



**Q&D CONSTRUCTION**

est. 1964

January 27, 2023

Aggregate Submittal  
Structural Fill  
Q&D – Mustang Plant  
12050 I-80 E, Sparks NV 89434

Project Name:

Q&D is pleased to provide our AASHTO accredited laboratory test results for Structural Fill. The material was tested using the applicable test methods cited on the Submittal Document. The material meets all SSPWC specifications listed on the Submittal Document.

We trust this is the information you require at this time. If you have any questions, please do not hesitate to contact me at (775) 342-6000.

Sincerely,

Norm Davis  
Quality Control Manager

**SERVICE. INTEGRITY. QUALITY.**

P.O. Box 10865, Reno, Nevada 89510 | Main Office: 775.786.2677 | Fax: 775.786.5136  
www.qdconstruction.com | NCL: 8197 A & B



**Q&D CONSTRUCTION**  
est. 1964

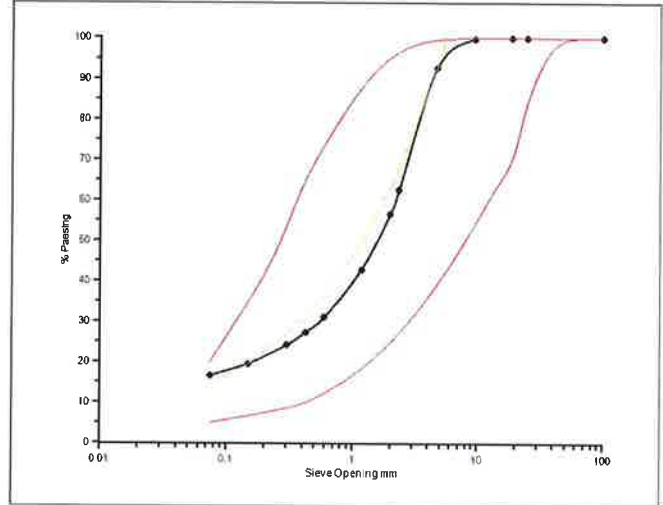
Mustang Facility

## Compliance Summary

### Product Information

**Plant Id** 36  
**Plant Name** Mustang Facility  
**Product Id** 6029  
**Product Name** Structural Fill  
**Specification** Structural Fill

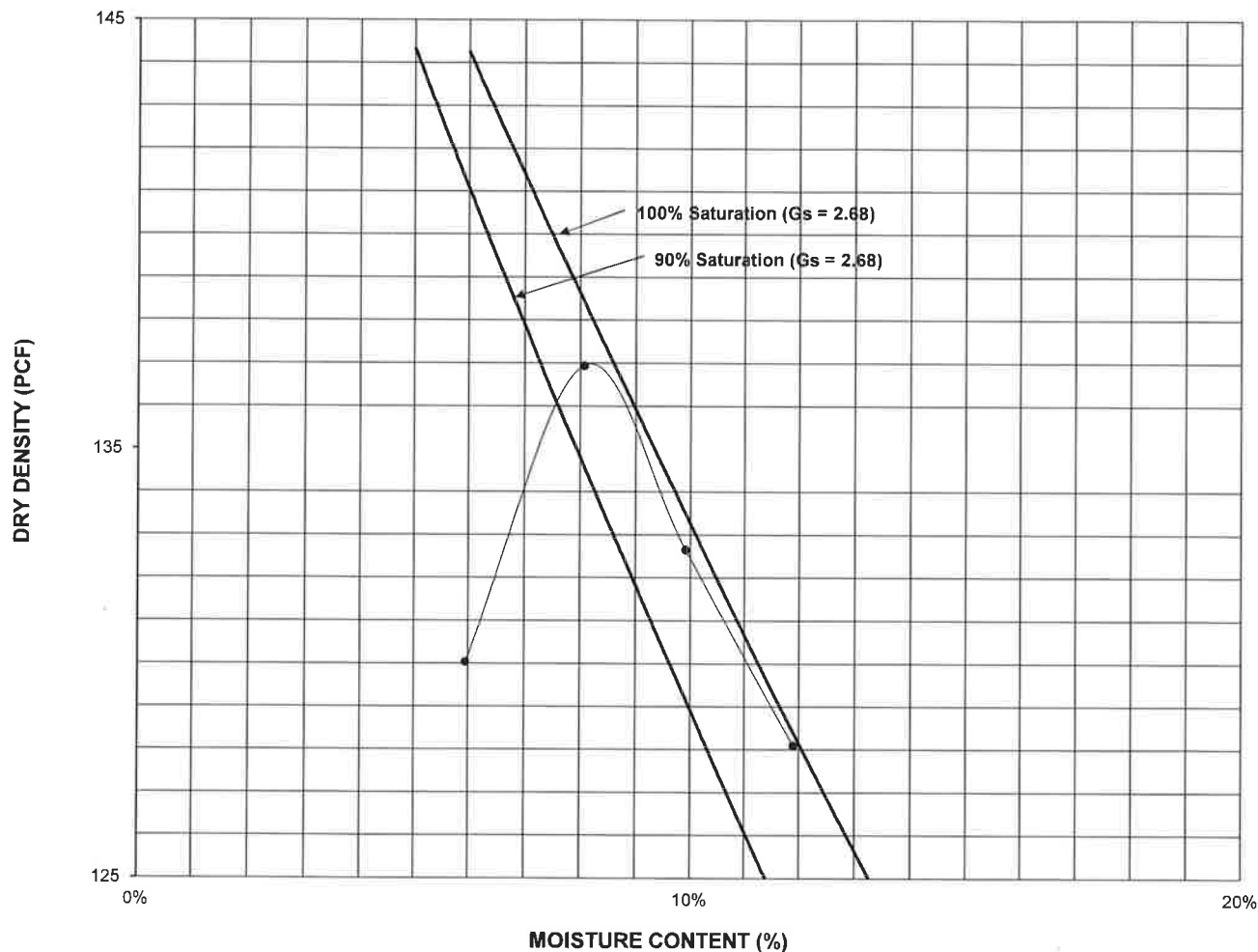
Period 01/31/2021 - 01/31/2023



### Gradation Results

### Quality Results

Sieve	% Passing	Tolerances	Test	Result	Unit	Tolerances	Method
4" (100mm)	100.0	100-100	-#200 (75um)	16.61	%		AASHTO T11
1" (25mm)	100.0		R Value	70.0		≥30	ASTM D1559
3/4" (19mm)	100.0	70-100	Liquid Limit	23.3		≤35	
3/8" (9.5mm)	99.8		Plastic Limit	20.8			
#4 (4.75mm)	92.7		Plasticity Index	2.5		≤12	
#8 (2.36mm)	62.5		Max Dry Density (Proctor-Mod)	132			ASTM D 1557
#10 (2mm)	56.4		Opt Moisture (Corrected)	10	%		
#16 (1.18mm)	42.8						
#30 (.6mm)	31.1						
#40 (.425mm)	27.3	10-65					
#50 (.3mm)	24.1						
#100 (.15mm)	19.6						
#200 (75µm)	16.64	5-20					



D1557 Symbol	Sample Source	Classification (Description)	Optimum Water Content (%)	Maximum Dry Density (pcf)
0	Mustang Pit	Structural Fill	8.2	137.0

TEST METHOD: <u>D1557</u>	MOLD (in): <u>4</u>	MANUAL COMPACTION: <u>X</u>	POINT #	MOISTURE	DRY DENSITY (PCF)
METHOD: <u>B</u>	HAMMER (LBS.): <u>10</u>	MECHANICAL COMPACTION: _____	1	<u>5.9%</u>	<u>130.0</u>
LAYERS: <u>5</u>	FALL (in): <u>18</u>		2	<u>8.1%</u>	<u>136.9</u>
BLOWS: <u>25</u>			3	<u>9.9%</u>	<u>132.6</u>
			4	<u>11.9%</u>	<u>128.1</u>
% PASSING	SPECIFIC GRAVITY	ABSORPTION (%): _____	5	_____	_____
3/4" _____	ASSUMED: <u>2.68</u>	ESE BULK NO.: <u>6233</u>	6	_____	_____
3/8" <u>&gt; 95</u>	ASTM C-127 _____	DATE SAMPLED: <u>12/15/2022</u>			
#4 _____					



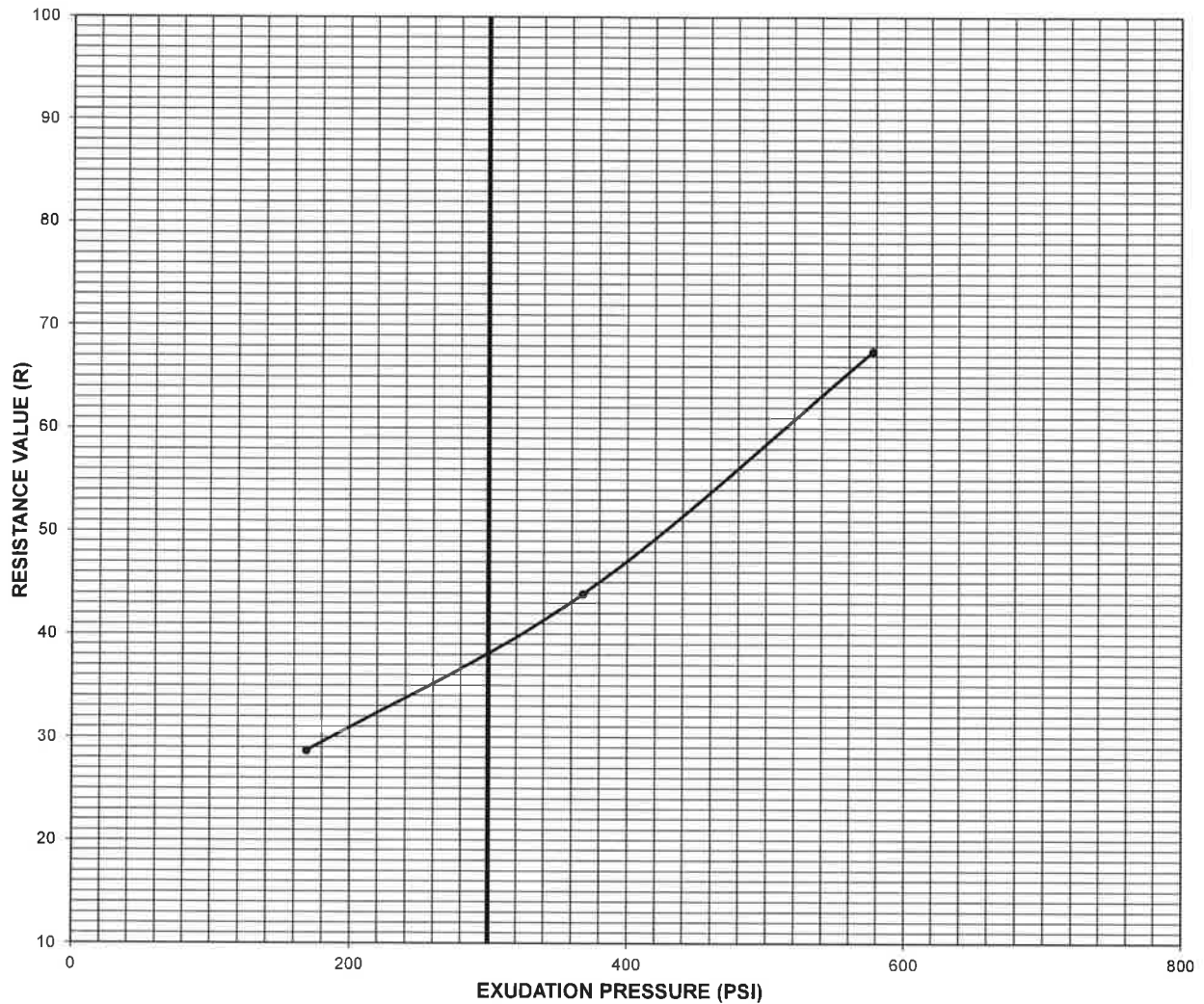
**EASTERN  
SIERRA  
ENGINEERING**

**COMPACTION TEST DATA**  
Q&D Construction  
2023 QC Services

FIGURE

**1**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
DB	23.1.01	SJ	12/20/2022		



D 2844 Symbol	Sample Source	Classification	Expansion Pressure (psf)	R-value
o	Mustang Pit - 12/15/2022	Structural Fill	0.0	38

POINT #	WATER CONTENT (%)	DRY DENSITY (PCF)	EXUDATION PRESS. (PSI)	EXPANSION PRESS. (PSF)	RESISTANCE VALUE (R)
1	9.2	130.0	577	0	67
2	9.9	128.6	368	0	44
3	10.4	128.3	169	0	29
4					
5					
6					



CIVIL ENGINEERING & CONSTRUCTION SERVICES

**RESISTANCE VALUE TEST DATA**

Q&D Construction  
2023 QC Services

FIGURE

**2**

DRAWN	ESE BULK #	JOB NUMBER	APPROVED	DATE	REVISED	DATE
DB	6234	23.1.01	SJ	12/21/2022		