



2011

Product Data Sheet
Plant: Fieldale

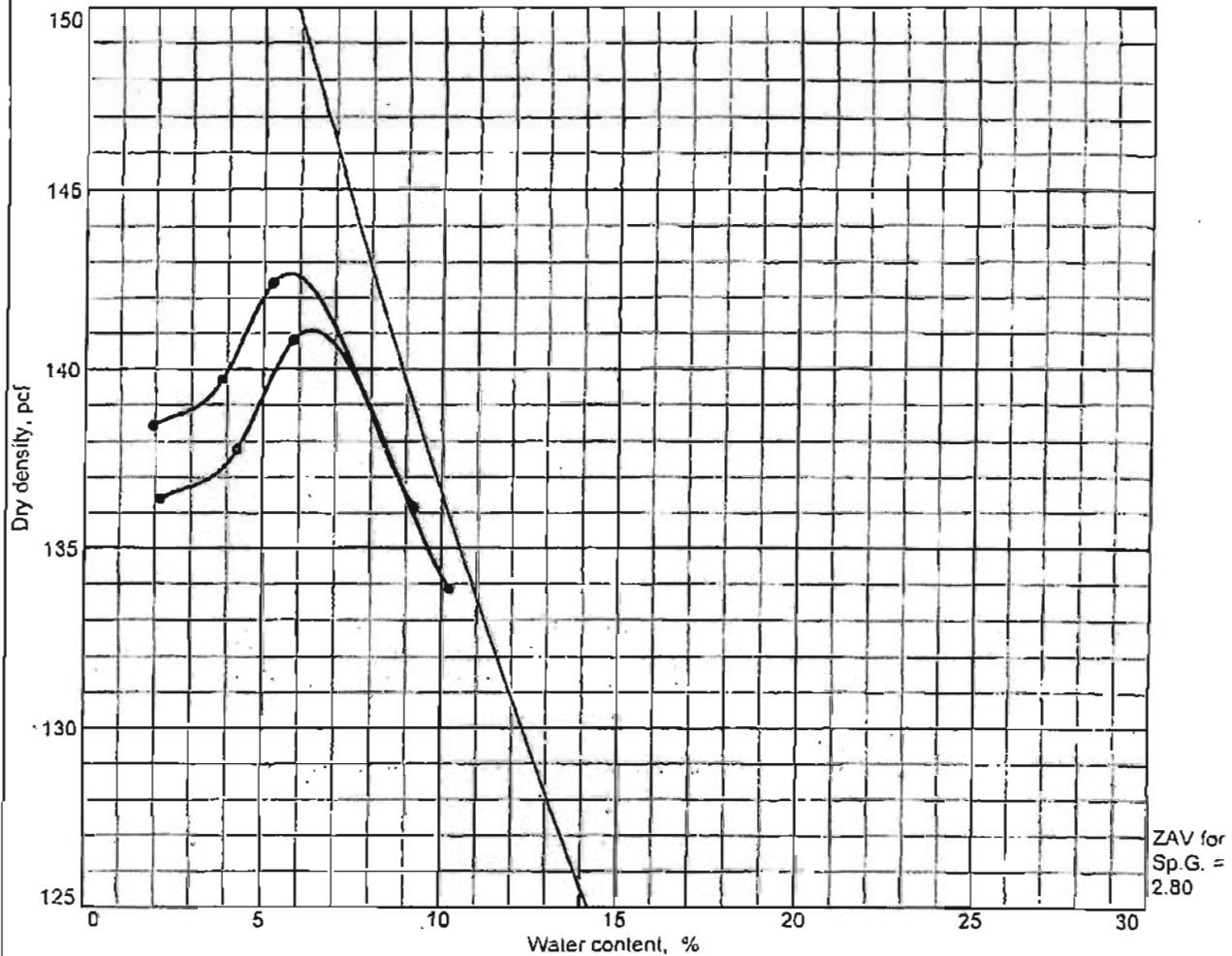
I. GEOLOGICAL FORMATION: BIOTITE GRANITE GNEISS

II. CHEMICAL ANALYSIS (March 2011) :

Silica	as SiO ₂	60.0%	Calcium	as CaO	2.5%
Iron	as Fe ₂ O ₃	8.9%	Magnesium	as MgO	2.5%
Aluminum	as Al ₂ O ₃	15.4%	Sulphr	as S	0.3%

III. QUALITY DATA:			Product												
TEST	TEST DATE		357	5	W 57	REG 57	68	78	8P	8	9	10C	10	B Slurry	C Slurry
* SPECIFIC GRAVITY *															
BULK (ASPHALT)	1/11		2.827	2.782	2.785	2.778	2.767	2.752	2.759	2.803	2.819	2.781	2.809	2.794	2.777
BULK - SSD (CONCRETE)	1/11		2.833	2.792	2.797	2.792	2.779	2.761	2.778	2.819	2.827	2.800	2.820	2.810	2.796
APPARENT	1/11		2.844	2.809	2.820	2.817	2.801	2.777	2.811	2.847	2.841	2.835	2.841	2.839	2.830
% ABSORPTION	1/11		0.2%	0.4%	0.4%	0.5%	0.4%	0.3%	0.7%	0.6%	0.3%	0.7%	0.4%	0.6%	0.7%
* UNIT WEIGHT *															
DRY RODDED (LBS/CUBIC FT)	1/11		100.0	101.8	98.8	100.4	101.1	98.4	93.2	97.6	97.1	106.8	105.1	113.4	113.8
DRY RODDED (LBS/CUBIC YARD)	1/11		2700	2749	2668	2711	2730	2657	2516	2635	2622	2884	2838	3062	3073
DRY RODDED (% VOIDS)	1/11		42.5%	43.1%	43.4%	43.3%	41.2%	42.7%	46.0%	43.6%	43.4%	39.1%	41.0%	36.0%	34.1%
DRY RODDED (Kg/Cubic Meter)	1/11		1602	1631	1583	1608	1619	1576	1493	1563	1555	1711	1684	1816	1823
VTM-5 % VOIDS IN STONE SAND	1/11											56.0%	57.4%	57.3%	55.0%
ASTM C1252 % VOIDS (METH B)	1/11											55.4%	55.5%	56.3%	54.4%
ASTM C1252 % VOIDS (METH C)	1/11											45.3%	48.0%	45.3%	44.3%
ASTM D4791 % F & E (3:1)	1/11		19.0%	9.5%	26.4%	15.0%	15.9%	25.0%	42.9%	19.4%					
* LOS ANGELES DEGRADATION *															
GRADING A % LOSS	1/11	23.9%													
GRADING B % LOSS	1/11	24.5%													
GRADING C % LOSS	1/11	24.8%													
SOUNDNESS % LOSS (Magnesium Sulfate)	1/11		0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	5.1%	6.3%	5.1%	4.4%	3.9%
SOUNDNESS % LOSS (Sodium Sulfate)															
Surface Treatment Rate of Application															
Stone (lb/sq yd)															
Emulsion (gal/sq yd)															
* SUPERPAVE *															
ASTM C1252 % VOIDS (METH A)	1/11											50.4%	49.3%	51.1%	49.0%
AASHTO T 176 SAND EQUIVALENT	1/11											88	77	81	81
ASTM D4791 % F & E (5:1)	1/11		1.0%	0.2%	2.9%	0.6%	2.5%	2.2%	9.2%	3.7%					

MOISTURE-DENSITY RELATIONSHIP TEST



ZAV for Sp.G. = 2.80

Test specification: AASHTO T 99 Method D Standard
 Oversize correction applied to each point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
--	--	--	--		--	--	9.8	--

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 142.7 pcf	141.1 pcf	2 1/8 aggregate
Optimum moisture = 5.7 %	6.3 %	

Project No. G62-458T Client: Boxley Materials Company
 Project: Laboratory testing

• Source: Fieldale Sample No.: 103663 Elev./Depth: --

Remarks:
 January 21, 2008

Chas. S. Bowman

MOISTURE-DENSITY RELATIONSHIP TEST

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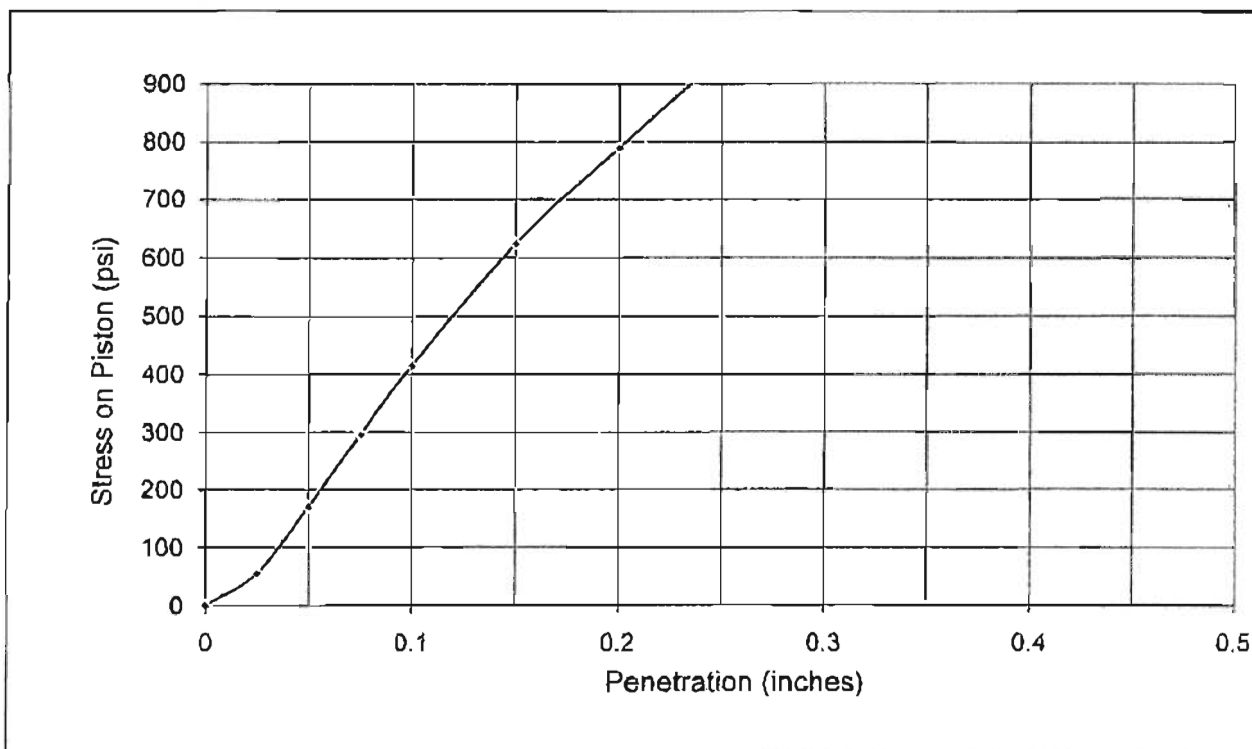
California Bearing Ratio (AASHTO T-193)

Record No.: K62-063T

Client: Boxley Materials Company
 Project: Laboratory testing

Test Date: 21-May-09
 Tested By: M R Henry
 Compaction method: AASHTO T-99

 X Soaked CBR
 _____ Unsoaked CBR



CBR: penetration @ 0.2 in. (corrected)

52.6

Maximum Dry Density (pcf):

142.4

Optimum Moisture Content (%):

5.6

Swell (%):

0.0

Dry Density Before Soaking (pcf):

142.2

Visual Description:

Dry Density After Soaking (pcf):

142.8

Well graded silty gravel with sand

Retained on 3/4 inch sieve (%):

17.2

"Select Material Type I"

Surcharge Weight (pounds):

15.0

F&R Lab No.: 107259

Moisture Content Before Soaking (%):

5.3

Source: Fieldale quarry

Moisture Content After Soak, Top in. (%):

7.7

Moisture Content After Soak, Avg. (%):

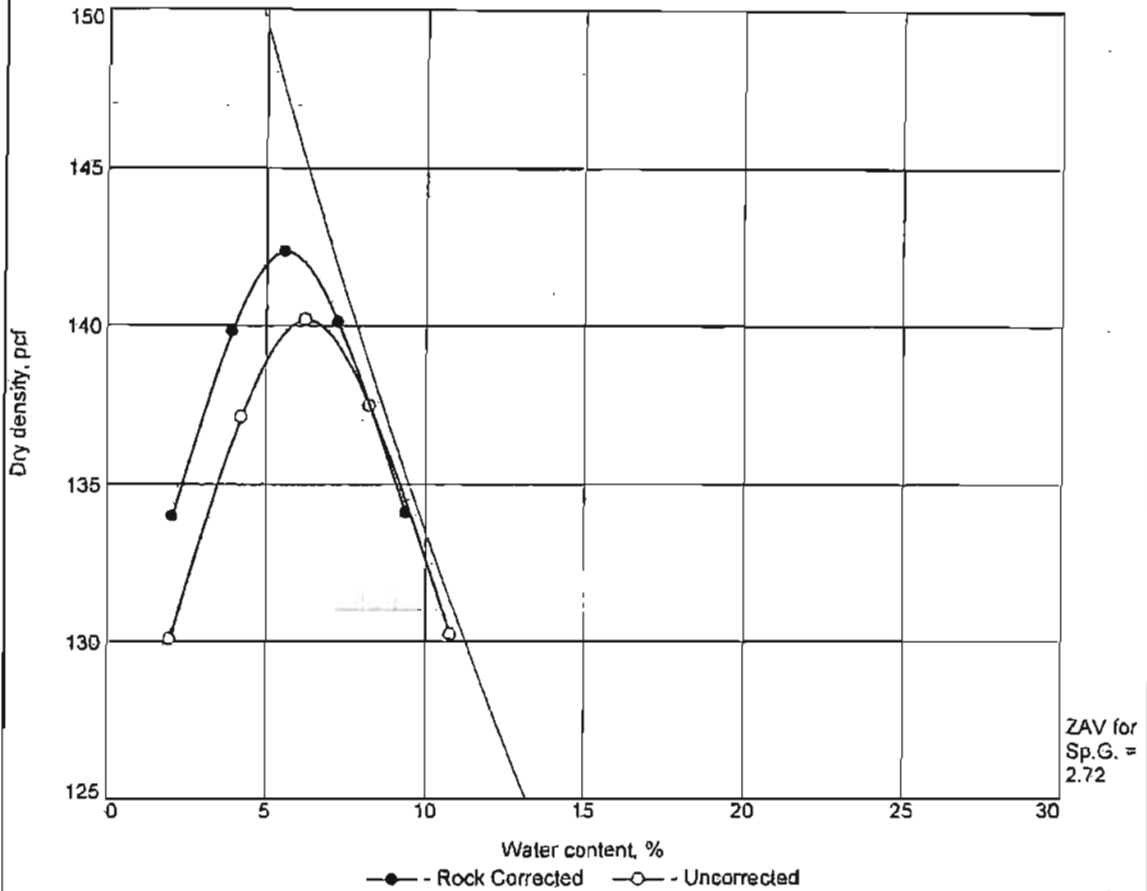
6.9

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By: _____

Frank
Jan

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						
--	--	--	--	--	--	--	17.2	--

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 142.4 pcf	140.2 pcf	Select Material Type 1
Optimum moisture = 5.6 %	6.3 %	

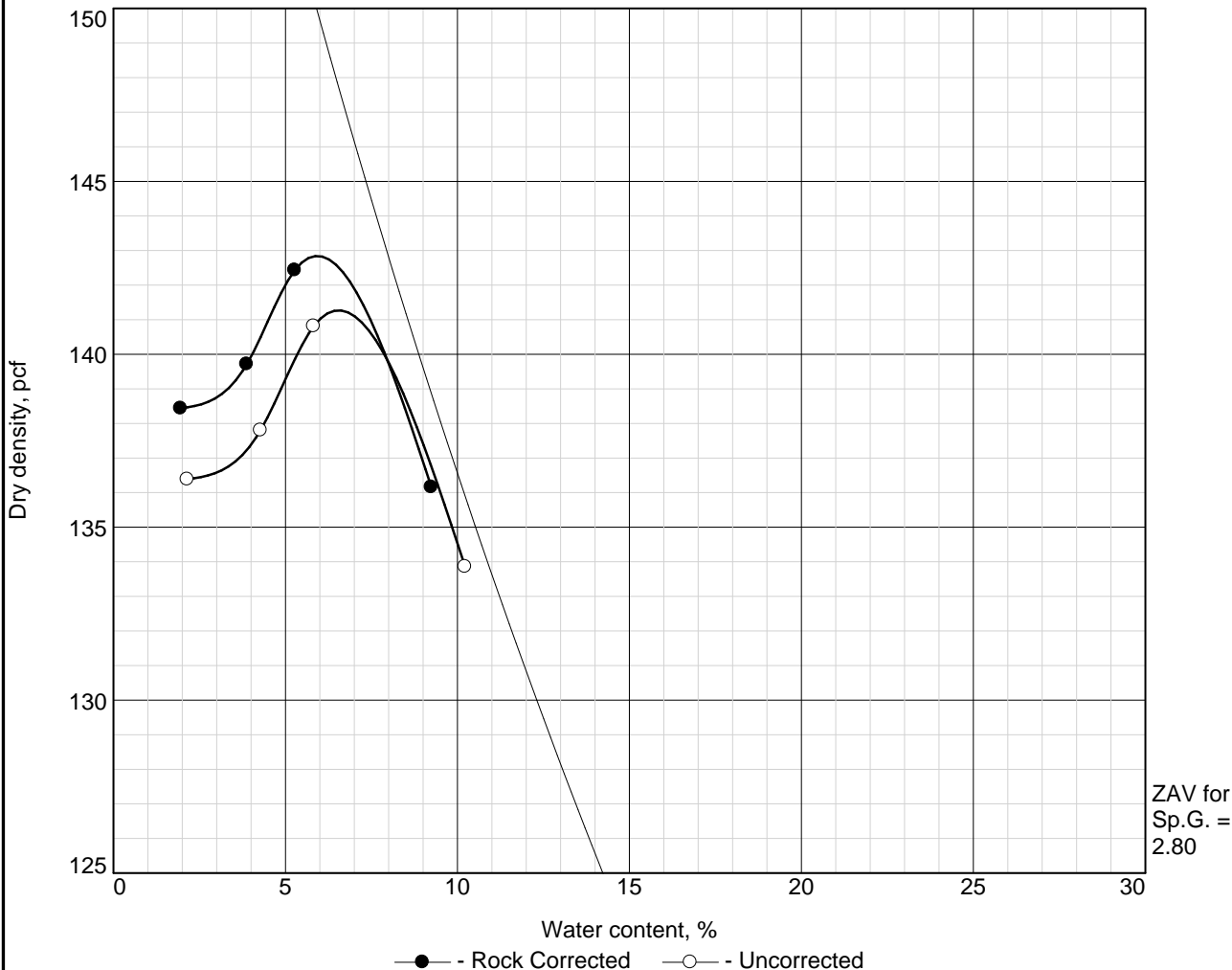
Project No. K62-063T Client: Boxley Materials Company Project: Laboratory testing Sample Source: Fieldale Depth: -- Sample No.: 107259	Remarks: May 18, 2009 Assumed sp. gr. of +3/4": 2.72
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Figure

Assumed sp. gr. for ZAV: 2.80

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						
--	--	--	--		--	--	9.8	--

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 142.8 pcf	141.3 pcf	21A/B aggregate
Optimum moisture = 5.9 %	6.5 %	

Project No. G62-458T Client: Boxley Materials Company Project: Laboratory testing <input type="checkbox"/> Sample Source: Fieldale 08 Depth: -- Sample No.: 103663	Remarks: January 21, 2008
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Assumed sample sp. gr. for ZAV: 2.80



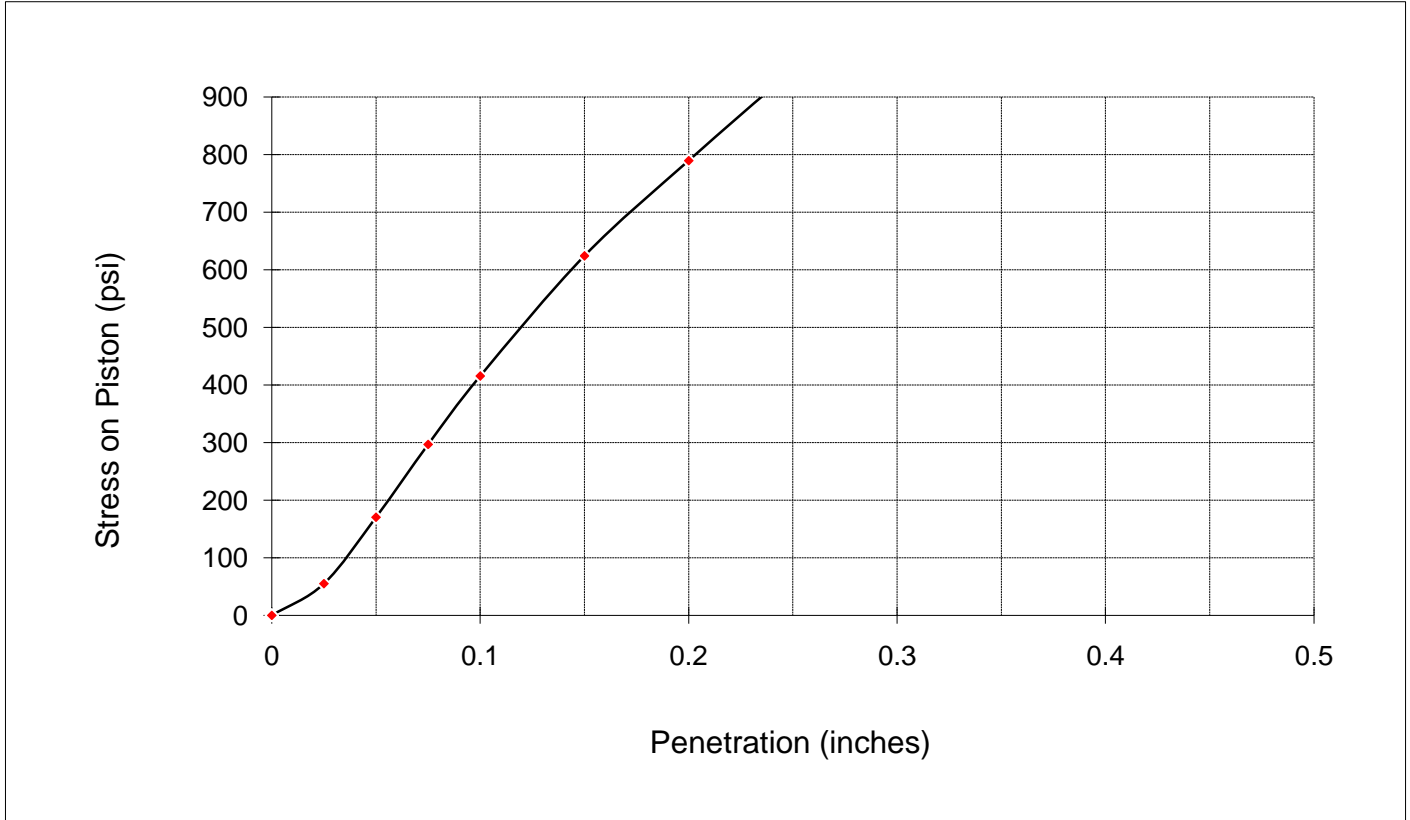
California Bearing Ratio (AASHTO T-193)

Record No.: K62-063T

Client: Boxley Materials Company
 Project: Laboratory testing

Test Date: 21-May-09
 Tested By: M R Henry
 Compaction method: AASHTO T-99

 X Soaked CBR
 Unsoaked CBR



CBR: penetration @ 0.2 in. (corrected)

52.6

Maximum Dry Density (pcf):

142.4

Optimum Moisture Content (%):

5.6

Swell (%):

0.0

Dry Density Before Soaking (pcf):

142.2

Dry Density After Soaking (pcf):

142.8

Retained on 3/4 inch sieve (%):

17.2

Surcharge Weight (pounds):

15.0

Visual Description:

Well graded silty gravel with sand

"Select Material Type I"

Moisture Content Before Soaking (%):

5.3

Moisture Content After Soak, Top in. (%):

7.7

Moisture Content After Soak, Avg. (%):

6.9

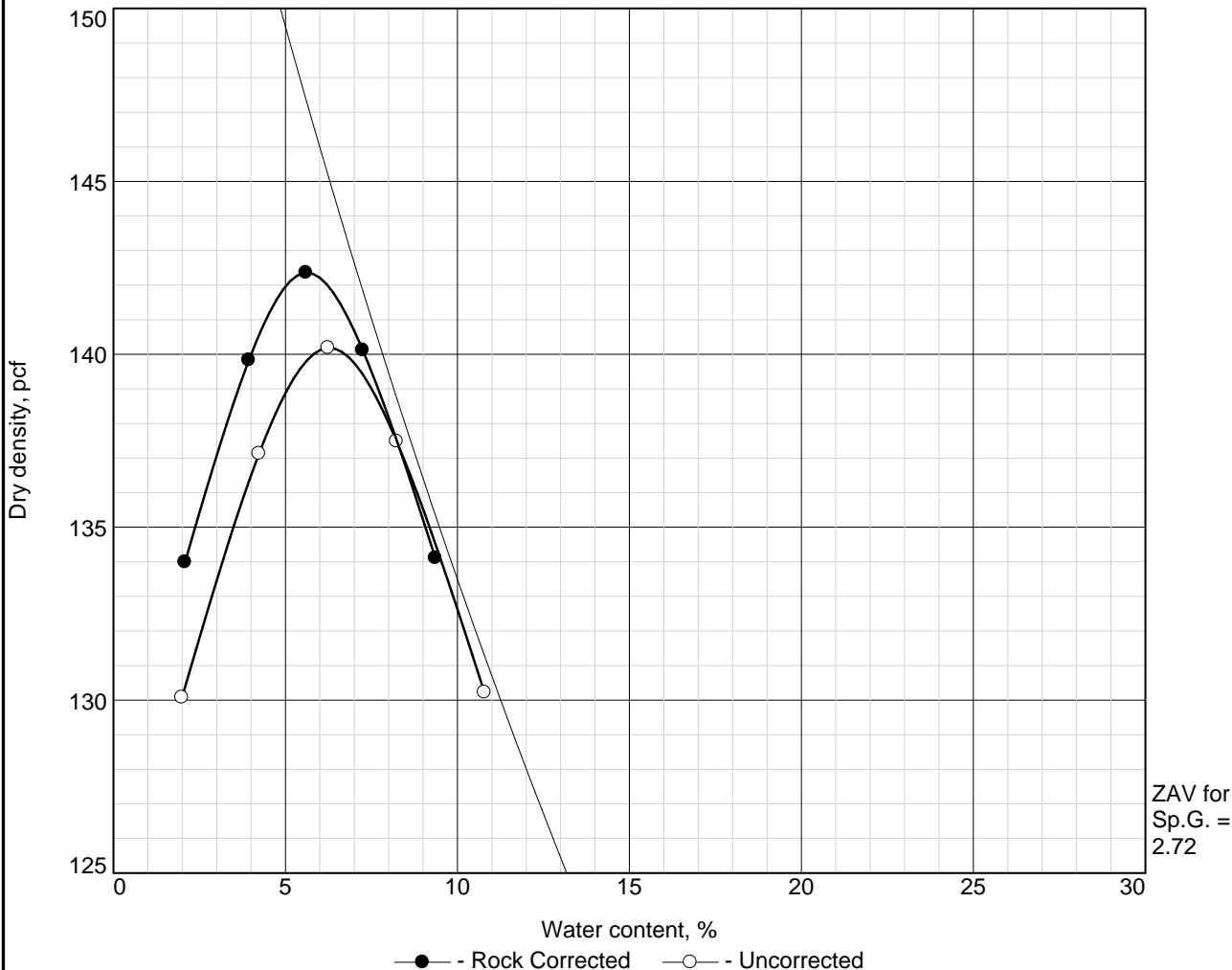
F&R Lab No.: 107259

Source: Fieldale quarry

FROEHLING & ROBERTSON, INC.

By: _____

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						
--	--	--	--	--	--	--	17.2	--

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 142.4 pcf	140.2 pcf	Select Material Type I
Optimum moisture = 5.6 %	6.3 %	

Project No. K62-063T Client: Boxley Materials Company Project: Laboratory testing ○ Sample Source: Fieldale Depth: -- Sample No.: 107259	Remarks: May 18, 2009 Assumed sp. gr. of +3/4": 2.72
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Assumed sp. gr. for ZAV: 2.75