



Client: Anchor QEA, LLC.
Address: 720 Olive Way, Suite 1900
Seattle, WA 98101
Attn: Cindy Fields
Revised on: _____

Date: September 1, 2023
Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02
Project #: 23B198-01
Sample #: B23-0762 - 0780
Date sampled: December 14, 2022 - January 5, 2023

As requested MTC, Inc. has performed the following test(s) on the sample referenced above. The testing was performed in accordance with current applicable AASHTO or ASTM standards as indicated below. The results obtained in our laboratory were as follows below or on the attached pages:

	Test(s) Performed:	Test Results		Test(s) Performed:	Test Results
X	Sieve Analysis	See Attached Reports		Sulfate Soundness	
	Proctor			Bulk Density & Voids	
	Sand Equivalent			WSDOT Degradation	
	Fracture Count			LA Abrasion	
	Moisture Content				
	Specific Gravity, Coarse				
	Specific Gravity, Fine				
X	Hydrometer Analysis	See Attached Reports			
	Atterberg Limits				


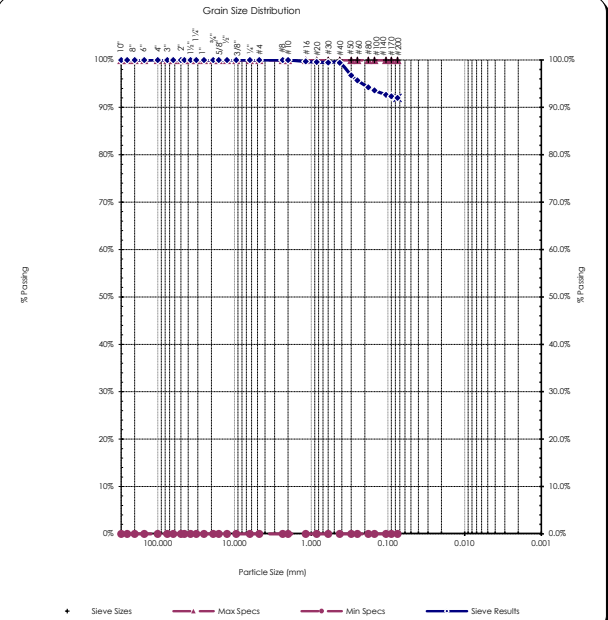
If you have any questions concerning the test results, the procedures used, or if we can be of any further assistance please call on us at the number below.

Alex Eifrig

Respectfully Submitted,
Alex Eifrig
WABO Supervising Laboratory Technician



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1039C Sample#: B23-0762		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 18-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.004 mm D₁₀ = 0.008 mm D₁₅ = 0.012 mm D₃₀ = 0.024 mm D₅₀ = 0.041 mm D₆₀ = 0.049 mm D₉₀ = 0.073 mm Dust Ratio = 25/27		% Gravel = 0.0% % Sand = 8.0% % Silt & Clay = 92.0% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.10 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			100%	100.0%	0.0%			
#10	2.00	100%		100%	100.0%	0.0%			
#16	1.18			100%	100.0%	0.0%			
#20	0.850			100%	100.0%	0.0%			
#30	0.600			99%	100.0%	0.0%			
#40	0.425	99%		99%	100.0%	0.0%			
#50	0.300			97%	100.0%	0.0%			
#60	0.250			96%	100.0%	0.0%			
#80	0.180			94%	100.0%	0.0%			
#100	0.150			94%	100.0%	0.0%			
#140	0.106			93%	100.0%	0.0%			
#170	0.090			92%	100.0%	0.0%			
#200	0.075	92.0%		92.0%	100.0%	0.0%			

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Comments:

Reviewed by:

Alex Eifrig

Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1039C Sample#: B23-0762		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 21-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																									
ASTM D7928, HYDROMETER ANALYSIS																																																																													
<div style="display: flex; justify-content: space-between;"> <div> Assumed Sp Gr : 2.65 Sample Weight: 50.00 grams Hydrosopic Moist.: 2.97% Adj. Sample Wgt : 48.56 grams </div> <div style="text-align: center;"> ACCREDITED <small>Certificate #: 1366.01</small> </div> </div>																																																																													
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Hydrometer Reading Minutes</th> <th style="text-align: left;">Corrected Reading</th> <th style="text-align: left;">Percent Passing</th> <th style="text-align: left;">Soils Particle Diameter</th> </tr> </thead> <tbody> <tr><td>1</td><td>30</td><td>61.8%</td><td>0.0461 mm</td></tr> <tr><td>2</td><td>28</td><td>57.7%</td><td>0.0330 mm</td></tr> <tr><td>5</td><td>27</td><td>55.6%</td><td>0.0211 mm</td></tr> <tr><td>15</td><td>20</td><td>41.2%</td><td>0.0127 mm</td></tr> <tr><td>30</td><td>16</td><td>33.0%</td><td>0.0092 mm</td></tr> <tr><td>60</td><td>13</td><td>26.8%</td><td>0.0066 mm</td></tr> <tr><td>240</td><td>8</td><td>16.5%</td><td>0.0034 mm</td></tr> <tr><td>1440</td><td>6</td><td>12.4%</td><td>0.0014 mm</td></tr> </tbody> </table> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> % Gravel: 0.0% % Sand: 8.0% % Silt: 70.5% % Clay: 21.5% </div> <div> Liquid Limit: n/a Plastic Limit: n/a Plasticity Index: n/a </div> </div>						Hydrometer Reading Minutes	Corrected Reading	Percent Passing	Soils Particle Diameter	1	30	61.8%	0.0461 mm	2	28	57.7%	0.0330 mm	5	27	55.6%	0.0211 mm	15	20	41.2%	0.0127 mm	30	16	33.0%	0.0092 mm	60	13	26.8%	0.0066 mm	240	8	16.5%	0.0034 mm	1440	6	12.4%	0.0014 mm																																				
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All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.


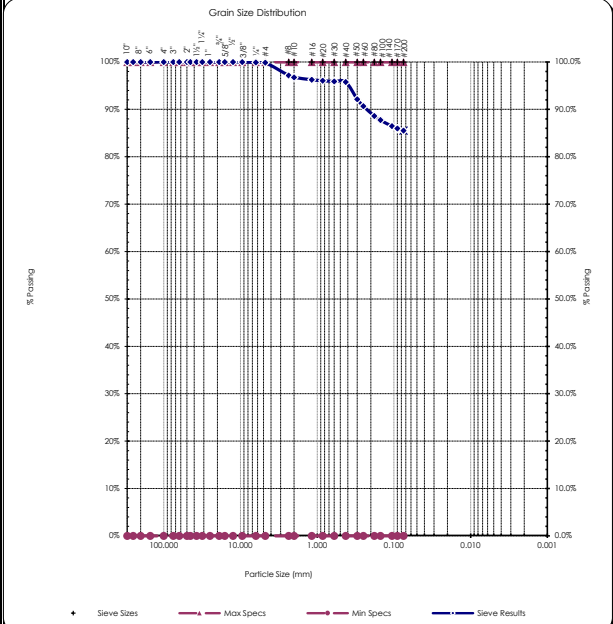
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1047B Sample#: B23-0763		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 18-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.004 mm D₁₀ = 0.009 mm D₁₅ = 0.013 mm D₃₀ = 0.026 mm D₅₀ = 0.044 mm D₆₀ = 0.053 mm D₉₀ = 0.227 mm Dust Ratio = 25/28		% Gravel = 0.1% % Sand = 14.3% % Silt & Clay = 85.5% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.31 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			97%	100.0%	0.0%			
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#30	0.600			96%	100.0%	0.0%			
#40	0.425	96%		96%	100.0%	0.0%			
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#60	0.250			91%	100.0%	0.0%			
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#170	0.090			86%	100.0%	0.0%			
#200	0.075	85.5%		85.5%	100.0%	0.0%			

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Comments:

Reviewed by:

Alex Eifrig

Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1047B Sample#: B23-0763		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 21-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																										
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240	7	14.2%	0.0034 mm																																																																																																											
1440	5	10.1%	0.0014 mm																																																																																																											
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All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.


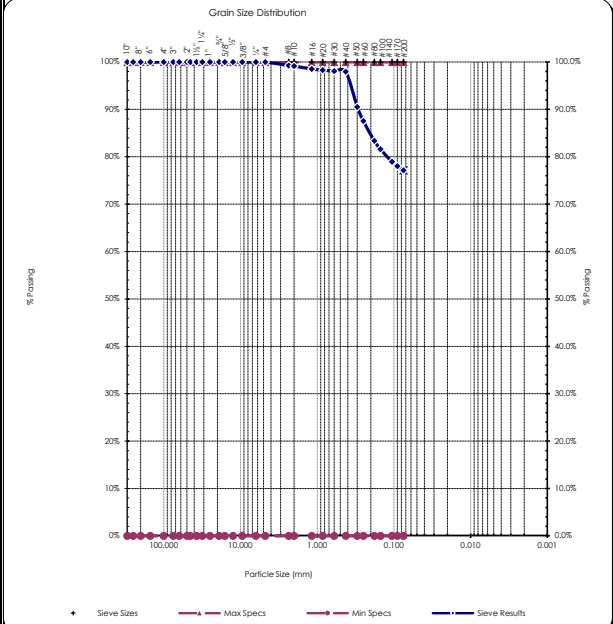
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1053B Sample#: B23-0764		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 18-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.005 mm D₁₀ = 0.010 mm D₁₅ = 0.015 mm D₃₀ = 0.029 mm D₅₀ = 0.049 mm D₆₀ = 0.058 mm D₉₀ = 0.291 mm Dust Ratio = 37/47		% Gravel = 0.0% % Sand = 22.9% % Silt & Clay = 77.1% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.32 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"		300.00		100%	100.0%	0.0%			
10.00"		250.00		100%	100.0%	0.0%			
8.00"		200.00		100%	100.0%	0.0%			
6.00"		150.00		100%	100.0%	0.0%			
4.00"		100.00		100%	100.0%	0.0%			
3.00"		75.00		100%	100.0%	0.0%			
2.50"		63.00		100%	100.0%	0.0%			
2.00"		50.00	100%	100%	100.0%	0.0%			
1.75"		45.00		100%	100.0%	0.0%			
1.50"		37.50		100%	100.0%	0.0%			
1.25"		31.50		100%	100.0%	0.0%			
1.00"		25.00	100%	100%	100.0%	0.0%			
3/4"		19.00	100%	100%	100.0%	0.0%			
5/8"		16.00		100%	100.0%	0.0%			
1/2"		12.50	100%	100%	100.0%	0.0%			
3/8"		9.50	100%	100%	100.0%	0.0%			
1/4"		6.30		100%	100.0%	0.0%			
#4		4.75	100%	100%	100.0%	0.0%			
#8		2.36		99%	100.0%	0.0%			
#10		2.00	99%	99%	100.0%	0.0%			
#16		1.18		99%	100.0%	0.0%			
#20		0.850		98%	100.0%	0.0%			
#30		0.600		98%	100.0%	0.0%			
#40		0.425	98%	98%	100.0%	0.0%			
#50		0.300		91%	100.0%	0.0%			
#60		0.250		88%	100.0%	0.0%			
#80		0.180		83%	100.0%	0.0%			
#100		0.150		82%	100.0%	0.0%			
#140		0.106		79%	100.0%	0.0%			
#170		0.090		78%	100.0%	0.0%			
#200		0.075	77.1%	77.1%	100.0%	0.0%			

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Comments:

Reviewed by: Alex Eifrig
Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1053B Sample#: B23-0764		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 21-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																													
ASTM D7928, HYDROMETER ANALYSIS				ASTM D6913																																																																																													
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Assumed Sp Gr :</td> <td style="width: 20%; text-align: center;">2.65</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td rowspan="4" style="width: 10%; text-align: center; vertical-align: middle;"> Certificate #: 1366.01 </td> </tr> <tr> <td>Sample Weight:</td> <td style="text-align: center;">50.01</td> <td>grams</td> <td></td> </tr> <tr> <td>Hydroscopic Moist:</td> <td style="text-align: center;">2.98%</td> <td></td> <td></td> </tr> <tr> <td>Adj. Sample Wgt :</td> <td style="text-align: center;">48.56</td> <td>grams</td> <td></td> </tr> </table>				Assumed Sp Gr :	2.65			 Certificate #: 1366.01	Sample Weight:	50.01	grams		Hydroscopic Moist:	2.98%			Adj. Sample Wgt :	48.56	grams		<table style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center; background-color: #f2f2f2;">Sieve Analysis</th> </tr> <tr> <th colspan="3" style="text-align: center; background-color: #f2f2f2;">Grain Size Distribution</th> </tr> <tr> <th style="text-align: left;">Sieve Size</th> <th style="text-align: left;">Percent Passing</th> <th style="text-align: left;">Soils Particle Diameter</th> </tr> <tr><td>3.0"</td><td>100%</td><td>75.000 mm</td></tr> <tr><td>2.0"</td><td>100%</td><td>50.000 mm</td></tr> <tr><td>1.5"</td><td>100%</td><td>37.500 mm</td></tr> <tr><td>1.25"</td><td>100%</td><td>31.500 mm</td></tr> <tr><td>1.0"</td><td>100%</td><td>25.000 mm</td></tr> <tr><td>3/4"</td><td>100%</td><td>19.000 mm</td></tr> <tr><td>5/8"</td><td>100%</td><td>16.000 mm</td></tr> <tr><td>1/2"</td><td>100%</td><td>12.500 mm</td></tr> <tr><td>3/8"</td><td>100%</td><td>9.500 mm</td></tr> <tr><td>1/4"</td><td>100%</td><td>6.300 mm</td></tr> <tr><td>#4</td><td>100%</td><td>4.750 mm</td></tr> <tr><td>#10</td><td>99%</td><td>2.000 mm</td></tr> <tr><td>#20</td><td>98%</td><td>0.850 mm</td></tr> <tr><td>#40</td><td>98%</td><td>0.425 mm</td></tr> <tr><td>#100</td><td>82%</td><td>0.150 mm</td></tr> <tr><td>#200</td><td>77.1%</td><td>0.075 mm</td></tr> <tr><td>Silts</td><td>75.9%</td><td>0.074 mm</td></tr> <tr><td></td><td>57.7%</td><td>0.050 mm</td></tr> <tr><td></td><td>35.5%</td><td>0.020 mm</td></tr> <tr><td>Clays</td><td>16.6%</td><td>0.005 mm</td></tr> <tr><td></td><td>8.1%</td><td>0.002 mm</td></tr> <tr><td>Colloids</td><td>4.3%</td><td>0.001 mm</td></tr> </table>		Sieve Analysis			Grain Size Distribution			Sieve Size	Percent Passing	Soils Particle Diameter	3.0"	100%	75.000 mm	2.0"	100%	50.000 mm	1.5"	100%	37.500 mm	1.25"	100%	31.500 mm	1.0"	100%	25.000 mm	3/4"	100%	19.000 mm	5/8"	100%	16.000 mm	1/2"	100%	12.500 mm	3/8"	100%	9.500 mm	1/4"	100%	6.300 mm	#4	100%	4.750 mm	#10	99%	2.000 mm	#20	98%	0.850 mm	#40	98%	0.425 mm	#100	82%	0.150 mm	#200	77.1%	0.075 mm	Silts	75.9%	0.074 mm		57.7%	0.050 mm		35.5%	0.020 mm	Clays	16.6%	0.005 mm		8.1%	0.002 mm	Colloids	4.3%	0.001 mm
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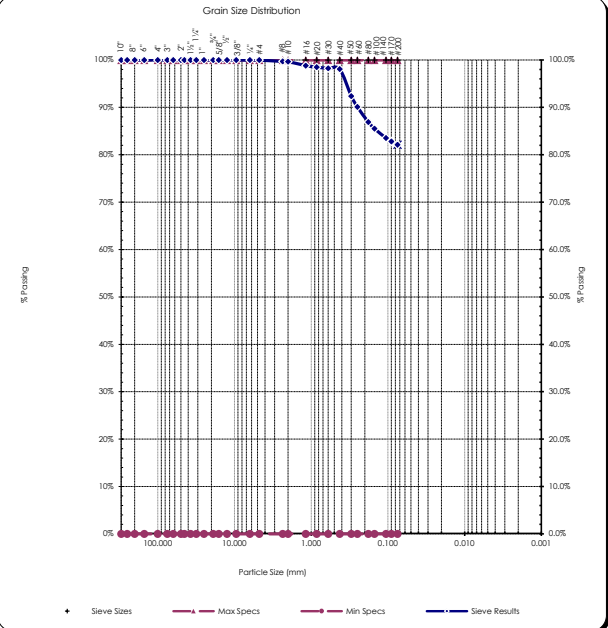
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1059C Sample#: B23-0765		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 18-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		$D_{(5)} = 0.005$ mm $D_{(10)} = 0.009$ mm $D_{(15)} = 0.014$ mm $D_{(30)} = 0.027$ mm $D_{(50)} = 0.046$ mm $D_{(60)} = 0.055$ mm $D_{(90)} = 0.248$ mm Dust Ratio = 67/80		$\% \text{ Gravel} = 0.0\%$ $\% \text{ Sand} = 17.8\%$ $\% \text{ Silt \& Clay} = 82.1\%$ Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture %, 1 Face = n/a Fracture %, 2+ Faces = n/a		$\text{Coeff. of Curvature, } C_c = 1.50$ $\text{Coeff. of Uniformity, } C_u = 6.00$ Fineness Modulus = 0.25 Plastic Limit = n/a Moisture %, as sampled = n/a Req'd Sand Equivalent = Req'd Fracture %, 1 Face = Req'd Fracture %, 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			100%	100.0%	0.0%			
#10	2.00	100%		100%	100.0%	0.0%			
#16	1.18			99%	100.0%	0.0%			
#20	0.850			98%	100.0%	0.0%			
#30	0.600			98%	100.0%	0.0%			
#40	0.425	98%		98%	100.0%	0.0%			
#50	0.300			92%	100.0%	0.0%			
#60	0.250			90%	100.0%	0.0%			
#80	0.180			87%	100.0%	0.0%			
#100	0.150			86%	100.0%	0.0%			
#140	0.106			84%	100.0%	0.0%			
#170	0.090			83%	100.0%	0.0%			
#200	0.075	82.1%		82.1%	100.0%	0.0%			

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Comments:

Reviewed by: Alex Eifrig
Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1059C Sample#: B23-0765		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 21-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																								
ASTM D7928, HYDROMETER ANALYSIS				ASTM D6913																																																																																																								
Assumed Sp Gr : 2.65 Sample Weight: 50.00 grams Hydrosopic Moist.: 3.87% Adj. Sample Wgt : 48.14 grams		 Certificate #: 1366.01		Sieve Analysis Grain Size Distribution																																																																																																								
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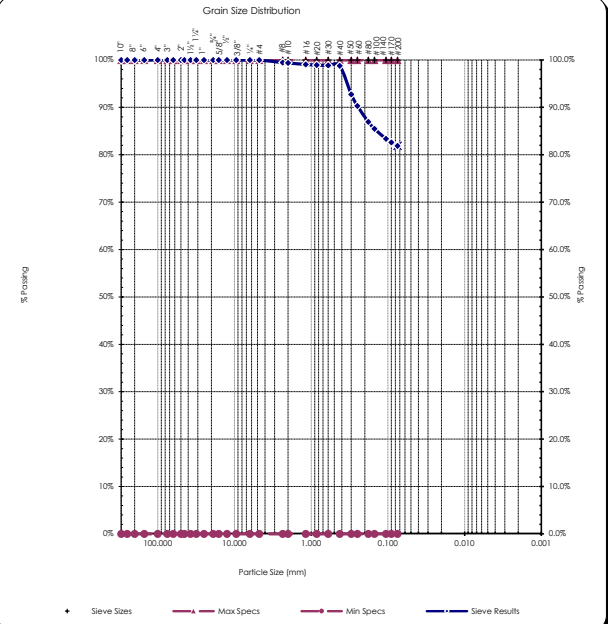
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1060B Sample#: B23-0766		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 18-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.005 mm D₁₀ = 0.009 mm D₁₅ = 0.014 mm D₃₀ = 0.027 mm D₅₀ = 0.046 mm D₆₀ = 0.055 mm D₉₀ = 0.243 mm Dust Ratio = 63/76		% Gravel = 0.0% % Sand = 18.1% % Silt & Clay = 81.9% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.24 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"		300.00		100%	100.0%	0.0%			
10.00"		250.00		100%	100.0%	0.0%			
8.00"		200.00		100%	100.0%	0.0%			
6.00"		150.00		100%	100.0%	0.0%			
4.00"		100.00		100%	100.0%	0.0%			
3.00"		75.00		100%	100.0%	0.0%			
2.50"		63.00		100%	100.0%	0.0%			
2.00"		50.00	100%	100%	100.0%	0.0%			
1.75"		45.00		100%	100.0%	0.0%			
1.50"		37.50		100%	100.0%	0.0%			
1.25"		31.50		100%	100.0%	0.0%			
1.00"		25.00	100%	100%	100.0%	0.0%			
3/4"		19.00	100%	100%	100.0%	0.0%			
5/8"		16.00		100%	100.0%	0.0%			
1/2"		12.50	100%	100%	100.0%	0.0%			
3/8"		9.50	100%	100%	100.0%	0.0%			
1/4"		6.30		100%	100.0%	0.0%			
#4		4.75	100%	100%	100.0%	0.0%			
#8		2.36		99%	100.0%	0.0%			
#10		2.00	99%	99%	100.0%	0.0%			
#16		1.18		99%	100.0%	0.0%			
#20		0.850		99%	100.0%	0.0%			
#30		0.600		99%	100.0%	0.0%			
#40		0.425	99%	99%	100.0%	0.0%			
#50		0.300		93%	100.0%	0.0%			
#60		0.250		90%	100.0%	0.0%			
#80		0.180		87%	100.0%	0.0%			
#100		0.150		85%	100.0%	0.0%			
#140		0.106		83%	100.0%	0.0%			
#170		0.090		83%	100.0%	0.0%			
#200		0.075	81.9%	81.9%	100.0%	0.0%			

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Comments:

Reviewed by:

Alex Eifrig

Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1060B Sample#: B23-0766		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 21-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																								
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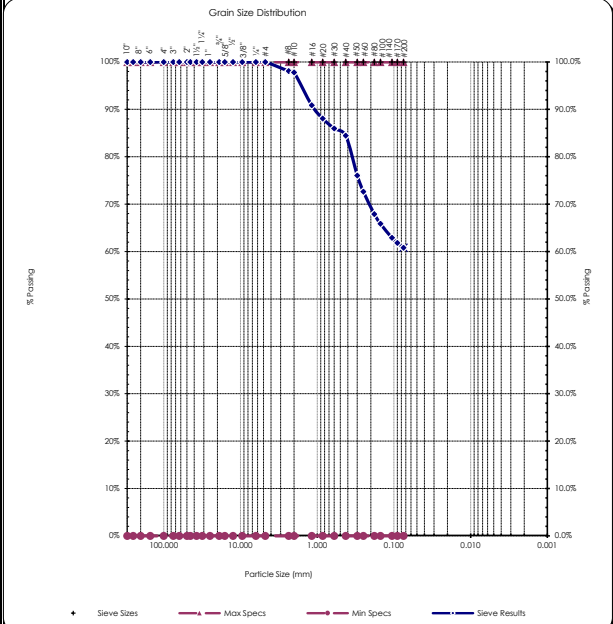
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1064C Sample#: B23-0767		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 18-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.006 mm D₁₀ = 0.012 mm D₁₅ = 0.019 mm D₃₀ = 0.037 mm D₅₀ = 0.062 mm D₆₀ = 0.074 mm D₉₀ = 1.077 mm Dust Ratio = 18/25		% Gravel = 0.0% % Sand = 39.2% % Silt & Clay = 60.8% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.83 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			98%	100.0%	0.0%			
#10	2.00	98%		98%	100.0%	0.0%			
#16	1.18			91%	100.0%	0.0%			
#20	0.850			88%	100.0%	0.0%			
#30	0.600			86%	100.0%	0.0%			
#40	0.425	84%		84%	100.0%	0.0%			
#50	0.300			76%	100.0%	0.0%			
#60	0.250			73%	100.0%	0.0%			
#80	0.180			68%	100.0%	0.0%			
#100	0.150			66%	100.0%	0.0%			
#140	0.106			63%	100.0%	0.0%			
#170	0.090			62%	100.0%	0.0%			
#200	0.075	60.8%		60.8%	100.0%	0.0%			

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Comments:

Reviewed by: Alex Eifrig
Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1064C Sample#: B23-0767		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 21-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																								
ASTM D7928, HYDROMETER ANALYSIS				ASTM D6913																																																																																																								
Assumed Sp Gr : 2.65 Sample Weight: 50.00 grams Hydrosopic Moist.: 2.14% Adj. Sample Wgt : 48.95 grams		 Certificate #: 1366.01		Sieve Analysis Grain Size Distribution																																																																																																								
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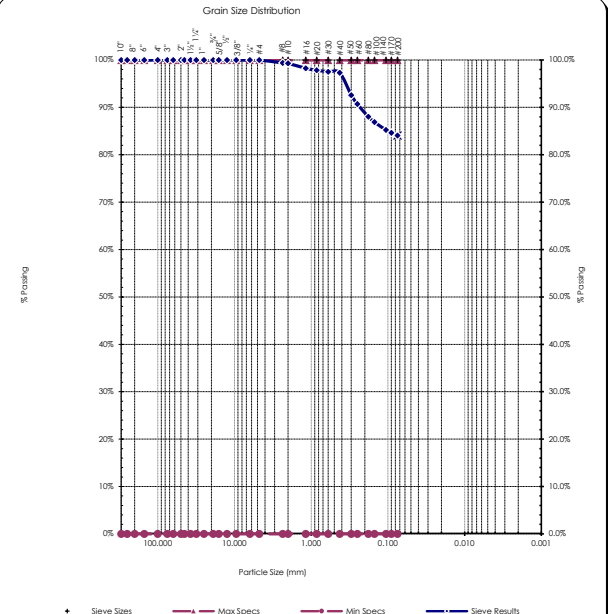
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1065A Sample#: B23-0768		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 18-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.004 mm D₁₀ = 0.009 mm D₁₅ = 0.013 mm D₃₀ = 0.027 mm D₅₀ = 0.045 mm D₆₀ = 0.054 mm D₉₀ = 0.232 mm Dust Ratio = 19/22		% Gravel = 0.0% % Sand = 15.9% % Silt & Clay = 84.1% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture %, 1 Face = n/a Fracture %, 2+ Faces = n/a		Coeff. of Curvature, C_c = 1.50 Coeff. of Uniformity, C_u = 6.00 Fineness Modulus = 0.25 Plastic Limit = n/a Moisture %, as sampled = n/a Req'd Sand Equivalent = Req'd Fracture %, 1 Face = Req'd Fracture %, 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00		100%	100.0%	100.0%	0.0%			
10.00"	250.00		100%	100.0%	100.0%	0.0%			
8.00"	200.00		100%	100.0%	100.0%	0.0%			
6.00"	150.00		100%	100.0%	100.0%	0.0%			
4.00"	100.00		100%	100.0%	100.0%	0.0%			
3.00"	75.00		100%	100.0%	100.0%	0.0%			
2.50"	63.00		100%	100.0%	100.0%	0.0%			
2.00"	50.00	100%	100%	100.0%	100.0%	0.0%			
1.75"	45.00		100%	100.0%	100.0%	0.0%			
1.50"	37.50		100%	100.0%	100.0%	0.0%			
1.25"	31.50		100%	100.0%	100.0%	0.0%			
1.00"	25.00	100%	100%	100.0%	100.0%	0.0%			
3/4"	19.00	100%	100%	100.0%	100.0%	0.0%			
5/8"	16.00		100%	100.0%	100.0%	0.0%			
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Comments:

Reviewed by:

Alex Eifrig

Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1065A Sample#: B23-0768		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 21-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																								
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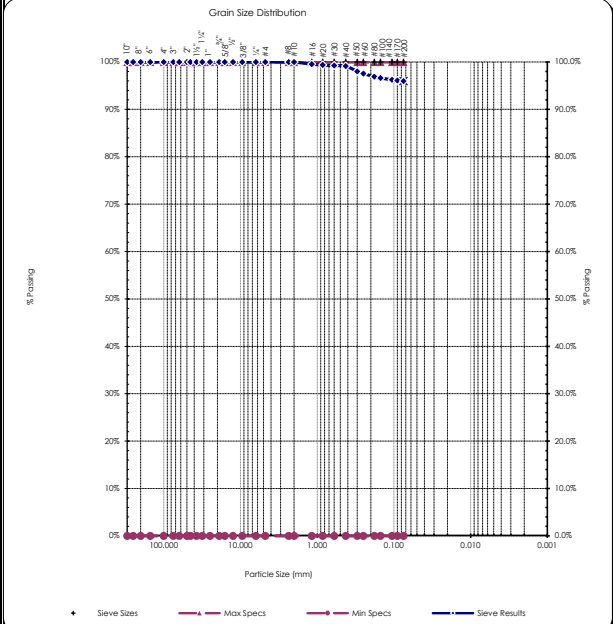
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1070B Sample#: B23-0769		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 18-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.004 mm D₁₀ = 0.008 mm D₁₅ = 0.012 mm D₃₀ = 0.023 mm D₅₀ = 0.039 mm D₆₀ = 0.047 mm D₉₀ = 0.070 mm Dust Ratio = 30/31		% Gravel = 0.0% % Sand = 4.0% % Silt & Clay = 96.0% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.07 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			100%	100.0%	0.0%			
#10	2.00	100%		100%	100.0%	0.0%			
#16	1.18			100%	100.0%	0.0%			
#20	0.850			99%	100.0%	0.0%			
#30	0.600			99%	100.0%	0.0%			
#40	0.425	99%		99%	100.0%	0.0%			
#50	0.300			98%	100.0%	0.0%			
#60	0.250			98%	100.0%	0.0%			
#80	0.180			97%	100.0%	0.0%			
#100	0.150			97%	100.0%	0.0%			
#140	0.106			96%	100.0%	0.0%			
#170	0.090			96%	100.0%	0.0%			
#200	0.075	96.0%		96.0%	100.0%	0.0%			

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Comments:

Reviewed by:

Alex Eifrig

Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1070B Sample#: B23-0769		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 21-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																								
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Assumed Sp Gr : 2.65 Sample Weight: 50.05 grams Hydrosopic Moist.: 3.67% Adj. Sample Wgt : 48.28 grams		 Certificate #: 1366.01		Sieve Analysis Grain Size Distribution																																																																																																								
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All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.


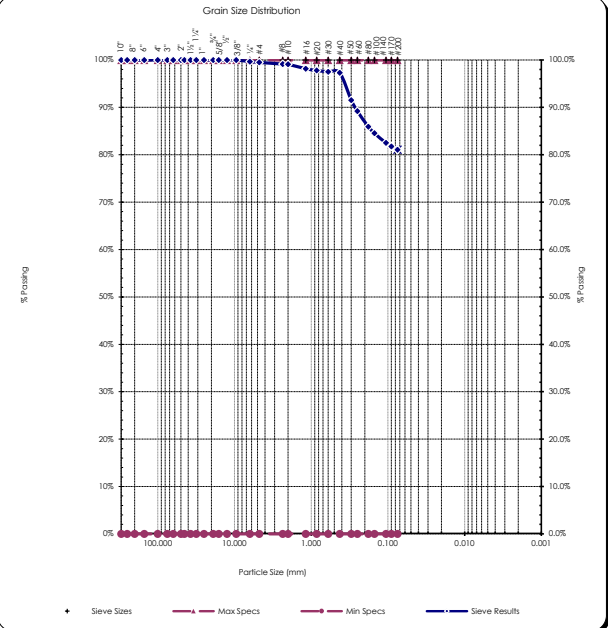
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1091A Sample#: B23-0770		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 18-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.005 mm D₁₀ = 0.009 mm D₁₅ = 0.014 mm D₃₀ = 0.028 mm D₅₀ = 0.046 mm D₆₀ = 0.056 mm D₉₀ = 0.268 mm Dust Ratio = 5/6		% Gravel = 0.5% % Sand = 18.4% % Silt & Clay = 81.1% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.30 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
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#40	0.425	97%		97%	100.0%	0.0%			
#50	0.300			92%	100.0%	0.0%			
#60	0.250			89%	100.0%	0.0%			
#80	0.180			86%	100.0%	0.0%			
#100	0.150			85%	100.0%	0.0%			
#140	0.106			83%	100.0%	0.0%			
#170	0.090			82%	100.0%	0.0%			
#200	0.075	81.1%		81.1%	100.0%	0.0%			

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Comments:

Reviewed by: Alex Eifrig
Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1091A Sample#: B23-0770		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 21-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																								
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All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Client: Anchor QEA, LLC.
Address: 720 Olive Way, Suite 1900
Seattle, WA 98101
Attn: Cindy Fields
Revised on: _____

Date: September 1, 2023
Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02
Project #: 23B198-01
Sample #: B23-0762 - 0780
Date sampled: December 14, 2022 - January 5, 2023

As requested MTC, Inc. has performed the following test(s) on the sample referenced above. The testing was performed in accordance with current applicable AASHTO or ASTM standards as indicated below. The results obtained in our laboratory were as follows below or on the attached pages:

	Test(s) Performed:	Test Results		Test(s) Performed:	Test Results
X	Sieve Analysis	See Attached Reports		Sulfate Soundness	
	Proctor			Bulk Density & Voids	
	Sand Equivalent			WSDOT Degradation	
	Fracture Count			LA Abrasion	
	Moisture Content				
	Specific Gravity, Coarse				
	Specific Gravity, Fine				
X	Hydrometer Analysis	See Attached Reports			
	Atterberg Limits				


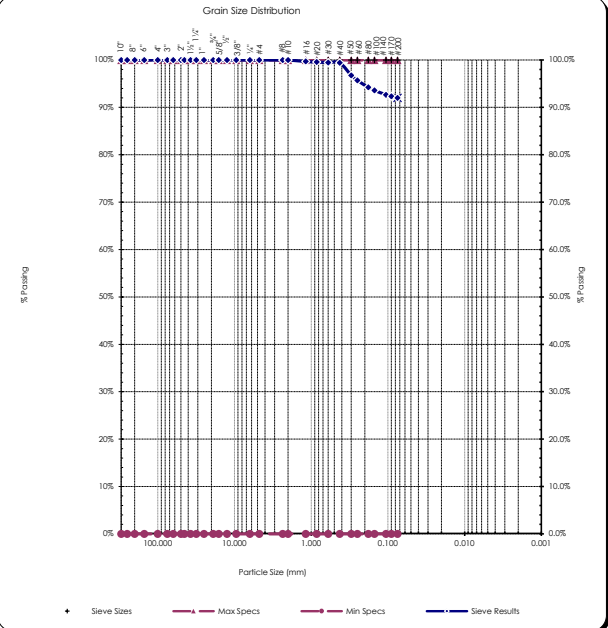
If you have any questions concerning the test results, the procedures used, or if we can be of any further assistance please call on us at the number below.

Alex Eifrig

Respectfully Submitted,
Alex Eifrig
WABO Supervising Laboratory Technician



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1039C Sample#: B23-0762		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 18-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.004 mm D₁₀ = 0.008 mm D₁₅ = 0.012 mm D₃₀ = 0.024 mm D₅₀ = 0.041 mm D₆₀ = 0.049 mm D₉₀ = 0.073 mm Dust Ratio = 25/27		% Gravel = 0.0% % Sand = 8.0% % Silt & Clay = 92.0% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.10 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"		300.00	100%	100.0%	100.0%	0.0%			
10.00"		250.00	100%	100.0%	100.0%	0.0%			
8.00"		200.00	100%	100.0%	100.0%	0.0%			
6.00"		150.00	100%	100.0%	100.0%	0.0%			
4.00"		100.00	100%	100.0%	100.0%	0.0%			
3.00"		75.00	100%	100.0%	100.0%	0.0%			
2.50"		63.00	100%	100.0%	100.0%	0.0%			
2.00"		50.00	100%	100.0%	100.0%	0.0%			
1.75"		45.00	100%	100.0%	100.0%	0.0%			
1.50"		37.50	100%	100.0%	100.0%	0.0%			
1.25"		31.50	100%	100.0%	100.0%	0.0%			
1.00"		25.00	100%	100.0%	100.0%	0.0%			
3/4"		19.00	100%	100.0%	100.0%	0.0%			
5/8"		16.00	100%	100.0%	100.0%	0.0%			
1/2"		12.50	100%	100.0%	100.0%	0.0%			
3/8"		9.50	100%	100.0%	100.0%	0.0%			
1/4"		6.30	100%	100.0%	100.0%	0.0%			
#4		4.75	100%	100.0%	100.0%	0.0%			
#8		2.36	100%	100.0%	100.0%	0.0%			
#10		2.00	100%	100.0%	100.0%	0.0%			
#16		1.18	100%	100.0%	100.0%	0.0%			
#20		0.850	100%	100.0%	100.0%	0.0%			
#30		0.600	99%	99%	100.0%	0.0%			
#40		0.425	99%	99%	100.0%	0.0%			
#50		0.300	97%	97%	100.0%	0.0%			
#60		0.250	96%	96%	100.0%	0.0%			
#80		0.180	94%	94%	100.0%	0.0%			
#100		0.150	94%	94%	100.0%	0.0%			
#140		0.106	93%	93%	100.0%	0.0%			
#170		0.090	92%	92%	100.0%	0.0%			
#200		0.075	92.0%	92.0%	100.0%	0.0%			

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Comments:

Reviewed by: Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1039C Sample#: B23-0762		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 21-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																						
ASTM D7928, HYDROMETER ANALYSIS				ASTM D6913																																																																						
Assumed Sp Gr : 2.65 Sample Weight: 50.00 grams Hydrosopic Moist.: 2.97% Adj. Sample Wgt : 48.56 grams		 Certificate #: 1366.01		Sieve Analysis Grain Size Distribution <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sieve Size</th> <th>Percent Passing</th> <th>Soils Particle Diameter</th> </tr> </thead> <tbody> <tr><td>3.0"</td><td>100%</td><td>75.000 mm</td></tr> <tr><td>2.0"</td><td>100%</td><td>50.000 mm</td></tr> <tr><td>1.5"</td><td>100%</td><td>37.500 mm</td></tr> <tr><td>1.25"</td><td>100%</td><td>31.500 mm</td></tr> <tr><td>1.0"</td><td>100%</td><td>25.000 mm</td></tr> <tr><td>3/4"</td><td>100%</td><td>19.000 mm</td></tr> <tr><td>5/8"</td><td>100%</td><td>16.000 mm</td></tr> <tr><td>1/2"</td><td>100%</td><td>12.500 mm</td></tr> <tr><td>3/8"</td><td>100%</td><td>9.500 mm</td></tr> <tr><td>1/4"</td><td>100%</td><td>6.300 mm</td></tr> <tr><td>#4</td><td>100%</td><td>4.750 mm</td></tr> <tr><td>#10</td><td>100%</td><td>2.000 mm</td></tr> <tr><td>#20</td><td>100%</td><td>0.850 mm</td></tr> <tr><td>#40</td><td>99%</td><td>0.425 mm</td></tr> <tr><td>#100</td><td>94%</td><td>0.150 mm</td></tr> <tr><td>#200</td><td>92.0%</td><td>0.075 mm</td></tr> <tr><td>Silts</td><td>91.0%</td><td>0.074 mm</td></tr> <tr><td></td><td>74.0%</td><td>0.050 mm</td></tr> <tr><td></td><td>53.8%</td><td>0.020 mm</td></tr> <tr><td>Clays</td><td>21.5%</td><td>0.005 mm</td></tr> <tr><td></td><td>13.6%</td><td>0.002 mm</td></tr> <tr><td>Colloids</td><td>8.8%</td><td>0.001 mm</td></tr> </tbody> </table>		Sieve Size	Percent Passing	Soils Particle Diameter	3.0"	100%	75.000 mm	2.0"	100%	50.000 mm	1.5"	100%	37.500 mm	1.25"	100%	31.500 mm	1.0"	100%	25.000 mm	3/4"	100%	19.000 mm	5/8"	100%	16.000 mm	1/2"	100%	12.500 mm	3/8"	100%	9.500 mm	1/4"	100%	6.300 mm	#4	100%	4.750 mm	#10	100%	2.000 mm	#20	100%	0.850 mm	#40	99%	0.425 mm	#100	94%	0.150 mm	#200	92.0%	0.075 mm	Silts	91.0%	0.074 mm		74.0%	0.050 mm		53.8%	0.020 mm	Clays	21.5%	0.005 mm		13.6%	0.002 mm	Colloids	8.8%	0.001 mm
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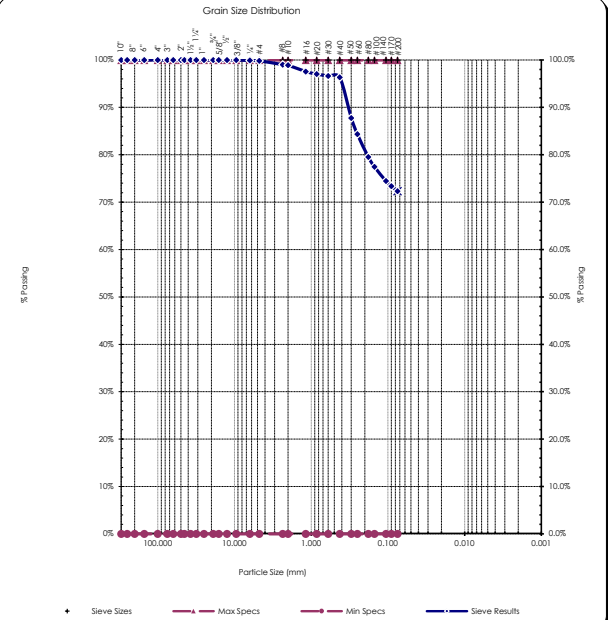
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Comments: _____

Reviewed by: Alex Eifrig
 Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1109B Sample#: B23-0771		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 23-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.005 mm D₁₀ = 0.010 mm D₁₅ = 0.016 mm D₃₀ = 0.031 mm D₅₀ = 0.052 mm D₆₀ = 0.062 mm D₉₀ = 0.333 mm Dust Ratio = 3/4		% Gravel = 0.2% % Sand = 27.5% % Silt & Clay = 72.3% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture %, 1 Face = n/a Fracture %, 2+ Faces = n/a		Coeff. of Curvature, C_c = 1.50 Coeff. of Uniformity, C_u = 6.00 Fineness Modulus = 0.42 Plastic Limit = n/a Moisture %, as sampled = n/a Req'd Sand Equivalent = Req'd Fracture %, 1 Face = Req'd Fracture %, 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00		100%	100.0%	100.0%	0.0%			
10.00"	250.00		100%	100.0%	100.0%	0.0%			
8.00"	200.00		100%	100.0%	100.0%	0.0%			
6.00"	150.00		100%	100.0%	100.0%	0.0%			
4.00"	100.00		100%	100.0%	100.0%	0.0%			
3.00"	75.00		100%	100.0%	100.0%	0.0%			
2.50"	63.00		100%	100.0%	100.0%	0.0%			
2.00"	50.00	100%	100%	100.0%	100.0%	0.0%			
1.75"	45.00		100%	100.0%	100.0%	0.0%			
1.50"	37.50		100%	100.0%	100.0%	0.0%			
1.25"	31.50		100%	100.0%	100.0%	0.0%			
1.00"	25.00	100%	100%	100.0%	100.0%	0.0%			
3/4"	19.00	100%	100%	100.0%	100.0%	0.0%			
5/8"	16.00		100%	100.0%	100.0%	0.0%			
1/2"	12.50	100%	100%	100.0%	100.0%	0.0%			
3/8"	9.50	100%	100%	100.0%	100.0%	0.0%			
1/4"	6.30		100%	100.0%	100.0%	0.0%			
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#10	2.00	99%	99%	100.0%	100.0%	0.0%			
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#20	0.850		97%	97%	100.0%	0.0%			
#30	0.600		96%	96%	100.0%	0.0%			
#40	0.425	96%	96%	100.0%	100.0%	0.0%			
#50	0.300		88%	88%	100.0%	0.0%			
#60	0.250		84%	84%	100.0%	0.0%			
#80	0.180		80%	80%	100.0%	0.0%			
#100	0.150		77%	77%	100.0%	0.0%			
#140	0.106		74%	74%	100.0%	0.0%			
#170	0.090		73%	73%	100.0%	0.0%			
#200	0.075	72.3%	72.3%	100.0%	100.0%	0.0%			

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Comments:

Reviewed by:

Alex Eifrig

Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1109B Sample#: B23-0771		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 24-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																	
ASTM D7928, HYDROMETER ANALYSIS				ASTM D6913																																																																																																	
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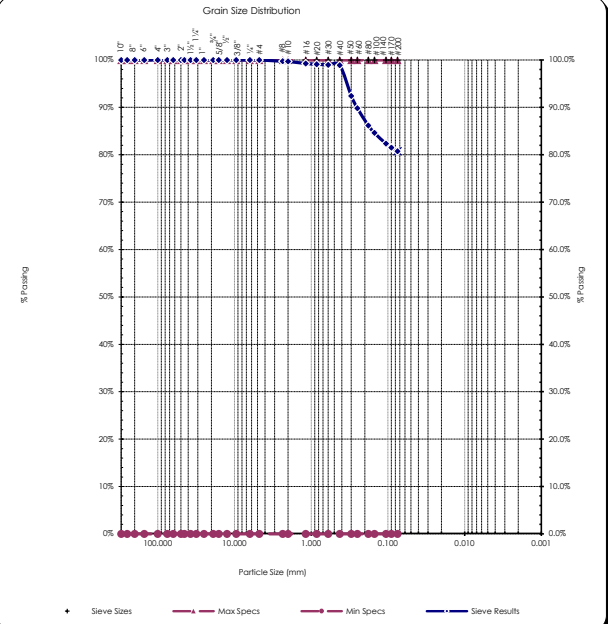
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1123A Sample#: B23-0772		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 23-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.005 mm D₁₀ = 0.009 mm D₁₅ = 0.014 mm D₃₀ = 0.028 mm D₅₀ = 0.046 mm D₆₀ = 0.056 mm D₉₀ = 0.254 mm Dust Ratio = 40/49		% Gravel = 0.0% % Sand = 19.3% % Silt & Clay = 80.7% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.25 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			100%	100.0%	0.0%			
#10	2.00	100%		100%	100.0%	0.0%			
#16	1.18			99%	100.0%	0.0%			
#20	0.850			99%	100.0%	0.0%			
#30	0.600			99%	100.0%	0.0%			
#40	0.425	99%		99%	100.0%	0.0%			
#50	0.300			92%	100.0%	0.0%			
#60	0.250			90%	100.0%	0.0%			
#80	0.180			86%	100.0%	0.0%			
#100	0.150			85%	100.0%	0.0%			
#140	0.106			82%	100.0%	0.0%			
#170	0.090			82%	100.0%	0.0%			
#200	0.075	80.7%		80.7%	100.0%	0.0%			

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Comments:

Reviewed by: Alex Eifrig
Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1123A Sample#: B23-0772		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 24-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown	
ASTM D7928, HYDROMETER ANALYSIS				ASTM D6913	
Assumed Sp Gr : 2.65 Sample Weight: 50.00 grams Hydrosopic Moist.: 4.87% Adj. Sample Wgt : 47.68 grams		 Certificate #: 1366.01		Sieve Analysis Grain Size Distribution	
Hydrometer Reading Minutes	Corrected Reading	Percent Passing	Soils Particle Diameter	Sieve Size	Percent Passing
1	28	58.5%	0.0467 mm	3.0"	100%
2	25	52.3%	0.0337 mm	2.0"	100%
5	21	43.9%	0.0219 mm	1.5"	100%
15	15	31.4%	0.0131 mm	1.25"	100%
30	12	25.1%	0.0094 mm	1.0"	100%
60	9.5	19.9%	0.0068 mm	3/4"	100%
240	5	10.5%	0.0035 mm	5/8"	100%
1440	4	8.4%	0.0014 mm	1/2"	100%
% Gravel: 0.0% % Sand: 19.3% % Silt: 65.9% % Clay: 14.8%	Liquid Limit: n/a Plastic Limit: n/a Plasticity Index: n/a		Soils Particle Diameter 75.000 mm 31.500 mm 50.000 mm 37.500 mm 31.500 mm 25.000 mm 19.000 mm 16.000 mm 12.500 mm 9.500 mm 6.300 mm 4.750 mm 2.000 mm 0.850 mm 0.425 mm 0.150 mm 0.075 mm 0.074 mm 0.050 mm 0.020 mm 0.005 mm 0.002 mm 0.001 mm		
USDA Soil Textural Classification				Colloids 5.9%	
Particle Size 2.0 - 0.05 mm 0.05 - 0.002 mm < 0.002 mm				Clays 14.8%	
USDA Soil Textural Classification Silt Loam				Silts 79.9%	

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


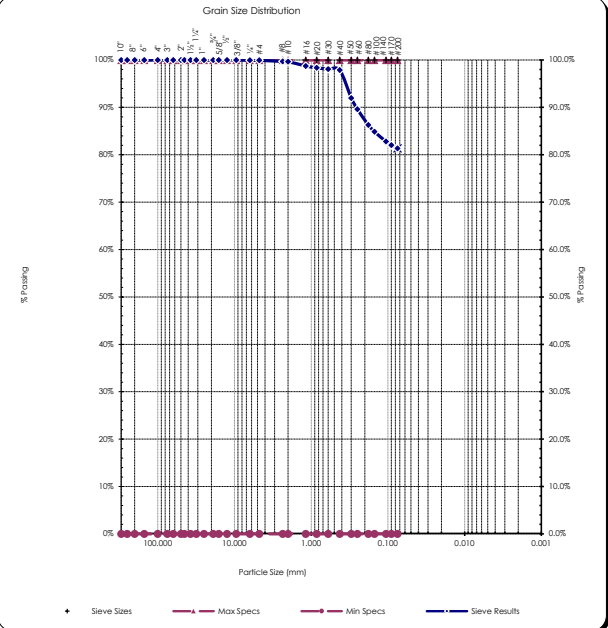
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1130B Sample#: B23-0773		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 23-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.005 mm D₁₀ = 0.009 mm D₁₅ = 0.014 mm D₃₀ = 0.028 mm D₅₀ = 0.046 mm D₆₀ = 0.055 mm D₉₀ = 0.258 mm Dust Ratio = 64/77		% Gravel = 0.1% % Sand = 18.6% % Silt & Clay = 81.3% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.27 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			100%	100.0%	0.0%			
#10	2.00	100%		100%	100.0%	0.0%			
#16	1.18			99%	100.0%	0.0%			
#20	0.850			98%	100.0%	0.0%			
#30	0.600			98%	100.0%	0.0%			
#40	0.425	98%		98%	100.0%	0.0%			
#50	0.300			92%	100.0%	0.0%			
#60	0.250			90%	100.0%	0.0%			
#80	0.180			86%	100.0%	0.0%			
#100	0.150			85%	100.0%	0.0%			
#140	0.106			83%	100.0%	0.0%			
#170	0.090			82%	100.0%	0.0%			
#200	0.075	81.3%		81.3%	100.0%	0.0%			
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Comments:

Reviewed by: Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1130B Sample#: B23-0773		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 24-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																																																											
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All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.


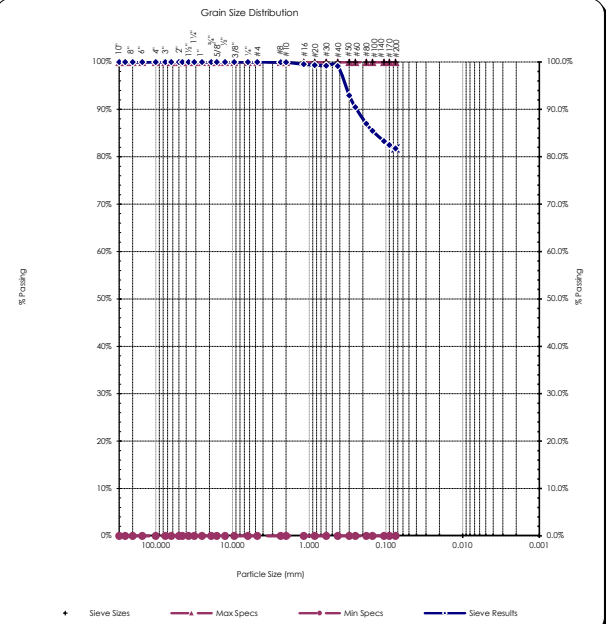
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1137B Sample#: B23-0774		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 23-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.005 mm D₁₀ = 0.009 mm D₁₅ = 0.014 mm D₃₀ = 0.028 mm D₅₀ = 0.046 mm D₆₀ = 0.055 mm D₉₀ = 0.241 mm Dust Ratio = 47/57		% Gravel = 0.0% % Sand = 18.3% % Silt & Clay = 81.7% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.23 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Specs Max	Specs Min				
12.00"	300.00		100%	100.0%	0.0%	Grain Size Distribution The graph plots % Passing (0% to 100%) against Particle Size (mm) on a log scale (100.000 to 0.001). Sieve results are shown as a blue line with dots, which is 100% passing for all sieve sizes down to #200 (0.075 mm). The specifications for Max Specs (red line) and Min Specs (green line) are also shown, with Max Specs at 100% and Min Specs at 0% for all sieve sizes.			
10.00"	250.00		100%	100.0%	0.0%				
8.00"	200.00		100%	100.0%	0.0%				
6.00"	150.00		100%	100.0%	0.0%				
4.00"	100.00		100%	100.0%	0.0%				
3.00"	75.00		100%	100.0%	0.0%				
2.50"	63.00		100%	100.0%	0.0%				
2.00"	50.00	100%	100%	100.0%	0.0%				
1.75"	45.00		100%	100.0%	0.0%				
1.50"	37.50		100%	100.0%	0.0%				
1.25"	31.50		100%	100.0%	0.0%				
1.00"	25.00	100%	100%	100.0%	0.0%				
3/4"	19.00	100%	100%	100.0%	0.0%				
5/8"	16.00		100%	100.0%	0.0%				
1/2"	12.50	100%	100%	100.0%	0.0%				
3/8"	9.50	100%	100%	100.0%	0.0%				
1/4"	6.30		100%	100.0%	0.0%				
#4	4.75	100%	100%	100.0%	0.0%				
#8	2.36		100%	100.0%	0.0%				
#10	2.00	100%	100%	100.0%	0.0%				
#16	1.18		100%	100.0%	0.0%				
#20	0.850		99%	100.0%	0.0%				
#30	0.600		99%	100.0%	0.0%				
#40	0.425	99%	99%	100.0%	0.0%				
#50	0.300		93%	100.0%	0.0%				
#60	0.250		90%	100.0%	0.0%				
#80	0.180		87%	100.0%	0.0%				
#100	0.150		85%	100.0%	0.0%				
#140	0.106		83%	100.0%	0.0%				
#170	0.090		82%	100.0%	0.0%				
#200	0.075	81.7%	81.7%	100.0%	0.0%				

Comments:

Reviewed by: Alex Eifrig
Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1137B Sample#: B23-0774		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 24-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																								
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	63.9%	0.050 mm																																																																																																										
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USDA Soil Textural Classification																																																																																																												
% Sand: % Silt: % Clay:		Particle Size 2.0 - 0.05 mm 0.05 - 0.002 mm < 0.002 mm USDA Soil Textural Classification Silt Loam																																																																																																										

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


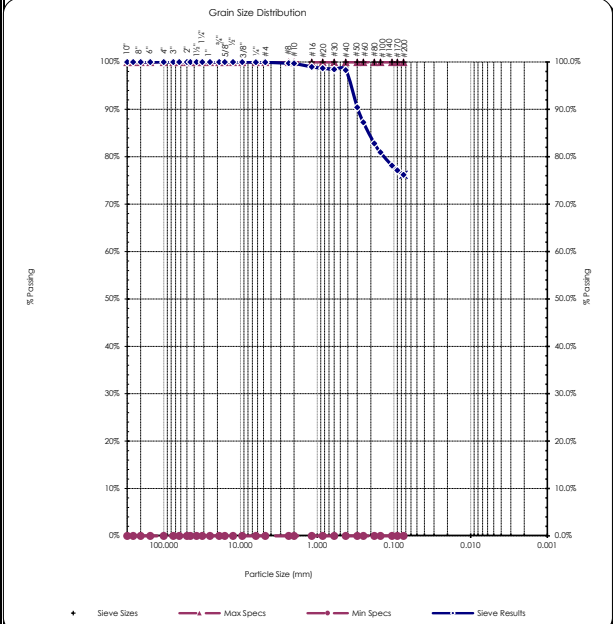
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1143A Sample#: B23-0775		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 23-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.005 mm D₁₀ = 0.010 mm D₁₅ = 0.015 mm D₃₀ = 0.030 mm D₅₀ = 0.049 mm D₆₀ = 0.059 mm D₉₀ = 0.294 mm Dust Ratio = 31/40		% Gravel = 0.1% % Sand = 23.8% % Silt & Clay = 76.2% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.32 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			100%	100.0%	0.0%			
#10	2.00	100%		100%	100.0%	0.0%			
#16	1.18			99%	100.0%	0.0%			
#20	0.850			99%	100.0%	0.0%			
#30	0.600			98%	100.0%	0.0%			
#40	0.425	98%		98%	100.0%	0.0%			
#50	0.300			90%	100.0%	0.0%			
#60	0.250			87%	100.0%	0.0%			
#80	0.180			83%	100.0%	0.0%			
#100	0.150			81%	100.0%	0.0%			
#140	0.106			78%	100.0%	0.0%			
#170	0.090			77%	100.0%	0.0%			
#200	0.075	76.2%		76.2%	100.0%	0.0%			
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Comments:

Reviewed by: Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1143A Sample#: B23-0775		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 24-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown	
ASTM D7928, HYDROMETER ANALYSIS				ASTM D6913	
Assumed Sp Gr : 2.65 Sample Weight: 50.00 grams Hydrosopic Moist.: 2.76% Adj. Sample Wgt : 48.66 grams		 Certificate #: 1366.01		Sieve Analysis Grain Size Distribution	
Hydrometer Reading Minutes	Corrected Reading	Percent Passing	Soils Particle Diameter	Sieve Size	Percent Passing
1 2 5 15 30 60 240 1440	27 25 19 15 10 8 4 3	55.3% 51.2% 38.9% 30.7% 20.5% 16.4% 8.2% 6.1%	0.0471 mm 0.0337 mm 0.0222 mm 0.0131 mm 0.0096 mm 0.0068 mm 0.0035 mm 0.0014 mm	3.0" 2.0" 1.5" 1.25" 1.0" 3/4" 5/8" 1/2" 3/8" 1/4" #4 #10 #20 #40 #100 #200	100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 100% 99% 98% 81% 76.2% 75.4% 63.6% 37.0% 11.9% 6.7% 4.3%
% Gravel: 0.1% % Sand: 23.8% % Silt: 64.3% % Clay: 11.9%		Liquid Limit: n/a Plastic Limit: n/a Plasticity Index: n/a		Soils Particle Diameter	
75.000 mm 31.500 mm 37.500 mm 31.500 mm 25.000 mm 19.000 mm 16.000 mm 12.500 mm 9.500 mm 6.300 mm 4.750 mm 2.000 mm 0.850 mm 0.425 mm 0.150 mm 0.075 mm 0.074 mm 0.050 mm 0.020 mm 0.005 mm 0.002 mm 0.001 mm					
USDA Soil Textural Classification					
% Sand: % Silt: % Clay:		Particle Size 2.0 - 0.05 mm 0.05 - 0.002 mm < 0.002 mm		USDA Soil Textural Classification Silt Loam	

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


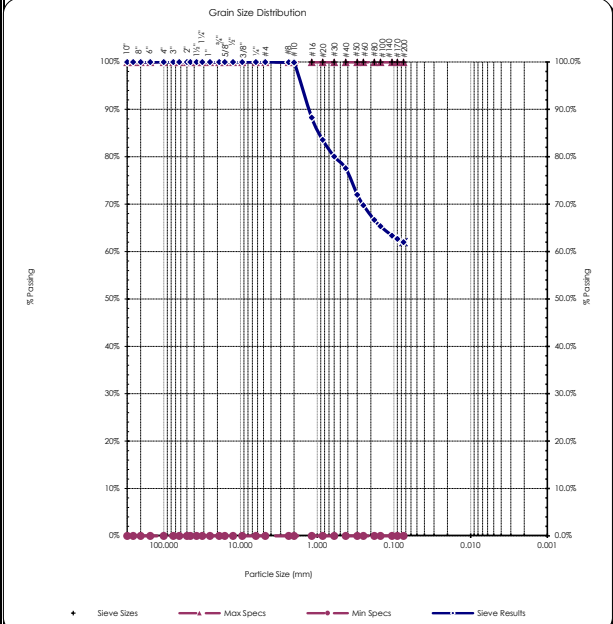
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig




Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1150B Sample#: B23-0776		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 28-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.006 mm D₁₀ = 0.012 mm D₁₅ = 0.018 mm D₃₀ = 0.036 mm D₅₀ = 0.060 mm D₆₀ = 0.073 mm D₉₀ = 1.302 mm Dust Ratio = 4/5		% Gravel = 0.0% % Sand = 38.0% % Silt & Clay = 62.0% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.94 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			100%	100.0%	0.0%			
#10	2.00	100%		100%	100.0%	0.0%			
#16	1.18			88%	100.0%	0.0%			
#20	0.850			84%	100.0%	0.0%			
#30	0.600			80%	100.0%	0.0%			
#40	0.425	78%		78%	100.0%	0.0%			
#50	0.300			72%	100.0%	0.0%			
#60	0.250			70%	100.0%	0.0%			
#80	0.180			67%	100.0%	0.0%			
#100	0.150			65%	100.0%	0.0%			
#140	0.106			63%	100.0%	0.0%			
#170	0.090			63%	100.0%	0.0%			
#200	0.075	62.0%		62.0%	100.0%	0.0%			

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Comments: _____

Reviewed by: 
Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1150B Sample#: B23-0776		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 29-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																								
ASTM D7928, HYDROMETER ANALYSIS				ASTM D6913																																																																																																								
Assumed Sp Gr : 2.65 Sample Weight: 50.02 grams Hydrosopic Moist.: 0.97% Adj. Sample Wgt : 49.54 grams		 Certificate #: 1366.01		Sieve Analysis Grain Size Distribution																																																																																																								
<table border="0" style="width: 100%;"> <tr> <th style="text-align: left;">Hydrometer Reading Minutes</th> <th style="text-align: center;">Corrected Reading</th> <th style="text-align: center;">Percent Passing</th> <th style="text-align: center;">Soils Particle Diameter</th> </tr> <tr> <td>1</td> <td style="background-color: yellow;">25</td> <td>50.4%</td> <td>0.0477 mm</td> </tr> <tr> <td>2</td> <td style="background-color: yellow;">22</td> <td>44.4%</td> <td>0.0344 mm</td> </tr> <tr> <td>5</td> <td style="background-color: yellow;">18.5</td> <td>37.3%</td> <td>0.0223 mm</td> </tr> <tr> <td>15</td> <td style="background-color: yellow;">14</td> <td>28.2%</td> <td>0.0132 mm</td> </tr> <tr> <td>30</td> <td style="background-color: yellow;">12</td> <td>24.2%</td> <td>0.0094 mm</td> </tr> <tr> <td>60</td> <td style="background-color: yellow;">9</td> <td>18.2%</td> <td>0.0068 mm</td> </tr> <tr> <td>240</td> <td style="background-color: yellow;">6</td> <td>12.1%</td> <td>0.0034 mm</td> </tr> <tr> <td>1440</td> <td style="background-color: yellow;">3</td> <td>6.1%</td> <td>0.0014 mm</td> </tr> </table>		Hydrometer Reading Minutes	Corrected Reading	Percent Passing	Soils Particle Diameter	1	25	50.4%	0.0477 mm	2	22	44.4%	0.0344 mm	5	18.5	37.3%	0.0223 mm	15	14	28.2%	0.0132 mm	30	12	24.2%	0.0094 mm	60	9	18.2%	0.0068 mm	240	6	12.1%	0.0034 mm	1440	3	6.1%	0.0014 mm	<table border="0" style="width: 100%;"> <tr> <th style="text-align: left;">Sieve Size</th> <th style="text-align: center;">Percent Passing</th> <th style="text-align: center;">Soils Particle Diameter</th> </tr> <tr><td>3.0"</td><td>100%</td><td>75.000 mm</td></tr> <tr><td>2.0"</td><td>100%</td><td>50.000 mm</td></tr> <tr><td>1.5"</td><td>100%</td><td>37.500 mm</td></tr> <tr><td>1.25"</td><td>100%</td><td>31.500 mm</td></tr> <tr><td>1.0"</td><td>100%</td><td>25.000 mm</td></tr> <tr><td>3/4"</td><td>100%</td><td>19.000 mm</td></tr> <tr><td>5/8"</td><td>100%</td><td>16.000 mm</td></tr> <tr><td>1/2"</td><td>100%</td><td>12.500 mm</td></tr> <tr><td>3/8"</td><td>100%</td><td>9.500 mm</td></tr> <tr><td>1/4"</td><td>100%</td><td>6.300 mm</td></tr> <tr><td>#4</td><td>100%</td><td>4.750 mm</td></tr> <tr><td>#10</td><td>100%</td><td>2.000 mm</td></tr> <tr><td>#20</td><td>84%</td><td>0.850 mm</td></tr> <tr><td>#40</td><td>78%</td><td>0.425 mm</td></tr> <tr><td>#100</td><td>65%</td><td>0.150 mm</td></tr> <tr><td>#200</td><td>62.0%</td><td>0.075 mm</td></tr> <tr><td>Silts</td><td>61.6%</td><td>0.074 mm</td></tr> <tr><td></td><td>54.9%</td><td>0.050 mm</td></tr> <tr><td></td><td>35.0%</td><td>0.020 mm</td></tr> <tr><td>Clays</td><td>14.9%</td><td>0.005 mm</td></tr> <tr><td></td><td>7.8%</td><td>0.002 mm</td></tr> <tr><td>Colloids</td><td>4.2%</td><td>0.001 mm</td></tr> </table>		Sieve Size	Percent Passing	Soils Particle Diameter	3.0"	100%	75.000 mm	2.0"	100%	50.000 mm	1.5"	100%	37.500 mm	1.25"	100%	31.500 mm	1.0"	100%	25.000 mm	3/4"	100%	19.000 mm	5/8"	100%	16.000 mm	1/2"	100%	12.500 mm	3/8"	100%	9.500 mm	1/4"	100%	6.300 mm	#4	100%	4.750 mm	#10	100%	2.000 mm	#20	84%	0.850 mm	#40	78%	0.425 mm	#100	65%	0.150 mm	#200	62.0%	0.075 mm	Silts	61.6%	0.074 mm		54.9%	0.050 mm		35.0%	0.020 mm	Clays	14.9%	0.005 mm		7.8%	0.002 mm	Colloids	4.2%	0.001 mm
Hydrometer Reading Minutes	Corrected Reading	Percent Passing	Soils Particle Diameter																																																																																																									
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<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> % Sand: % Silt: % Clay: </td> <td style="width: 50%;"> Particle Size 2.0 - 0.05 mm 0.05 - 0.002 mm < 0.002 mm </td> </tr> </table>		% Sand: % Silt: % Clay:	Particle Size 2.0 - 0.05 mm 0.05 - 0.002 mm < 0.002 mm			USDA Soil Textural Classification Loam																																																																																																						
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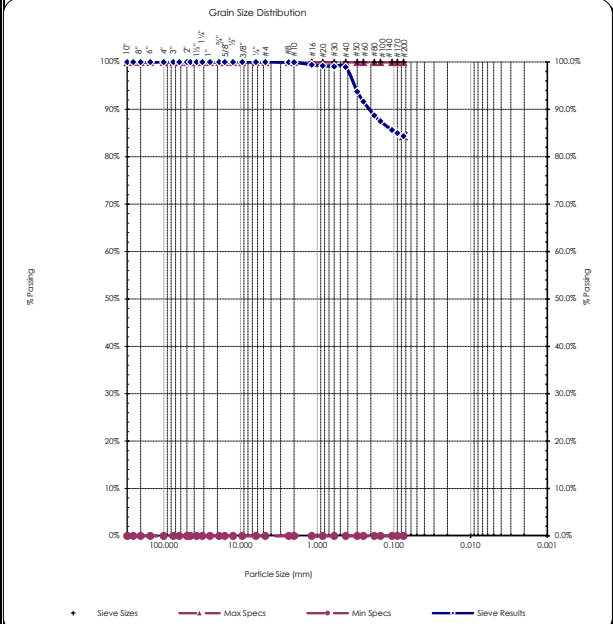
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1183C Sample#: B23-0777		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 28-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.004 mm D₁₀ = 0.009 mm D₁₅ = 0.013 mm D₃₀ = 0.027 mm D₅₀ = 0.044 mm D₆₀ = 0.053 mm D₉₀ = 0.210 mm Dust Ratio = 52/61		% Gravel = 0.0% % Sand = 15.6% % Silt & Clay = 84.4% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.20 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			100%	100.0%	0.0%			
#10	2.00	100%		100%	100.0%	0.0%			
#16	1.18			99%	100.0%	0.0%			
#20	0.850			99%	100.0%	0.0%			
#30	0.600			99%	100.0%	0.0%			
#40	0.425	99%		99%	100.0%	0.0%			
#50	0.300			94%	100.0%	0.0%			
#60	0.250			92%	100.0%	0.0%			
#80	0.180			89%	100.0%	0.0%			
#100	0.150			87%	100.0%	0.0%			
#140	0.106			86%	100.0%	0.0%			
#170	0.090			85%	100.0%	0.0%			
#200	0.075	84.4%		84.4%	100.0%	0.0%			

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Comments:

Reviewed by:

Alex Eifrig

Alex Eifrig


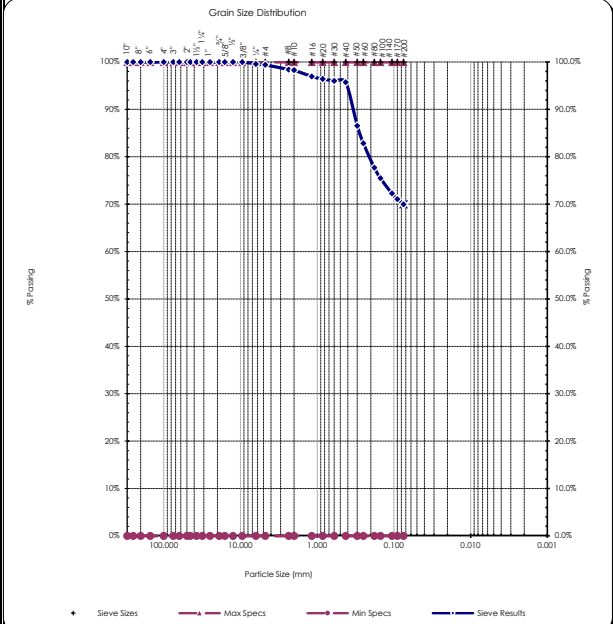


All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved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

Reviewed by: Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1191B Sample#: B23-0778		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 28-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.005 mm D₁₀ = 0.011 mm D₁₅ = 0.016 mm D₃₀ = 0.032 mm D₅₀ = 0.054 mm D₆₀ = 0.064 mm D₉₀ = 0.347 mm Dust Ratio = 19/26		% Gravel = 0.6% % Sand = 29.4% % Silt & Clay = 70.0% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.47 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	99%		99%	100.0%	0.0%			
#8	2.36			98%	100.0%	0.0%			
#10	2.00	98%		98%	100.0%	0.0%			
#16	1.18			97%	100.0%	0.0%			
#20	0.850			96%	100.0%	0.0%			
#30	0.600			96%	100.0%	0.0%			
#40	0.425	96%		96%	100.0%	0.0%			
#50	0.300			87%	100.0%	0.0%			
#60	0.250			83%	100.0%	0.0%			
#80	0.180			78%	100.0%	0.0%			
#100	0.150			75%	100.0%	0.0%			
#140	0.106			72%	100.0%	0.0%			
#170	0.090			71%	100.0%	0.0%			
#200	0.075	70.0%		70.0%	100.0%	0.0%			

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Comments:

Reviewed by:

Alex Eifrig

Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1191B Sample#: B23-0778		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 29-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																												
ASTM D7928, HYDROMETER ANALYSIS				ASTM D6913																																																																																																												
Assumed Sp Gr : 2.65 Sample Weight: 50.04 grams Hydrosopic Moist.: 2.14% Adj. Sample Wgt : 48.99 grams		 Certificate #: 1366.01		Sieve Analysis Grain Size Distribution																																																																																																												
<table border="0" style="width: 100%;"> <tr> <th style="text-align: left;">Hydrometer Reading</th> <th style="text-align: left;">Corrected Reading</th> <th style="text-align: left;">Percent Passing</th> <th style="text-align: left;">Soils Particle Diameter</th> </tr> <tr> <td>Minutes</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>27</td> <td>54.2%</td> <td>0.0471 mm</td> </tr> <tr> <td>2</td> <td>22.5</td> <td>45.1%</td> <td>0.0344 mm</td> </tr> <tr> <td>5</td> <td>18</td> <td>36.1%</td> <td>0.0223 mm</td> </tr> <tr> <td>15</td> <td>14</td> <td>28.1%</td> <td>0.0132 mm</td> </tr> <tr> <td>30</td> <td>12</td> <td>24.1%</td> <td>0.0094 mm</td> </tr> <tr> <td>60</td> <td>10</td> <td>20.1%</td> <td>0.0068 mm</td> </tr> <tr> <td>240</td> <td>6</td> <td>12.0%</td> <td>0.0034 mm</td> </tr> <tr> <td>1440</td> <td>4</td> <td>8.0%</td> <td>0.0014 mm</td> </tr> </table>		Hydrometer Reading	Corrected Reading	Percent Passing	Soils Particle Diameter	Minutes				1	27	54.2%	0.0471 mm	2	22.5	45.1%	0.0344 mm	5	18	36.1%	0.0223 mm	15	14	28.1%	0.0132 mm	30	12	24.1%	0.0094 mm	60	10	20.1%	0.0068 mm	240	6	12.0%	0.0034 mm	1440	4	8.0%	0.0014 mm	<table border="0" style="width: 100%;"> <tr> <th style="text-align: left;">Sieve Size</th> <th style="text-align: left;">Percent Passing</th> <th style="text-align: left;">Soils Particle Diameter</th> </tr> <tr> <td>3.0"</td> <td>100%</td> <td>75.000 mm</td> </tr> <tr> <td>2.0"</td> <td>100%</td> <td>50.000 mm</td> </tr> <tr> <td>1.5"</td> <td>100%</td> <td>37.500 mm</td> </tr> <tr> <td>1.25"</td> <td>100%</td> <td>31.500 mm</td> </tr> <tr> <td>1.0"</td> <td>100%</td> <td>25.000 mm</td> </tr> <tr> <td>3/4"</td> <td>100%</td> <td>19.000 mm</td> </tr> <tr> <td>5/8"</td> <td>100%</td> <td>16.000 mm</td> </tr> <tr> <td>1/2"</td> <td>100%</td> <td>12.500 mm</td> </tr> <tr> <td>3/8"</td> <td>100%</td> <td>9.500 mm</td> </tr> <tr> <td>1/4"</td> <td>100%</td> <td>6.300 mm</td> </tr> <tr> <td>#4</td> <td>99%</td> <td>4.750 mm</td> </tr> <tr> <td>#10</td> <td>98%</td> <td>2.000 mm</td> </tr> <tr> <td>#20</td> <td>96%</td> <td>0.850 mm</td> </tr> <tr> <td>#40</td> <td>96%</td> <td>0.425 mm</td> </tr> <tr> <td>#100</td> <td>75%</td> <td>0.150 mm</td> </tr> <tr> <td>#200</td> <td>70.0%</td> <td>0.075 mm</td> </tr> <tr> <td>Silts</td> <td>69.4%</td> <td>0.074 mm</td> </tr> <tr> <td></td> <td>60.2%</td> <td>0.050 mm</td> </tr> <tr> <td></td> <td>34.1%</td> <td>0.020 mm</td> </tr> <tr> <td>Clays</td> <td>15.8%</td> <td>0.005 mm</td> </tr> <tr> <td></td> <td>9.2%</td> <td>0.002 mm</td> </tr> <tr> <td>Colloids</td> <td>5.6%</td> <td>0.001 mm</td> </tr> </table>		Sieve Size	Percent Passing	Soils Particle Diameter	3.0"	100%	75.000 mm	2.0"	100%	50.000 mm	1.5"	100%	37.500 mm	1.25"	100%	31.500 mm	1.0"	100%	25.000 mm	3/4"	100%	19.000 mm	5/8"	100%	16.000 mm	1/2"	100%	12.500 mm	3/8"	100%	9.500 mm	1/4"	100%	6.300 mm	#4	99%	4.750 mm	#10	98%	2.000 mm	#20	96%	0.850 mm	#40	96%	0.425 mm	#100	75%	0.150 mm	#200	70.0%	0.075 mm	Silts	69.4%	0.074 mm		60.2%	0.050 mm		34.1%	0.020 mm	Clays	15.8%	0.005 mm		9.2%	0.002 mm	Colloids	5.6%	0.001 mm
Hydrometer Reading	Corrected Reading	Percent Passing	Soils Particle Diameter																																																																																																													
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% Sand: 69.4% % Silt: 29.4% % Clay: 1.2%		Particle Size 2.0 - 0.05 mm 0.05 - 0.002 mm < 0.002 mm USDA Soil Textural Classification Silt Loam																																																																																																														

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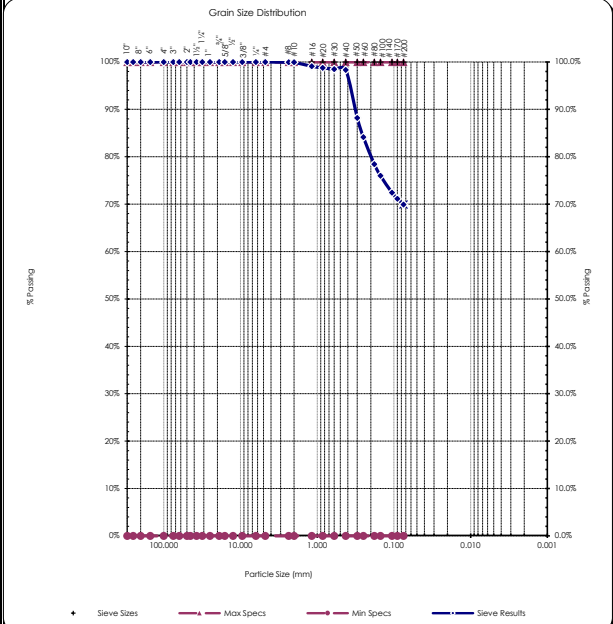
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1199B Sample#: B23-0779		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 28-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.005 mm D₁₀ = 0.011 mm D₁₅ = 0.016 mm D₃₀ = 0.032 mm D₅₀ = 0.054 mm D₆₀ = 0.064 mm D₉₀ = 0.322 mm Dust Ratio = 32/45		% Gravel = 0.0% % Sand = 30.1% % Silt & Clay = 69.9% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture % , 1 Face = n/a Fracture % , 2+ Faces = n/a		Coeff. of Curvature , C _c = 1.50 Coeff. of Uniformity , C _u = 6.00 Fineness Modulus = 0.38 Plastic Limit = n/a Moisture % , as sampled = n/a Req'd Sand Equivalent = Req'd Fracture % , 1 Face = Req'd Fracture % , 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
1.00"	25.00	100%		100%	100.0%	0.0%			
3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			100%	100.0%	0.0%			
#10	2.00	100%		100%	100.0%	0.0%			
#16	1.18			99%	100.0%	0.0%			
#20	0.850			99%	100.0%	0.0%			
#30	0.600			99%	100.0%	0.0%			
#40	0.425	98%		98%	100.0%	0.0%			
#50	0.300			88%	100.0%	0.0%			
#60	0.250			84%	100.0%	0.0%			
#80	0.180			78%	100.0%	0.0%			
#100	0.150			76%	100.0%	0.0%			
#140	0.106			72%	100.0%	0.0%			
#170	0.090			71%	100.0%	0.0%			
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Comments:

Reviewed by: Alex Eifrig



Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1199B Sample#: B23-0779		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 29-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																									
ASTM D7928, HYDROMETER ANALYSIS																																																																													
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Assumed Sp Gr :</td> <td style="width: 20%; text-align: center;">2.65</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td rowspan="4" style="text-align: center; vertical-align: middle;"> Certificate #: 1366.01 </td> </tr> <tr> <td>Sample Weight:</td> <td style="text-align: center;">50.00</td> <td>grams</td> <td></td> <td></td> </tr> <tr> <td>Hydroscopic Moist:</td> <td style="text-align: center;">2.47%</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Adj. Sample Wgt :</td> <td style="text-align: center;">48.79</td> <td>grams</td> <td></td> <td></td> </tr> </table>						Assumed Sp Gr :	2.65				 Certificate #: 1366.01	Sample Weight:	50.00	grams			Hydroscopic Moist:	2.47%				Adj. Sample Wgt :	48.79	grams																																																					
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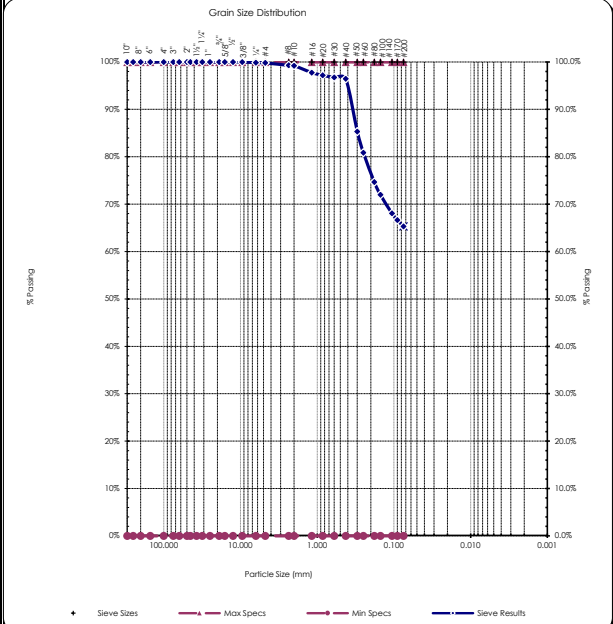
Comments: _____

Reviewed by: Alex Eifrig

Alex Eifrig



Sieve Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client: Anchor QEA, LLC. Source: LDW23-SC1214A Sample#: B23-0780		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 28-Aug-23 Tested By: R. Bohler		Visuals Soils Classification Silty Sand with Clay and Organics Sample Color: Brown		 Certificate #: 1366.01			
ASTM D2216, ASTM D2419, ASTM D4318, ASTM D5281									
Specifications No Specs		Sample Meets Specs ? N/A		D₅ = 0.006 mm D₁₀ = 0.011 mm D₁₅ = 0.017 mm D₃₀ = 0.034 mm D₅₀ = 0.057 mm D₆₀ = 0.069 mm D₉₀ = 0.353 mm Dust Ratio = 21/31		% Gravel = 0.2% % Sand = 34.5% % Silt & Clay = 65.3% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture %, 1 Face = n/a Fracture %, 2+ Faces = n/a		Coeff. of Curvature, C_c = 1.50 Coeff. of Uniformity, C_u = 6.00 Fineness Modulus = 0.49 Plastic Limit = n/a Moisture %, as sampled = n/a Req'd Sand Equivalent = Req'd Fracture %, 1 Face = Req'd Fracture %, 2+ Faces =	
ASTM C136, ASTM D6913, ASTM C117, ASTM D1140									
Sieve Size US Metric		Actual Percent Passing	Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min			
12.00"	300.00			100%	100.0%	0.0%			
10.00"	250.00			100%	100.0%	0.0%			
8.00"	200.00			100%	100.0%	0.0%			
6.00"	150.00			100%	100.0%	0.0%			
4.00"	100.00			100%	100.0%	0.0%			
3.00"	75.00			100%	100.0%	0.0%			
2.50"	63.00			100%	100.0%	0.0%			
2.00"	50.00	100%		100%	100.0%	0.0%			
1.75"	45.00			100%	100.0%	0.0%			
1.50"	37.50			100%	100.0%	0.0%			
1.25"	31.50			100%	100.0%	0.0%			
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3/4"	19.00	100%		100%	100.0%	0.0%			
5/8"	16.00			100%	100.0%	0.0%			
1/2"	12.50	100%		100%	100.0%	0.0%			
3/8"	9.50	100%		100%	100.0%	0.0%			
1/4"	6.30			100%	100.0%	0.0%			
#4	4.75	100%		100%	100.0%	0.0%			
#8	2.36			99%	100.0%	0.0%			
#10	2.00	99%		99%	100.0%	0.0%			
#16	1.18			98%	100.0%	0.0%			
#20	0.850			97%	100.0%	0.0%			
#30	0.600			97%	100.0%	0.0%			
#40	0.425	96%		96%	100.0%	0.0%			
#50	0.300			85%	100.0%	0.0%			
#60	0.250			81%	100.0%	0.0%			
#80	0.180			75%	100.0%	0.0%			
#100	0.150			72%	100.0%	0.0%			
#140	0.106			68%	100.0%	0.0%			
#170	0.090			67%	100.0%	0.0%			
#200	0.075	65.3%		65.3%	100.0%	0.0%			

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Comments:

Reviewed by:

Alex Eifrig

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Hydrometer Report

Project: Q.C. - LDW AOC5 MR Phase 1 Task 7.2 - 210075.01.02 Project #: 23B198-01 Client : Anchor QEA, LLC. Source: LDW23-SC1214A Sample#: B23-0780		Date Received: 11-Aug-23 Sampled By: Others Date Tested: 29-Aug-23 Tested By: R. Bohler		Visual Soils Classification Silty Sand with Clay and Organics Sample Color Brown																																																																																																	
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Comments: _____

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