.1
#100	150	17.6	5.4
#200	75	13.5	4.1
Hyd1	33.9	10.8	2.7
Hyd2	21.7	9.5	1.3
Hyd3	12.6	8.8	0.7
Hyd4	9.1	8.2	0.6
Hyd5	6.5	7.6	0.6
Hyd6	3.3	3.9	3.7
Hyd7	1.4	3.2	0.6

Soil Classification	Percent of sample
Gravel	0.0
Sand	86.5
Coarse Sand	1.7
Medium Sand	5.5
Fine Sand	79.3
Silt	6.0
Clay	7.5

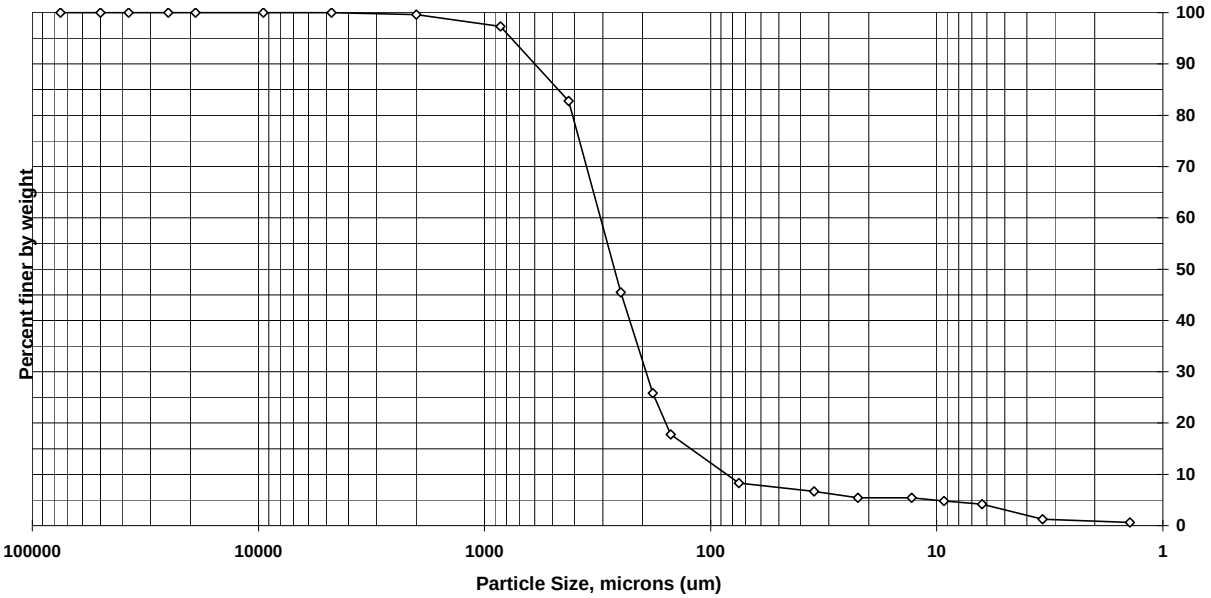
Particle Size of Soils by ASTM D422

				Date Received:	7/16/2015
Sample ID:	SW15-SB41-SURF	**Percent Solids:**	76.0%	**Start Date:**	7/16/2015
Lab ID:	200-28895-E-8	**Specific Gravity:**	2.650	**End Date:**	7/19/2015

Shape (> #10): subangular

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.6	0.4
#20	850	97.3	2.3
#40	425	82.8	14.5
#60	250	45.5	37.3
#80	180	25.8	19.7
#100	150	17.8	8.0
#200	75	8.3	9.5
Hyd1	34.9	6.7	1.6
Hyd2	22.3	5.5	1.2
Hyd3	12.9	5.5	0.0
Hyd4	9.3	4.8	0.6
Hyd5	6.3	4.2	0.6
Hyd6	3.4	1.3	3.0
Hyd7	1.4	0.6	0.6

Soil Classification	Percent of sample
Gravel	0.0
Sand	91.7
Coarse Sand	0.4
Medium Sand	16.8
Fine Sand	74.5
Silt	4.1
Clay	4.2

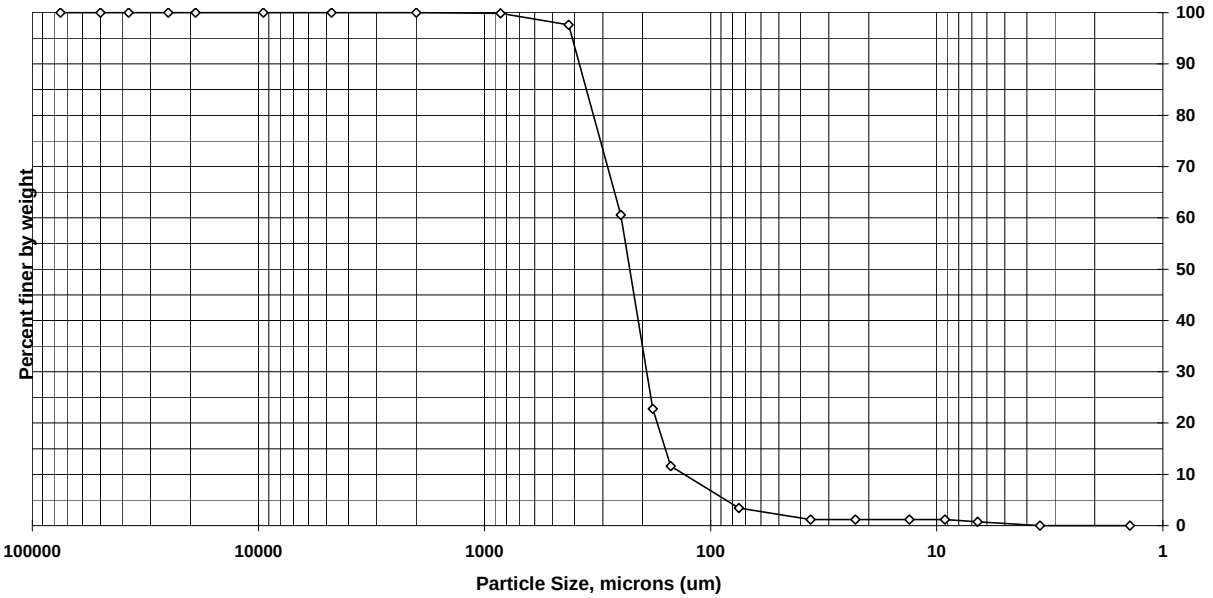
Particle Size of Soils by ASTM D422

				Date Received:	7/16/2015
Sample ID:	SW15-SB34-SURF	**Percent Solids:**	74.8%	**Start Date:**	7/16/2015
Lab ID:	200-28895-E-10	**Specific Gravity:**	2.650	**End Date:**	7/19/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.9	0.1
#40	425	97.6	2.3
#60	250	60.6	37.0
#80	180	22.8	37.8
#100	150	11.6	11.2
#200	75	3.5	8.1
Hyd1	36.2	1.2	2.3
Hyd2	22.9	1.2	0.0
Hyd3	13.2	1.2	0.0
Hyd4	9.2	1.2	0.0
Hyd5	6.6	0.8	0.4
Hyd6	3.5	0.0	0.8
Hyd7	1.4	0.0	0.0

Soil Classification	Percent of sample
Gravel	0.0
Sand	96.6
Coarse Sand	0.0
Medium Sand	2.4
Fine Sand	94.2
Silt	2.7
Clay	0.8

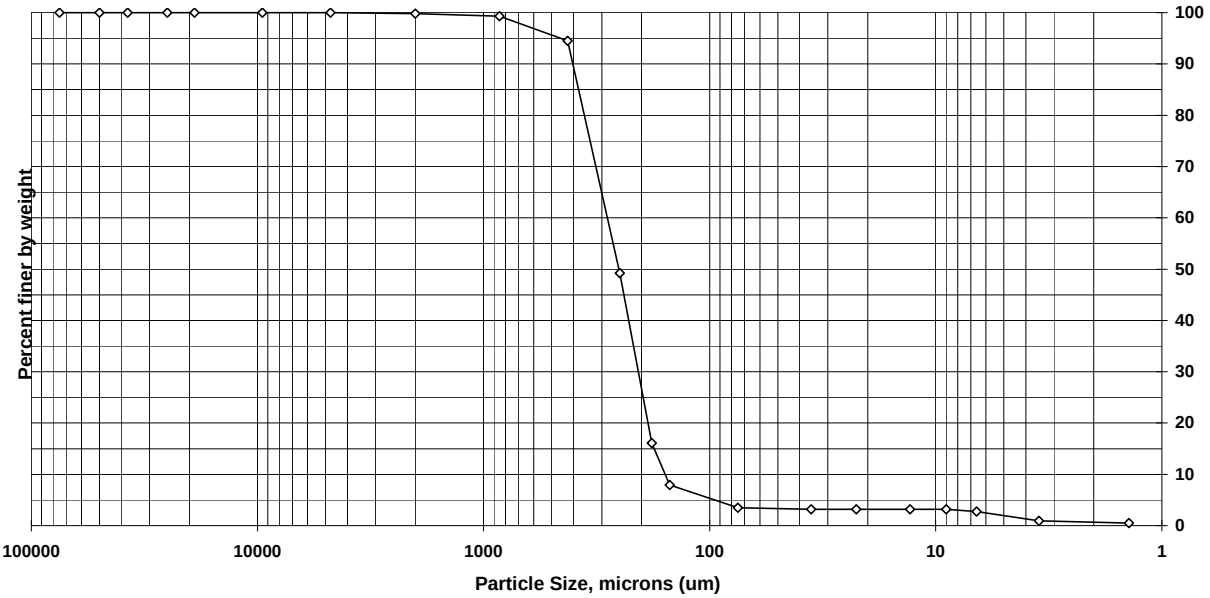
Particle Size of Soils by ASTM D422

				Date Received:	7/16/2015
Sample ID:	SW15-SB37-SURF	**Percent Solids:**	76.7%	**Start Date:**	7/16/2015
Lab ID:	200-28895-C-12	**Specific Gravity:**	2.650	**End Date:**	7/19/2015

Shape (> #10): subangular

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.8	0.2
#20	850	99.3	0.5
#40	425	94.5	4.8
#60	250	49.2	45.3
#80	180	16.1	33.1
#100	150	7.9	8.2
#200	75	3.5	4.4
Hyd1	35.6	3.2	0.3
Hyd2	22.5	3.2	0.0
Hyd3	13	3.2	0.0
Hyd4	9	3.2	0.0
Hyd5	6.6	2.7	0.5
Hyd6	3.5	1.0	1.8
Hyd7	1.4	0.5	0.5

Soil Classification	Percent of sample
Gravel	0.0
Sand	96.5
Coarse Sand	0.2
Medium Sand	5.3
Fine Sand	91.0
Silt	0.8
Clay	2.7

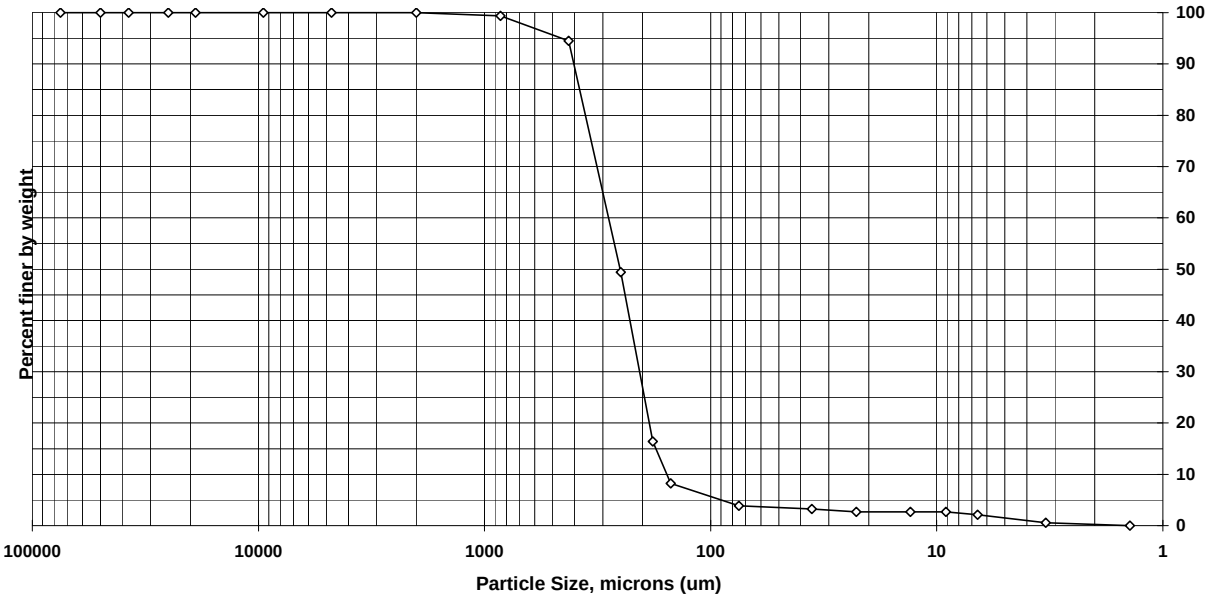
Particle Size of Soils by ASTM D422

				Date Received:	7/16/2015
Sample ID:	SW15-SB37-SURF-FD	**Percent Solids:**	75.2%	**Start Date:**	7/16/2015
Lab ID:	200-28895-C-13	**Specific Gravity:**	2.650	**End Date:**	7/19/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.4	0.6
#40	425	94.5	4.9
#60	250	49.4	45.1
#80	180	16.4	33.0
#100	150	8.3	8.2
#200	75	3.9	4.4
Hyd1	35.7	3.2	0.7
Hyd2	22.7	2.7	0.6
Hyd3	13.1	2.7	0.0
Hyd4	9.1	2.7	0.0
Hyd5	6.6	2.1	0.6
Hyd6	3.3	0.6	1.5
Hyd7	1.4	0.0	0.6

Soil Classification	Percent of sample
Gravel	0.0
Sand	96.1
Coarse Sand	0.0
Medium Sand	5.5
Fine Sand	90.6
Silt	1.8
Clay	2.1

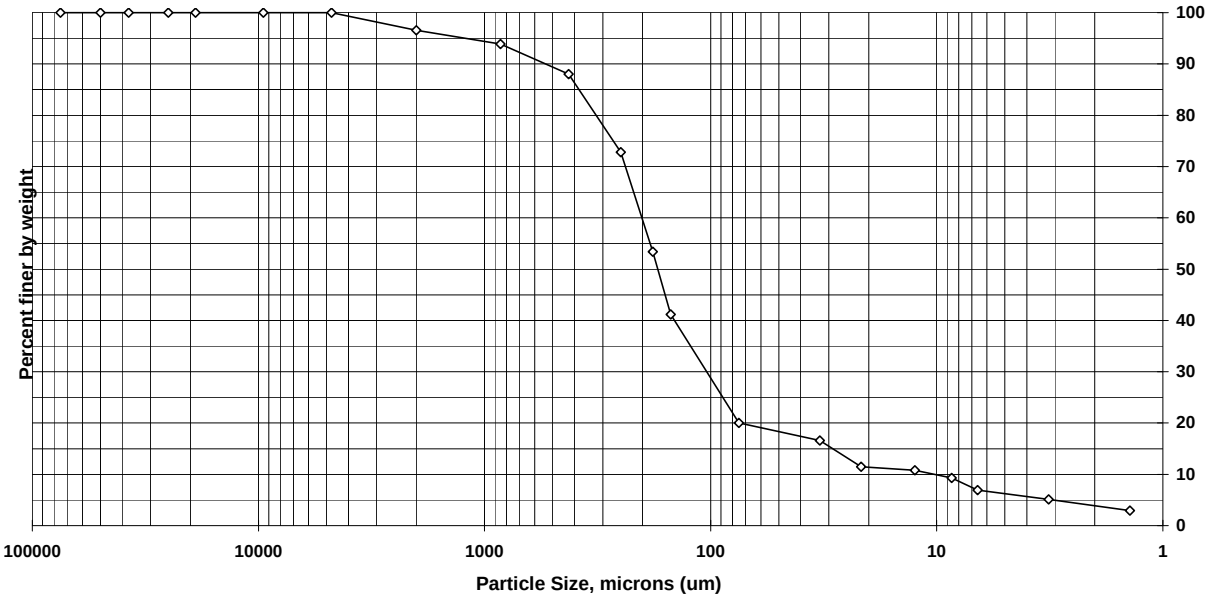
Particle Size of Soils by ASTM D422

				Date Received:	7/16/2015
Sample ID:	SW15-SB39-SURF	**Percent Solids:**	65.6%	**Start Date:**	7/16/2015
Lab ID:	200-28895-C-16	**Specific Gravity:**	2.650	**End Date:**	7/19/2015

Shape (> #10): subangular

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	96.6	3.4
#20	850	93.9	2.7
#40	425	88.0	5.9
#60	250	72.8	15.2
#80	180	53.4	19.4
#100	150	41.2	12.2
#200	75	20.0	21.2
Hyd1	32.9	16.6	3.4
Hyd2	21.6	11.5	5.1
Hyd3	12.5	10.8	0.7
Hyd4	8.6	9.3	1.5
Hyd5	6.6	6.9	2.4
Hyd6	3.2	5.1	1.8
Hyd7	1.4	2.9	2.2

Soil Classification	Percent of sample
Gravel	0.0
Sand	80.0
Coarse Sand	3.4
Medium Sand	8.6
Fine Sand	68.0
Silt	13.1
Clay	6.9

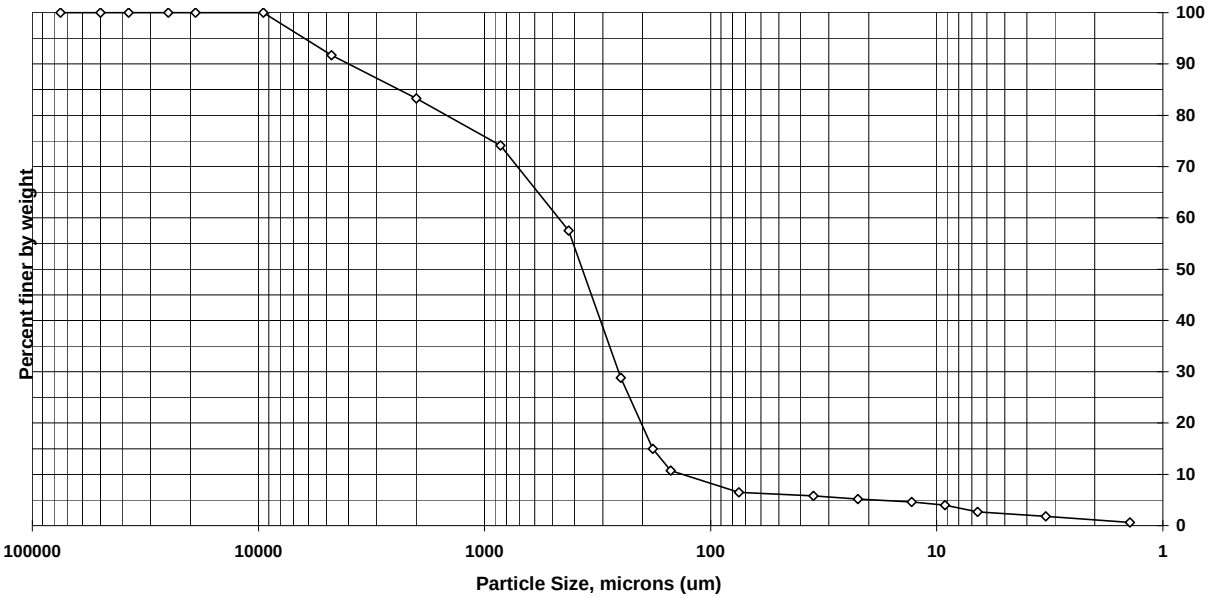
Particle Size of Soils by ASTM D422

				Date Received:	7/16/2015
Sample ID:	SW15-SB40-SURF	**Percent Solids:**	72.0%	**Start Date:**	7/16/2015
Lab ID:	200-28895-C-18	**Specific Gravity:**	2.650	**End Date:**	7/19/2015

Shape (> #10): subangular

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	91.7	8.3
#10	2000	83.3	8.4
#20	850	74.1	9.2
#40	425	57.5	16.6
#60	250	28.8	28.7
#80	180	15.0	13.8
#100	150	10.7	4.3
#200	75	6.5	4.2
Hyd1	35.1	5.8	0.7
Hyd2	22.3	5.2	0.6
Hyd3	12.9	4.6	0.6
Hyd4	9.2	4.0	0.6
Hyd5	6.6	2.7	1.3
Hyd6	3.3	1.8	0.9
Hyd7	1.4	0.6	1.2

Soil Classification	Percent of sample
Gravel	8.3
Sand	85.2
Coarse Sand	8.4
Medium Sand	25.8
Fine Sand	51.0
Silt	3.8
Clay	2.7

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB33-SURF
Lab Sample ID	200-28895-F-2

Date Received	7/16/2015
Start Date	07/16/2015 14:00
End Date	07/19/2015 14:33

Dry Weight Determination

Tin Weight	4.23	g
Wet Sample + Tin	178.85	g
Dry Sample + Tin	154.55	g
% Moisture	13.92	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/16/2015 14:00
Date/Time out of oven	07/17/2015 10:12

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.85	225.39	174.54
Sample Weight (Oven Dried)			150

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.41
Sample <#10			150
% Passing #10			85.9

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	463.33	0.41	g	99.7	Sand	Coarse
#20	850	380.74	381.26	0.52	g	99.4	Sand	Medium
#40	425	354.19	356.84	2.65	g	97.6	Sand	Medium
#60	250	353.47	394.20	40.73	g	70.4	Sand	Fine
#80	180	339.74	381.68	41.94	g	42.4	Sand	Fine
#100	150	329.90	342.52	12.62	g	34.0	Sand	Fine
#200	75	323.20	336.28	13.08	g	25.3	Sand	Fine
				0.00	g	25.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	150

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0105	22.5	34.4	7.36	Silt	
5	5	1.0095	22.5	22	6.29	Silt	
15	15	1.0090	22.5	12.8	5.76	Silt	
30	30	1.0085	22.5	9.1	5.22	Silt	
60	58	1.0075	22.5	6.6	4.15	Silt	
250	256	1.0065	19.0	3.3	2.14	Clay	
1440	1440	1.0060	19.0	1.4	1.61	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB38-SURF
Lab Sample ID	200-28895-C-5

Date Received	7/16/2015
Start Date	07/16/2015 14:01
End Date	07/19/2015 14:47

Dry Weight Determination

Tin Weight	4.17	g
Wet Sample + Tin	190.73	g
Dry Sample + Tin	132.31	g
% Moisture	31.31	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/16/2015 14:01
Date/Time out of oven	07/17/2015 10:11

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	58.22	239.62	181.4
Sample Weight (Oven Dried)			125

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			2.17
Sample <#10			123
% Passing #10			67.8

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	465.09	2.17	g	98.3	Sand	Coarse
#20	850	380.74	381.62	0.88	g	97.6	Sand	Medium
#40	425	354.19	360.24	6.05	g	92.8	Sand	Medium
#60	250	353.47	410.63	57.16	g	47.1	Sand	Fine
#80	180	339.74	369.91	30.17	g	23.0	Sand	Fine
#100	150	329.90	336.64	6.74	g	17.6	Sand	Fine
#200	75	323.20	328.35	5.15	g	13.5	Sand	Fine
				0.00	g	13.5		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	125

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0120	22.5	33.9	10.8	Silt	
5	5	1.0110	22.5	21.7	9.48	Silt	
15	15	1.0105	22.5	12.6	8.83	Silt	
30	29	1.0100	22.5	9.1	8.19	Silt	
60	58	1.0095	22.5	6.5	7.55	Silt	
250	250	1.0075	19.0	3.3	3.85	Clay	
1440	1434	1.0070	19.0	1.4	3.21	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB41-SURF
Lab Sample ID	200-28895-E-8

Date Received	7/16/2015
Start Date	07/16/2015 14:02
End Date	07/19/2015 15:01

Dry Weight Determination

Tin Weight	4.15	g
Wet Sample + Tin	161.95	g
Dry Sample + Tin	124.08	g
% Moisture	24.00	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/16/2015 14:02
Date/Time out of oven	07/17/2015 10:12

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.80	227.58	169.78
Sample Weight (Oven Dried)			129

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.57
Sample <#10			128
% Passing #10			75.4

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	463.49	0.57	g	99.6	Sand	Coarse
#20	850	380.74	383.72	2.98	g	97.3	Sand	Medium
#40	425	354.19	372.93	18.74	g	82.8	Sand	Medium
#60	250	353.47	401.63	48.16	g	45.5	Sand	Fine
#80	180	339.74	365.12	25.38	g	25.8	Sand	Fine
#100	150	329.90	340.24	10.34	g	17.8	Sand	Fine
#200	75	323.20	335.49	12.29	g	8.3	Sand	Fine
				0.00	g	8.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	129

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0090	22.5	34.9	6.69	Silt	
5	5	1.0080	22.5	22.3	5.45	Silt	
15	15	1.0080	22.5	12.9	5.45	Silt	
30	29	1.0075	22.5	9.3	4.82	Silt	
60	63	1.0070	22.5	6.3	4.2	Silt	
250	250	1.0055	19.0	3.4	1.25	Clay	
1440	1434	1.0050	19.0	1.4	0.623	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB34-SURF
Lab Sample ID	200-28895-E-10

Date Received	7/16/2015
Start Date	07/16/2015 14:04
End Date	07/19/2015 15:03

Dry Weight Determination

Tin Weight	4.14	g
Wet Sample + Tin	221.42	g
Dry Sample + Tin	166.76	g
% Moisture	25.16	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/16/2015 14:04
Date/Time out of oven	07/17/2015 10:12

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	51.50	298.25	246.75
Sample Weight (Oven Dried)			185

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			185
% Passing #10			75

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	390.00	390.15	0.15	g	99.9	Sand	Medium
#40	425	367.53	371.87	4.34	g	97.6	Sand	Medium
#60	250	349.33	417.87	68.54	g	60.6	Sand	Fine
#80	180	331.68	401.70	70.02	g	22.8	Sand	Fine
#100	150	330.98	351.79	20.81	g	11.6	Sand	Fine
#200	75	330.98	346.05	15.07	g	3.5	Sand	Fine
				0.00	g	3.5		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	185

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0050	22.5	36.2	1.19	Silt	
5	5	1.0050	22.5	22.9	1.19	Silt	
15	15	1.0050	22.5	13.2	1.19	Silt	
30	31	1.0050	22.5	9.2	1.19	Silt	
60	60	1.0045	22.5	6.6	0.76	Silt	
250	240	1.0045	19.0	3.5	0	Clay	
1440	1424	1.0045	19.0	1.4	0	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB37-SURF
Lab Sample ID	200-28895-C-12

Date Received	7/16/2015
Start Date	07/16/2015 14:04
End Date	07/19/2015 14:21

Dry Weight Determination

Tin Weight	4.25	g
Wet Sample + Tin	175.64	g
Dry Sample + Tin	135.75	g
% Moisture	23.27	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/16/2015 14:04
Date/Time out of oven	07/17/2015 10:11

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	58.06	278.25	220.19
Sample Weight (Oven Dried)			169

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.36
Sample <#10			169
% Passing #10			76.8

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	463.28	0.36	g	99.8	Sand	Coarse
#20	850	390.00	390.79	0.79	g	99.3	Sand	Medium
#40	425	367.53	375.56	8.03	g	94.5	Sand	Medium
#60	250	349.33	425.83	76.50	g	49.2	Sand	Fine
#80	180	331.68	387.56	55.88	g	16.1	Sand	Fine
#100	150	330.98	344.83	13.85	g	7.9	Sand	Fine
#200	75	330.98	338.42	7.44	g	3.5	Sand	Fine
				0.00	g	3.5		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	169

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0070	22.5	35.6	3.21	Silt	
5	5	1.0070	22.5	22.5	3.21	Silt	
15	15	1.0070	22.5	13	3.21	Silt	
30	31	1.0070	22.5	9	3.21	Silt	
60	59	1.0065	22.5	6.6	2.73	Silt	
250	234	1.0055	19.0	3.5	0.95	Clay	
1440	1418	1.0050	19.0	1.4	0.475	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB37-SURF-FD
Lab Sample ID	200-28895-C-13

Date Received	7/16/2015
Start Date	07/16/2015 14:06
End Date	07/19/2015 14:35

Dry Weight Determination

Tin Weight	4.19	g
Wet Sample + Tin	166.39	g
Dry Sample + Tin	126.11	g
% Moisture	24.83	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/16/2015 14:06
Date/Time out of oven	07/17/2015 10:11

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.81	238.69	190.88
Sample Weight (Oven Dried)			143

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			143
% Passing #10			74.9

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	390.00	390.83	0.83	g	99.4	Sand	Medium
#40	425	367.53	374.51	6.98	g	94.5	Sand	Medium
#60	250	349.33	413.81	64.48	g	49.4	Sand	Fine
#80	180	331.68	378.93	47.25	g	16.4	Sand	Fine
#100	150	330.98	342.64	11.66	g	8.3	Sand	Fine
#200	75	330.98	337.22	6.24	g	3.9	Sand	Fine
				0.00	g	3.9		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	143

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0065	22.5	35.7	3.23	Silt	
5	5	1.0060	22.5	22.7	2.67	Silt	
15	15	1.0060	22.5	13.1	2.67	Silt	
30	31	1.0060	22.5	9.1	2.67	Silt	
60	59	1.0055	22.5	6.6	2.11	Silt	
250	265	1.0050	19.0	3.3	0.562	Clay	
1440	1412	1.0045	19.0	1.4	0	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB39-SURF
Lab Sample ID	200-28895-C-16

Date Received	7/16/2015
Start Date	07/16/2015 14:07
End Date	07/19/2015 14:48

Dry Weight Determination

Tin Weight	4.52	g
Wet Sample + Tin	227.80	g
Dry Sample + Tin	150.90	g
% Moisture	34.44	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/16/2015 14:07
Date/Time out of oven	07/17/2015 10:11

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	51.38	218.49	167.11
Sample Weight (Oven Dried)			110

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			3.71
Sample <#10			106
% Passing #10			63.4

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.92	466.63	3.71	g	96.6	Sand	Coarse
#20	850	390.00	393.00	3.00	g	93.9	Sand	Medium
#40	425	367.53	374.01	6.48	g	88.0	Sand	Medium
#60	250	349.33	366.10	16.77	g	72.8	Sand	Fine
#80	180	331.68	353.02	21.34	g	53.4	Sand	Fine
#100	150	330.98	344.39	13.41	g	41.2	Sand	Fine
#200	75	330.98	354.31	23.33	g	20.0	Sand	Fine
				0.00	g	20.0		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	110

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0150	22.5	32.9	16.6	Silt	
5	5	1.0115	22.5	21.6	11.5	Silt	
15	15	1.0110	22.5	12.5	10.8	Silt	
30	32	1.0100	22.5	8.6	9.31	Silt	
60	60	1.0090	20.0	6.6	6.94	Silt	
250	259	1.0080	19.0	3.2	5.11	Clay	
1440	1406	1.0065	19.0	1.4	2.92	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB40-SURF
Lab Sample ID	200-28895-C-18

Date Received	7/16/2015
Start Date	07/16/2015 14:08
End Date	07/19/2015 15:14

Dry Weight Determination

Tin Weight	4.35	g
Wet Sample + Tin	184.71	g
Dry Sample + Tin	134.27	g
% Moisture	27.97	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subangular
Hardness (> #10):	hard

Date/Time in oven	07/16/2015 14:08
Date/Time out of oven	07/17/2015 10:12

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.93	245.74	187.81
Sample Weight (Oven Dried)			135

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			22.5
Sample <#10			113
% Passing #10			60.2

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.24	499.38	11.14	g	91.7	Gravel	
#10	2000	462.92	474.26	11.34	g	83.3	Sand	Coarse
#20	850	380.74	393.11	12.37	g	74.1	Sand	Medium
#40	425	354.19	376.64	22.45	g	57.5	Sand	Medium
#60	250	353.47	392.16	38.69	g	28.8	Sand	Fine
#80	180	339.74	358.37	18.63	g	15.0	Sand	Fine
#100	150	329.90	335.77	5.87	g	10.7	Sand	Fine
#200	75	323.20	328.87	5.67	g	6.5	Sand	Fine
				0.00	g	6.5		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	135

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0085	22.5	35.1	5.8	Silt	
5	5	1.0080	22.5	22.3	5.2	Silt	
15	15	1.0075	22.5	12.9	4.61	Silt	
30	30	1.0070	22.5	9.2	4.02	Silt	
60	63	1.0065	20.0	6.6	2.68	Silt	
250	253	1.0060	19.0	3.3	1.78	Clay	
1440	1400	1.0050	19.0	1.4	0.595	Clay	

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB12-SURF**

Lab Sample ID: 200-28916-2
Client Matrix: Sediment

Date Sampled: 07/16/2015 0900
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-F-2.txt
Dilution:	1.0			Initial Weight/Volume:	296.11 g
Analysis Date:	07/17/2015 2017			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		99.7			
Sieve Size #40 - Percent Finer		97.2			
Sieve Size #60 - Percent Finer		63.5			
Sieve Size #80 - Percent Finer		27.0			
Sieve Size #100 - Percent Finer		15.4			
Sieve Size #200 - Percent Finer		4.4			
Hydrometer Reading 1 - Percent Finer		2.2			
Hydrometer Reading 2 - Percent Finer		1.9			
Hydrometer Reading 3 - Percent Finer		1.9			
Hydrometer Reading 4 - Percent Finer		1.9			
Hydrometer Reading 5 - Percent Finer		1.5			
Hydrometer Reading 6 - Percent Finer		1.2			
Hydrometer Reading 7 - Percent Finer		1.2			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB12-SURF**

Lab Sample ID: 200-28916-2
Client Matrix: Sediment

Date Sampled: 07/16/2015 0900
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-F-2.txt
Dilution:	1.0			Initial Weight/Volume:	296.11 g
Analysis Date:	07/17/2015 2017			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		95.6			
Coarse Sand		0.0			
Medium Sand		2.8			
Fine Sand		92.8			
Silt		2.9			
Clay		1.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB19-SURF**

Lab Sample ID: 200-28916-6
Client Matrix: Sediment

Date Sampled: 07/16/2015 1120
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-F-6.txt
Dilution:	1.0			Initial Weight/Volume:	176.63 g
Analysis Date:	07/17/2015 2019			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.5			
Sieve Size #20 - Percent Finer		99.1			
Sieve Size #40 - Percent Finer		97.8			
Sieve Size #60 - Percent Finer		84.8			
Sieve Size #80 - Percent Finer		51.6			
Sieve Size #100 - Percent Finer		31.9			
Sieve Size #200 - Percent Finer		3.6			
Hydrometer Reading 1 - Percent Finer		3.3			
Hydrometer Reading 2 - Percent Finer		3.3			
Hydrometer Reading 3 - Percent Finer		3.3			
Hydrometer Reading 4 - Percent Finer		3.3			
Hydrometer Reading 5 - Percent Finer		2.7			
Hydrometer Reading 6 - Percent Finer		1.4			
Hydrometer Reading 7 - Percent Finer		1.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB19-SURF**

Lab Sample ID: 200-28916-6
Client Matrix: Sediment

Date Sampled: 07/16/2015 1120
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-F-6.txt
Dilution:	1.0			Initial Weight/Volume:	176.63 g
Analysis Date:	07/17/2015 2019			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		96.4			
Coarse Sand		0.5			
Medium Sand		1.7			
Fine Sand		94.2			
Silt		0.9			
Clay		2.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB13-SURF**

Lab Sample ID: 200-28916-11
Client Matrix: Sediment

Date Sampled: 07/16/2015 0940
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-F-11.txt
Dilution:	1.0			Initial Weight/Volume:	188.15 g
Analysis Date:	07/17/2015 2021			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		98.6			
Sieve Size #20 - Percent Finer		98.1			
Sieve Size #40 - Percent Finer		96.0			
Sieve Size #60 - Percent Finer		89.2			
Sieve Size #80 - Percent Finer		76.0			
Sieve Size #100 - Percent Finer		58.6			
Sieve Size #200 - Percent Finer		17.2			
Hydrometer Reading 1 - Percent Finer		7.6			
Hydrometer Reading 2 - Percent Finer		6.5			
Hydrometer Reading 3 - Percent Finer		5.3			
Hydrometer Reading 4 - Percent Finer		5.3			
Hydrometer Reading 5 - Percent Finer		3.6			
Hydrometer Reading 6 - Percent Finer		2.4			
Hydrometer Reading 7 - Percent Finer		1.9			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB13-SURF**

Lab Sample ID: 200-28916-11
Client Matrix: Sediment

Date Sampled: 07/16/2015 0940
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-F-11.txt
Dilution:	1.0			Initial Weight/Volume:	188.15 g
Analysis Date:	07/17/2015 2021			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		82.8			
Coarse Sand		1.4			
Medium Sand		2.6			
Fine Sand		78.8			
Silt		13.6			
Clay		3.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB18-SURF**

Lab Sample ID: 200-28916-14
Client Matrix: Sediment

Date Sampled: 07/16/2015 0810
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-D-14.txt
Dilution:	1.0			Initial Weight/Volume:	174.56 g
Analysis Date:	07/17/2015 2024			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.1			
Sieve Size #20 - Percent Finer		97.4			
Sieve Size #40 - Percent Finer		96.4			
Sieve Size #60 - Percent Finer		80.8			
Sieve Size #80 - Percent Finer		66.6			
Sieve Size #100 - Percent Finer		62.4			
Sieve Size #200 - Percent Finer		57.4			
Hydrometer Reading 1 - Percent Finer		55.6			
Hydrometer Reading 2 - Percent Finer		25.7			
Hydrometer Reading 3 - Percent Finer		16.9			
Hydrometer Reading 4 - Percent Finer		13.4			
Hydrometer Reading 5 - Percent Finer		9.9			
Hydrometer Reading 6 - Percent Finer		6.4			
Hydrometer Reading 7 - Percent Finer		4.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB18-SURF**

Lab Sample ID: 200-28916-14
Client Matrix: Sediment

Date Sampled: 07/16/2015 0810
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-D-14.txt
Dilution:	1.0			Initial Weight/Volume:	174.56 g
Analysis Date:	07/17/2015 2024			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		42.6			
Coarse Sand		0.9			
Medium Sand		2.7			
Fine Sand		39.0			
Silt		47.5			
Clay		9.9			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB25-SURF**

Lab Sample ID: 200-28916-17
Client Matrix: Sediment

Date Sampled: 07/15/2015 1545
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-E-17.txt
Dilution:	1.0			Initial Weight/Volume:	186.54 g
Analysis Date:	07/17/2015 2026			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		98.6			
Sieve Size #20 - Percent Finer		96.4			
Sieve Size #40 - Percent Finer		91.5			
Sieve Size #60 - Percent Finer		71.7			
Sieve Size #80 - Percent Finer		48.7			
Sieve Size #100 - Percent Finer		39.1			
Sieve Size #200 - Percent Finer		28.3			
Hydrometer Reading 1 - Percent Finer		26.2			
Hydrometer Reading 2 - Percent Finer		17.8			
Hydrometer Reading 3 - Percent Finer		17.0			
Hydrometer Reading 4 - Percent Finer		16.2			
Hydrometer Reading 5 - Percent Finer		16.2			
Hydrometer Reading 6 - Percent Finer		11.1			
Hydrometer Reading 7 - Percent Finer		8.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB25-SURF**

Lab Sample ID: 200-28916-17
Client Matrix: Sediment

Date Sampled: 07/15/2015 1545
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-E-17.txt
Dilution:	1.0			Initial Weight/Volume:	186.54 g
Analysis Date:	07/17/2015 2026			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		71.7			
Coarse Sand		1.4			
Medium Sand		7.1			
Fine Sand		63.2			
Silt		12.1			
Clay		16.2			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB25-SURF-FD**

Lab Sample ID: 200-28916-18FD
Client Matrix: Sediment

Date Sampled: 07/15/2015 1545
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-E-18.txt
Dilution:	1.0			Initial Weight/Volume:	250.14 g
Analysis Date:	07/17/2015 2028			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		98.9			
Sieve Size #20 - Percent Finer		96.6			
Sieve Size #40 - Percent Finer		91.0			
Sieve Size #60 - Percent Finer		74.0			
Sieve Size #80 - Percent Finer		50.9			
Sieve Size #100 - Percent Finer		40.5			
Sieve Size #200 - Percent Finer		28.6			
Hydrometer Reading 1 - Percent Finer		26.1			
Hydrometer Reading 2 - Percent Finer		18.8			
Hydrometer Reading 3 - Percent Finer		18.0			
Hydrometer Reading 4 - Percent Finer		16.4			
Hydrometer Reading 5 - Percent Finer		13.9			
Hydrometer Reading 6 - Percent Finer		10.7			
Hydrometer Reading 7 - Percent Finer		8.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28916-1
Sdg Number: 28916

Client Sample ID: **SW15-SB25-SURF-FD**

Lab Sample ID: 200-28916-18FD
Client Matrix: Sediment

Date Sampled: 07/15/2015 1545
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91681	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28916-E-18.txt
Dilution:	1.0			Initial Weight/Volume:	250.14 g
Analysis Date:	07/17/2015 2028			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		71.4			
Coarse Sand		1.1			
Medium Sand		7.9			
Fine Sand		62.4			
Silt		14.7			
Clay		13.9			

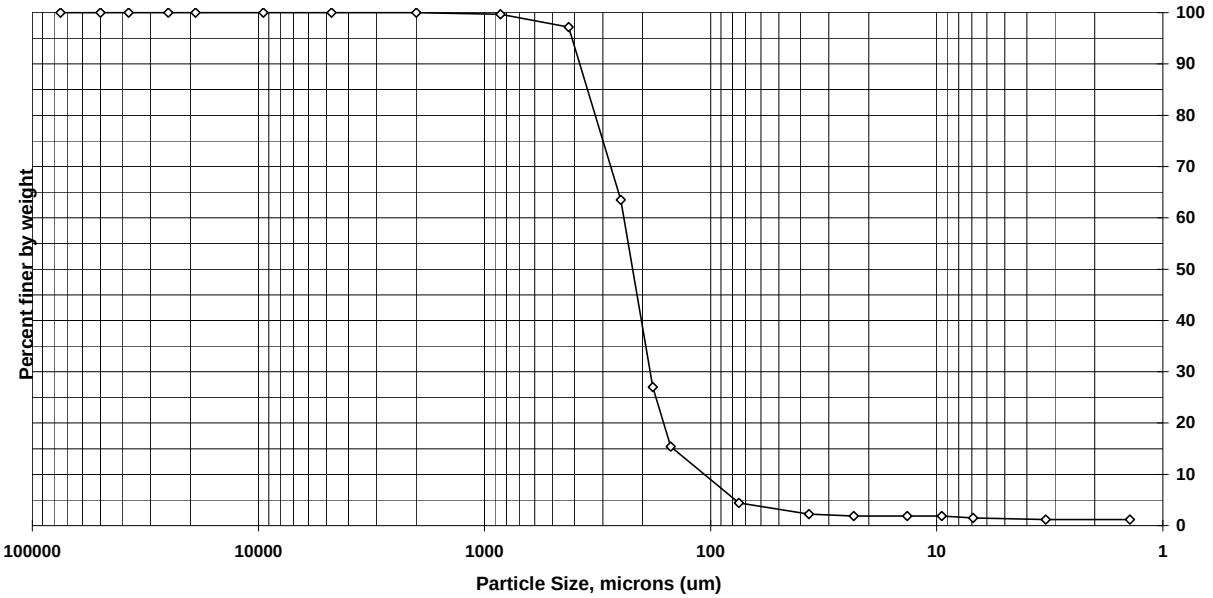
Particle Size of Soils by ASTM D422

				Date Received:	7/17/2015
Sample ID:	SW15-SB12-SURF	**Percent Solids:**	75.5%	**Start Date:**	7/17/2015
Lab ID:	200-28916-F-2	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.7	0.3
#40	425	97.2	2.5
#60	250	63.5	33.7
#80	180	27.0	36.5
#100	150	15.4	11.6
#200	75	4.4	11.0
Hyd1	36.7	2.2	2.2
Hyd2	23.3	1.9	0.4
Hyd3	13.5	1.9	0.0
Hyd4	9.5	1.9	0.0
Hyd5	6.9	1.5	0.4
Hyd6	3.3	1.2	0.3
Hyd7	1.4	1.2	0.0

Soil Classification	Percent of sample
Gravel	0.0
Sand	95.6
Coarse Sand	0.0
Medium Sand	2.8
Fine Sand	92.8
Silt	2.9
Clay	1.5

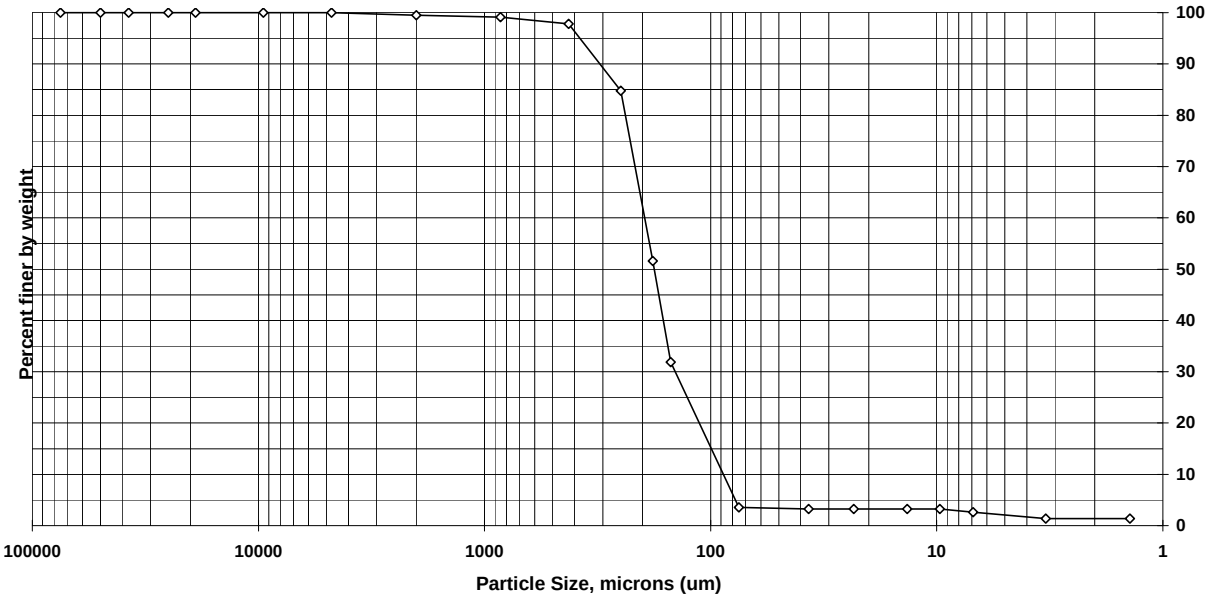
Particle Size of Soils by ASTM D422

				Date Received:	7/17/2015
Sample ID:	SW15-SB19-SURF	**Percent Solids:**	73.0%	**Start Date:**	7/17/2015
Lab ID:	200-28916-F-6	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.5	0.5
#20	850	99.1	0.4
#40	425	97.8	1.3
#60	250	84.8	13.0
#80	180	51.6	33.2
#100	150	31.9	19.7
#200	75	3.6	28.3
Hyd1	36.9	3.3	0.3
Hyd2	23.3	3.3	0.0
Hyd3	13.5	3.3	0.0
Hyd4	9.7	3.3	0.0
Hyd5	6.9	2.7	0.6
Hyd6	3.3	1.4	1.3
Hyd7	1.4	1.4	0.0

Soil Classification	Percent of sample
Gravel	0.0
Sand	96.4
Coarse Sand	0.5
Medium Sand	1.7
Fine Sand	94.2
Silt	0.9
Clay	2.7

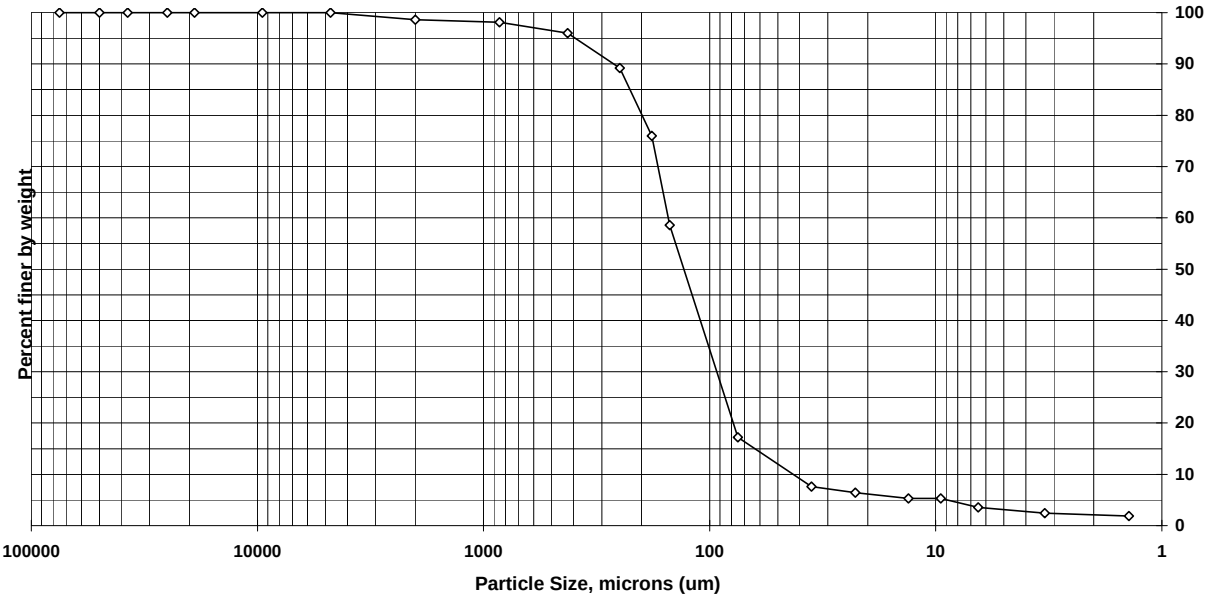
Particle Size of Soils by ASTM D422

				Date Received:	7/17/2015
Sample ID:	SW15-SB13-SURF	**Percent Solids:**	74.7%	**Start Date:**	7/17/2015
Lab ID:	200-28916-F-11	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): subrounded

Non-soil material: plant,wood,shell

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	98.6	1.4
#20	850	98.1	0.5
#40	425	96.0	2.1
#60	250	89.2	6.8
#80	180	76.0	13.2
#100	150	58.6	17.4
#200	75	17.2	41.4
Hyd1	35.5	7.6	9.6
Hyd2	22.7	6.5	1.1
Hyd3	13.2	5.3	1.1
Hyd4	9.5	5.3	0.0
Hyd5	6.5	3.6	1.7
Hyd6	3.3	2.4	1.1
Hyd7	1.4	1.9	0.6

Soil Classification	Percent of sample
Gravel	0.0
Sand	82.8
Coarse Sand	1.4
Medium Sand	2.6
Fine Sand	78.8
Silt	13.6
Clay	3.6

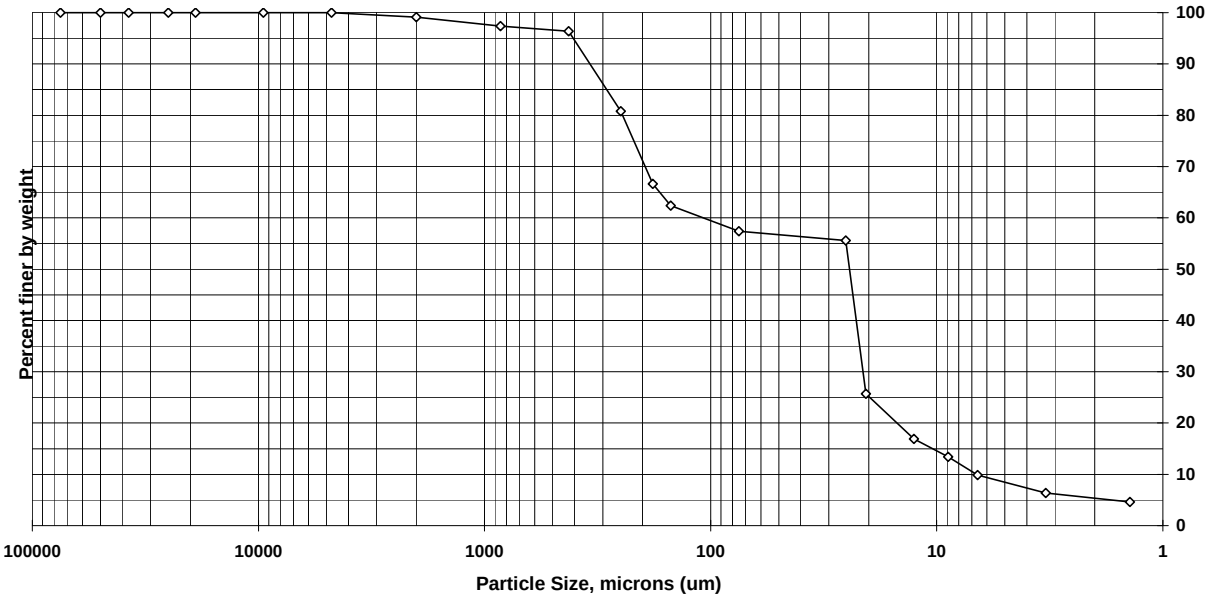
Particle Size of Soils by ASTM D422

				Date Received:	7/17/2015
Sample ID:	SW15-SB18-SURF	**Percent Solids:**	52.4%	**Start Date:**	7/17/2015
Lab ID:	200-28916-D-14	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.1	0.9
#20	850	97.4	1.7
#40	425	96.4	1.0
#60	250	80.8	15.6
#80	180	66.6	14.2
#100	150	62.4	4.2
#200	75	57.4	5.0
Hyd1	25.3	55.6	1.8
Hyd2	20.6	25.7	29.9
Hyd3	12.6	16.9	8.8
Hyd4	8.9	13.4	3.5
Hyd5	6.6	9.9	3.5
Hyd6	3.3	6.4	3.5
Hyd7	1.4	4.6	1.8

Soil Classification	Percent of sample
Gravel	0.0
Sand	42.6
Coarse Sand	0.9
Medium Sand	2.7
Fine Sand	39.0
Silt	47.5
Clay	9.9

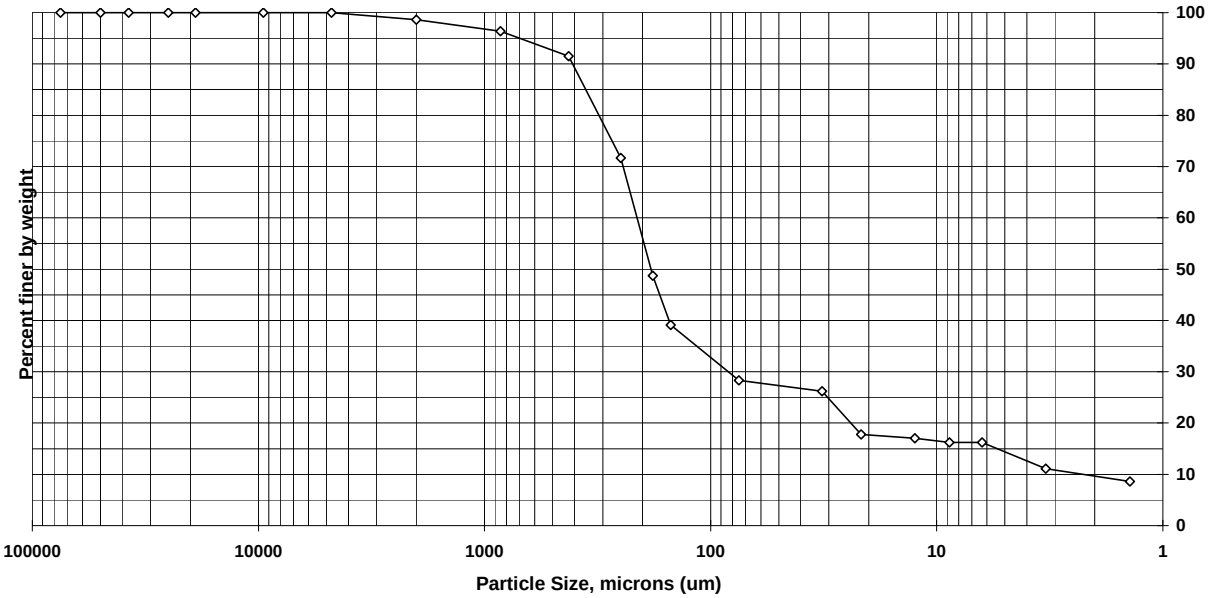
Particle Size of Soils by ASTM D422

				Date Received:	7/17/2015
Sample ID:	SW15-SB25-SURF	**Percent Solids:**	51.3%	**Start Date:**	7/17/2015
Lab ID:	200-28916-E-17	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	98.6	1.4
#20	850	96.4	2.2
#40	425	91.5	4.9
#60	250	71.7	19.8
#80	180	48.7	23.0
#100	150	39.1	9.6
#200	75	28.3	10.8
Hyd1	32.2	26.2	2.1
Hyd2	21.6	17.8	8.4
Hyd3	12.5	17.0	0.8
Hyd4	8.8	16.2	0.8
Hyd5	6.3	16.2	0.0
Hyd6	3.3	11.1	5.1
Hyd7	1.4	8.6	2.5

Soil Classification	Percent of sample
Gravel	0.0
Sand	71.7
Coarse Sand	1.4
Medium Sand	7.1
Fine Sand	63.2
Silt	12.1
Clay	16.2

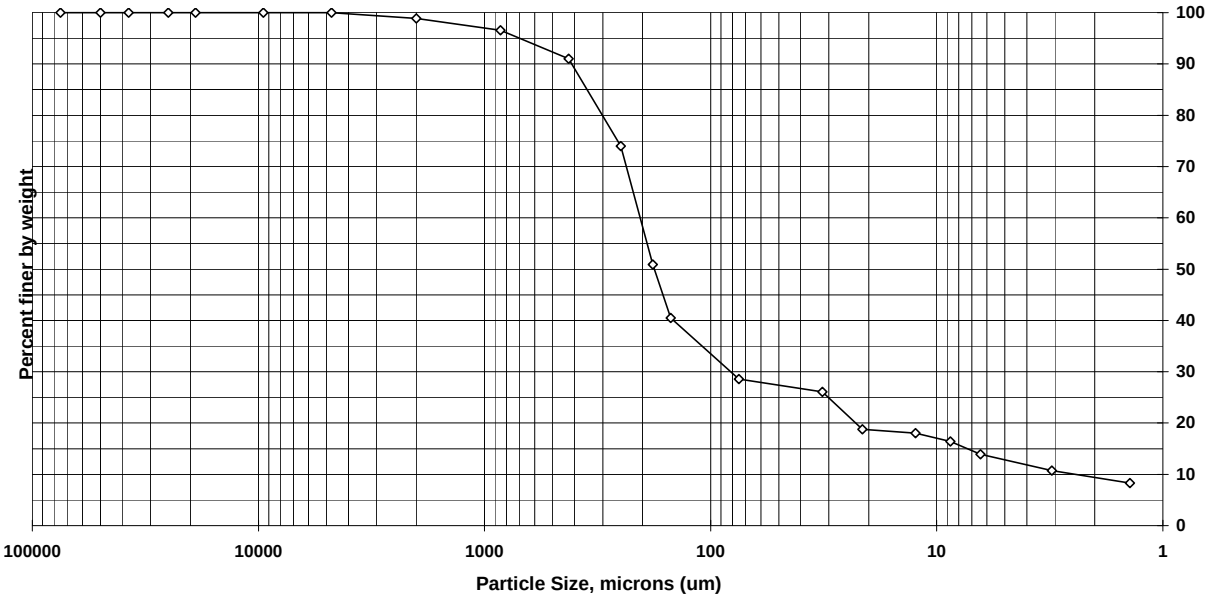
Particle Size of Soils by ASTM D422

				Date Received:	7/17/2015
Sample ID:	SW15-SB25-SURF-FD	**Percent Solids:**	39.7%	**Start Date:**	7/17/2015
Lab ID:	200-28916-E-18	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	98.9	1.1
#20	850	96.6	2.3
#40	425	91.0	5.6
#60	250	74.0	17.0
#80	180	50.9	23.1
#100	150	40.5	10.4
#200	75	28.6	11.9
Hyd1	32	26.1	2.5
Hyd2	21.3	18.8	7.3
Hyd3	12.4	18.0	0.8
Hyd4	8.7	16.4	1.6
Hyd5	6.4	13.9	2.5
Hyd6	3.1	10.7	3.2
Hyd7	1.4	8.3	2.4

Soil Classification	Percent of sample
Gravel	0.0
Sand	71.4
Coarse Sand	1.1
Medium Sand	7.9
Fine Sand	62.4
Silt	14.7
Clay	13.9

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB12-SURF
Lab Sample ID	200-28916-F-2

Date Received	7/17/2015
Start Date	07/17/2015 20:17
End Date	07/23/2015 10:15

Dry Weight Determination

Tin Weight	4.11	g
Wet Sample + Tin	200.07	g
Dry Sample + Tin	152.04	g
% Moisture	24.51	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/17/2015 20:19
Date/Time out of oven	07/18/2015 13:59

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.47	346.58	296.11
Sample Weight (Oven Dried)			224

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			224
% Passing #10			75.6

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	380.95	381.57	0.62	g	99.7	Sand	Medium
#40	425	354.44	360.01	5.57	g	97.2	Sand	Medium
#60	250	351.71	427.16	75.45	g	63.5	Sand	Fine
#80	180	338.65	420.42	81.77	g	27.0	Sand	Fine
#100	150	329.42	355.46	26.04	g	15.4	Sand	Fine
#200	75	323.19	347.78	24.59	g	4.4	Sand	Fine
				0.00	g	4.4		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	224

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0075	19.5	36.7	2.24	Silt	
5	5	1.0070	19.5	23.3	1.88	Silt	
15	15	1.0070	19.5	13.5	1.88	Silt	
30	30	1.0070	19.5	9.5	1.88	Silt	
60	58	1.0065	19.5	6.9	1.52	Silt	
250	256	1.0060	19.5	3.3	1.17	Clay	
1440	1440	1.0060	19.5	1.4	1.17	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB19-SURF
Lab Sample ID	200-28916-F-6

Date Received	7/17/2015
Start Date	07/17/2015 20:19
End Date	07/23/2015 10:28

Dry Weight Determination

Tin Weight	3.93	g
Wet Sample + Tin	244.21	g
Dry Sample + Tin	179.35	g
% Moisture	26.99	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/17/2015 20:21
Date/Time out of oven	07/18/2015 13:59

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	51.43	228.06	176.63
Sample Weight (Oven Dried)			129

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.64
Sample <#10			128
% Passing #10			72.5

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	463.58	0.64	g	99.5	Sand	Coarse
#20	850	380.95	381.41	0.46	g	99.1	Sand	Medium
#40	425	354.44	356.16	1.72	g	97.8	Sand	Medium
#60	250	351.71	368.49	16.78	g	84.8	Sand	Fine
#80	180	338.65	381.43	42.78	g	51.6	Sand	Fine
#100	150	329.42	354.85	25.43	g	31.9	Sand	Fine
#200	75	323.19	359.72	36.53	g	3.6	Sand	Fine
				0.00	g	3.6		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	129

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0070	19.5	36.9	3.27	Silt	
5	5	1.0070	19.5	23.3	3.27	Silt	
15	15	1.0070	19.5	13.5	3.27	Silt	
30	29	1.0070	19.5	9.7	3.27	Silt	
60	58	1.0065	19.5	6.9	2.65	Silt	
250	250	1.0055	19.5	3.3	1.4	Clay	
1440	1434	1.0055	19.5	1.4	1.4	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB13-SURF
Lab Sample ID	200-28916-F-11

Date Received	7/17/2015
Start Date	07/17/2015 20:21
End Date	07/23/2015 10:41

Dry Weight Determination

Tin Weight	3.95	g
Wet Sample + Tin	160.30	g
Dry Sample + Tin	120.70	g
% Moisture	25.33	%

Non-soil material:	plant,wood,shell
Shape (> #10):	subrounded
Hardness (> #10):	hard

Date/Time in oven	07/17/2015 20:23
Date/Time out of oven	07/18/2015 14:00

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.70	238.85	188.15
Sample Weight (Oven Dried)			140

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			1.96
Sample <#10			138
% Passing #10			73.3

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	464.90	1.96	g	98.6	Sand	Coarse
#20	850	380.95	381.71	0.76	g	98.1	Sand	Medium
#40	425	354.44	357.36	2.92	g	96.0	Sand	Medium
#60	250	351.71	361.30	9.59	g	89.2	Sand	Fine
#80	180	338.65	357.09	18.44	g	76.0	Sand	Fine
#100	150	329.42	353.76	24.34	g	58.6	Sand	Fine
#200	75	323.19	381.17	57.98	g	17.2	Sand	Fine
				0.00	g	17.2		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	140

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0110	19.5	35.5	7.6	Silt	
5	5	1.0100	19.5	22.7	6.45	Silt	
15	15	1.0090	19.5	13.2	5.31	Silt	
30	29	1.0090	19.5	9.5	5.31	Silt	
60	63	1.0075	19.5	6.5	3.58	Silt	
250	250	1.0065	19.5	3.3	2.44	Clay	
1440	1434	1.0060	19.5	1.4	1.86	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/17/2015
Client Sample ID	SW15-SB18-SURF	Start Date	07/17/2015 20:24
Lab Sample ID	200-28916-D-14	End Date	07/23/2015 10:54

Dry Weight Determination

Tin Weight	3.93	g
Wet Sample + Tin	174.28	g
Dry Sample + Tin	93.16	g
% Moisture	47.62	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/17/2015 20:25
Date/Time out of oven	07/18/2015 13:59

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.73	222.29	174.56
Sample Weight (Oven Dried)			91.4

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.86
Sample <#10			90.5
% Passing #10			51.8

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	463.80	0.86	g	99.1	Sand	Coarse
#20	850	380.95	382.53	1.58	g	97.4	Sand	Medium
#40	425	354.44	355.32	0.88	g	96.4	Sand	Medium
#60	250	351.71	365.98	14.27	g	80.8	Sand	Fine
#80	180	338.65	351.67	13.02	g	66.6	Sand	Fine
#100	150	329.42	333.29	3.87	g	62.4	Sand	Fine
#200	75	323.19	327.74	4.55	g	57.4	Sand	Fine
				0.00	g	57.4		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	91.4

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0360	19.5	25.3	55.6	Silt	
5	5	1.0190	19.5	20.6	25.7	Silt	
15	15	1.0140	19.5	12.6	16.9	Silt	
30	31	1.0120	19.5	8.9	13.4	Silt	
60	60	1.0100	19.5	6.6	9.88	Silt	
250	240	1.0080	19.5	3.3	6.37	Clay	
1440	1424	1.0070	19.5	1.4	4.61	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB25-SURF
Lab Sample ID	200-28916-E-17

Date Received	7/17/2015
Start Date	07/17/2015 20:26
End Date	07/23/2015 11:07

Dry Weight Determination

Tin Weight	3.93	g
Wet Sample + Tin	158.80	g
Dry Sample + Tin	83.34	g
% Moisture	48.72	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/17/2015 20:28
Date/Time out of oven	07/18/2015 14:00

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.44	236.98	186.54
Sample Weight (Oven Dried)			95.6

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			1.38
Sample <#10			94.2
% Passing #10			50.5

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	464.32	1.38	g	98.6	Sand	Coarse
#20	850	380.95	383.02	2.07	g	96.4	Sand	Medium
#40	425	354.44	359.12	4.68	g	91.5	Sand	Medium
#60	250	351.71	370.68	18.97	g	71.7	Sand	Fine
#80	180	338.65	360.60	21.95	g	48.7	Sand	Fine
#100	150	329.42	338.55	9.13	g	39.1	Sand	Fine
#200	75	323.19	333.48	10.29	g	28.3	Sand	Fine
				0.00	g	28.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	95.6

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0200	19.5	32.2	26.2	Silt	
5	5	1.0150	19.5	21.6	17.8	Silt	
15	15	1.0145	19.5	12.5	17	Silt	
30	31	1.0140	19.5	8.8	16.2	Silt	
60	59	1.0140	19.5	6.3	16.2	Silt	
250	234	1.0110	19.5	3.3	11.1	Clay	
1440	1418	1.0095	19.5	1.4	8.61	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/17/2015
Client Sample ID	SW15-SB25-SURF-FD	Start Date	07/17/2015 20:28
Lab Sample ID	200-28916-E-18	End Date	07/23/2015 9:58

Dry Weight Determination

Tin Weight	3.94	g
Wet Sample + Tin	181.56	g
Dry Sample + Tin	74.44	g
% Moisture	60.31	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/17/2015 20:30
Date/Time out of oven	07/18/2015 14:00

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.73	297.87	250.14
Sample Weight (Oven Dried)			99.3

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			1.07
Sample <#10			98.2
% Passing #10			39.3

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	464.01	1.07	g	98.9	Sand	Coarse
#20	850	389.87	392.17	2.30	g	96.6	Sand	Medium
#40	425	367.60	373.21	5.61	g	91.0	Sand	Medium
#60	250	349.33	366.21	16.88	g	74.0	Sand	Fine
#80	180	331.84	354.74	22.90	g	50.9	Sand	Fine
#100	150	331.01	341.30	10.29	g	40.5	Sand	Fine
#200	75	330.97	342.79	11.82	g	28.6	Sand	Fine
				0.00	g	28.6		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	99.3

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0205	19.5	32	26.1	Silt	
5	5	1.0160	19.5	21.3	18.8	Silt	
15	15	1.0155	19.5	12.4	18	Silt	
30	31	1.0145	19.5	8.7	16.4	Silt	
60	59	1.0130	19.5	6.4	13.9	Silt	
250	265	1.0110	19.5	3.1	10.7	Clay	
1440	1412	1.0095	19.5	1.4	8.29	Clay	

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28921-1
Sdg Number: 28921

Client Sample ID: **SW15-SB15-SURF**

Lab Sample ID: 200-28921-1
Client Matrix: Sediment

Date Sampled: 07/16/2015 1045
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91683	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28921-D-1.txt
Dilution:	1.0			Initial Weight/Volume:	221.7 g
Analysis Date:	07/17/2015 2031			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.0			
Sieve Size #20 - Percent Finer		97.2			
Sieve Size #40 - Percent Finer		88.5			
Sieve Size #60 - Percent Finer		76.9			
Sieve Size #80 - Percent Finer		68.4			
Sieve Size #100 - Percent Finer		58.2			
Sieve Size #200 - Percent Finer		21.0			
Hydrometer Reading 1 - Percent Finer		17.0			
Hydrometer Reading 2 - Percent Finer		7.3			
Hydrometer Reading 3 - Percent Finer		5.4			
Hydrometer Reading 4 - Percent Finer		4.9			
Hydrometer Reading 5 - Percent Finer		4.0			
Hydrometer Reading 6 - Percent Finer		2.5			
Hydrometer Reading 7 - Percent Finer		2.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28921-1
Sdg Number: 28921

Client Sample ID: **SW15-SB15-SURF**

Lab Sample ID: 200-28921-1
Client Matrix: Sediment

Date Sampled: 07/16/2015 1045
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91683	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28921-D-1.txt
Dilution:	1.0			Initial Weight/Volume:	221.7 g
Analysis Date:	07/17/2015 2031			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		79.0			
Coarse Sand		1.0			
Medium Sand		10.5			
Fine Sand		67.5			
Silt		17.0			
Clay		4.0			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28921-1
Sdg Number: 28921

Client Sample ID: **SW15-SB32-SURF**

Lab Sample ID: 200-28921-8
Client Matrix: Sediment

Date Sampled: 07/16/2015 1405
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91683	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28921-C-8.txt
Dilution:	1.0			Initial Weight/Volume:	267.77 g
Analysis Date:	07/17/2015 2034			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.7			
Sieve Size #20 - Percent Finer		99.3			
Sieve Size #40 - Percent Finer		97.4			
Sieve Size #60 - Percent Finer		67.7			
Sieve Size #80 - Percent Finer		35.2			
Sieve Size #100 - Percent Finer		22.1			
Sieve Size #200 - Percent Finer		8.1			
Hydrometer Reading 1 - Percent Finer		5.4			
Hydrometer Reading 2 - Percent Finer		4.5			
Hydrometer Reading 3 - Percent Finer		4.5			
Hydrometer Reading 4 - Percent Finer		4.5			
Hydrometer Reading 5 - Percent Finer		3.3			
Hydrometer Reading 6 - Percent Finer		2.5			
Hydrometer Reading 7 - Percent Finer		1.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28921-1
Sdg Number: 28921

Client Sample ID: **SW15-SB32-SURF**

Lab Sample ID: 200-28921-8
Client Matrix: Sediment

Date Sampled: 07/16/2015 1405
Date Received: 07/17/2015 1010

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91683	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28921-C-8.txt
Dilution:	1.0			Initial Weight/Volume:	267.77 g
Analysis Date:	07/17/2015 2034			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		91.9			
Coarse Sand		0.3			
Medium Sand		2.3			
Fine Sand		89.3			
Silt		4.8			
Clay		3.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28921-1
Sdg Number: 28921

Client Sample ID: **SW15-SB24-SURF**

Lab Sample ID: 200-28933-5
Client Matrix: Sediment

Date Sampled: 07/15/2015 1705
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91693	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28933-D-5.txt
Dilution:	1.0			Initial Weight/Volume:	163.95 g
Analysis Date:	07/19/2015 1234			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		98.1			
Sieve Size #20 - Percent Finer		97.3			
Sieve Size #40 - Percent Finer		96.3			
Sieve Size #60 - Percent Finer		88.5			
Sieve Size #80 - Percent Finer		79.6			
Sieve Size #100 - Percent Finer		74.3			
Sieve Size #200 - Percent Finer		60.7			
Hydrometer Reading 1 - Percent Finer		40.3			
Hydrometer Reading 2 - Percent Finer		34.3			
Hydrometer Reading 3 - Percent Finer		31.3			
Hydrometer Reading 4 - Percent Finer		27.3			
Hydrometer Reading 5 - Percent Finer		23.4			
Hydrometer Reading 6 - Percent Finer		16.9			
Hydrometer Reading 7 - Percent Finer		11.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28921-1
Sdg Number: 28921

Client Sample ID: **SW15-SB24-SURF**

Lab Sample ID: 200-28933-5
Client Matrix: Sediment

Date Sampled: 07/15/2015 1705
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91693	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28933-D-5.txt
Dilution:	1.0			Initial Weight/Volume:	163.95 g
Analysis Date:	07/19/2015 1234			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		39.3			
Coarse Sand		1.9			
Medium Sand		1.8			
Fine Sand		35.6			
Silt		37.3			
Clay		23.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28921-1
Sdg Number: 28921

Client Sample ID: **SW15-SB30-SURF**

Lab Sample ID: 200-28933-9
Client Matrix: Sediment

Date Sampled: 07/15/2015 1500
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91693	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28933-E-9.txt
Dilution:	1.0			Initial Weight/Volume:	230.34 g
Analysis Date:	07/19/2015 1235			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		100.0			
Sieve Size #40 - Percent Finer		97.3			
Sieve Size #60 - Percent Finer		49.9			
Sieve Size #80 - Percent Finer		21.0			
Sieve Size #100 - Percent Finer		13.0			
Sieve Size #200 - Percent Finer		8.3			
Hydrometer Reading 1 - Percent Finer		2.0			
Hydrometer Reading 2 - Percent Finer		2.0			
Hydrometer Reading 3 - Percent Finer		2.0			
Hydrometer Reading 4 - Percent Finer		1.6			
Hydrometer Reading 5 - Percent Finer		1.6			
Hydrometer Reading 6 - Percent Finer		1.4			
Hydrometer Reading 7 - Percent Finer		1.1			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28921-1
Sdg Number: 28921

Client Sample ID: **SW15-SB30-SURF**

Lab Sample ID: 200-28933-9
Client Matrix: Sediment

Date Sampled: 07/15/2015 1500
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91693	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28933-E-9.txt
Dilution:	1.0			Initial Weight/Volume:	230.34 g
Analysis Date:	07/19/2015 1235			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		91.7			
Coarse Sand		0.0			
Medium Sand		2.7			
Fine Sand		89.0			
Silt		6.8			
Clay		1.6			

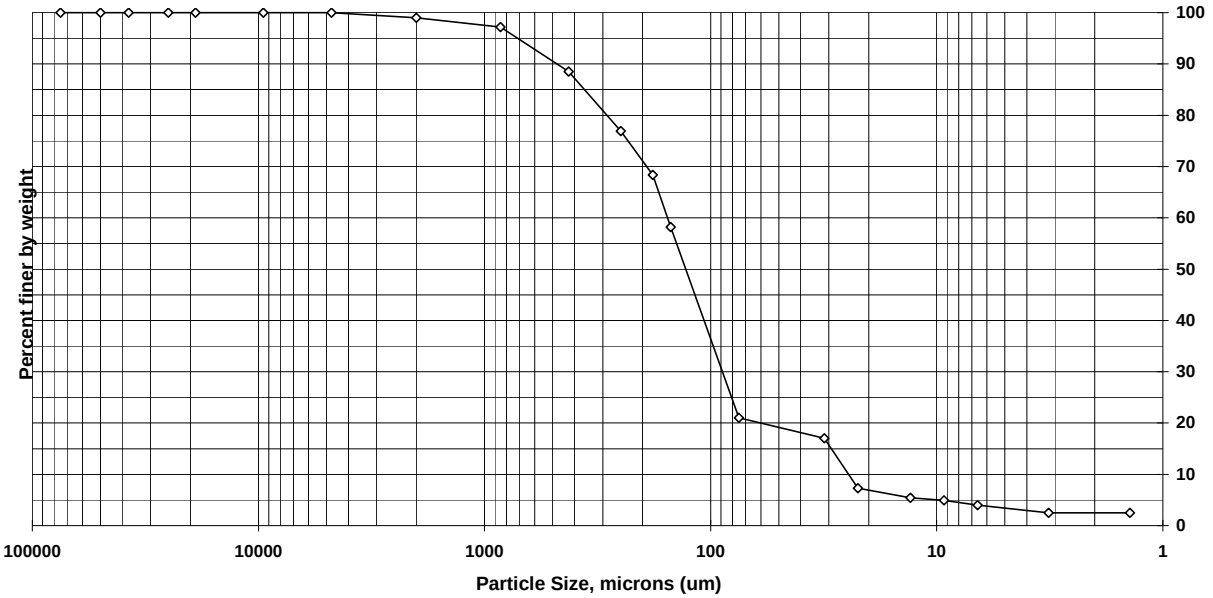
Particle Size of Soils by ASTM D422

				Date Received:	7/17/2015
Sample ID:	SW15-SB15-SURF	**Percent Solids:**	75.2%	**Start Date:**	7/17/2015
Lab ID:	200-28921-D-1	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): subrounded

Non-soil material: plant

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.0	1.0
#20	850	97.2	1.8
#40	425	88.5	8.7
#60	250	76.9	11.6
#80	180	68.4	8.5
#100	150	58.2	10.2
#200	75	21.0	37.2
Hyd1	31.4	17.0	4.0
Hyd2	22.3	7.3	9.7
Hyd3	13.1	5.4	1.9
Hyd4	9.3	4.9	0.5
Hyd5	6.6	4.0	1.0
Hyd6	3.2	2.5	1.5
Hyd7	1.4	2.5	0.0

Soil Classification	Percent of sample
Gravel	0.0
Sand	79.0
Coarse Sand	1.0
Medium Sand	10.5
Fine Sand	67.5
Silt	17.0
Clay	4.0

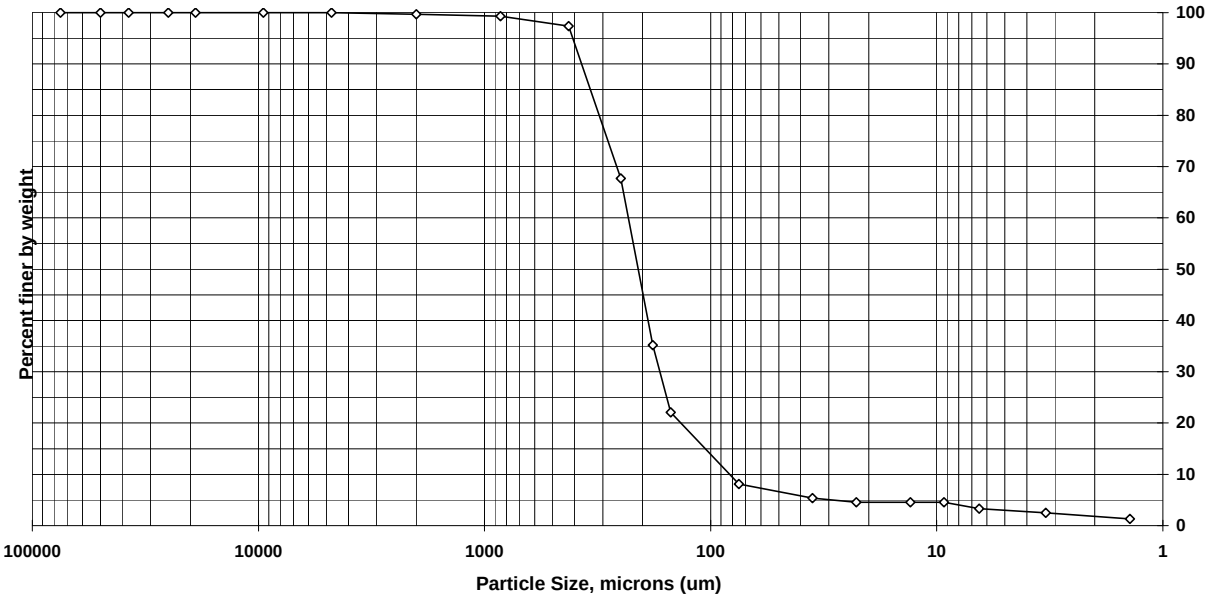
Particle Size of Soils by ASTM D422

				Date Received:	7/17/2015
Sample ID:	SW15-SB32-SURF	**Percent Solids:**	74.2%	**Start Date:**	7/17/2015
Lab ID:	200-28921-C-8	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): subrounded

Non-soil material: plant

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.7	0.3
#20	850	99.3	0.4
#40	425	97.4	1.9
#60	250	67.7	29.7
#80	180	35.2	32.5
#100	150	22.1	13.1
#200	75	8.1	14.0
Hyd1	35.5	5.4	2.8
Hyd2	22.7	4.5	0.8
Hyd3	13.1	4.5	0.0
Hyd4	9.3	4.5	0.0
Hyd5	6.5	3.3	1.2
Hyd6	3.3	2.5	0.8
Hyd7	1.4	1.3	1.2

Soil Classification	Percent of sample
Gravel	0.0
Sand	91.9
Coarse Sand	0.3
Medium Sand	2.3
Fine Sand	89.3
Silt	4.8
Clay	3.3

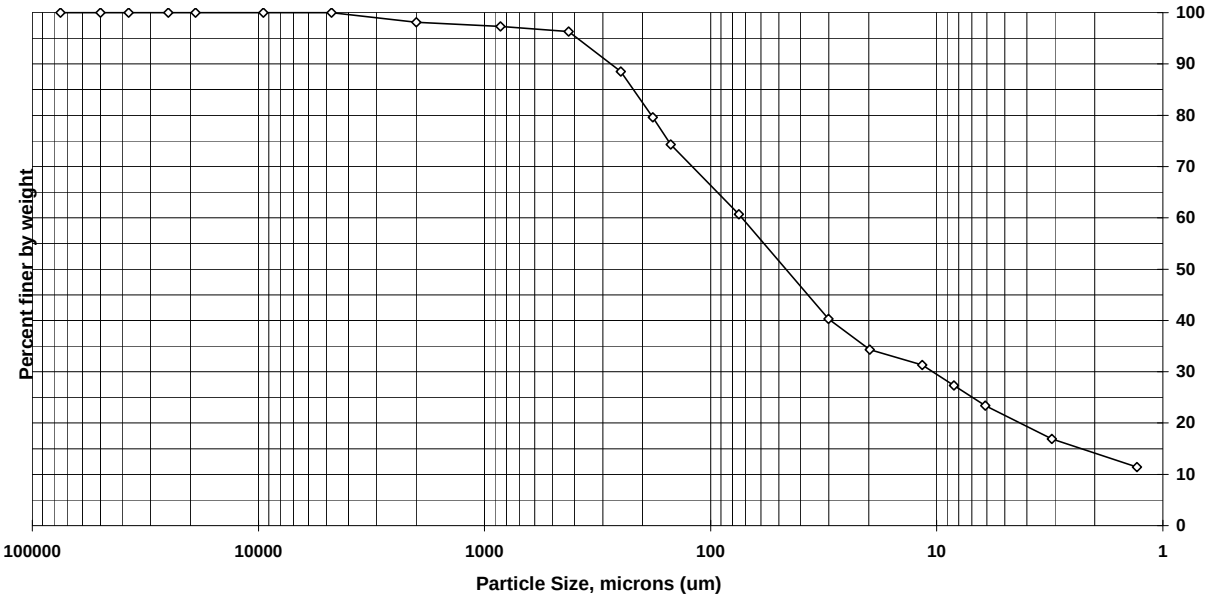
Particle Size of Soils by ASTM D422

				Date Received:	7/18/2015
Sample ID:	SW15-SB24-SURF	**Percent Solids:**	49.3%	**Start Date:**	7/19/2015
Lab ID:	200-28933-D-5	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	98.1	1.9
#20	850	97.3	0.8
#40	425	96.3	1.0
#60	250	88.5	7.8
#80	180	79.6	8.9
#100	150	74.3	5.3
#200	75	60.7	13.6
Hyd1	30.1	40.3	20.4
Hyd2	19.8	34.3	6.0
Hyd3	11.6	31.3	3.0
Hyd4	8.4	27.3	4.0
Hyd5	6.1	23.4	3.9
Hyd6	3.1	16.9	6.5
Hyd7	1.3	11.4	5.5

Soil Classification	Percent of sample
Gravel	0.0
Sand	39.3
Coarse Sand	1.9
Medium Sand	1.8
Fine Sand	35.6
Silt	37.3
Clay	23.4

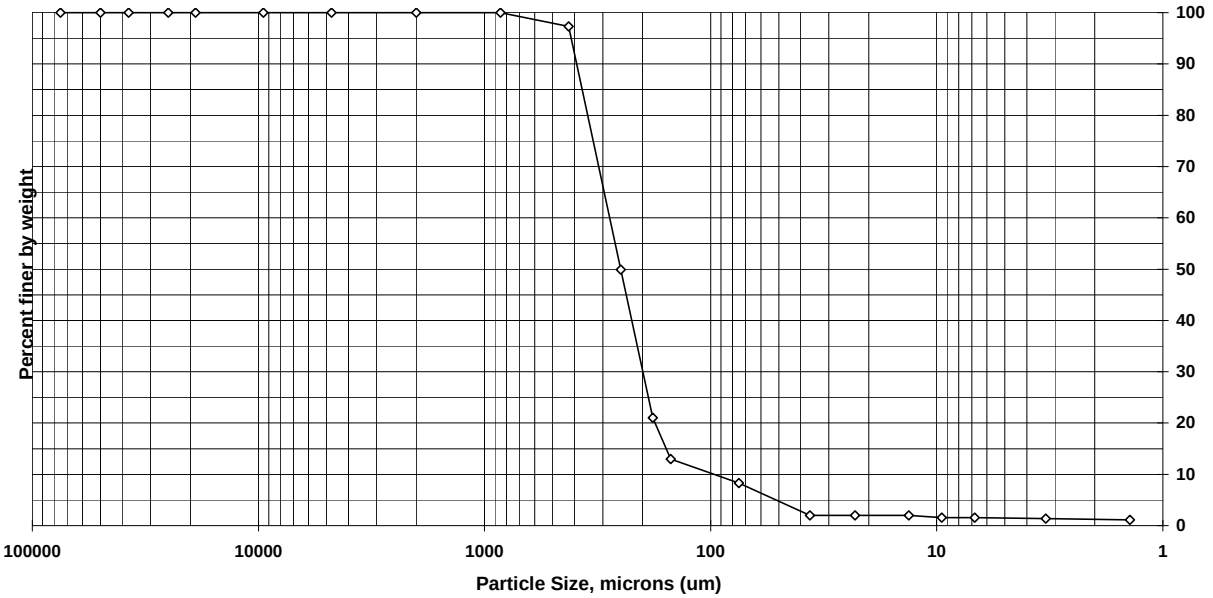
Particle Size of Soils by ASTM D422

				Date Received:	7/18/2015
Sample ID:	SW15-SB30-SURF	**Percent Solids:**	77.7%	**Start Date:**	7/19/2015
Lab ID:	200-28933-E-9	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	100.0	0.0
#40	425	97.3	2.7
#60	250	49.9	47.4
#80	180	21.0	28.9
#100	150	13.0	8.0
#200	75	8.3	4.7
Hyd1	36.4	2.0	6.3
Hyd2	23	2.0	0.0
Hyd3	13.3	2.0	0.0
Hyd4	9.5	1.6	0.5
Hyd5	6.8	1.6	0.0
Hyd6	3.3	1.4	0.2
Hyd7	1.4	1.1	0.2

Soil Classification	Percent of sample
Gravel	0.0
Sand	91.7
Coarse Sand	0.0
Medium Sand	2.7
Fine Sand	89.0
Silt	6.8
Clay	1.6

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB15-SURF
Lab Sample ID	200-28921-D-1

Date Received	7/17/2015
Start Date	07/17/2015 20:31
End Date	07/23/2015 10:19

Dry Weight Determination

Tin Weight	3.92	g
Wet Sample + Tin	189.48	g
Dry Sample + Tin	143.53	g
% Moisture	24.76	%

Non-soil material:	plant
Shape (> #10):	subrounded
Hardness (> #10):	hard

Date/Time in oven	07/17/2015 20:33
Date/Time out of oven	07/18/2015 14:00

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.72	272.42	221.7
Sample Weight (Oven Dried)			167

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			1.65
Sample <#10			165
% Passing #10			74.4

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	464.59	1.65	g	99.0	Sand	Coarse
#20	850	389.87	392.86	2.99	g	97.2	Sand	Medium
#40	425	367.60	382.08	14.48	g	88.5	Sand	Medium
#60	250	349.33	368.70	19.37	g	76.9	Sand	Fine
#80	180	331.84	346.01	14.17	g	68.4	Sand	Fine
#100	150	331.01	347.97	16.96	g	58.2	Sand	Fine
#200	75	330.97	393.06	62.09	g	21.0	Sand	Fine
				0.00	g	21.0		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	167

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0220	19.5	31.4	17	Silt	
5	5	1.0120	19.5	22.3	7.33	Silt	
15	15	1.0100	19.5	13.1	5.41	Silt	
30	30	1.0095	19.5	9.3	4.93	Silt	
60	60	1.0085	19.5	6.6	3.97	Silt	
250	259	1.0070	19.5	3.2	2.52	Clay	
1440	1406	1.0070	19.5	1.4	2.52	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB32-SURF
Lab Sample ID	200-28921-C-8

Date Received	7/17/2015
Start Date	07/17/2015 20:34
End Date	07/23/2015 10:29

Dry Weight Determination

Tin Weight	3.93	g
Wet Sample + Tin	219.99	g
Dry Sample + Tin	164.22	g
% Moisture	25.81	%

Non-soil material:	plant
Shape (> #10):	subrounded
Hardness (> #10):	hard

Date/Time in oven	07/17/2015 20:36
Date/Time out of oven	07/18/2015 14:01

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	51.88	319.65	267.77
Sample Weight (Oven Dried)			199

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.54
Sample <#10			198
% Passing #10			73.9

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	463.48	0.54	g	99.7	Sand	Coarse
#20	850	389.87	390.68	0.81	g	99.3	Sand	Medium
#40	425	367.60	371.42	3.82	g	97.4	Sand	Medium
#60	250	349.33	408.51	59.18	g	67.7	Sand	Fine
#80	180	331.84	396.46	64.62	g	35.2	Sand	Fine
#100	150	331.01	357.03	26.02	g	22.1	Sand	Fine
#200	75	330.97	358.80	27.83	g	8.1	Sand	Fine
				0.00	g	8.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	199

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0110	19.5	35.5	5.35	Silt	
5	5	1.0100	19.5	22.7	4.54	Silt	
15	15	1.0100	19.5	13.1	4.54	Silt	
30	30	1.0100	19.5	9.3	4.54	Silt	
60	63	1.0085	19.5	6.5	3.33	Silt	
250	253	1.0075	19.5	3.3	2.52	Clay	
1440	1400	1.0060	19.5	1.4	1.31	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client		Date Received	7/18/2015
Client Sample ID	SW15-SB24-SURF	Start Date	07/19/2015 12:34
Lab Sample ID	200-28933-D-5	End Date	07/23/2015 11:23

Dry Weight Determination

Tin Weight	4.11	g
Wet Sample + Tin	172.33	g
Dry Sample + Tin	87.03	g
% Moisture	50.71	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/19/2015 12:34
Date/Time out of oven	07/20/2015 9:18

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	58.04	221.99	163.95
Sample Weight (Oven Dried)			80.8

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			1.5
Sample <#10			79.3
% Passing #10			48.4

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.81	464.31	1.50	g	98.1	Sand	Coarse
#20	850	380.95	381.60	0.65	g	97.3	Sand	Medium
#40	425	354.44	355.24	0.80	g	96.3	Sand	Medium
#60	250	351.71	358.04	6.33	g	88.5	Sand	Fine
#80	180	338.65	345.85	7.20	g	79.6	Sand	Fine
#100	150	329.42	333.72	4.30	g	74.3	Sand	Fine
#200	75	323.19	334.18	10.99	g	60.7	Sand	Fine
				0.00	g	60.7		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	80.8

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0230	22.0	30.1	40.3	Silt	
5	5	1.0200	22.0	19.8	34.3	Silt	
15	15	1.0185	22.0	11.6	31.3	Silt	
30	30	1.0165	22.0	8.4	27.3	Silt	
60	59	1.0145	22.0	6.1	23.4	Silt	
250	256	1.0115	21.0	3.1	16.9	Clay	
1440	1440	1.0090	20.0	1.3	11.4	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB30-SURF
Lab Sample ID	200-28933-E-9

Date Received	7/18/2015
Start Date	07/19/2015 12:35
End Date	07/23/2015 11:37

Dry Weight Determination

Tin Weight	4.08	g
Wet Sample + Tin	211.22	g
Dry Sample + Tin	165.11	g
% Moisture	22.26	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/19/2015 12:35
Date/Time out of oven	07/20/2015 9:19

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.76	288.10	230.34
Sample Weight (Oven Dried)			179

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			179
% Passing #10			77.7

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	380.95	380.98	0.03	g	100.0	Sand	Medium
#40	425	354.44	359.32	4.88	g	97.3	Sand	Medium
#60	250	351.71	436.53	84.82	g	49.9	Sand	Fine
#80	180	338.65	390.38	51.73	g	21.0	Sand	Fine
#100	150	329.42	343.76	14.34	g	13.0	Sand	Fine
#200	75	323.19	331.56	8.37	g	8.3	Sand	Fine
				0.00	g	8.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	179

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0050	22.0	36.4	2.02	Silt	
5	5	1.0050	22.0	23	2.02	Silt	
15	15	1.0050	22.0	13.3	2.02	Silt	
30	30	1.0045	22.0	9.5	1.57	Silt	
60	58	1.0045	22.0	6.8	1.57	Silt	
250	256	1.0045	21.0	3.3	1.35	Clay	
1440	1440	1.0045	20.0	1.4	1.12	Clay	

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB20-SURF**

Lab Sample ID: 200-28934-2
Client Matrix: Sediment

Date Sampled: 07/17/2015 0940
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-D-2.txt
Dilution:	1.0			Initial Weight/Volume:	161.81 g
Analysis Date:	07/19/2015 1236			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.6			
Sieve Size #20 - Percent Finer		98.6			
Sieve Size #40 - Percent Finer		97.9			
Sieve Size #60 - Percent Finer		86.7			
Sieve Size #80 - Percent Finer		66.9			
Sieve Size #100 - Percent Finer		56.5			
Sieve Size #200 - Percent Finer		44.6			
Hydrometer Reading 1 - Percent Finer		43.0			
Hydrometer Reading 2 - Percent Finer		35.4			
Hydrometer Reading 3 - Percent Finer		26.9			
Hydrometer Reading 4 - Percent Finer		20.9			
Hydrometer Reading 5 - Percent Finer		15.8			
Hydrometer Reading 6 - Percent Finer		10.2			
Hydrometer Reading 7 - Percent Finer		7.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB20-SURF**

Lab Sample ID: 200-28934-2
Client Matrix: Sediment

Date Sampled: 07/17/2015 0940
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-D-2.txt
Dilution:	1.0			Initial Weight/Volume:	161.81 g
Analysis Date:	07/19/2015 1236			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		55.4			
Coarse Sand		0.4			
Medium Sand		1.7			
Fine Sand		53.3			
Silt		28.8			
Clay		15.8			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB01-SURF**

Lab Sample ID: 200-28934-4
Client Matrix: Sediment

Date Sampled: 07/17/2015 0900
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-C-4.txt
Dilution:	1.0			Initial Weight/Volume:	244.51 g
Analysis Date:	07/19/2015 1237			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		100.0			
Sieve Size #40 - Percent Finer		98.9			
Sieve Size #60 - Percent Finer		49.0			
Sieve Size #80 - Percent Finer		16.6			
Sieve Size #100 - Percent Finer		9.6			
Sieve Size #200 - Percent Finer		6.1			
Hydrometer Reading 1 - Percent Finer		1.9			
Hydrometer Reading 2 - Percent Finer		1.9			
Hydrometer Reading 3 - Percent Finer		1.9			
Hydrometer Reading 4 - Percent Finer		1.5			
Hydrometer Reading 5 - Percent Finer		1.5			
Hydrometer Reading 6 - Percent Finer		1.3			
Hydrometer Reading 7 - Percent Finer		1.1			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB01-SURF**

Lab Sample ID: 200-28934-4
Client Matrix: Sediment

Date Sampled: 07/17/2015 0900
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-C-4.txt
Dilution:	1.0			Initial Weight/Volume:	244.51 g
Analysis Date:	07/19/2015 1237			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		93.9			
Coarse Sand		0.0			
Medium Sand		1.1			
Fine Sand		92.8			
Silt		4.6			
Clay		1.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB17-SURF**

Lab Sample ID: 200-28934-8
Client Matrix: Sediment

Date Sampled: 07/17/2015 1040
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-G-8.txt
Dilution:	1.0			Initial Weight/Volume:	216.62 g
Analysis Date:	07/19/2015 1238			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.2			
Sieve Size #20 - Percent Finer		98.3			
Sieve Size #40 - Percent Finer		94.6			
Sieve Size #60 - Percent Finer		66.7			
Sieve Size #80 - Percent Finer		32.7			
Sieve Size #100 - Percent Finer		21.4			
Sieve Size #200 - Percent Finer		9.3			
Hydrometer Reading 1 - Percent Finer		3.7			
Hydrometer Reading 2 - Percent Finer		2.7			
Hydrometer Reading 3 - Percent Finer		2.2			
Hydrometer Reading 4 - Percent Finer		2.2			
Hydrometer Reading 5 - Percent Finer		1.7			
Hydrometer Reading 6 - Percent Finer		1.5			
Hydrometer Reading 7 - Percent Finer		1.2			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB17-SURF**

Lab Sample ID: 200-28934-8
Client Matrix: Sediment

Date Sampled: 07/17/2015 1040
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-G-8.txt
Dilution:	1.0			Initial Weight/Volume:	216.62 g
Analysis Date:	07/19/2015 1238			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		90.7			
Coarse Sand		0.8			
Medium Sand		4.6			
Fine Sand		85.3			
Silt		7.6			
Clay		1.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB14-SURF**

Lab Sample ID: 200-28934-13
Client Matrix: Sediment

Date Sampled: 07/17/2015 1125
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-D-13.txt
Dilution:	1.0			Initial Weight/Volume:	199.32 g
Analysis Date:	07/19/2015 1239			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.6			
Sieve Size #20 - Percent Finer		99.5			
Sieve Size #40 - Percent Finer		98.8			
Sieve Size #60 - Percent Finer		79.7			
Sieve Size #80 - Percent Finer		47.1			
Sieve Size #100 - Percent Finer		33.2			
Sieve Size #200 - Percent Finer		13.2			
Hydrometer Reading 1 - Percent Finer		10.6			
Hydrometer Reading 2 - Percent Finer		8.3			
Hydrometer Reading 3 - Percent Finer		7.7			
Hydrometer Reading 4 - Percent Finer		7.2			
Hydrometer Reading 5 - Percent Finer		5.5			
Hydrometer Reading 6 - Percent Finer		3.4			
Hydrometer Reading 7 - Percent Finer		2.0			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB14-SURF**

Lab Sample ID: 200-28934-13
Client Matrix: Sediment

Date Sampled: 07/17/2015 1125
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-D-13.txt
Dilution:	1.0			Initial Weight/Volume:	199.32 g
Analysis Date:	07/19/2015 1239			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		86.8			
Coarse Sand		0.4			
Medium Sand		0.8			
Fine Sand		85.6			
Silt		7.8			
Clay		5.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB23-SURF**

Lab Sample ID: 200-28934-18
Client Matrix: Sediment

Date Sampled: 07/16/2015 1640
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-C-18.txt
Dilution:	1.0			Initial Weight/Volume:	157.76 g
Analysis Date:	07/19/2015 1240			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		98.7			
Sieve Size #20 - Percent Finer		96.2			
Sieve Size #40 - Percent Finer		88.6			
Sieve Size #60 - Percent Finer		68.4			
Sieve Size #80 - Percent Finer		45.7			
Sieve Size #100 - Percent Finer		34.9			
Sieve Size #200 - Percent Finer		26.1			
Hydrometer Reading 1 - Percent Finer		20.5			
Hydrometer Reading 2 - Percent Finer		18.1			
Hydrometer Reading 3 - Percent Finer		17.4			
Hydrometer Reading 4 - Percent Finer		15.8			
Hydrometer Reading 5 - Percent Finer		13.5			
Hydrometer Reading 6 - Percent Finer		8.5			
Hydrometer Reading 7 - Percent Finer		5.8			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB23-SURF**

Lab Sample ID: 200-28934-18
Client Matrix: Sediment

Date Sampled: 07/16/2015 1640
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-C-18.txt
Dilution:	1.0			Initial Weight/Volume:	157.76 g
Analysis Date:	07/19/2015 1240			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		73.9			
Coarse Sand		1.3			
Medium Sand		10.1			
Fine Sand		62.5			
Silt		12.6			
Clay		13.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB16-SURF**

Lab Sample ID: 200-28934-23
Client Matrix: Sediment

Date Sampled: 07/16/2015 1500
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-D-23.txt
Dilution:	1.0			Initial Weight/Volume:	165.13 g
Analysis Date:	07/19/2015 1241			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		98.7			
Sieve Size #20 - Percent Finer		98.2			
Sieve Size #40 - Percent Finer		97.4			
Sieve Size #60 - Percent Finer		93.6			
Sieve Size #80 - Percent Finer		85.8			
Sieve Size #100 - Percent Finer		79.1			
Sieve Size #200 - Percent Finer		63.0			
Hydrometer Reading 1 - Percent Finer		60.7			
Hydrometer Reading 2 - Percent Finer		44.5			
Hydrometer Reading 3 - Percent Finer		39.9			
Hydrometer Reading 4 - Percent Finer		35.3			
Hydrometer Reading 5 - Percent Finer		31.8			
Hydrometer Reading 6 - Percent Finer		20.8			
Hydrometer Reading 7 - Percent Finer		15.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28934-1
Sdg Number: 28934

Client Sample ID: **SW15-SB16-SURF**

Lab Sample ID: 200-28934-23
Client Matrix: Sediment

Date Sampled: 07/16/2015 1500
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91690	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28934-D-23.txt
Dilution:	1.0			Initial Weight/Volume:	165.13 g
Analysis Date:	07/19/2015 1241			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		37.0			
Coarse Sand		1.3			
Medium Sand		1.3			
Fine Sand		34.4			
Silt		31.2			
Clay		31.8			

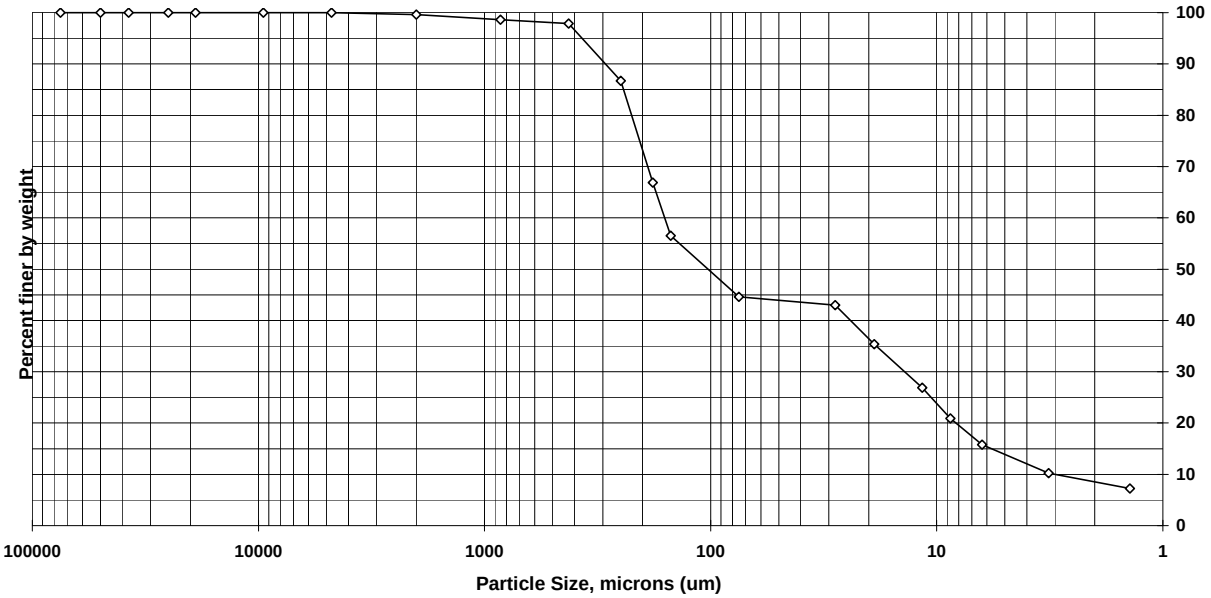
Particle Size of Soils by ASTM D422

				Date Received:	7/18/2015
Sample ID:	SW15-SB20-SURF	**Percent Solids:**	58.2%	**Start Date:**	7/19/2015
Lab ID:	200-28934-D-2	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.6	0.4
#20	850	98.6	1.0
#40	425	97.9	0.7
#60	250	86.7	11.2
#80	180	66.9	19.8
#100	150	56.5	10.4
#200	75	44.6	11.9
Hyd1	28.1	43.0	1.6
Hyd2	18.9	35.4	7.6
Hyd3	11.6	26.9	8.5
Hyd4	8.7	20.9	6.0
Hyd5	6.3	15.8	5.1
Hyd6	3.2	10.2	5.6
Hyd7	1.4	7.3	3.0

Soil Classification	Percent of sample
Gravel	0.0
Sand	55.4
Coarse Sand	0.4
Medium Sand	1.7
Fine Sand	53.3
Silt	28.8
Clay	15.8

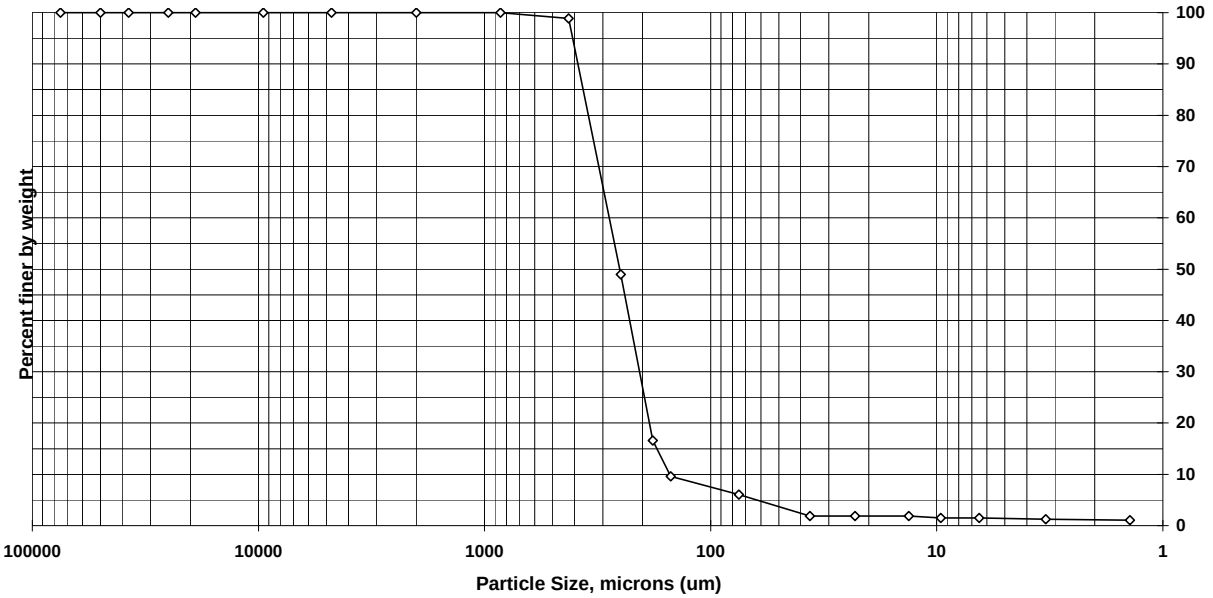
Particle Size of Soils by ASTM D422

				Date Received:	7/18/2015
Sample ID:	SW15-SB01-SURF	**Percent Solids:**	77.6%	**Start Date:**	7/19/2015
Lab ID:	200-28934-C-4	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	100.0	0.0
#40	425	98.9	1.1
#60	250	49.0	49.9
#80	180	16.6	32.4
#100	150	9.6	7.0
#200	75	6.1	3.5
Hyd1	36.4	1.9	4.2
Hyd2	23	1.9	0.0
Hyd3	13.3	1.9	0.0
Hyd4	9.6	1.5	0.4
Hyd5	6.5	1.5	0.0
Hyd6	3.3	1.3	0.2
Hyd7	1.4	1.1	0.2

Soil Classification	Percent of sample
Gravel	0.0
Sand	93.9
Coarse Sand	0.0
Medium Sand	1.1
Fine Sand	92.8
Silt	4.6
Clay	1.5

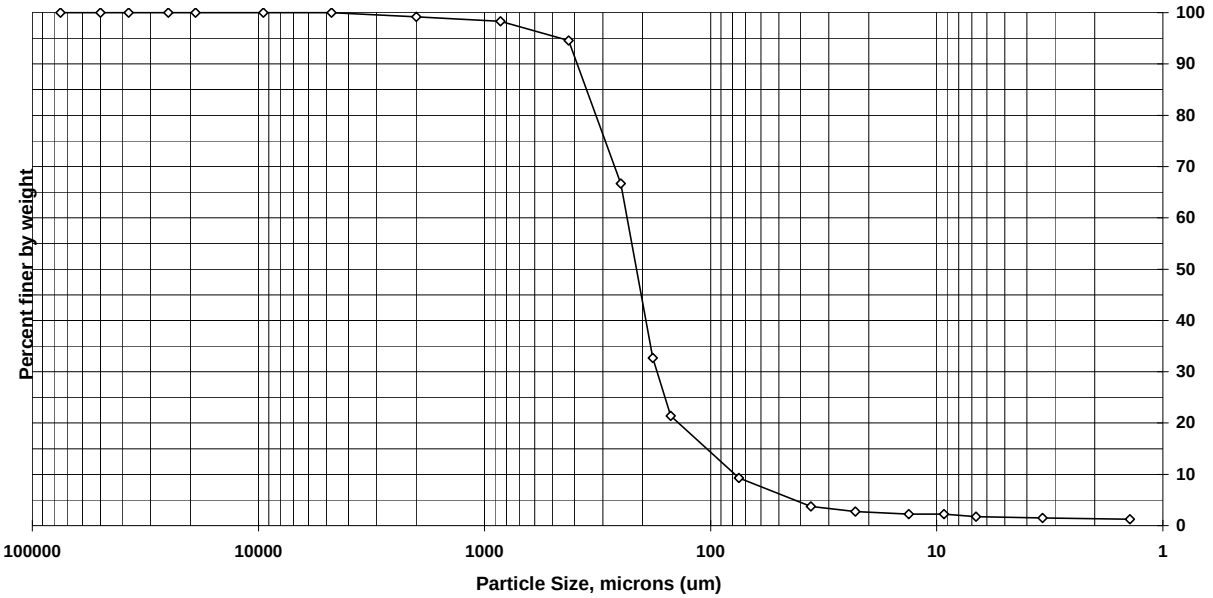
Particle Size of Soils by ASTM D422

				Date Received:	7/18/2015
Sample ID:	SW15-SB17-SURF	**Percent Solids:**	74.6%	**Start Date:**	7/19/2015
Lab ID:	200-28934-G-8	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.2	0.8
#20	850	98.3	0.9
#40	425	94.6	3.7
#60	250	66.7	27.9
#80	180	32.7	34.0
#100	150	21.4	11.3
#200	75	9.3	12.1
Hyd1	36	3.7	5.6
Hyd2	22.9	2.7	1.0
Hyd3	13.3	2.2	0.5
Hyd4	9.3	2.2	0.0
Hyd5	6.7	1.7	0.5
Hyd6	3.4	1.5	0.2
Hyd7	1.4	1.2	0.3

Soil Classification	Percent of sample
Gravel	0.0
Sand	90.7
Coarse Sand	0.8
Medium Sand	4.6
Fine Sand	85.3
Silt	7.6
Clay	1.7

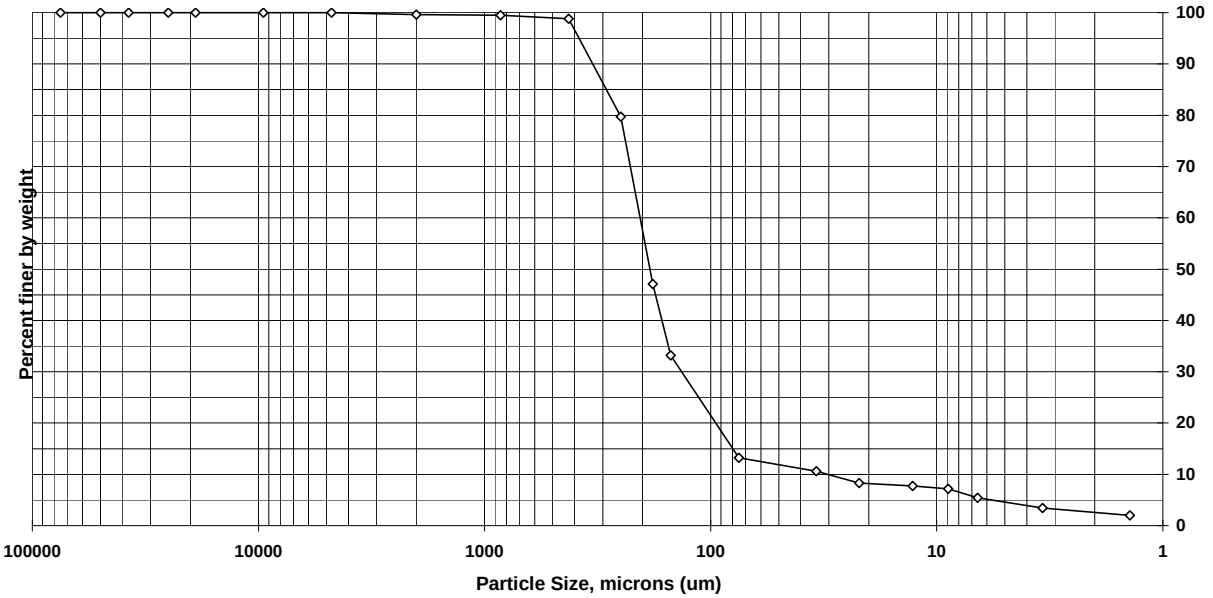
Particle Size of Soils by ASTM D422

				Date Received:	7/18/2015
Sample ID:	SW15-SB14-SURF	**Percent Solids:**	70.5%	**Start Date:**	7/19/2015
Lab ID:	200-28934-D-13	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.6	0.4
#20	850	99.5	0.1
#40	425	98.8	0.7
#60	250	79.7	19.1
#80	180	47.1	32.6
#100	150	33.2	13.9
#200	75	13.2	20.0
Hyd1	34.1	10.6	2.6
Hyd2	22	8.3	2.3
Hyd3	12.8	7.7	0.6
Hyd4	8.9	7.2	0.6
Hyd5	6.6	5.5	1.7
Hyd6	3.4	3.4	2.0
Hyd7	1.4	2.0	1.4

Soil Classification	Percent of sample
Gravel	0.0
Sand	86.8
Coarse Sand	0.4
Medium Sand	0.8
Fine Sand	85.6
Silt	7.8
Clay	5.5

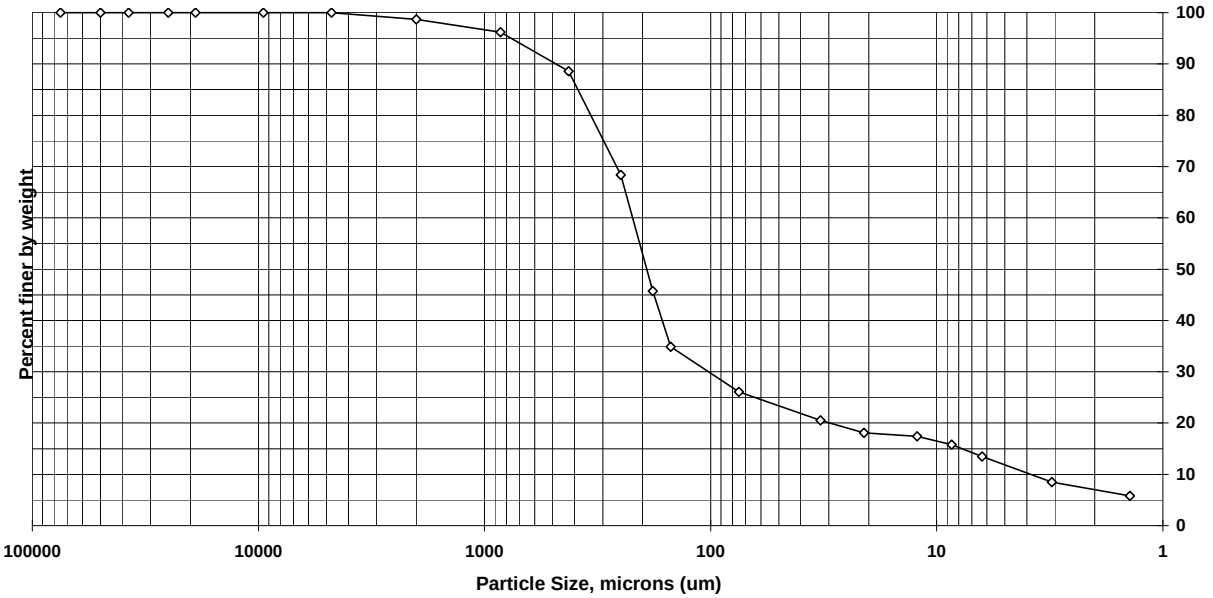
Particle Size of Soils by ASTM D422

				Date Received:	7/18/2015
Sample ID:	SW15-SB23-SURF	**Percent Solids:**	66.1%	**Start Date:**	7/19/2015
Lab ID:	200-28934-C-18	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	98.7	1.3
#20	850	96.2	2.5
#40	425	88.6	7.6
#60	250	68.4	20.2
#80	180	45.7	22.7
#100	150	34.9	10.8
#200	75	26.1	8.8
Hyd1	32.7	20.5	5.6
Hyd2	21	18.1	2.4
Hyd3	12.2	17.4	0.7
Hyd4	8.6	15.8	1.6
Hyd5	6.3	13.5	2.3
Hyd6	3.1	8.5	5.0
Hyd7	1.4	5.8	2.7

Soil Classification	Percent of sample
Gravel	0.0
Sand	73.9
Coarse Sand	1.3
Medium Sand	10.1
Fine Sand	62.5
Silt	12.6
Clay	13.5

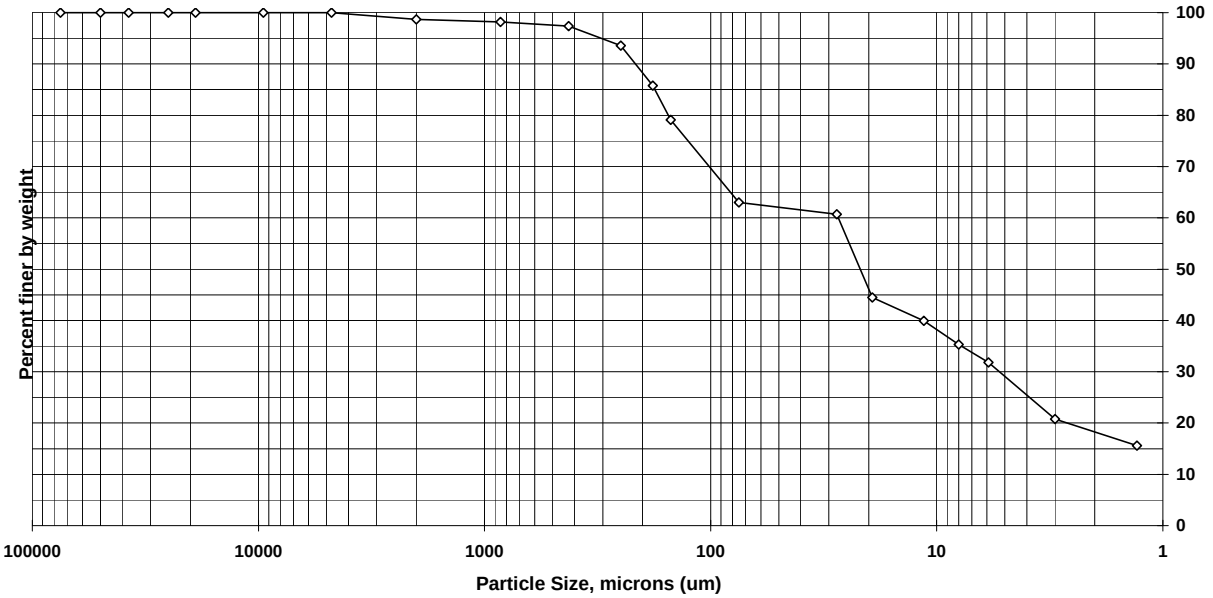
Particle Size of Soils by ASTM D422

				Date Received:	7/18/2015
Sample ID:	SW15-SB16-SURF	**Percent Solids:**	42.0%	**Start Date:**	7/19/2015
Lab ID:	200-28934-D-23	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	98.7	1.3
#20	850	98.2	0.5
#40	425	97.4	0.8
#60	250	93.6	3.8
#80	180	85.8	7.8
#100	150	79.1	6.7
#200	75	63.0	16.1
Hyd1	27.7	60.7	2.3
Hyd2	19.3	44.5	16.2
Hyd3	11.4	39.9	4.6
Hyd4	8	35.3	4.6
Hyd5	5.9	31.8	3.5
Hyd6	3	20.8	11.0
Hyd7	1.3	15.6	5.2

Soil Classification	Percent of sample
Gravel	0.0
Sand	37.0
Coarse Sand	1.3
Medium Sand	1.3
Fine Sand	34.4
Silt	31.2
Clay	31.8

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB20-SURF
Lab Sample ID	200-28934-D-2

Date Received	7/18/2015
Start Date	07/19/2015 12:36
End Date	07/23/2015 11:51

Dry Weight Determination

Tin Weight	4.57	g
Wet Sample + Tin	227.19	g
Dry Sample + Tin	134.11	g
% Moisture	41.81	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/19/2015 12:36
Date/Time out of oven	07/20/2015 9:19

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	46.05	207.86	161.81
Sample Weight (Oven Dried)			94.2

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.37
Sample <#10			93.8
% Passing #10			58

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.81	463.18	0.37	g	99.6	Sand	Coarse
#20	850	380.95	381.85	0.90	g	98.6	Sand	Medium
#40	425	354.44	355.13	0.69	g	97.9	Sand	Medium
#60	250	351.71	362.30	10.59	g	86.7	Sand	Fine
#80	180	338.65	357.32	18.67	g	66.9	Sand	Fine
#100	150	329.42	339.17	9.75	g	56.5	Sand	Fine
#200	75	323.19	334.36	11.17	g	44.6	Sand	Fine
				0.00	g	44.6		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	94.2

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0280	22.0	28.1	43	Silt	
5	5	1.0235	22.0	18.9	35.4	Silt	
15	15	1.0185	22.0	11.6	26.9	Silt	
30	29	1.0150	22.0	8.7	20.9	Silt	
60	58	1.0120	22.0	6.3	15.8	Silt	
250	250	1.0090	21.0	3.2	10.2	Clay	
1440	1434	1.0075	20.0	1.4	7.25	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB01-SURF
Lab Sample ID	200-28934-C-4

Date Received	7/18/2015
Start Date	07/19/2015 12:37
End Date	07/23/2015 12:03

Dry Weight Determination

Tin Weight	4.47	g
Wet Sample + Tin	180.14	g
Dry Sample + Tin	140.79	g
% Moisture	22.40	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/19/2015 12:37
Date/Time out of oven	07/20/2015 9:19

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.50	302.01	244.51
Sample Weight (Oven Dried)			190

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			190
% Passing #10			77.7

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	380.95	380.95	0.00	g	100.0	Sand	Medium
#40	425	354.44	356.56	2.12	g	98.9	Sand	Medium
#60	250	351.71	446.46	94.75	g	49.0	Sand	Fine
#80	180	338.65	400.19	61.54	g	16.6	Sand	Fine
#100	150	329.42	342.72	13.30	g	9.6	Sand	Fine
#200	75	323.19	329.92	6.73	g	6.1	Sand	Fine
				0.00	g	6.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	190

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0050	22.0	36.4	1.9	Silt	
5	5	1.0050	22.0	23	1.9	Silt	
15	15	1.0050	22.0	13.3	1.9	Silt	
30	29	1.0045	22.0	9.6	1.48	Silt	
60	63	1.0045	22.0	6.5	1.48	Silt	
250	250	1.0045	21.0	3.3	1.27	Clay	
1440	1434	1.0045	20.0	1.4	1.06	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB17-SURF
Lab Sample ID	200-28934-G-8

Date Received	7/18/2015
Start Date	07/19/2015 12:38
End Date	07/23/2015 12:18

Dry Weight Determination

Tin Weight	4.33	g
Wet Sample + Tin	195.85	g
Dry Sample + Tin	147.14	g
% Moisture	25.43	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/19/2015 12:38
Date/Time out of oven	07/20/2015 9:20

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	49.68	266.30	216.62
Sample Weight (Oven Dried)			162

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			1.31
Sample <#10			161
% Passing #10			74.3

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.81	464.12	1.31	g	99.2	Sand	Coarse
#20	850	380.95	382.41	1.46	g	98.3	Sand	Medium
#40	425	354.44	360.36	5.92	g	94.6	Sand	Medium
#60	250	351.71	396.96	45.25	g	66.7	Sand	Fine
#80	180	338.65	393.80	55.15	g	32.7	Sand	Fine
#100	150	329.42	347.68	18.26	g	21.4	Sand	Fine
#200	75	323.19	342.78	19.59	g	9.3	Sand	Fine
				0.00	g	9.3		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	162

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0065	22.0	36	3.72	Silt	
5	5	1.0055	22.0	22.9	2.73	Silt	
15	15	1.0050	22.0	13.3	2.23	Silt	
30	31	1.0050	22.0	9.3	2.23	Silt	
60	60	1.0045	22.0	6.7	1.73	Silt	
250	240	1.0045	21.0	3.4	1.49	Clay	
1440	1424	1.0045	20.0	1.4	1.24	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB14-SURF
Lab Sample ID	200-28934-D-13

Date Received	7/18/2015
Start Date	07/19/2015 12:39
End Date	07/23/2015 12:32

Dry Weight Determination

Tin Weight	4.23	g
Wet Sample + Tin	152.03	g
Dry Sample + Tin	108.41	g
% Moisture	29.51	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/19/2015 12:39
Date/Time out of oven	07/20/2015 9:20

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.91	247.23	199.32
Sample Weight (Oven Dried)			140

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.5
Sample <#10			140
% Passing #10			70.2

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.96	463.46	0.50	g	99.6	Sand	Coarse
#20	850	380.95	381.16	0.21	g	99.5	Sand	Medium
#40	425	354.44	355.39	0.95	g	98.8	Sand	Medium
#60	250	351.71	378.45	26.74	g	79.7	Sand	Fine
#80	180	338.65	384.24	45.59	g	47.1	Sand	Fine
#100	150	329.42	348.89	19.47	g	33.2	Sand	Fine
#200	75	323.19	351.21	28.02	g	13.2	Sand	Fine
				0.00	g	13.2		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	140

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0120	22.0	34.1	10.6	Silt	
5	5	1.0100	22.0	22	8.32	Silt	
15	15	1.0095	22.0	12.8	7.74	Silt	
30	31	1.0090	22.0	8.9	7.17	Silt	
60	59	1.0075	22.0	6.6	5.45	Silt	
250	234	1.0060	21.0	3.4	3.44	Clay	
1440	1418	1.0050	20.0	1.4	2.01	Clay	

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Sediment Grain Size - D422

Client		Date Received	7/18/2015
Client Sample ID	SW15-SB23-SURF	Start Date	07/19/2015 12:40
Lab Sample ID	200-28934-C-18	End Date	07/23/2015 11:09

Dry Weight Determination

Tin Weight	4.51	g
Wet Sample + Tin	197.62	g
Dry Sample + Tin	132.21	g
% Moisture	33.87	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/19/2015 12:40
Date/Time out of oven	07/20/2015 9:19

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.65	215.41	157.76
Sample Weight (Oven Dried)			104

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			1.31
Sample <#10			103
% Passing #10			65.3

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.97	464.28	1.31	g	98.7	Sand	Coarse
#20	850	389.87	392.42	2.55	g	96.2	Sand	Medium
#40	425	367.60	375.52	7.92	g	88.6	Sand	Medium
#60	250	349.33	370.32	20.99	g	68.4	Sand	Fine
#80	180	331.84	355.50	23.66	g	45.7	Sand	Fine
#100	150	331.01	342.28	11.27	g	34.9	Sand	Fine
#200	75	330.97	340.15	9.18	g	26.1	Sand	Fine
				0.00	g	26.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	104

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0160	22.0	32.7	20.5	Silt	
5	5	1.0145	22.0	21	18.1	Silt	
15	15	1.0140	22.0	12.2	17.4	Silt	
30	31	1.0130	22.0	8.6	15.8	Silt	
60	59	1.0115	22.0	6.3	13.5	Silt	
250	265	1.0085	21.0	3.1	8.49	Clay	
1440	1412	1.0070	20.0	1.4	5.79	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB16-SURF
Lab Sample ID	200-28934-D-23

Date Received	7/18/2015
Start Date	07/19/2015 12:41
End Date	07/23/2015 11:24

Dry Weight Determination

Tin Weight	4.57	g
Wet Sample + Tin	170.44	g
Dry Sample + Tin	74.27	g
% Moisture	57.98	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/19/2015 12:41
Date/Time out of oven	07/20/2015 9:20

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.58	215.71	165.13
Sample Weight (Oven Dried)			69.4

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.93
Sample <#10			68.5
% Passing #10			41.5

Hydrometer Data

Serial Number	426928
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0040
High Temp (C)	23.0
Reading at High Temp	1.0025
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00825
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.96	463.89	0.93	g	98.7	Sand	Coarse
#20	850	389.87	390.20	0.33	g	98.2	Sand	Medium
#40	425	367.60	368.16	0.56	g	97.4	Sand	Medium
#60	250	349.33	351.97	2.64	g	93.6	Sand	Fine
#80	180	331.84	337.22	5.38	g	85.8	Sand	Fine
#100	150	331.01	335.68	4.67	g	79.1	Sand	Fine
#200	75	330.97	342.17	11.20	g	63.0	Sand	Fine
				0.00	g	63.0		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	69.4

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0290	22.0	27.7	60.7	Silt	
5	5	1.0220	22.0	19.3	44.5	Silt	
15	15	1.0200	22.0	11.4	39.9	Silt	
30	32	1.0180	22.0	8	35.3	Silt	
60	60	1.0165	22.0	5.9	31.8	Silt	
250	259	1.0120	21.0	3	20.8	Clay	
1440	1406	1.0100	20.0	1.3	15.6	Clay	

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB21-SURF**

Lab Sample ID: 200-28938-2
Client Matrix: Sediment

Date Sampled: 07/16/2015 1425
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91684	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28938-C-2.txt
Dilution:	1.0			Initial Weight/Volume:	160.12 g
Analysis Date:	07/19/2015 1242			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.8			
Sieve Size #20 - Percent Finer		99.6			
Sieve Size #40 - Percent Finer		99.1			
Sieve Size #60 - Percent Finer		96.4			
Sieve Size #80 - Percent Finer		93.2			
Sieve Size #100 - Percent Finer		90.5			
Sieve Size #200 - Percent Finer		81.0			
Hydrometer Reading 1 - Percent Finer		70.1			
Hydrometer Reading 2 - Percent Finer		46.0			
Hydrometer Reading 3 - Percent Finer		39.6			
Hydrometer Reading 4 - Percent Finer		35.8			
Hydrometer Reading 5 - Percent Finer		32.0			
Hydrometer Reading 6 - Percent Finer		20.6			
Hydrometer Reading 7 - Percent Finer		14.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB21-SURF**

Lab Sample ID: 200-28938-2
Client Matrix: Sediment

Date Sampled: 07/16/2015 1425
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91684	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28938-C-2.txt
Dilution:	1.0			Initial Weight/Volume:	160.12 g
Analysis Date:	07/19/2015 1242			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		19.0			
Coarse Sand		0.2			
Medium Sand		0.7			
Fine Sand		18.1			
Silt		49.0			
Clay		32.0			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB26-SURF**

Lab Sample ID: 200-28938-5
Client Matrix: Sediment

Date Sampled: 07/16/2015 1600
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91684	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28938-C-5.txt
Dilution:	1.0			Initial Weight/Volume:	154.2 g
Analysis Date:	07/19/2015 1243			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		99.3			
Sieve Size #20 - Percent Finer		99.2			
Sieve Size #40 - Percent Finer		98.7			
Sieve Size #60 - Percent Finer		96.5			
Sieve Size #80 - Percent Finer		93.6			
Sieve Size #100 - Percent Finer		91.2			
Sieve Size #200 - Percent Finer		82.0			
Hydrometer Reading 1 - Percent Finer		71.6			
Hydrometer Reading 2 - Percent Finer		52.8			
Hydrometer Reading 3 - Percent Finer		47.4			
Hydrometer Reading 4 - Percent Finer		42.0			
Hydrometer Reading 5 - Percent Finer		35.3			
Hydrometer Reading 6 - Percent Finer		24.5			
Hydrometer Reading 7 - Percent Finer		17.8			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB26-SURF**

Lab Sample ID: 200-28938-5
Client Matrix: Sediment

Date Sampled: 07/16/2015 1600
Date Received: 07/18/2015 1000

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91684	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28938-C-5.txt
Dilution:	1.0			Initial Weight/Volume:	154.2 g
Analysis Date:	07/19/2015 1243			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		18.0			
Coarse Sand		0.7			
Medium Sand		0.6			
Fine Sand		16.7			
Silt		46.7			
Clay		35.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB22-SURF**

Lab Sample ID: 200-28964-4
Client Matrix: Sediment

Date Sampled: 07/18/2015 0940
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91845	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28964-D-4.txt
Dilution:	1.0			Initial Weight/Volume:	170.18 g
Analysis Date:	07/22/2015 1623			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		99.8			
Sieve Size #40 - Percent Finer		99.6			
Sieve Size #60 - Percent Finer		98.7			
Sieve Size #80 - Percent Finer		97.0			
Sieve Size #100 - Percent Finer		95.0			
Sieve Size #200 - Percent Finer		81.0			
Hydrometer Reading 1 - Percent Finer		69.9			
Hydrometer Reading 2 - Percent Finer		67.4			
Hydrometer Reading 3 - Percent Finer		38.1			
Hydrometer Reading 4 - Percent Finer		33.3			
Hydrometer Reading 5 - Percent Finer		28.4			
Hydrometer Reading 6 - Percent Finer		18.3			
Hydrometer Reading 7 - Percent Finer		11.0			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB22-SURF**

Lab Sample ID: 200-28964-4
Client Matrix: Sediment

Date Sampled: 07/18/2015 0940
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91845	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28964-D-4.txt
Dilution:	1.0			Initial Weight/Volume:	170.18 g
Analysis Date:	07/22/2015 1623			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		19.0			
Coarse Sand		0.0			
Medium Sand		0.4			
Fine Sand		18.6			
Silt		52.6			
Clay		28.4			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB35-SURF**

Lab Sample ID: 200-28964-7
Client Matrix: Sediment

Date Sampled: 07/18/2015 0743
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91845	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28964-C-7.txt
Dilution:	1.0			Initial Weight/Volume:	166.64 g
Analysis Date:	07/22/2015 1624			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		99.9			
Sieve Size #40 - Percent Finer		99.7			
Sieve Size #60 - Percent Finer		98.8			
Sieve Size #80 - Percent Finer		97.7			
Sieve Size #100 - Percent Finer		96.8			
Sieve Size #200 - Percent Finer		93.2			
Hydrometer Reading 1 - Percent Finer		86.7			
Hydrometer Reading 2 - Percent Finer		77.9			
Hydrometer Reading 3 - Percent Finer		69.1			
Hydrometer Reading 4 - Percent Finer		63.3			
Hydrometer Reading 5 - Percent Finer		54.5			
Hydrometer Reading 6 - Percent Finer		39.5			
Hydrometer Reading 7 - Percent Finer		24.9			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB35-SURF**

Lab Sample ID: 200-28964-7
Client Matrix: Sediment

Date Sampled: 07/18/2015 0743
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91845	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28964-C-7.txt
Dilution:	1.0			Initial Weight/Volume:	166.64 g
Analysis Date:	07/22/2015 1624			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		6.8			
Coarse Sand		0.0			
Medium Sand		0.3			
Fine Sand		6.5			
Silt		38.7			
Clay		54.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB05-SURF**

Lab Sample ID: 200-28964-10
Client Matrix: Sediment

Date Sampled: 07/17/2015 1440
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91845	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28964-D-10.txt
Dilution:	1.0			Initial Weight/Volume:	211.16 g
Analysis Date:	07/22/2015 1625			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		99.7			
Sieve Size #10 - Percent Finer		98.9			
Sieve Size #20 - Percent Finer		98.3			
Sieve Size #40 - Percent Finer		95.9			
Sieve Size #60 - Percent Finer		69.0			
Sieve Size #80 - Percent Finer		28.1			
Sieve Size #100 - Percent Finer		16.0			
Sieve Size #200 - Percent Finer		8.1			
Hydrometer Reading 1 - Percent Finer		6.8			
Hydrometer Reading 2 - Percent Finer		3.7			
Hydrometer Reading 3 - Percent Finer		3.7			
Hydrometer Reading 4 - Percent Finer		3.7			
Hydrometer Reading 5 - Percent Finer		3.7			
Hydrometer Reading 6 - Percent Finer		1.5			
Hydrometer Reading 7 - Percent Finer		1.0			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB05-SURF**

Lab Sample ID: 200-28964-10
Client Matrix: Sediment

Date Sampled: 07/17/2015 1440
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91845	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28964-D-10.txt
Dilution:	1.0			Initial Weight/Volume:	211.16 g
Analysis Date:	07/22/2015 1625			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.3			
Sand		91.6			
Coarse Sand		0.8			
Medium Sand		3.0			
Fine Sand		87.8			
Silt		4.3			
Clay		3.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB11-SURF**

Lab Sample ID: 200-28964-14
Client Matrix: Sediment

Date Sampled: 07/17/2015 1725
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91845	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28964-F-14.txt
Dilution:	1.0			Initial Weight/Volume:	179.03 g
Analysis Date:	07/22/2015 1626			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		94.9			
Sieve Size #4 - Percent Finer		94.8			
Sieve Size #10 - Percent Finer		93.2			
Sieve Size #20 - Percent Finer		92.6			
Sieve Size #40 - Percent Finer		91.5			
Sieve Size #60 - Percent Finer		85.9			
Sieve Size #80 - Percent Finer		76.0			
Sieve Size #100 - Percent Finer		70.0			
Sieve Size #200 - Percent Finer		62.6			
Hydrometer Reading 1 - Percent Finer		59.7			
Hydrometer Reading 2 - Percent Finer		49.3			
Hydrometer Reading 3 - Percent Finer		45.1			
Hydrometer Reading 4 - Percent Finer		40.9			
Hydrometer Reading 5 - Percent Finer		33.6			
Hydrometer Reading 6 - Percent Finer		24.0			
Hydrometer Reading 7 - Percent Finer		15.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28938-1
Sdg Number: 28938

Client Sample ID: **SW15-SB11-SURF**

Lab Sample ID: 200-28964-14
Client Matrix: Sediment

Date Sampled: 07/17/2015 1725
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91845	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28964-F-14.txt
Dilution:	1.0			Initial Weight/Volume:	179.03 g
Analysis Date:	07/22/2015 1626			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		5.2			
Sand		32.2			
Coarse Sand		1.6			
Medium Sand		1.7			
Fine Sand		28.9			
Silt		29.0			
Clay		33.6			

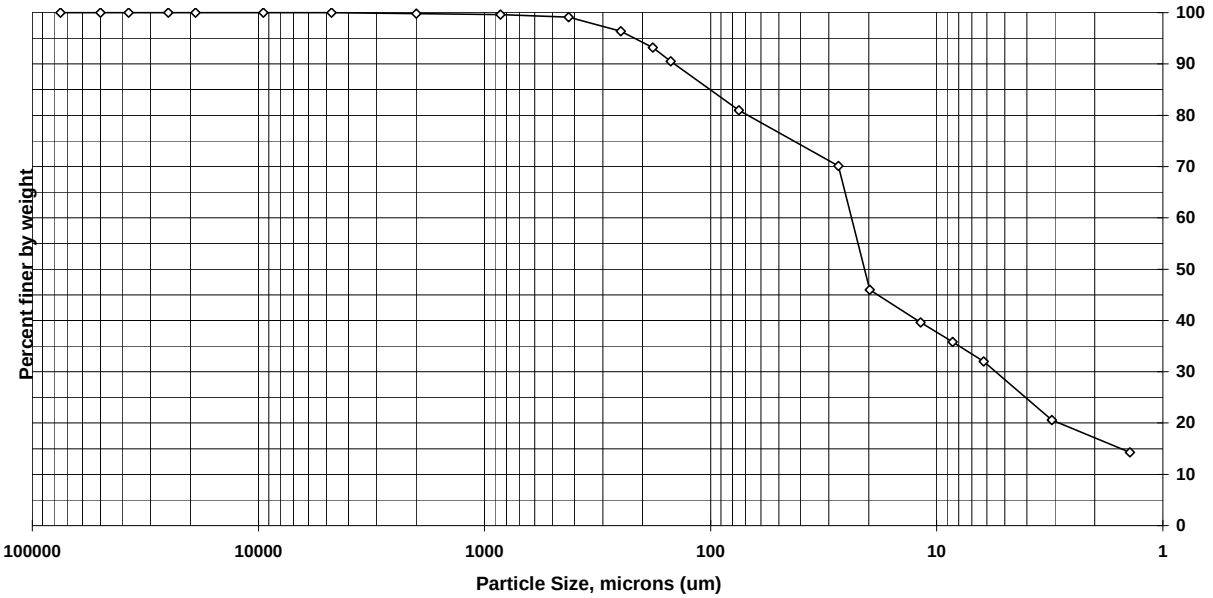
Particle Size of Soils by ASTM D422

				Date Received:	7/18/2015
Sample ID:	SW15-SB21-SURF	**Percent Solids:**	39.5%	**Start Date:**	7/19/2015
Lab ID:	200-28938-C-2	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.8	0.2
#20	850	99.6	0.2
#40	425	99.1	0.5
#60	250	96.4	2.7
#80	180	93.2	3.2
#100	150	90.5	2.7
#200	75	81.0	9.5
Hyd1	27.2	70.1	10.9
Hyd2	19.8	46.0	24.1
Hyd3	11.8	39.6	6.4
Hyd4	8.5	35.8	3.8
Hyd5	6.2	32.0	3.8
Hyd6	3.1	20.6	11.4
Hyd7	1.4	14.3	6.3

Soil Classification	Percent of sample
Gravel	0.0
Sand	19.0
Coarse Sand	0.2
Medium Sand	0.7
Fine Sand	18.1
Silt	49.0
Clay	32.0

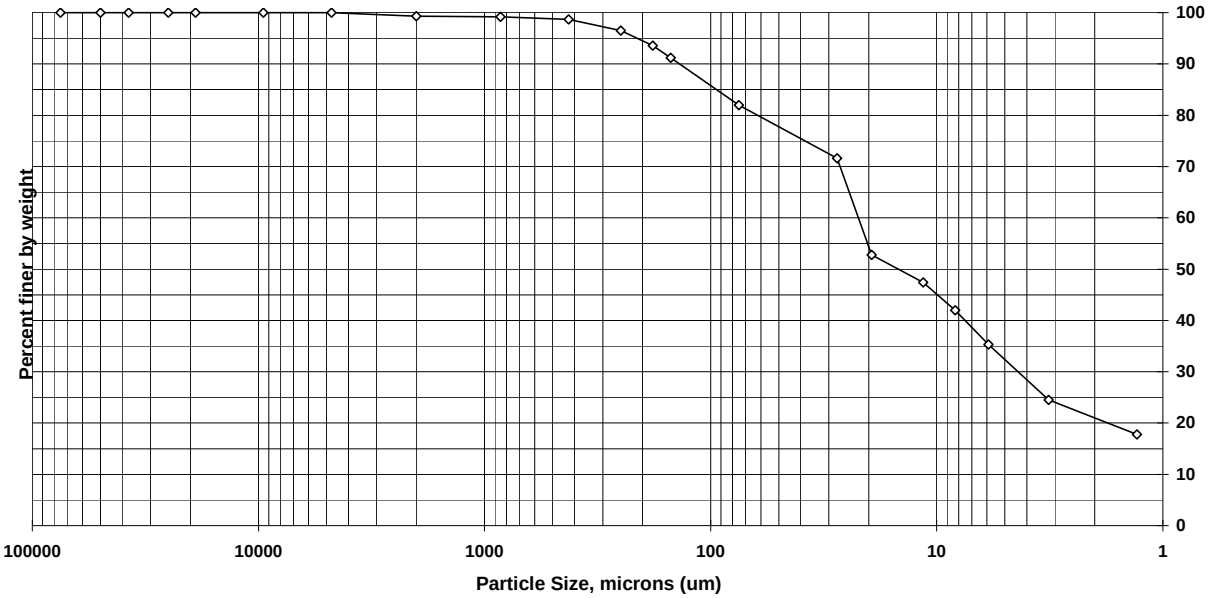
Particle Size of Soils by ASTM D422

				Date Received:	7/18/2015
Sample ID:	SW15-SB26-SURF	**Percent Solids:**	38.7%	**Start Date:**	7/19/2015
Lab ID:	200-28938-C-5	**Specific Gravity:**	2.650	**End Date:**	7/23/2015

Shape (> #10): na

Non-soil material: plant,wood,shell

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	99.3	0.7
#20	850	99.2	0.1
#40	425	98.7	0.5
#60	250	96.5	2.2
#80	180	93.6	2.9
#100	150	91.2	2.4
#200	75	82.0	9.2
Hyd1	27.6	71.6	10.4
Hyd2	19.4	52.8	18.8
Hyd3	11.5	47.4	5.4
Hyd4	8.3	42.0	5.4
Hyd5	5.9	35.3	6.7
Hyd6	3.2	24.5	10.8
Hyd7	1.3	17.8	6.7

Soil Classification	Percent of sample
Gravel	0.0
Sand	18.0
Coarse Sand	0.7
Medium Sand	0.6
Fine Sand	16.7
Silt	46.7
Clay	35.3

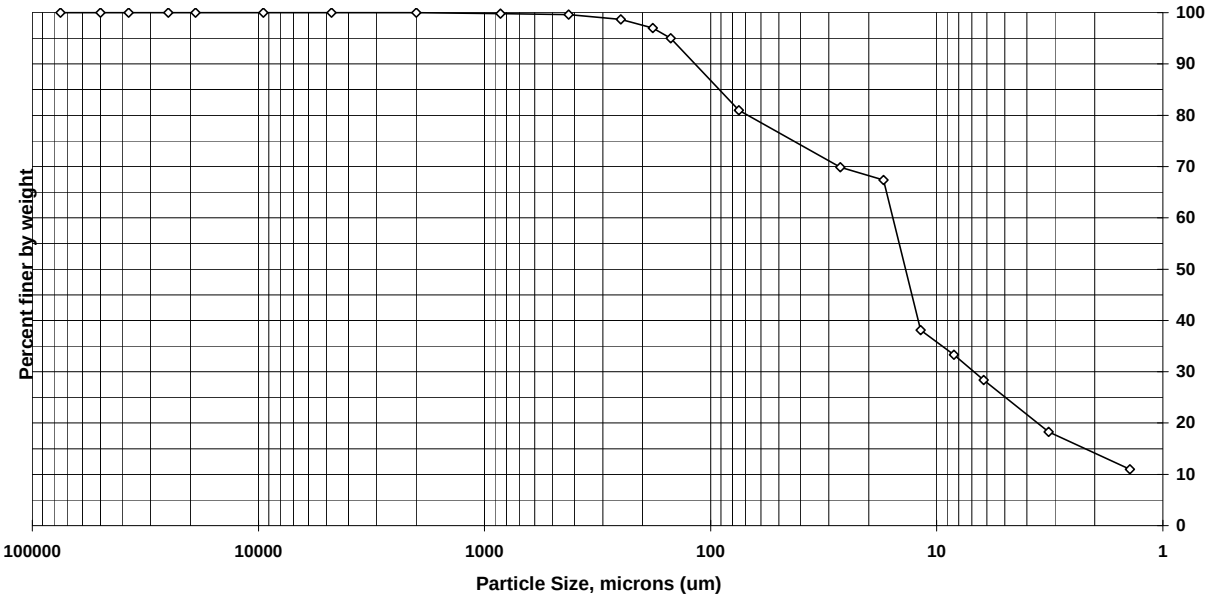
Particle Size of Soils by ASTM D422

				Date Received:	7/21/2015
Sample ID:	SW15-SB22-SURF	**Percent Solids:**	38.6%	**Start Date:**	7/22/2015
Lab ID:	200-28964-D-4	**Specific Gravity:**	2.650	**End Date:**	7/27/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.8	0.2
#40	425	99.6	0.2
#60	250	98.7	0.9
#80	180	97.0	1.7
#100	150	95.0	2.0
#200	75	81.0	14.0
Hyd1	26.7	69.9	11.1
Hyd2	17.2	67.4	2.5
Hyd3	11.8	38.1	29.3
Hyd4	8.4	33.3	4.8
Hyd5	6.2	28.4	4.9
Hyd6	3.2	18.3	10.1
Hyd7	1.4	11.0	7.3

Soil Classification	Percent of sample
Gravel	0.0
Sand	19.0
Coarse Sand	0.0
Medium Sand	0.4
Fine Sand	18.6
Silt	52.6
Clay	28.4

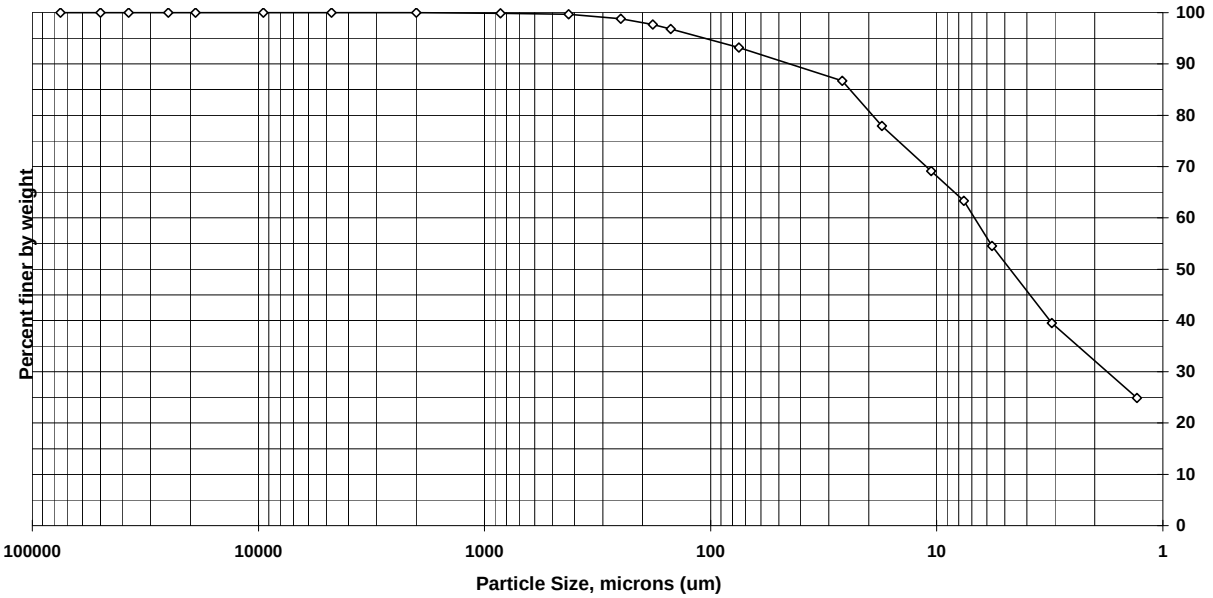
Particle Size of Soils by ASTM D422

				Date Received:	7/21/2015
Sample ID:	SW15-SB35-SURF	**Percent Solids:**	33.0%	**Start Date:**	7/22/2015
Lab ID:	200-28964-C-7	**Specific Gravity:**	2.650	**End Date:**	7/27/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	99.9	0.1
#40	425	99.7	0.2
#60	250	98.8	0.9
#80	180	97.7	1.1
#100	150	96.8	0.9
#200	75	93.2	3.6
Hyd1	26.2	86.7	6.5
Hyd2	17.5	77.9	8.8
Hyd3	10.6	69.1	8.8
Hyd4	7.6	63.3	5.8
Hyd5	5.7	54.5	8.8
Hyd6	3.1	39.5	15.0
Hyd7	1.3	24.9	14.6

Soil Classification	Percent of sample
Gravel	0.0
Sand	6.8
Coarse Sand	0.0
Medium Sand	0.3
Fine Sand	6.5
Silt	38.7
Clay	54.5

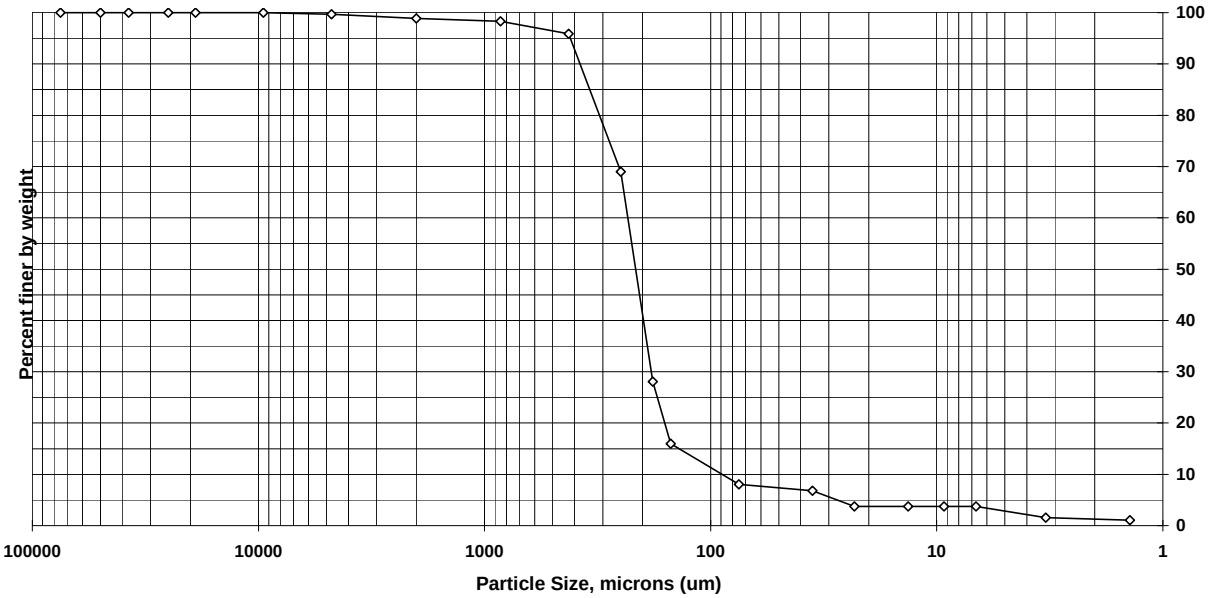
Particle Size of Soils by ASTM D422

				Date Received:	7/21/2015
Sample ID:	SW15-SB05-SURF	**Percent Solids:**	73.7%	**Start Date:**	7/22/2015
Lab ID:	200-28964-D-10	**Specific Gravity:**	2.650	**End Date:**	7/27/2015

Shape (> #10): subrounded

Non-soil material: plant,wood

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	99.7	0.3
#10	2000	98.9	0.8
#20	850	98.3	0.6
#40	425	95.9	2.4
#60	250	69.0	26.9
#80	180	28.1	40.9
#100	150	16.0	12.1
#200	75	8.1	7.9
Hyd1	35.5	6.8	1.2
Hyd2	23.1	3.7	3.1
Hyd3	13.4	3.7	0.0
Hyd4	9.3	3.7	0.0
Hyd5	6.7	3.7	0.0
Hyd6	3.3	1.5	2.2
Hyd7	1.4	1.0	0.5

Soil Classification	Percent of sample
Gravel	0.3
Sand	91.6
Coarse Sand	0.8
Medium Sand	3.0
Fine Sand	87.8
Silt	4.3
Clay	3.7

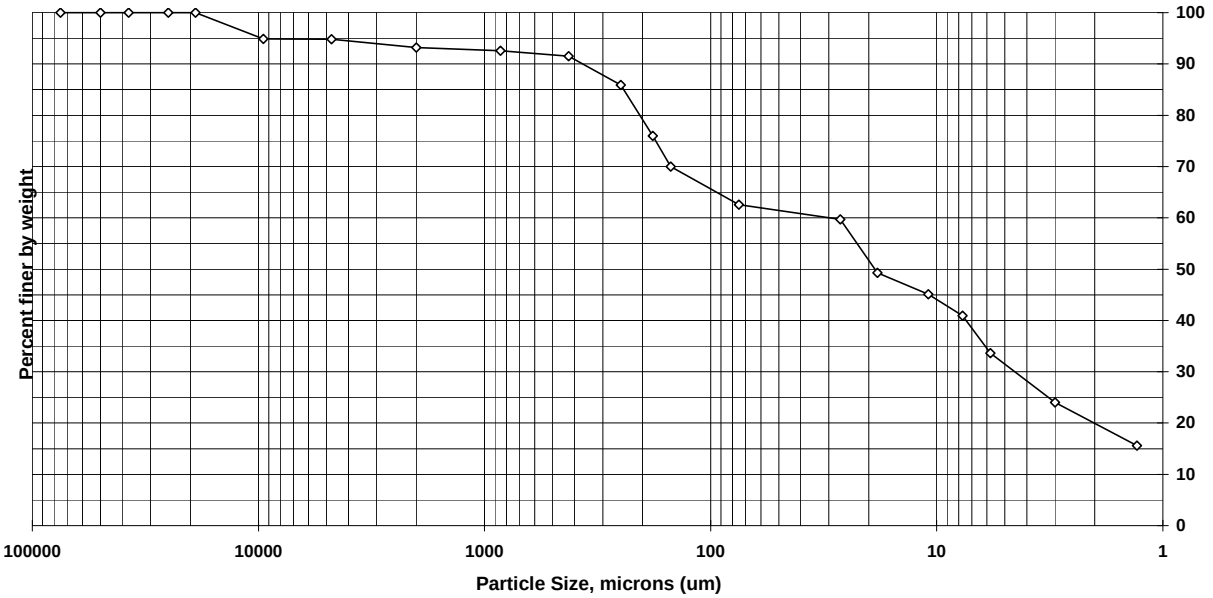
Particle Size of Soils by ASTM D422

				Date Received:	7/21/2015
Sample ID:	SW15-SB11-SURF	**Percent Solids:**	43.0%	**Start Date:**	7/22/2015
Lab ID:	200-28964-F-14	**Specific Gravity:**	2.650	**End Date:**	7/27/2015

Shape (> #10): subrounded

Non-soil material: plant

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	94.9	5.1
#4	4750	94.8	0.1
#10	2000	93.2	1.6
#20	850	92.6	0.6
#40	425	91.5	1.1
#60	250	85.9	5.6
#80	180	76.0	9.9
#100	150	70.0	6.0
#200	75	62.6	7.4
Hyd1	26.7	59.7	2.9
Hyd2	18.3	49.3	10.4
Hyd3	10.9	45.1	4.2
Hyd4	7.7	40.9	4.2
Hyd5	5.8	33.6	7.3
Hyd6	3	24.0	9.6
Hyd7	1.3	15.6	8.4

Soil Classification	Percent of sample
Gravel	5.2
Sand	32.2
Coarse Sand	1.6
Medium Sand	1.7
Fine Sand	28.9
Silt	29.0
Clay	33.6

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB21-SURF
Lab Sample ID	200-28938-C-2

Date Received	7/18/2015
Start Date	07/19/2015 12:42
End Date	07/23/2015 10:42

Dry Weight Determination

Tin Weight	4.47	g
Wet Sample + Tin	149.76	g
Dry Sample + Tin	61.89	g
% Moisture	60.48	%

Non-soil material:	plant,wood
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/19/2015 12:42
Date/Time out of oven	07/20/2015 9:20

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	48.25	208.37	160.12
Sample Weight (Oven Dried)			63.3

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.15
Sample <#10			63.2
% Passing #10			39.5

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	463.09	0.15	g	99.8	Sand	Coarse
#20	850	389.87	390.01	0.14	g	99.6	Sand	Medium
#40	425	367.60	367.89	0.29	g	99.1	Sand	Medium
#60	250	349.33	351.06	1.73	g	96.4	Sand	Fine
#80	180	331.84	333.84	2.00	g	93.2	Sand	Fine
#100	150	331.01	332.74	1.73	g	90.5	Sand	Fine
#200	75	330.97	337.01	6.04	g	81.0	Sand	Fine
				0.00	g	81.0		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	63.3

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0320	19.5	27.2	70.1	Silt	
5	5	1.0225	19.5	19.8	46	Silt	
15	15	1.0200	19.5	11.8	39.6	Silt	
30	30	1.0185	19.5	8.5	35.8	Silt	
60	57	1.0170	19.5	6.2	32	Silt	
250	247	1.0125	19.5	3.1	20.6	Clay	
1440	1394	1.0100	19.5	1.4	14.3	Clay	

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Sediment Grain Size - D422

Client		Date Received	7/18/2015
Client Sample ID	SW15-SB26-SURF	Start Date	07/19/2015 12:43
Lab Sample ID	200-28938-C-5	End Date	07/23/2015 10:55

Dry Weight Determination

Tin Weight	4.28	g
Wet Sample + Tin	151.71	g
Dry Sample + Tin	61.36	g
% Moisture	61.28	%

Non-soil material:	plant,wood,shell
Shape (> #10):	na
Hardness (> #10):	na
Date/Time in oven	07/19/2015 12:43
Date/Time out of oven	07/20/2015 9:20

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	58.13	212.33	154.2
Sample Weight (Oven Dried)			59.7

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0.4
Sample <#10			59.3
% Passing #10			38.5

Hydrometer Data

Serial Number	426931
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000	462.94	463.34	0.40	g	99.3	Sand	Coarse
#20	850	389.87	389.92	0.05	g	99.2	Sand	Medium
#40	425	367.60	367.91	0.31	g	98.7	Sand	Medium
#60	250	349.33	350.67	1.34	g	96.5	Sand	Fine
#80	180	331.84	333.55	1.71	g	93.6	Sand	Fine
#100	150	331.01	332.47	1.46	g	91.2	Sand	Fine
#200	75	330.97	336.49	5.52	g	82.0	Sand	Fine
				0.00	g	82.0		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	59.7

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0310	19.5	27.6	71.6	Silt	
5	5	1.0240	19.5	19.4	52.8	Silt	
15	15	1.0220	19.5	11.5	47.4	Silt	
30	30	1.0200	19.5	8.3	42	Silt	
60	63	1.0175	19.5	5.9	35.3	Silt	
250	241	1.0135	19.5	3.2	24.5	Clay	
1440	1388	1.0110	19.5	1.3	17.8	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB22-SURF
Lab Sample ID	200-28964-D-4

Date Received	7/21/2015
Start Date	07/22/2015 16:23
End Date	07/27/2015 10:16

Dry Weight Determination

Tin Weight	4.32	g
Wet Sample + Tin	176.14	g
Dry Sample + Tin	70.71	g
% Moisture	61.36	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/22/2015 16:23
Date/Time out of oven	07/23/2015 9:18

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.93	228.11	170.18
Sample Weight (Oven Dried)			65.8

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			65.8
% Passing #10			38.7

Hydrometer Data

Serial Number	426998
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	380.70	380.81	0.11	g	99.8	Sand	Medium
#40	425	354.20	354.32	0.12	g	99.6	Sand	Medium
#60	250	351.76	352.32	0.56	g	98.7	Sand	Fine
#80	180	338.75	339.88	1.13	g	97.0	Sand	Fine
#100	150	329.47	330.79	1.32	g	95.0	Sand	Fine
#200	75	323.17	332.39	9.22	g	81.0	Sand	Fine
				0.00	g	81.0		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	65.8

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0330	19.5	26.7	69.9	Silt	
5	5	1.0320	19.5	17.2	67.4	Silt	
15	15	1.0200	19.5	11.8	38.1	Silt	
30	31	1.0180	19.5	8.4	33.3	Silt	
60	60	1.0160	19.5	6.2	28.4	Silt	
250	240	1.0120	19.0	3.2	18.3	Clay	
1440	1424	1.0090	19.0	1.4	11	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB35-SURF
Lab Sample ID	200-28964-C-7

Date Received	7/21/2015
Start Date	07/22/2015 16:24
End Date	07/27/2015 10:29

Dry Weight Determination

Tin Weight	4.12	g
Wet Sample + Tin	173.25	g
Dry Sample + Tin	59.86	g
% Moisture	67.04	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/22/2015 16:24
Date/Time out of oven	07/23/2015 9:18

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.63	217.27	166.64
Sample Weight (Oven Dried)			54.9

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			54.9
% Passing #10			32.9

Hydrometer Data

Serial Number	426998
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	380.70	380.74	0.04	g	99.9	Sand	Medium
#40	425	354.20	354.31	0.11	g	99.7	Sand	Medium
#60	250	351.76	352.23	0.47	g	98.8	Sand	Fine
#80	180	338.75	339.36	0.61	g	97.7	Sand	Fine
#100	150	329.47	329.96	0.49	g	96.8	Sand	Fine
#200	75	323.17	325.12	1.95	g	93.2	Sand	Fine
				0.00	g	93.2		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	54.9

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0340	19.5	26.2	86.7	Silt	
5	5	1.0310	19.5	17.5	77.9	Silt	
15	15	1.0280	19.5	10.6	69.1	Silt	
30	31	1.0260	19.5	7.6	63.3	Silt	
60	59	1.0230	19.5	5.7	54.5	Silt	
250	234	1.0180	19.0	3.1	39.5	Clay	
1440	1418	1.0130	19.0	1.3	24.9	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB05-SURF
Lab Sample ID	200-28964-D-10

Date Received	7/21/2015
Start Date	07/22/2015 16:25
End Date	07/27/2015 9:21

Dry Weight Determination

Tin Weight	4.44	g
Wet Sample + Tin	218.35	g
Dry Sample + Tin	162.16	g
% Moisture	26.27	%

Non-soil material:	plant,wood
Shape (> #10):	subrounded
Hardness (> #10):	hard

Date/Time in oven	07/22/2015 16:25
Date/Time out of oven	07/23/2015 9:18

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	50.07	261.23	211.16
Sample Weight (Oven Dried)			156

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			1.69
Sample <#10			154
% Passing #10			72.9

Hydrometer Data

Serial Number	426998
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.24	488.71	0.47	g	99.7	Gravel	
#10	2000	462.93	464.15	1.22	g	98.9	Sand	Coarse
#20	850	389.62	390.50	0.88	g	98.3	Sand	Medium
#40	425	367.36	371.12	3.76	g	95.9	Sand	Medium
#60	250	349.10	390.99	41.89	g	69.0	Sand	Fine
#80	180	331.67	395.55	63.88	g	28.1	Sand	Fine
#100	150	330.92	349.78	18.86	g	16.0	Sand	Fine
#200	75	330.95	343.34	12.39	g	8.1	Sand	Fine
				0.00	g	8.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	156

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0110	19.5	35.5	6.82	Silt	
5	5	1.0080	19.5	23.1	3.73	Silt	
15	15	1.0080	19.5	13.4	3.73	Silt	
30	31	1.0080	19.5	9.3	3.73	Silt	
60	59	1.0080	19.5	6.7	3.73	Silt	
250	265	1.0060	19.0	3.3	1.54	Clay	
1440	1412	1.0055	19.0	1.4	1.03	Clay	

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Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB11-SURF
Lab Sample ID	200-28964-F-14

Date Received	7/21/2015
Start Date	07/22/2015 16:26
End Date	07/27/2015 9:34

Dry Weight Determination

Tin Weight	4.45	g
Wet Sample + Tin	141.43	g
Dry Sample + Tin	63.40	g
% Moisture	56.96	%

Non-soil material:	plant
Shape (> #10):	subrounded
Hardness (> #10):	hard

Date/Time in oven	07/22/2015 16:26
Date/Time out of oven	07/23/2015 9:18

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	49.65	228.68	179.03
Sample Weight (Oven Dried)			77

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			5.24
Sample <#10			71.8
% Passing #10			40.1

Hydrometer Data

Serial Number	426998
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500	447.44	451.33	3.89	g	94.9	Gravel	
#4	4750	488.24	488.35	0.11	g	94.8	Gravel	
#10	2000	462.93	464.17	1.24	g	93.2	Sand	Coarse
#20	850	389.62	390.11	0.49	g	92.6	Sand	Medium
#40	425	367.36	368.19	0.83	g	91.5	Sand	Medium
#60	250	349.10	353.39	4.29	g	85.9	Sand	Fine
#80	180	331.67	339.30	7.63	g	76.0	Sand	Fine
#100	150	330.92	335.51	4.59	g	70.0	Sand	Fine
#200	75	330.95	336.62	5.67	g	62.6	Sand	Fine
				0.00	g	62.6		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	77

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0330	19.5	26.7	59.7	Silt	
5	5	1.0280	19.5	18.3	49.3	Silt	
15	15	1.0260	19.5	10.9	45.1	Silt	
30	32	1.0240	19.5	7.7	40.9	Silt	
60	60	1.0205	19.5	5.8	33.6	Silt	
250	259	1.0160	19.0	3	24	Clay	
1440	1406	1.0120	19.0	1.3	15.6	Clay	

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28965-1
Sdg Number: 28965

Client Sample ID: **SW15-SB06-SURF**

Lab Sample ID: 200-28965-4
Client Matrix: Sediment

Date Sampled: 07/17/2015 1515
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91852	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28965-E-4.txt
Dilution:	1.0			Initial Weight/Volume:	176.73 g
Analysis Date:	07/22/2015 1627			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		98.3			
Sieve Size #10 - Percent Finer		96.4			
Sieve Size #20 - Percent Finer		94.9			
Sieve Size #40 - Percent Finer		92.2			
Sieve Size #60 - Percent Finer		83.3			
Sieve Size #80 - Percent Finer		64.2			
Sieve Size #100 - Percent Finer		51.6			
Sieve Size #200 - Percent Finer		35.1			
Hydrometer Reading 1 - Percent Finer		33.5			
Hydrometer Reading 2 - Percent Finer		23.8			
Hydrometer Reading 3 - Percent Finer		20.5			
Hydrometer Reading 4 - Percent Finer		18.9			
Hydrometer Reading 5 - Percent Finer		15.6			
Hydrometer Reading 6 - Percent Finer		10.6			
Hydrometer Reading 7 - Percent Finer		7.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28965-1
Sdg Number: 28965

Client Sample ID: **SW15-SB06-SURF**

Lab Sample ID: 200-28965-4
Client Matrix: Sediment

Date Sampled: 07/17/2015 1515
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91852	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28965-E-4.txt
Dilution:	1.0			Initial Weight/Volume:	176.73 g
Analysis Date:	07/22/2015 1627			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		1.7			
Sand		63.2			
Coarse Sand		1.9			
Medium Sand		4.2			
Fine Sand		57.1			
Silt		19.5			
Clay		15.6			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28965-1
Sdg Number: 28965

Client Sample ID: **SW15-SB10-SURF**

Lab Sample ID: 200-28965-7
Client Matrix: Sediment

Date Sampled: 07/20/2015 1025
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91852	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28965-D-7.txt
Dilution:	1.0			Initial Weight/Volume:	168.37 g
Analysis Date:	07/22/2015 1628			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		98.5			
Sieve Size #10 - Percent Finer		96.6			
Sieve Size #20 - Percent Finer		95.8			
Sieve Size #40 - Percent Finer		94.0			
Sieve Size #60 - Percent Finer		82.6			
Sieve Size #80 - Percent Finer		62.4			
Sieve Size #100 - Percent Finer		52.0			
Sieve Size #200 - Percent Finer		40.8			
Hydrometer Reading 1 - Percent Finer		38.1			
Hydrometer Reading 2 - Percent Finer		30.2			
Hydrometer Reading 3 - Percent Finer		27.5			
Hydrometer Reading 4 - Percent Finer		24.0			
Hydrometer Reading 5 - Percent Finer		20.5			
Hydrometer Reading 6 - Percent Finer		13.2			
Hydrometer Reading 7 - Percent Finer		8.8			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28965-1
Sdg Number: 28965

Client Sample ID: **SW15-SB10-SURF**

Lab Sample ID: 200-28965-7
Client Matrix: Sediment

Date Sampled: 07/20/2015 1025
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91852	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28965-D-7.txt
Dilution:	1.0			Initial Weight/Volume:	168.37 g
Analysis Date:	07/22/2015 1628			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		1.5			
Sand		57.7			
Coarse Sand		1.9			
Medium Sand		2.6			
Fine Sand		53.2			
Silt		20.3			
Clay		20.5			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28965-1
Sdg Number: 28965

Client Sample ID: **SW15-SB27-SURF**

Lab Sample ID: 200-28965-10
Client Matrix: Sediment

Date Sampled: 07/18/2015 0825
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91852	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28965-C-10.txt
Dilution:	1.0			Initial Weight/Volume:	169.65 g
Analysis Date:	07/22/2015 1631			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		100.0			
Sieve Size #10 - Percent Finer		100.0			
Sieve Size #20 - Percent Finer		100.0			
Sieve Size #40 - Percent Finer		99.9			
Sieve Size #60 - Percent Finer		98.2			
Sieve Size #80 - Percent Finer		95.3			
Sieve Size #100 - Percent Finer		93.9			
Sieve Size #200 - Percent Finer		90.7			
Hydrometer Reading 1 - Percent Finer		84.1			
Hydrometer Reading 2 - Percent Finer		69.9			
Hydrometer Reading 3 - Percent Finer		65.6			
Hydrometer Reading 4 - Percent Finer		55.7			
Hydrometer Reading 5 - Percent Finer		50.0			
Hydrometer Reading 6 - Percent Finer		34.1			
Hydrometer Reading 7 - Percent Finer		21.3			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28965-1
Sdg Number: 28965

Client Sample ID: **SW15-SB27-SURF**

Lab Sample ID: 200-28965-10
Client Matrix: Sediment

Date Sampled: 07/18/2015 0825
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91852	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28965-C-10.txt
Dilution:	1.0			Initial Weight/Volume:	169.65 g
Analysis Date:	07/22/2015 1631			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.0			
Sand		9.3			
Coarse Sand		0.0			
Medium Sand		0.1			
Fine Sand		9.2			
Silt		40.7			
Clay		50.0			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28965-1
Sdg Number: 28965

Client Sample ID: **SW15-SB08-SURF**

Lab Sample ID: 200-28965-12
Client Matrix: Sediment

Date Sampled: 07/17/2015 1620
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91852	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28965-D-12.txt
Dilution:	1.0			Initial Weight/Volume:	181.64 g
Analysis Date:	07/22/2015 1631			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (% Passing)	Qualifier	MDL	RL
Sieve Size 3 inch - Percent Finer		100.0			
Sieve Size 2 inch - Percent Finer		100.0			
Sieve Size 1.5 inch - Percent Finer		100.0			
Sieve Size 1 inch - Percent Finer		100.0			
Sieve Size 0.75 inch - Percent Finer		100.0			
Sieve Size 0.375 inch - Percent Finer		100.0			
Sieve Size #4 - Percent Finer		99.8			
Sieve Size #10 - Percent Finer		98.5			
Sieve Size #20 - Percent Finer		97.9			
Sieve Size #40 - Percent Finer		96.6			
Sieve Size #60 - Percent Finer		88.2			
Sieve Size #80 - Percent Finer		69.7			
Sieve Size #100 - Percent Finer		58.2			
Sieve Size #200 - Percent Finer		43.1			
Hydrometer Reading 1 - Percent Finer		41.1			
Hydrometer Reading 2 - Percent Finer		34.1			
Hydrometer Reading 3 - Percent Finer		27.8			
Hydrometer Reading 4 - Percent Finer		24.6			
Hydrometer Reading 5 - Percent Finer		23.0			
Hydrometer Reading 6 - Percent Finer		14.2			
Hydrometer Reading 7 - Percent Finer		8.7			

Analytical Data

Client: EA Engineering, Science, and Technology

Job Number: 200-28965-1
Sdg Number: 28965

Client Sample ID: **SW15-SB08-SURF**

Lab Sample ID: 200-28965-12
Client Matrix: Sediment

Date Sampled: 07/17/2015 1620
Date Received: 07/21/2015 1135

D422 Grain Size

Analysis Method:	D422	Analysis Batch:	200-91852	Instrument ID:	D422_import
	N/A	Prep Batch:	N/A	Lab File ID:	200-28965-D-12.txt
Dilution:	1.0			Initial Weight/Volume:	181.64 g
Analysis Date:	07/22/2015 1631			Final Weight/Volume:	
Prep Date:	N/A				

Analyte	DryWt Corrected: N	Result (%)	Qualifier	MDL	RL
Gravel		0.2			
Sand		56.7			
Coarse Sand		1.3			
Medium Sand		1.9			
Fine Sand		53.5			
Silt		20.1			
Clay		23.0			

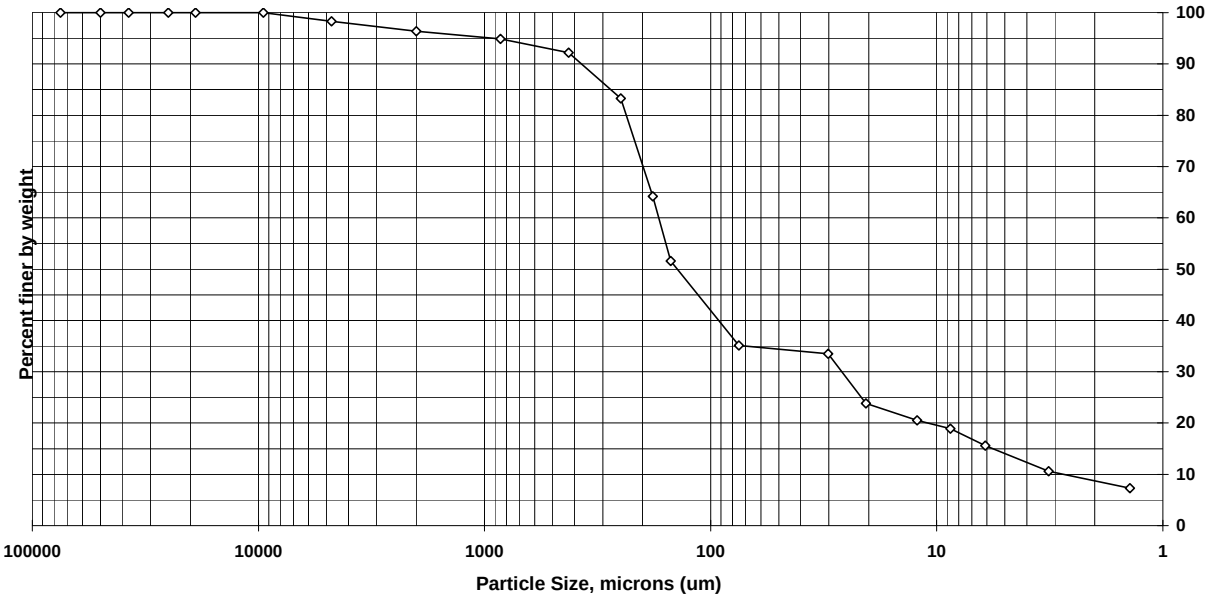
Particle Size of Soils by ASTM D422

				Date Received:	7/21/2015
Sample ID:	SW15-SB06-SURF	**Percent Solids:**	55.9%	**Start Date:**	7/22/2015
Lab ID:	200-28965-E-4	**Specific Gravity:**	2.650	**End Date:**	7/27/2015

Shape (> #10): subrounded

Non-soil material: plant,wood

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	98.3	1.7
#10	2000	96.4	1.9
#20	850	94.9	1.5
#40	425	92.2	2.7
#60	250	83.3	8.9
#80	180	64.2	19.1
#100	150	51.6	12.6
#200	75	35.1	16.5
Hyd1	30.2	33.5	1.6
Hyd2	20.6	23.8	9.7
Hyd3	12.2	20.5	3.3
Hyd4	8.7	18.9	1.6
Hyd5	6.1	15.6	3.3
Hyd6	3.2	10.6	5.0
Hyd7	1.4	7.3	3.3

Soil Classification	Percent of sample
Gravel	1.7
Sand	63.2
Coarse Sand	1.9
Medium Sand	4.2
Fine Sand	57.1
Silt	19.5
Clay	15.6

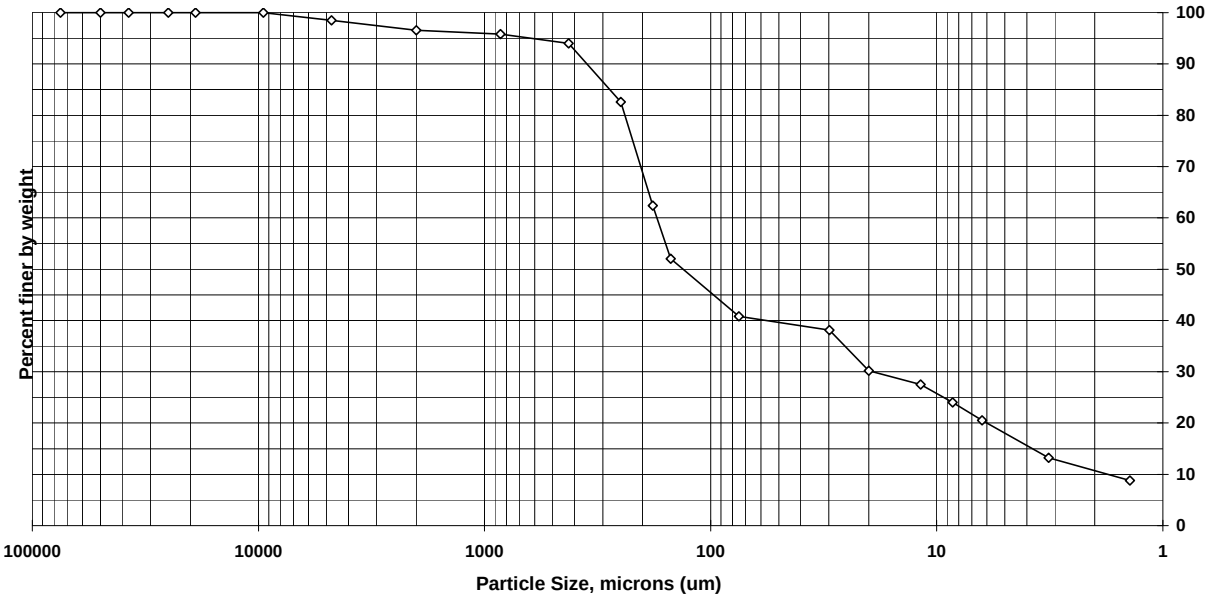
Particle Size of Soils by ASTM D422

				Date Received:	7/21/2015
Sample ID:	SW15-SB10-SURF	**Percent Solids:**	54.1%	**Start Date:**	7/22/2015
Lab ID:	200-28965-D-7	**Specific Gravity:**	2.650	**End Date:**	7/27/2015

Shape (> #10): subrounded

Non-soil material: plant,wood

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	98.5	1.5
#10	2000	96.6	1.9
#20	850	95.8	0.8
#40	425	94.0	1.8
#60	250	82.6	11.4
#80	180	62.4	20.2
#100	150	52.0	10.4
#200	75	40.8	11.2
Hyd1	29.8	38.1	2.7
Hyd2	20	30.2	7.9
Hyd3	11.8	27.5	2.7
Hyd4	8.5	24.0	3.5
Hyd5	6.3	20.5	3.5
Hyd6	3.2	13.2	7.3
Hyd7	1.4	8.8	4.4

Soil Classification	Percent of sample
Gravel	1.5
Sand	57.7
Coarse Sand	1.9
Medium Sand	2.6
Fine Sand	53.2
Silt	20.3
Clay	20.5

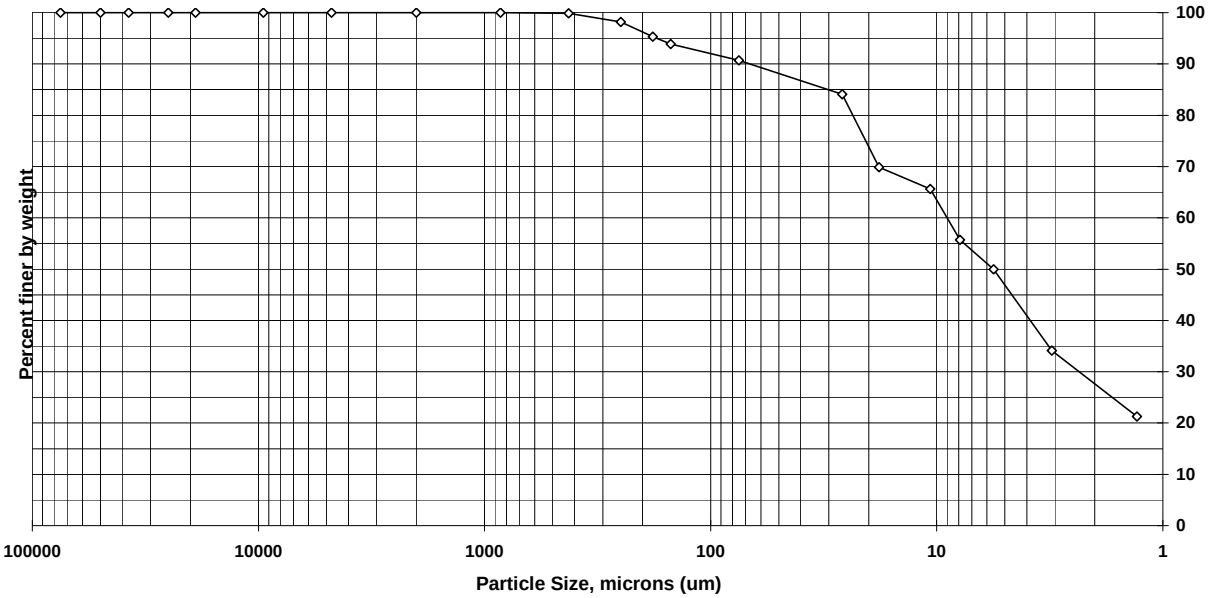
Particle Size of Soils by ASTM D422

				Date Received:	7/21/2015
Sample ID:	SW15-SB27-SURF	**Percent Solids:**	33.4%	**Start Date:**	7/22/2015
Lab ID:	200-28965-C-10	**Specific Gravity:**	2.650	**End Date:**	7/27/2015

Shape (> #10): na

Non-soil material: na

Hardness (> #10): na



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	100.0	0.0
#20	850	100.0	0.0
#40	425	99.9	0.1
#60	250	98.2	1.7
#80	180	95.3	2.9
#100	150	93.9	1.4
#200	75	90.7	3.2
Hyd1	26.2	84.1	6.6
Hyd2	18	69.9	14.2
Hyd3	10.7	65.6	4.3
Hyd4	7.9	55.7	9.9
Hyd5	5.6	50.0	5.7
Hyd6	3.1	34.1	15.9
Hyd7	1.3	21.3	12.8

Soil Classification	Percent of sample
Gravel	0.0
Sand	9.3
Coarse Sand	0.0
Medium Sand	0.1
Fine Sand	9.2
Silt	40.7
Clay	50.0

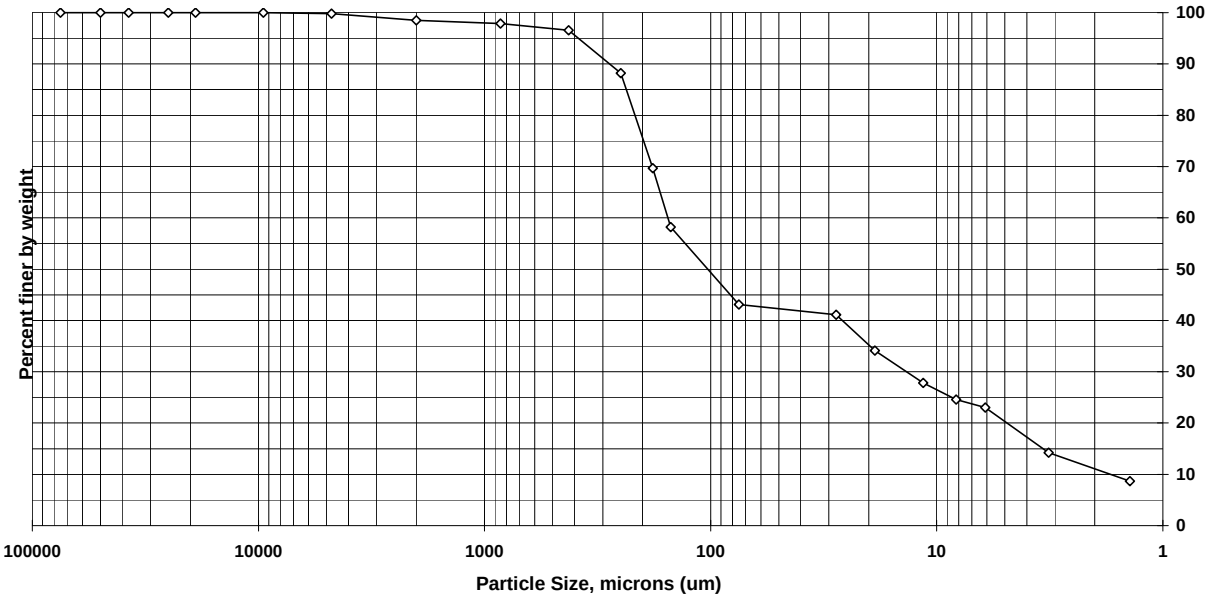
Particle Size of Soils by ASTM D422

				Date Received:	7/21/2015
Sample ID:	SW15-SB08-SURF	**Percent Solids:**	56.1%	**Start Date:**	7/22/2015
Lab ID:	200-28965-D-12	**Specific Gravity:**	2.650	**End Date:**	7/27/2015

Shape (> #10): subrounded

Non-soil material: plant,wood

Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	99.8	0.2
#10	2000	98.5	1.3
#20	850	97.9	0.6
#40	425	96.6	1.3
#60	250	88.2	8.4
#80	180	69.7	18.5
#100	150	58.2	11.5
#200	75	43.1	15.1
Hyd1	27.9	41.1	2.0
Hyd2	18.8	34.1	7.0
Hyd3	11.5	27.8	6.3
Hyd4	8.2	24.6	3.2
Hyd5	6.1	23.0	1.6
Hyd6	3.2	14.2	8.8
Hyd7	1.4	8.7	5.5

Soil Classification	Percent of sample
Gravel	0.2
Sand	56.7
Coarse Sand	1.3
Medium Sand	1.9
Fine Sand	53.5
Silt	20.1
Clay	23.0

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB06-SURF
Lab Sample ID	200-28965-E-4

Date Received	7/21/2015
Start Date	07/22/2015 16:27
End Date	07/27/2015 9:48

Dry Weight Determination

Tin Weight	4.43	g
Wet Sample + Tin	177.14	g
Dry Sample + Tin	101.03	g
% Moisture	44.07	%

Non-soil material:	plant,wood
Shape (> #10):	subrounded
Hardness (> #10):	hard

Date/Time in oven	07/22/2015 16:27
Date/Time out of oven	07/23/2015 9:20

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.49	234.22	176.73
Sample Weight (Oven Dried)			98.8

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			3.54
Sample <#10			95.3
% Passing #10			53.9

Hydrometer Data

Serial Number	426998
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.24	489.90	1.66	g	98.3	Gravel	
#10	2000	462.93	464.81	1.88	g	96.4	Sand	Coarse
#20	850	389.62	391.14	1.52	g	94.9	Sand	Medium
#40	425	367.36	370.07	2.71	g	92.2	Sand	Medium
#60	250	349.10	357.88	8.78	g	83.3	Sand	Fine
#80	180	331.67	350.57	18.90	g	64.2	Sand	Fine
#100	150	330.92	343.32	12.40	g	51.6	Sand	Fine
#200	75	330.95	347.28	16.33	g	35.1	Sand	Fine
				0.00	g	35.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	98.8

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0250	19.5	30.2	33.5	Silt	
5	5	1.0190	19.5	20.6	23.8	Silt	
15	15	1.0170	19.5	12.2	20.5	Silt	
30	30	1.0160	19.5	8.7	18.9	Silt	
60	63	1.0140	19.5	6.1	15.6	Silt	
250	253	1.0110	19.0	3.2	10.6	Clay	
1440	1400	1.0090	19.0	1.4	7.32	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB10-SURF
Lab Sample ID	200-28965-D-7

Date Received	7/21/2015
Start Date	07/22/2015 16:28
End Date	07/27/2015 10:04

Dry Weight Determination

Tin Weight	4.06	g
Wet Sample + Tin	179.80	g
Dry Sample + Tin	99.12	g
% Moisture	45.91	%

Non-soil material:	plant,wood
Shape (> #10):	subrounded
Hardness (> #10):	hard

Date/Time in oven	07/22/2015 16:28
Date/Time out of oven	07/23/2015 9:19

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.61	225.98	168.37
Sample Weight (Oven Dried)			91.1

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			3.12
Sample <#10			88
% Passing #10			52.3

Hydrometer Data

Serial Number	426998
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.24	489.62	1.38	g	98.5	Gravel	
#10	2000	462.93	464.67	1.74	g	96.6	Sand	Coarse
#20	850	389.62	390.31	0.69	g	95.8	Sand	Medium
#40	425	367.36	369.00	1.64	g	94.0	Sand	Medium
#60	250	349.10	359.46	10.36	g	82.6	Sand	Fine
#80	180	331.67	350.05	18.38	g	62.4	Sand	Fine
#100	150	330.92	340.43	9.51	g	52.0	Sand	Fine
#200	75	330.95	341.14	10.19	g	40.8	Sand	Fine
				0.00	g	40.8		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	91.1

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0260	19.5	29.8	38.1	Silt	
5	5	1.0215	19.5	20	30.2	Silt	
15	15	1.0200	19.5	11.8	27.5	Silt	
30	30	1.0180	19.5	8.5	24	Silt	
60	57	1.0160	19.5	6.3	20.5	Silt	
250	247	1.0120	19.0	3.2	13.2	Clay	
1440	1394	1.0095	19.0	1.4	8.81	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB27-SURF
Lab Sample ID	200-28965-C-10

Date Received	7/21/2015
Start Date	07/22/2015 16:31
End Date	07/27/2015 10:18

Dry Weight Determination

Tin Weight	4.20	g
Wet Sample + Tin	158.39	g
Dry Sample + Tin	55.64	g
% Moisture	66.64	%

Non-soil material:	na
Shape (> #10):	na
Hardness (> #10):	na

Date/Time in oven	07/22/2015 16:31
Date/Time out of oven	07/23/2015 9:19

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	57.78	227.43	169.65
Sample Weight (Oven Dried)			56.6

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			0
Sample <#10			56.6
% Passing #10			33.4

Hydrometer Data

Serial Number	426998
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750			0.00	g	100.0	Gravel	
#10	2000			0.00	g	100.0	Sand	Coarse
#20	850	389.62	389.62	0.00	g	100.0	Sand	Medium
#40	425	367.36	367.42	0.06	g	99.9	Sand	Medium
#60	250	349.10	350.04	0.94	g	98.2	Sand	Fine
#80	180	331.67	333.30	1.63	g	95.3	Sand	Fine
#100	150	330.92	331.71	0.79	g	93.9	Sand	Fine
#200	75	330.95	332.75	1.80	g	90.7	Sand	Fine
				0.00	g	90.7		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	56.6

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0340	19.5	26.2	84.1	Silt	
5	5	1.0290	19.5	18	69.9	Silt	
15	15	1.0275	19.5	10.7	65.6	Silt	
30	30	1.0240	19.5	7.9	55.7	Silt	
60	63	1.0220	19.5	5.6	50	Silt	
250	241	1.0165	19.0	3.1	34.1	Clay	
1440	1388	1.0120	19.0	1.3	21.3	Clay	

TestAmerica Burlington

Sediment Grain Size - D422

Client	
Client Sample ID	SW15-SB08-SURF
Lab Sample ID	200-28965-D-12

Date Received	7/21/2015
Start Date	07/22/2015 16:31
End Date	07/27/2015 10:31

Dry Weight Determination

Tin Weight	4.48	g
Wet Sample + Tin	167.81	g
Dry Sample + Tin	96.16	g
% Moisture	43.87	%

Non-soil material:	plant,wood
Shape (> #10):	subrounded
Hardness (> #10):	hard

Date/Time in oven	07/22/2015 16:31
Date/Time out of oven	07/23/2015 9:20

Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.74	229.38	181.64
Sample Weight (Oven Dried)			102

Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			1.55
Sample <#10			100
% Passing #10			55.1

Hydrometer Data

Serial Number	426998
Calib. Date (mm/dd/yyyy)	11/13/2014
Low Temp (C)	17.0
Reading at Low Temp	1.0050
High Temp (C)	23.0
Reading at High Temp	1.0035
Hydrometer Cal Slope	-0.00025
Hydrometer Cal Intercept	1.00925
Default Soil Gravity	2.6500

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample		% Finer	Classification	Sub Class
3 inch	75000			0.00	g	100.0	Gravel	
2 inch	50000			0.00	g	100.0	Gravel	
1.5 inch	37500			0.00	g	100.0	Gravel	
1 inch	25000			0.00	g	100.0	Gravel	
3/4 inch	19000			0.00	g	100.0	Gravel	
3/8 inch	9500			0.00	g	100.0	Gravel	
#4	4750	488.24	488.46	0.22	g	99.8	Gravel	
#10	2000	462.93	464.26	1.33	g	98.5	Sand	Coarse
#20	850	389.62	390.24	0.62	g	97.9	Sand	Medium
#40	425	367.36	368.66	1.30	g	96.6	Sand	Medium
#60	250	349.10	357.69	8.59	g	88.2	Sand	Fine
#80	180	331.67	350.57	18.90	g	69.7	Sand	Fine
#100	150	330.92	342.67	11.75	g	58.2	Sand	Fine
#200	75	330.95	346.39	15.44	g	43.1	Sand	Fine
				0.00	g	43.1		

Adjusted Hydrometer Sample Mass

Hydrometer Sample Mass (g)	102

Silt/Clay Fraction (Hydrometer Test)

Hydrometer Test Time (min)	Actual	Spec. Gravity	Temp C	Particle Size (Micron)	% Finer	Classification	Sub Class
2	2	1.0305	19.5	27.9	41.1	Silt	
5	5	1.0260	19.5	18.8	34.1	Silt	
15	15	1.0220	19.5	11.5	27.8	Silt	
30	31	1.0200	19.5	8.2	24.6	Silt	
60	57	1.0190	19.5	6.1	23	Silt	
250	235	1.0135	19.0	3.2	14.2	Clay	
1440	1382	1.0100	19.0	1.4	8.66	Clay	