



**Client:** Menzel Lake Gravel  
**Address:** P.O. Box 1494  
Marysville, WA 98270  
**Attn:** Rob Hild  
**Revised On:** \_\_\_\_\_

**Date:** July 23, 2025  
**Project #:** Q.C. - Menzel Lake Gravel - 2025  
**Project #:** 25B026  
**Sample #:** B25-0441  
**Date sampled:** July 18, 2025  
**Control No:** 7232025

As requested and authorized by the Client, MTC has performed the following test(s) on the sample number referenced above. The testing was performed in accordance with current, applicable AASHTO, ASTM, and/or WSDOT standards, which are referenced on the correlating test report pages. The results obtained in our laboratory are as detailed below and/or on the following pages:

	Test(s) Performed:	Test Results		Test(s) Performed:	Test Results
X	Sieve Analysis	Pass / See Attached Report		Sulfate Soundness	
	Proctor			Bulk Density & Voids	
	Sand Equivalent			WSDOT Degradation	
	Fracture Count			LA Abrasion	
	Moisture Content			Cation Exchange Capacity	
	Specific Gravity, Coarse				
	Specific Gravity, Fine				
	Hydrometer Analysis				
	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 the number below and ask to speak with your Project Manager or the Laboratory Manager.

*Alex Eifrig*

Respectfully Submitted,  
 Alex Eifrig  
 WABO Supervising Laboratory Technician



## Sieve Report

<b>Project:</b> Q.C. - Menzel Lake Gravel - 2025 <b>Project #:</b> 25B026 <b>Client:</b> Menzel Lake Gravel <b>Source:</b> Menzel Lake Gravel Pit, Granite Falls / 5/8" minus crushed rock material <b>Sample#:</b> B25-0441	<b>Date Received:</b> 18-Jul-25 <b>Sampled By:</b> Client <b>Date Tested:</b> 22-Jul-25 <b>Tested By:</b> Z. Romney <b>Control No.:</b> 7232025	<b>Unified Soil Classification System, ASTM D-2487</b> GW, Well-graded Gravel with Sand, Crushed <b>Sample Color:</b> Brown
--	---	--

<b>Method(s)</b> ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5281  <b>Specifications</b> 2024 WSDOT 9-03.9(3) Crushed Surfacing Top Course <b>Sample Meets Specs ?</b> Yes	D <sub>(5)</sub> = 0.176 mm      % Gravel = 53.1% D <sub>(10)</sub> = 0.819 mm      % Sand = 43.4% D <sub>(15)</sub> = 1.427 mm      % Silt & Clay = 3.5% D <sub>(30)</sub> = 3.032 mm      Liquid Limit = n/a D <sub>(50)</sub> = 5.152 mm      Plasticity Index = n/a D <sub>(60)</sub> = 6.465 mm      Sand Equivalent = n/a D <sub>(90)</sub> = 10.839 mm      Fracture % , 1 Face = n/a Dust Ratio = 18/41      Fracture % , 2+ Faces = n/a	Coeff. of Curvature, C <sub>c</sub> = 1.74 Coeff. of Uniformity, C <sub>u</sub> = 7.89 Fineness Modulus = 5.14 Plastic Limit = n/a Moisture %, as sampled = n/a Req'd Sand Equivalent = 40 Req'd Fracture % , 1 Face = 75% Req'd Fracture % , 2+ Faces = n/a
--	---	---

Sieve Size		Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs	
US	Metric			Max	Min
12.00"	300.00		100%		
10.00"	250.00		100%		
8.00"	200.00		100%		
6.00"	150.00		100%		
4.00"	100.00		100%		
3.00"	75.00		100%		
2.50"	63.00		100%		
2.00"	50.00	100%	100%		
1.75"	45.00		100%		
1.50"	37.50		100%		
1.25"	31.50		100%		
1.00"	25.00	100%	100%		
3/4"	19.00	100%	100%	100.0%	99.0%
5/8"	16.00		99%		
1/2"	12.50	99%	99%	100.0%	80.0%
3/8"	9.50	83%	83%		
1/4"	6.30		59%		
#4	4.75	46.9%	47%	66.0%	46.0%
#8	2.36		23%		
#10	2.00	19.8%	20%		
#16	1.18		13%		
#20	0.850	10.1%	10%		
#30	0.600		9%		
#40	0.425	8.1%	8%	24.0%	8.0%
#50	0.300		6%		
#60	0.250	5.7%	6%		
#80	0.180		5%		
#100	0.150	4.7%	5%		
#140	0.106		4%		
#170	0.090		4%		
#200	0.075	3.5%	3.5%	10.0%	0.0%

Copyright | Spears Engineering & Technical Services PS, 1996-98

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:** Sample meets 2024 WSDOT 9-03.9(3) crushed surfacing top course gradation specification requirements.

Reviewed by: Alex Eifrig  
 Alex Eifrig  
 WABO Supervising Laboratory Technician