



300 Sierra Manor Drive, Suite 1  
Reno, NV 89511

February 16, 2022  
File: 1009

Mr. Chris Benna  
**RILITE AGGREGATES**  
3025 Mill Street  
Reno, NV 89502

**RE: Rilite Pit – 1.5” Minus Structural Fill**

Dear Mr. Benna:

Per your request, we have performed aggregate quality testing on the 1.5” minus structural fill received by our laboratory from the Rilite Pit on February 4, 2022. Test results are provided on the attached page(s) in comparison with standards outlined in the *2016 Standard Specifications for Public Works Construction* specifications.

We appreciate this opportunity to provide our laboratory testing services. If you have any questions or require further information, please do not hesitate to contact us.

Sincerely,

**CONSTRUCTION MATERIALS ENGINEERS, INC.**

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SLV:ROC:mad  
Attachments

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1.5" MINUS STRUCTURAL FILL TEST RESULTS SUMMARY - RILITE PIT

**Sieve Analysis**

U.S. Standard Sieve Size	Percent Passing by Weight	
	1.5" Minus Structural Fill	2016 SSPWC Specification <sup>1</sup>
4 Inch	100	100
3 Inch	100	-
2 Inch	100	-
1 1/2 Inch	96	-
1 Inch	87	-
3/4 Inch	82	70-100
1/2 Inch	74	-
3/8 Inch	70	-
No. 4	59	-
No. 8	48	-
No. 10	46	-
No. 16	40	-
No. 30	33	-
No. 40	30	15-65
No. 50	27	-
No. 100	21	-
No. 200	15.8	5-20

Test Type	Test Method	Sample Result	2016 SSPWC Specifications <sup>1</sup>
Resistance (R) Value	ASTM D2844	62	30 Minimum
Liquid Limit	ASTM D4318	Less Than 25	35 Maximum
Plasticity Index	ASTM D4318	Non-Plastic	12 Maximum

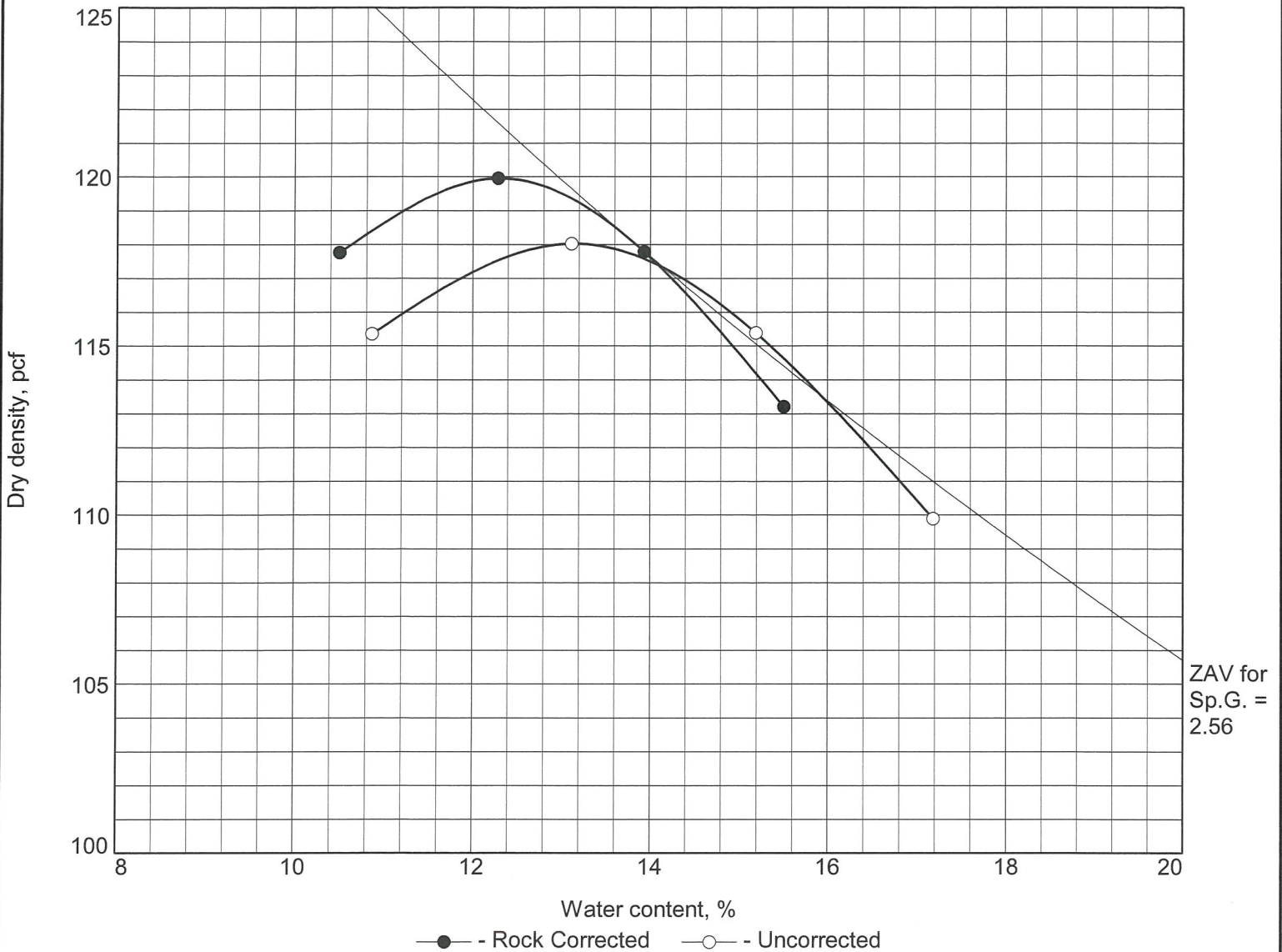
**Moisture Density**

Test Type	Test Method	Sample Result	2016 SSPWC Specifications <sup>1</sup>
Maximum Dry Density	ASTM D1557A	120.0 pcf	-
Optimum Moisture	ASTM D1557A	12.5%	-

<sup>1</sup> All specification requirements per the 2016 Standard Specifications for Public Works Construction.



# MOISTURE DENSITY CURVE



Test specification: ASTM D 1557-12 Method C Modified  
 ASTM D4718-15 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
							20.7	15.8

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 120.0 pcf	118.0 pcf	1.5" STRUCTURAL FILL RILITE PIT
Optimum moisture = 12.5 %	13.0 %	

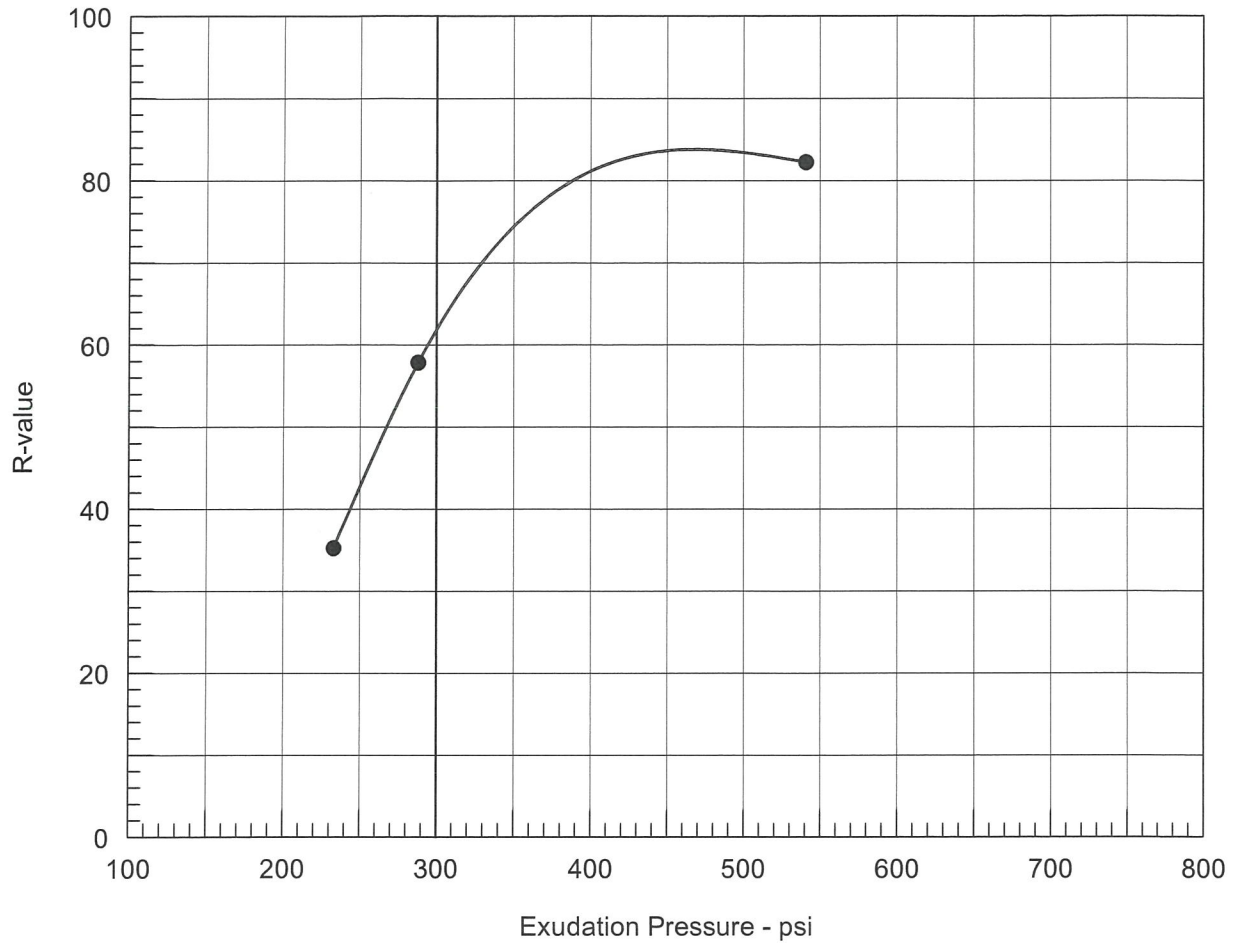
<b>Project No.</b> 1009 <b>Client:</b> RILITE AGGREGATES <b>Project:</b> RILITE AGGREGATES-QUALITY TESTING  ○ <b>Location:</b> PLANT STOCKPILE <b>Sample Number:</b> 36167	<b>Remarks:</b> RECEIVED 2/4/2022
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Figure

Tested By: G. MORALES      Checked By: S. VINEIS

# R-VALUE TEST REPORT



## Resistance R-Value and Expansion Pressure - ASTM D2844

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	300	115.7	15.2	0.00	18	2.55	541	82	82
2	250	114.5	16.3	0.00	47	2.55	288	58	58
3	150	115.2	17.4	0.00	82	2.60	233	33	35

Test Results	Material Description
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**R-value at 300 psi exudation pressure = 62**

1.5" STRUCTURAL FILL  
RILITE PIT

**Project No.:** 1009  
**Project:** RILITE AGGREGATES-QUALITY TESTING  
**Location:** PLANT STOCKPILE  
**Sample Number:** 36167  
**Date:** 2/15/2022

**Tested by:** M. PONTONI  
**Checked by:** S. VINEIS  
**Remarks:**  
 RECEIVED 2/4/2022



Figure 1A