



2010

Product Data Sheet
Plant: Beckley

I. GEOLOGICAL FORMATION: SANDSTONE

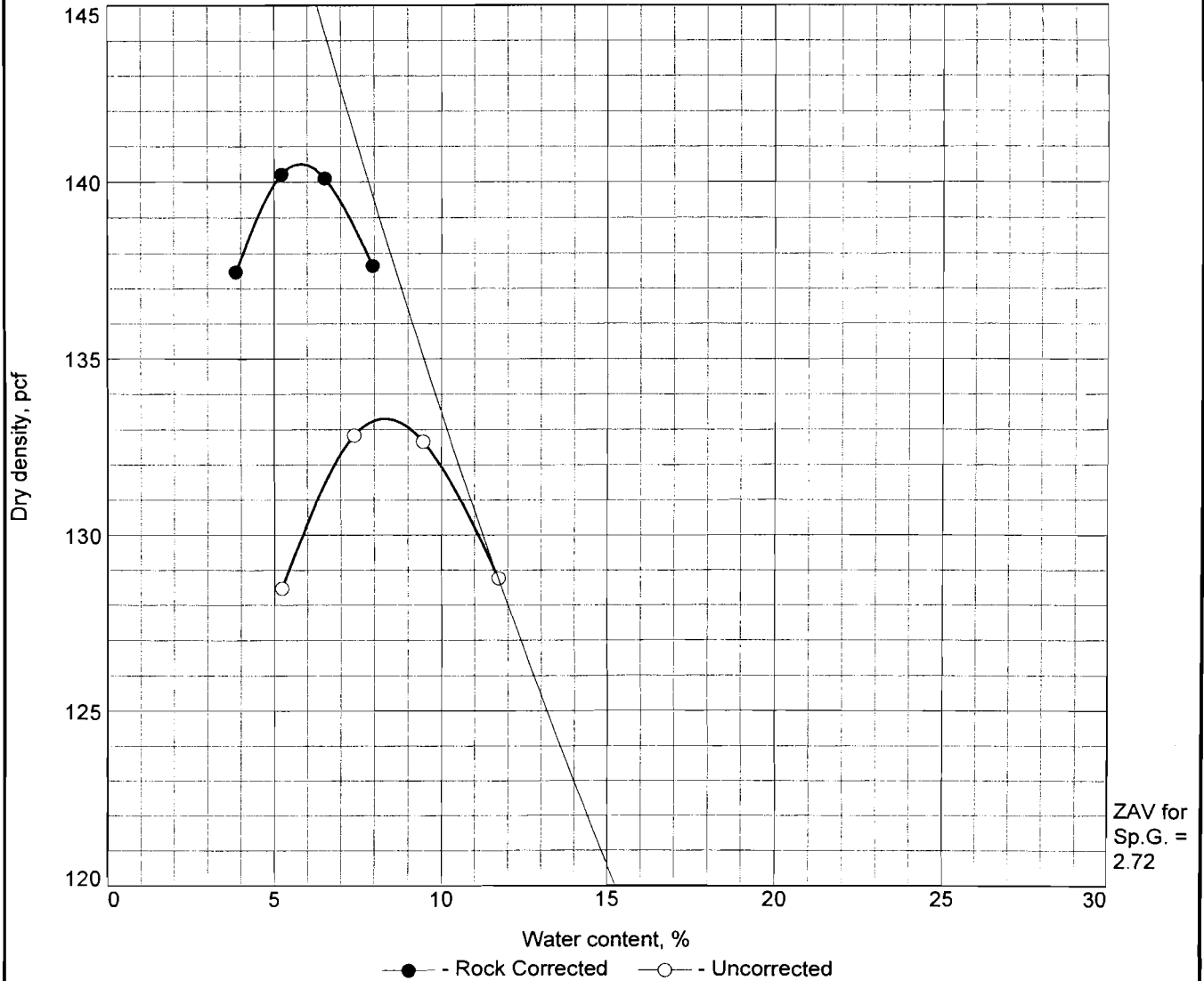
II. CHEMICAL ANALYSIS (March 2010) :

Silica	as SiO ₂	74.4%	Calcium	as CaCO	0.9%
Iron	as Fe ₂ O ₃	4.1%	Magnesium	as MgCO	1.1%
Aluminum	as Al ₂ O ₃	11.8%	Sulphur	as S	<0.05%

III. QUALITY DATA:

		Product									
TEST	TEST DATE	1's	3's	5'	8	Sand					
* SPECIFIC GRAVITY *											
BULK (ASPHALT)	3/10	2.581	2.585	2.590	2.553	2.592					
BULK - SSD (CONCRETE)	3/10	2.611	2.617	2.627	2.610	2.632					
APPARENT	3/10	2.660	2.672	2.689	2.706	2.681					
% ABSORPTION	3/10	1.1%	1.3%	1.5%	2.2%	1.5%					
* UNIT WEIGHT *											
DRY RODDED (LBS/CUBIC FT)	3/10	93.8	93.4	93.2	86.3	105.4					
DRY RODDED (LBS/CUBIC YARD)	3/10	2532.6	2522	2516	2330	2846					
DRY RODDED (% VOIDS)	3/10	41.7%	42.1%	41.8%	45.6%	34.8%					
DRY RODDED (Kg/Cubic Meter)	3/10	11	11	11	12	9					
VTM-5 % VOIDS IN STONE SAND											
ASTM C1252 % VOIDS (METH B)	3/10					55.4%					
ASTM C1252 % VOIDS (METH C)	3/10					43.3%					
ASTM D4791 % F & E (3:1)	3/10		25.3%	22.7%	33.6%						
* LOS ANGELES DEGRADATION *											
GRADING A % LOSS	3/10	28.8%									
GRADING B % LOSS	3/10	29.9%									
GRADING C % LOSS	3/10	33.3%									
SOUNDNESS % LOSS (Magnesium Sulfate)											
SOUNDNESS % LOSS (Sodium Sulfate)			1.9%	1.9%	2.2%	1.7%	5.5%				
Surface Treatment Rate of Application											
Stone (lb/sq yd)											
Emulsion (gal/sq yd)											
* SUPERPAVE *											
ASTM C1252 % VOIDS (METH A)	3/10					51.1%					
AASHTO T 176 SAND EQUIVALENT	3/10					43					
ASTM D4791 % F & E (5:1)	3/10		3.0%	4.0%	8.2%						

COMPACTION TEST



Test specification: AASHTO T 99 Method D Standard
 ASTM D 4718-87/AASHTO T 224-86 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
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ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 140.5 pcf	133.3 pcf	307-01 aggregate
Optimum moisture = 5.8 %	8.3 %	

Project No. K62-063T **Client:** Boxley Materials Company
Project: Laboratory testing

○ **Sample Source:** Beckley **Depth:** -- **Sample No.:** 107239

Remarks:
 May 1, 2009
 Assumed sp. gr. of +3/4": 2.72

NOTE from Sec. 1.3: "(AASHTO T-99) applies to soil mixtures that have...30% or less retained on the 3/4" sieve."

FROEHLING & ROBERTSON, INC.

Figure

Assumed sample sp. gr. for ZAV: 2.72