

6980 Sierra Center Parkway, Suite 90
 Reno, NV 89511

April 10, 2018
 File: 1013

Mr. Reed Tolotti
A&K EARTHMOVERS, INC.
 PO Box 1059
 Fallon, NV 89407

RE: Aggregate Base Type 2 Class B – Bella Vista Pit 2

Dear Mr. Tolotti:

Per your request, we have performed testing on the Type 2, Class B aggregate base delivered to our laboratory on March 29th. Test results in comparison with local standard specifications are as follows:

Sieve Size Analysis (ASTM C136/C117)		
U.S. Standard Sieve Size	Percent By Weight Passing	
	Bella Vista Pit 2	Local Standard Specification*
1 Inch	100	100
¾ Inch	99	90 - 100
½ Inch	77	-
⅜ Inch	61	-
No. 4	35	35 – 65
No. 8	25	-
No. 10	23	-
No. 16	17	15 - 40
No. 30	13	-
No. 40	12	-
No. 50	10	-
No. 100	8	-
No. 200	5.8	2 - 10

Fractured Faces (Nev. T230)	
Bella Vista Pit 2	Specification*
100.0%	35% Minimum

Atterberg Limits (ASTM D4318)		
	Bella Vista 2	Specification*
Liquid Limit	No Value	35 Maximum
Plasticity Index	Nonplastic	8 Maximum

R-Value (ASTM D2844)	
Bella Vista Pit 2	Specification*
78	70 Minimum

*Standard Specifications for Public Works Construction (Washoe County, Sparks, Reno, Carson City and Douglas County), 2012 and NDOT Standard Specifications for Road and Bridge Construction, 2014.

**Does not meet specification.

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Los Angeles Abrasion (ASTM C131)		
	Bella Vista Pit 2	Specification*
Percent Loss After 500 Revolutions (Grading B)	28.4%	45% Maximum

*Standard Specifications for Public Works Construction (Washoe County, Sparks, Reno, Carson City and Douglas County), 2012 and NDOT Standard Specifications for Road and Bridge Construction, 2014.

Moisture Density (ASTM D1557C)	
Maximum Dry Density	124.7 PCF
Optimum Moisture	10.6%

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.

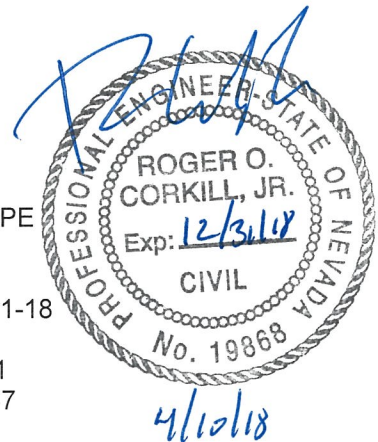
Sincerely,

CONSTRUCTION MATERIALS ENGINEERS, INC.



Steven L. Vineis
Laboratory Manager
svineis@cmenv.com
Direct: 775-737-7568
Mobile: 775-772-9921

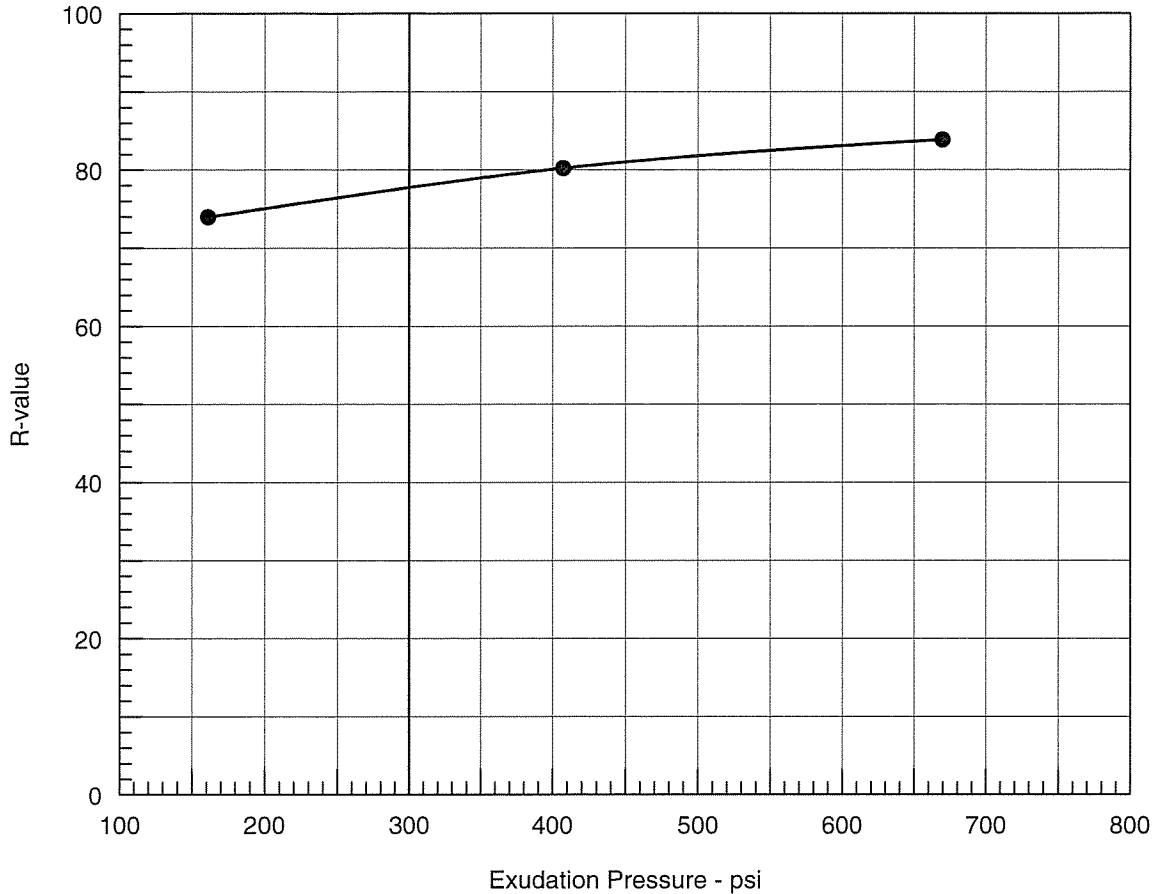
Roger O. Corkill Jr., PE
Project Manager
RE Number 19868
Expiration Date 12-31-18
rcorkill@cmenv.com
Direct: 775-737-7581
Mobile: 775-722-5067



SLV:ROC:jb
Enclosures


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R-VALUE TEST REPORT

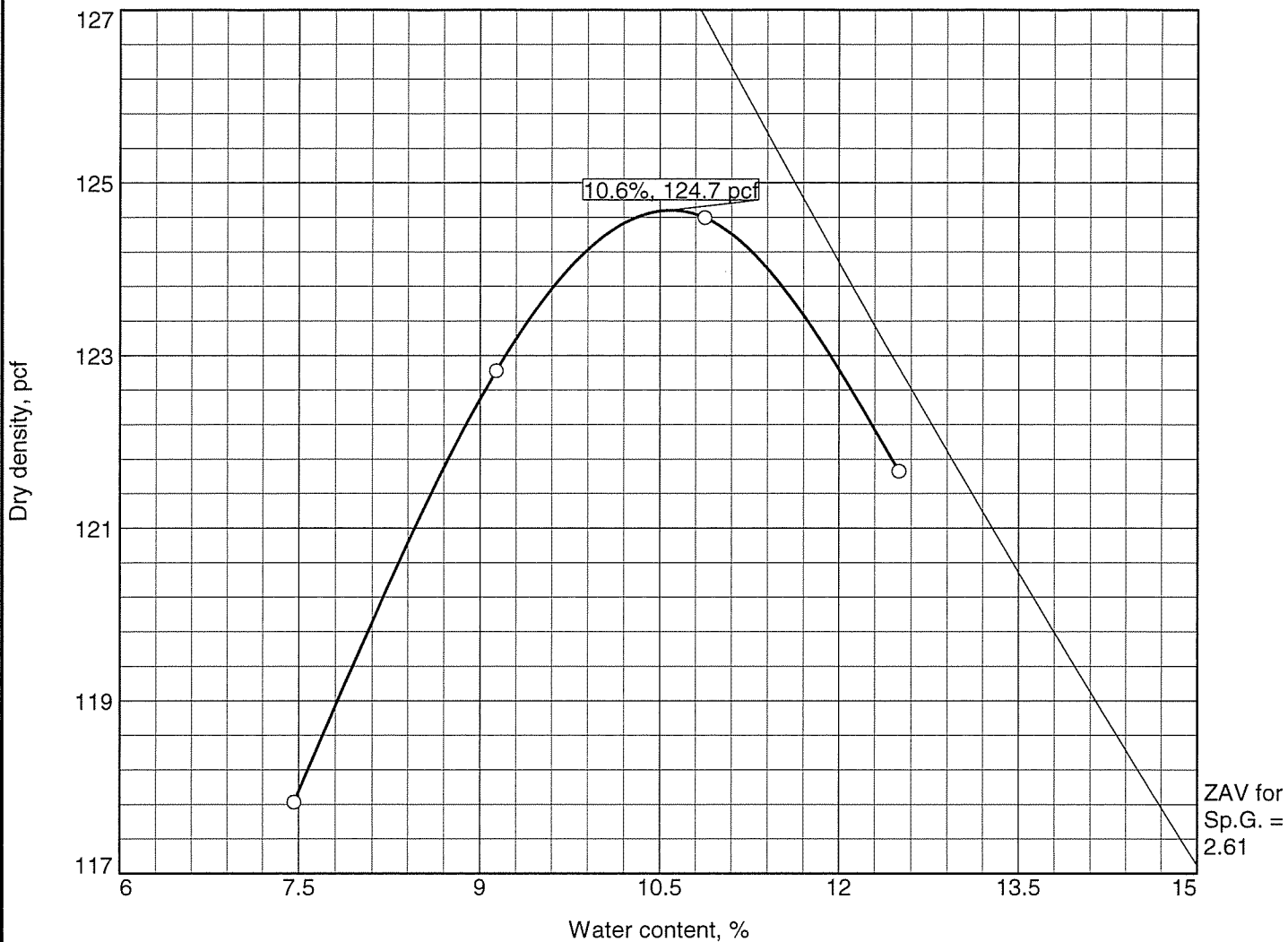


Resistance R-Value and Expansion Pressure - ASTM D2844

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	350	110.9	8.7	0.00	16	2.38	670	85	84
2	350	109.5	9.4	0.00	21	2.52	407	80	80
3	350	108.3	10.0	0.00	28	2.51	161	74	74

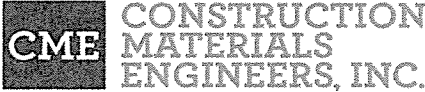
Test Results	Material Description
R-value at 300 psi exudation pressure = 78	AGGREGATE BASE TYPE 2 CLASS B BELLA VISTA PIT 2
Project No.: 1013 Project: BELLA VISTA PIT 2 Location: PLANT STOCKPILE Sample Number: 32090 Date: 4/9/2018	Tested by: G. MORALES Checked by: S. VINEIS Remarks: RECEIVED 3/29/2018
	Figure 1A

MOISTURE DENSITY REPORT



Test specification: ASTM D 698-12 Method C Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
							1.4	

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 124.7 pcf Optimum moisture = 10.6 %	AGGREGATE BASE TYPE 2 CLASS B BELLA VISTA PIT 2
Project No. 1013 Client: A & K EARTHMOVERS, INC. Project: BELLA VISTA PIT 2 Location: PLANT STOCKPILE Sample Number: 32090	Remarks: RECEIVED 3/29/2018
	Figure

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