



### AGGREGATE SUBMITTAL Report of Physical Properties

GRP Material Description: Rock, unwashed 1.5 Report Date: February 13, 2023  
 GRP Material Code: ROCF Reviewed by: Dan McDaniel  
 Source Location/Code: 588 - Morgan Report No. 588RK5100123

TEST RESULTS					SIEVE ANALYSIS		
Standard	PHYSICAL PROPERTIES		Result	Test Source	ASTM C136	AASHTO T27	
ASTM C 29 AASHTO T19	<b>Unit Weight</b>	Unit Weight, lbs./cu.ft. =	<b>97</b>		<b>Sieve Size</b>	<b>% Passing</b>	<b>Spec.</b>
		Voids, % =	<b>44</b>		450 mm (18")		
		<input type="checkbox"/> Jigged <input type="checkbox"/> Loose	R		375 mm (15")		
ASTM D1557 AASHTO T180	<b>Modified Proctor</b>	Max. density, lbs./cu.ft. =			300 mm (12")		
		Optimum Moisture, % =			250 mm (10")		
ASTM D698 AASHTO T99	<b>Standard Proctor</b>	Max. density, lbs./cu.ft. =			225 mm (9")		
		Optimum Moisture, % =			200 mm (8")		
ASTM D4318 AASHTO T89/90	<b>Liquid Limit Plastic Limit Plasticity Index</b>	Liquid Limit =	<b>0</b>		150 mm (6")		
		Plastic Limit =	<b>0</b>		125 mm (5")	<b>99</b>	
		Plasticity Index =	<b>NP</b>		100 mm (4")	<b>76</b>	
ASTM C131 AASHTO T96	<b>L.A. Abrasion</b>	Small Coarse Loss, % =	<b>24</b>		75.0 mm (3")	<b>43</b>	
		Grading/Revolutions, =	<b>B/500</b>		63.0 mm (2-1/2")		
ASTM C535	<b>L.A. Abrasion</b>	Large Coarse Loss, % =			50.0 mm (2")	<b>28</b>	
		Grading/Revolutions, =			37.5 mm (1-1/2")	<b>12</b>	
ASTM C 128 AASHTO T84	<b>Fine Specific Gravity &amp; Absorption</b>	Bulk Specific Gravity (dry) =			25.0 mm (1")	<b>2</b>	
		Bulk Specific Gravity, SSD =			19.0 mm (3/4")		
		Apparent Specific Gravity =			12.5 mm (1/2")		
		Absorption, % =			9.5 mm (3/8")		
ASTM C 127/128 AASHTO T84/85	<b>Coarse/Fine Specific Gravity &amp; Absorption</b>	Bulk Specific Gravity (dry) =	<b>2.721</b>		6.3 mm (1/4")		
		Bulk Specific Gravity, SSD =	<b>2.750</b>		4.75 mm (No.4)		
		Apparent Specific Gravity =	<b>2.802</b>		2.36 mm (No.8)		
		Absorption, % =	<b>1.1</b>		2.00 mm (No.10)		
ASTM D2419 AASHTO T176	<b>Sand Equivalent</b>	Sand Equivalent, % =			1.18 mm (No.16)		
					0.600 mm (No.30)		
ASTM C 88 AASHTO T104	<b>Soundness</b>	Coarse Soundness Loss, % =	<b>1</b>		0.425 mm (No.40)		
		Sodium No. of Cycles =	<b>5</b>		0.300 mm (No.50)		
	<b>Soundness</b>	Fine Soundness Loss, % =			0.180 mm (No.80)		
		Magnesium No. of Cycles =			0.150 mm (No.100)		
ASTM C 1252 AASHTO T304	<b>Fine Aggregate Angularity</b>	Uncompacted Voids, % =			0.075 mm (No.200)	<b>0.9</b>	
		Method C (as received material)					
ASTM C40 AASHTO T21	<b>Organic Impurities</b>	Coarse Aggregate, % =	<b>Lighter Plate #1</b>		ASTM D422		
		Fine Aggregate, % =			<b>Hydrometer =</b>		
ASTM C142 AASHTO T112	<b>Clay / Friable Particles</b>	Coarse Aggregate, % =			ASTM C566 AASHTO T255		
		Fine Aggregate, % =	<b>0</b>		<b>Moisture Content, % =</b>	<b>3</b>	
ASTM C123 AASHTO T113	<b>Lightweight Pieces</b>	Coarse Aggregate, % =			ASTM C136 AASHTO T27		
		Fine Aggregate, % =	<b>0</b>		<b>Fineness Modulus (FM) =</b>		
ASTM D1883 AASHTO T193	<b>CBR</b>	Surcharge = 10 lbs CBR @ 0.1" =			AASHTO M145		
		Swell% = 0.0% CBR @ 0.2" =			<b>Classification of Soils =</b>		
ASTM D5821	<b>Fractured Face</b>	1 or 2 Faces =	<b>1= 100</b>		ASTM D4791	<b>Ratio =</b>	<b>5to1</b>
		Fractured Face, % =	<b>2= 99</b>		<b>Flat &amp; Elongated =</b>	<b>0</b>	
ASTM D2487	<b>Soil Classification</b>	Group Symbol =					
		Group Name =					
ASTM D2488	<b>Soil Description &amp; Identification</b>	Group Symbol =					
		Group Name =					