APPENDIX B
Laboratory Analytical Results

2010 Report of Waste Discharge, Bishop Mill Project

SIERRA GEOTECHNICAL SERVICES INC.

P.O. BOX 5024, MAMMOTH LAKES, CALIFORNIA 93546
(760) 934-3992; (760) 934-8832 Fax

SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES

Project:	Bishop Mill	*Job No.:*	3.31008
Client:	SRK Consulting	*Delivered by:*	BB
Sampled by:	BB	*Tested by:*	PS
Sample Date:	4/28/2010	*Delivered Date:*	4/28/2010
Sample Location:	Retention Ponds	*Test Date:*	5/7/2010
Description:	TP-1 at 0-10 ft	*Initial Dry Weights (g):*	307/226

Sieve No.	Fine Wt. Ret.	Fine % Ret.	Fine % Pass	Coarse Wt. Ret.	Coarse % Ret.	Coarse % Pass	Fine + Coarse	Operating Range	Contract Compliance
2”									
1-1/2”									
1”									
3/4”									
1/2”									
3/8”	0	0	100						
1/4”									
4	1	0.3	99.7						
5									
6									
7									
8	3	1	99						
10									
12									
14									
16	8	3	97						
18									
20									
30	15	5	95						
40									
50	28	9	91						
60									
70									
80									
100	63	21	79						
200	162	52.8	47.2						
PAN	226								
F.M.									

Remarks:

Paul Stone, Laboratory Manager

SIERRA GEOTECHNICAL SERVICES INC.

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SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES

Project:	Bishop Mill	*Job No.:*	3.31008
Client:	SRK Consulting	*Delivered by:*	BB
Sampled by:	BB	*Tested by:*	PS
Sample Date:	4/28/2010	*Delivered Date:*	4/28/2010
Sample Location:	Retention Ponds	*Test Date:*	5/7/2010
Description:	TP-1 at 10-14 ft	*Initial Dry Weights (g):*	3213/463/417

Sieve No.	Fine Wt. Ret.	Fine % Ret.	Fine % Pass	Coarse Wt. Ret.	Coarse % Ret.	Coarse % Pass	Fine + Coarse	Operating Range	Contract Compliance
2”									
1-1/2”				0	0	100	100		
1”				364	11	89	89		
3/4”				550	17	83	83		
1/2”				748	23	77	77		
3/8”				911	28	72	72		
1/4”									
4				1275	40	60	60		
5									
6									
7							48		
8	94	20	80						
10									
12									
14									
16	189	41	59				35		
18									
20									
30	265	57	43				26		
40									
50	324	70	30				18		
60									
70									
80									
100	356	77	23				14		
200	396	86	14				8.4		
PAN	417								
F.M.									

Remarks:

Paul Stone, Laboratory Manager

SIERRA GEOTECHNICAL SERVICES INC.

ENVIRONMENTAL GEOTECHNICAL GEOLOGY HYDROGEOLOGY MATERIALS

ATTERBERG LIMITS REPORT

PER ASTM TEST METHOD D4318

JOB NUMBER: 3.31008 SAMPLE DATE: 4/28/2010

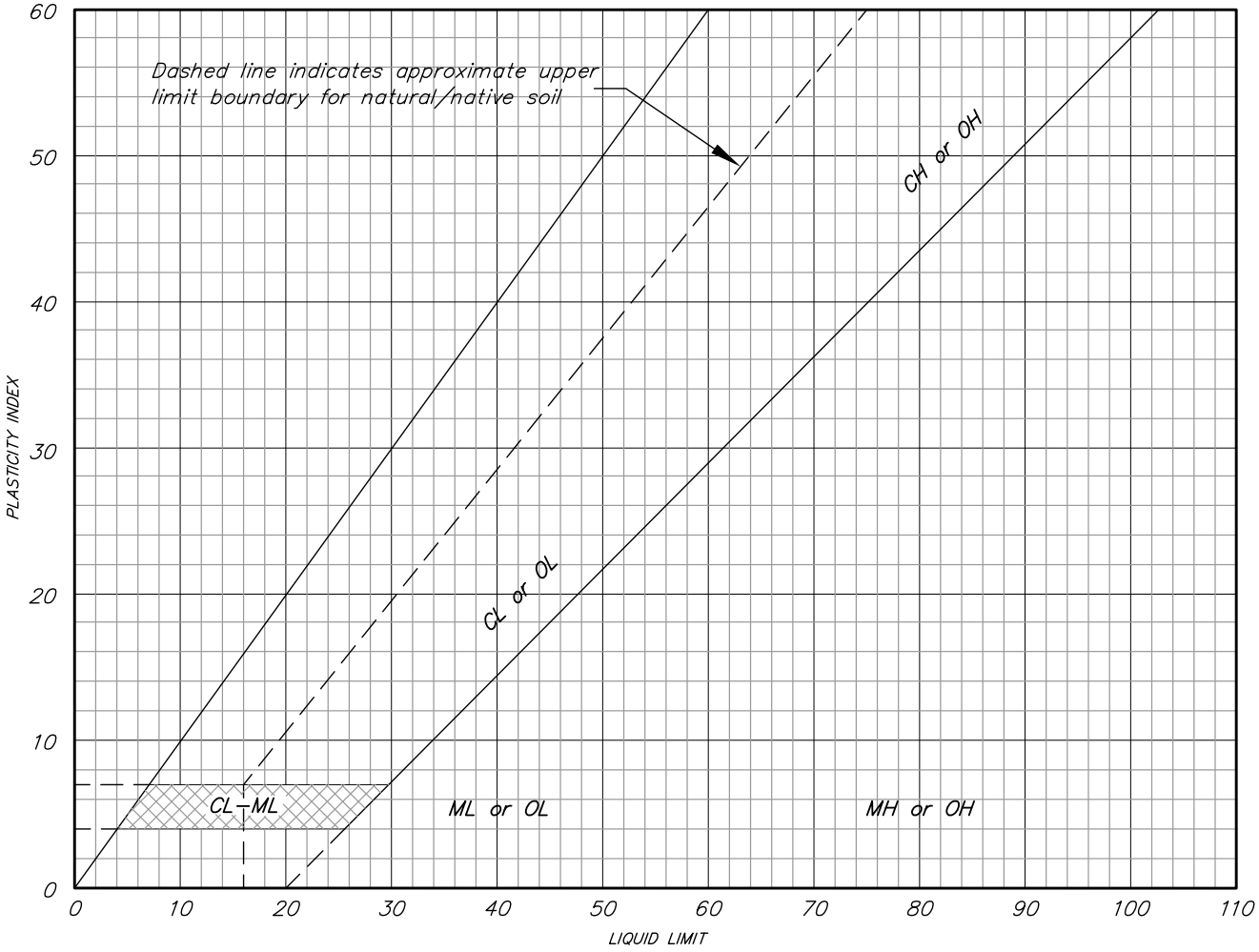
CLIENT: SRK CONSULTING

PROJECT: BISHOP MILL

SAMPLED BY: BB TESTED BY: PS TESTED ON: 5/7/2010

EXCAVATION: TP-1

SAMPLING INTERVAL: 0-10 FT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
◉ Light brown silty sand						SM

REMARKS:

◉ Prepared sample will not roll or groove

PAUL STONE, LABORATORY MANAGER

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SIERRA GEOTECHNICAL SERVICES INC.

ENVIRONMENTAL GEOTECHNICAL GEOLOGY HYDROGEOLOGY MATERIALS

ATTERBERG LIMITS REPORT

PER ASTM TEST METHOD D4318

JOB NUMBER: 3.31008 SAMPLE DATE: 4/28/2010

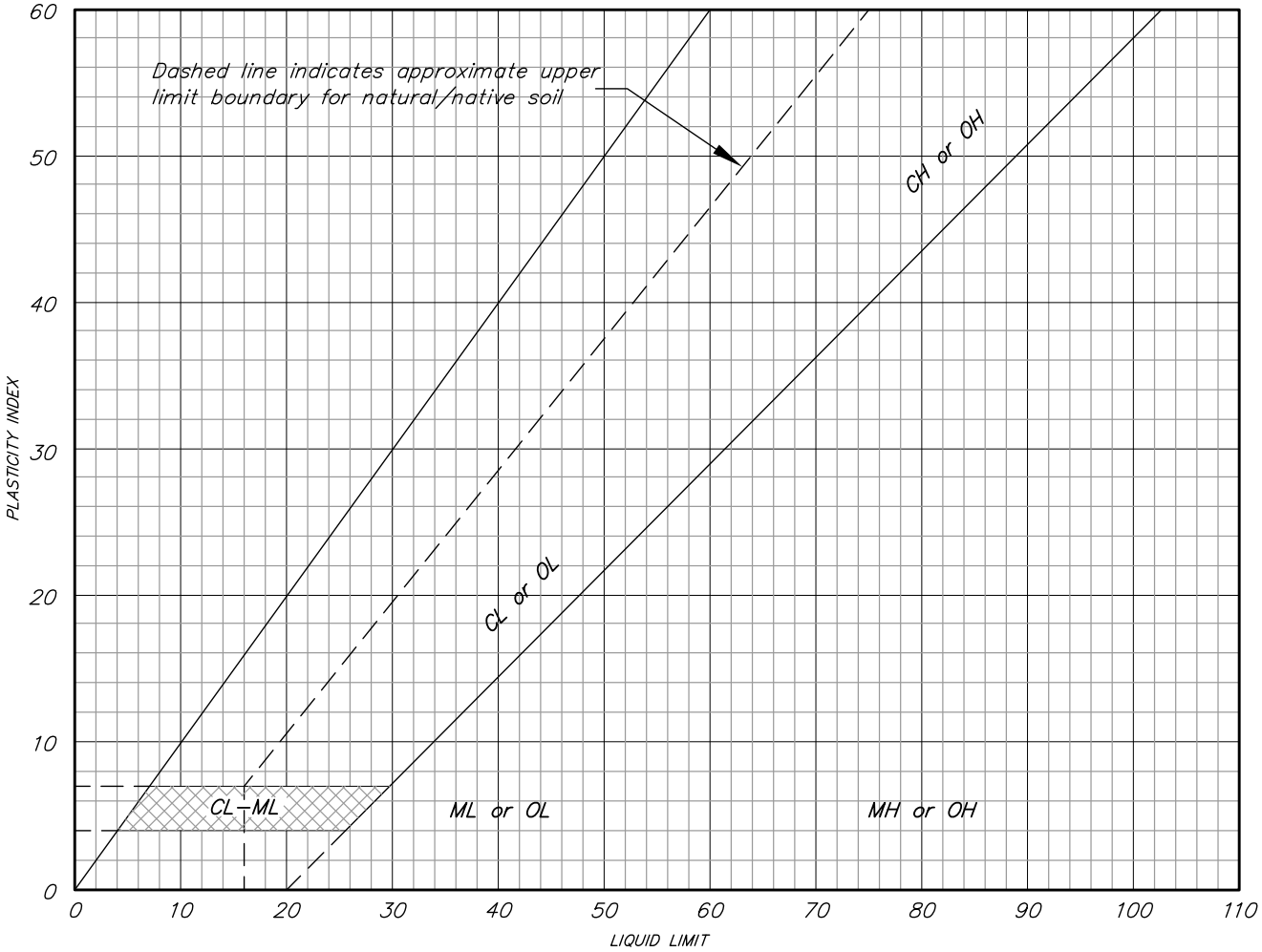
CLIENT: SRK CONSULTING

PROJECT: BISHOP MILL

SAMPLED BY: BB TESTED BY: PS TESTED ON: 5/7/2010

EXCAVATION: TP-1

SAMPLING INTERVAL: 10-14 FT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
◉ Light brown silty sand						SM

REMARKS:

◉ Prepared sample will not roll or groove

PAUL STONE, LABORATORY MANAGER

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SIERRA GEOTECHNICAL SERVICES INC.

ENVIRONMENTAL GEOTECHNICAL GEOLOGY HYDROGEOLOGY MATERIALS

MAXIMUM DENSITY CURVE

PER ASTM TEST METHOD D1557

JOB NUMBER: 3.31008 SAMPLE DATE: 4/28/2010

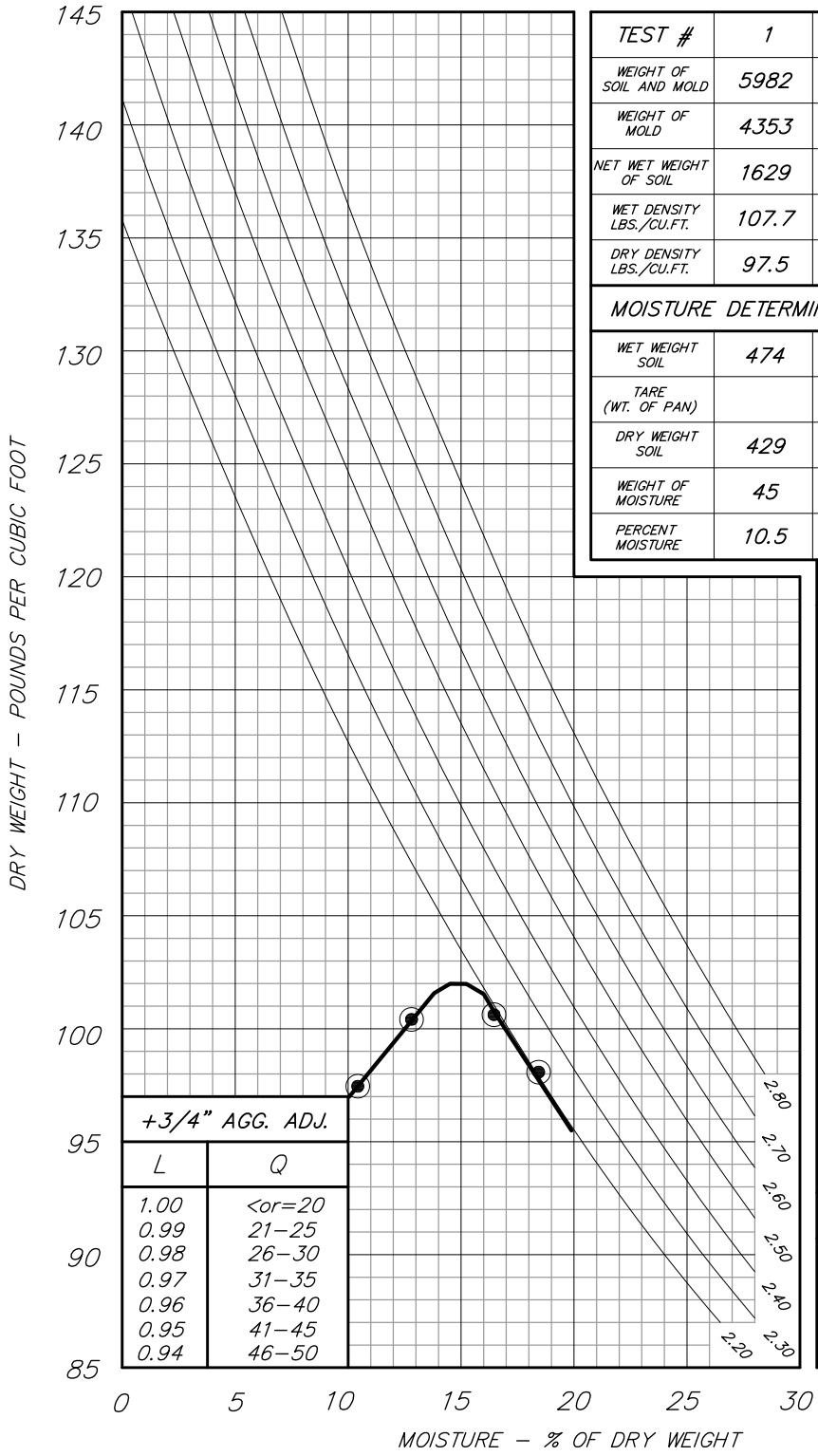
CLIENT: SRK CONSULTING

PROJECT: BISHOP MILL

SAMPLED BY: BB TESTED BY: PS TESTED ON: 5/7/2010

EXCAVATION: TP-1

SAMPLING INTERVAL: 0-10 FT



TEST #	1	2	3	4	5
WEIGHT OF SOIL AND MOLD	5982	6066	6123	6108	
WEIGHT OF MOLD	4353	4353	4353	4353	
NET WET WEIGHT OF SOIL	1629	1713	1770	1755	
WET DENSITY LBS./CU.FT.	107.7	113.3	117.1	116.1	
DRY DENSITY LBS./CU.FT.	97.5	100.4	100.6	98.1	
MOISTURE DETERMINATION					
WET WEIGHT SOIL	474	493	490	488	
TARE (WT. OF PAN)					
DRY WEIGHT SOIL	429	437	421	412	
WEIGHT OF MOISTURE	45	56	69	76	
PERCENT MOISTURE	10.5	12.8	16.4	18.4	

ROCK CORRECTION (CTM 231)		
K	MAXIMUM DRY DENSITY (g/cc)	
M	TOTAL SAMPLE WEIGHT (g)	
N	+3/4" WT. IN AIR (g)	
O	+3/4" WT. IN WATER (g)	
P	+3/4" VOLUME (cc) (N-O)	
Q	% +3/4" 100(N/M) (SEE L)	
R	% -3/4" (100-Q)	
S	DENSITY OF +3/4" (N/P)	
T	% +3/4"/DEN. +3/4" (Q/SL)	
U	% -3/4"/DEN. -3/4" (R/K)	
V	SUM OF T AND U (T+U)	
W	ADJ. DENSITY gm/cc (100/V)	
X	ADJ. DENSITY lbs/ft^3(62.4·W)	

+3/4" AGG. ADJ.	
L	Q
1.00	<or=20
0.99	21-25
0.98	26-30
0.97	31-35
0.96	36-40
0.95	41-45
0.94	46-50

RESULTS	
MAXIMUM DRY DENSITY (lbs/ft^3)	102.0
WITH ROCK CORRECTION	
OPTIMUM MOISTURE (% DRY WT.)	15.0

PAUL STONE, LABORATORY MANAGER

SIERRA GEOTECHNICAL SERVICES INC.

ENVIRONMENTAL GEOTECHNICAL GEOLOGY HYDROGEOLOGY MATERIALS

MAXIMUM DENSITY CURVE

PER ASTM TEST METHOD D1557

JOB NUMBER: 3.31008 SAMPLE DATE: 4/28/2010

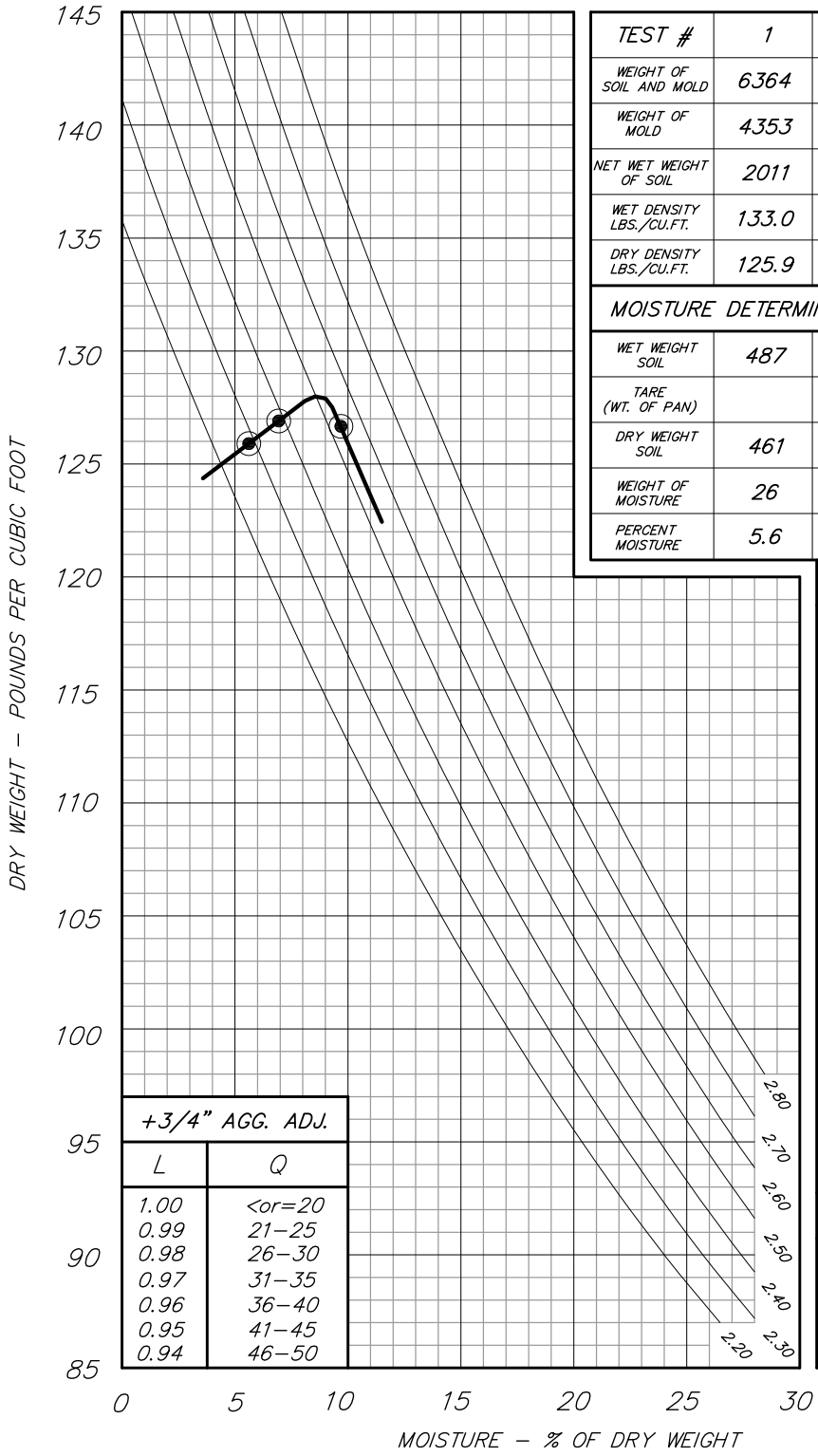
CLIENT: SRK CONSULTING

PROJECT: BISHOP MILL

SAMPLED BY: BB TESTED BY: PS TESTED ON: 5/7/2010

EXCAVATION: TP-1

SAMPLING INTERVAL: 10-14 FT



TEST #	1	2	3	4	5
WEIGHT OF SOIL AND MOLD	6364	6405	6452		
WEIGHT OF MOLD	4353	4353	4353		
NET WET WEIGHT OF SOIL	2011	2052	2099		
WET DENSITY LBS./CU.FT.	133.0	135.7	138.8		
DRY DENSITY LBS./CU.FT.	125.9	126.9	126.6		
MOISTURE DETERMINATION					
WET WEIGHT SOIL	487	494	493		
TARE (WT. OF PAN)					
DRY WEIGHT SOIL	461	462	450		
WEIGHT OF MOISTURE	26	32	43		
PERCENT MOISTURE	5.6	6.9	9.6		

+3/4" AGG. ADJ.	
L	Q
1.00	<or=20
0.99	21-25
0.98	26-30
0.97	31-35
0.96	36-40
0.95	41-45
0.94	46-50

ROCK CORRECTION (CTM 231)		
K	MAXIMUM DRY DENSITY (g/cc)	
M	TOTAL SAMPLE WEIGHT (g)	
N	+3/4" WT. IN AIR (g)	
O	+3/4" WT. IN WATER (g)	
P	+3/4" VOLUME (cc) (N-O)	
Q	% +3/4" 100(N/M) (SEE L)	
R	% -3/4" (100-Q)	
S	DENSITY OF +3/4" (N/P)	
T	% +3/4"/DEN. +3/4" (Q/SL)	
U	% -3/4"/DEN. -3/4" (R/K)	
V	SUM OF T AND U (T+U)	
W	ADJ. DENSITY gm/cc (100/V)	
X	ADJ. DENSITY lbs/ft^3(62.4·W)	

RESULTS	
MAXIMUM DRY DENSITY (lbs/ft^3)	128.0
WITH ROCK CORRECTION	
OPTIMUM MOISTURE (% DRY WT.)	8.5

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Project:	Bishop Mill	*Job No.:*	3.31008
Client:	SRK Consulting	*Delivered by:*	BB
Sampled by:	BB	*Tested by:*	PS
Sample Date:	4/28/2010	*Delivered Date:*	4/28/2010
Sample Location:	Retention Ponds	*Test Date:*	5/7/2010
Description:	TP-2 at 0-12 ft	*Initial Dry Weights (g):*	2102/457/376

Sieve No.	Fine Wt. Ret.	Fine % Ret.	Fine % Pass	Coarse Wt. Ret.	Coarse % Ret.	Coarse % Pass	Fine + Coarse	Operating Range	Contract Compliance
2”									
1-1/2”				0	0	100	100		
1”				40	2	98	98		
3/4”				154	7	93	93		
1/2”				248	12	88	88		
3/8”				295	14	86	86		
1/4”									
4				379	18	82	82		
5									
6									
7									
8	27	6	94						
10									
12									
14									
16	65	14	86						
18									
20									
30	115	25	75						
40									
50	178	39	61						
60									
70									
80									
100	256	56	44						
200	339	74	26						
PAN	376								
F.M.									

Remarks:

Paul Stone, Laboratory Manager

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SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES

Project:	Bishop Mill	*Job No.:*	3.31008
Client:	SRK Consulting	*Delivered by:*	BB
Sampled by:	BB	*Tested by:*	PS
Sample Date:	4/28/2010	*Delivered Date:*	4/28/2010
Sample Location:	Retention Ponds	*Test Date:*	5/7/2010
Description:	TP-2 at 12-15 ft	*Initial Dry Weights (g):*	1762/598/547

Sieve No.	Fine Wt. Ret.	Fine % Ret.	Fine % Pass	Coarse Wt. Ret.	Coarse % Ret.	Coarse % Pass	Fine + Coarse	Operating Range	Contract Compliance
2”									
1-1/2”									
1”									
3/4”				0	0	100	100		
1/2”				9	1	99	99		
3/8”				42	2	98	98		
1/4”									
4				108	6	94	94		
5									
6									
7									
8	47	8	92				86		
10									
12									
14									
16	152	25	75				71		
18									
20									
30	296	49	51				48		
40									
50	426	71	39				37		
60									
70									
80									
100	498	83	17				16		
200	535	89	11				10.3		
PAN	547								
F.M.									

Remarks:

Paul Stone, Laboratory Manager

SIERRA GEOTECHNICAL SERVICES INC.

ENVIRONMENTAL GEOTECHNICAL GEOLOGY HYDROGEOLOGY MATERIALS

ATTERBERG LIMITS REPORT

PER ASTM TEST METHOD D4318

JOB NUMBER: 3.31008 SAMPLE DATE: 4/28/2010

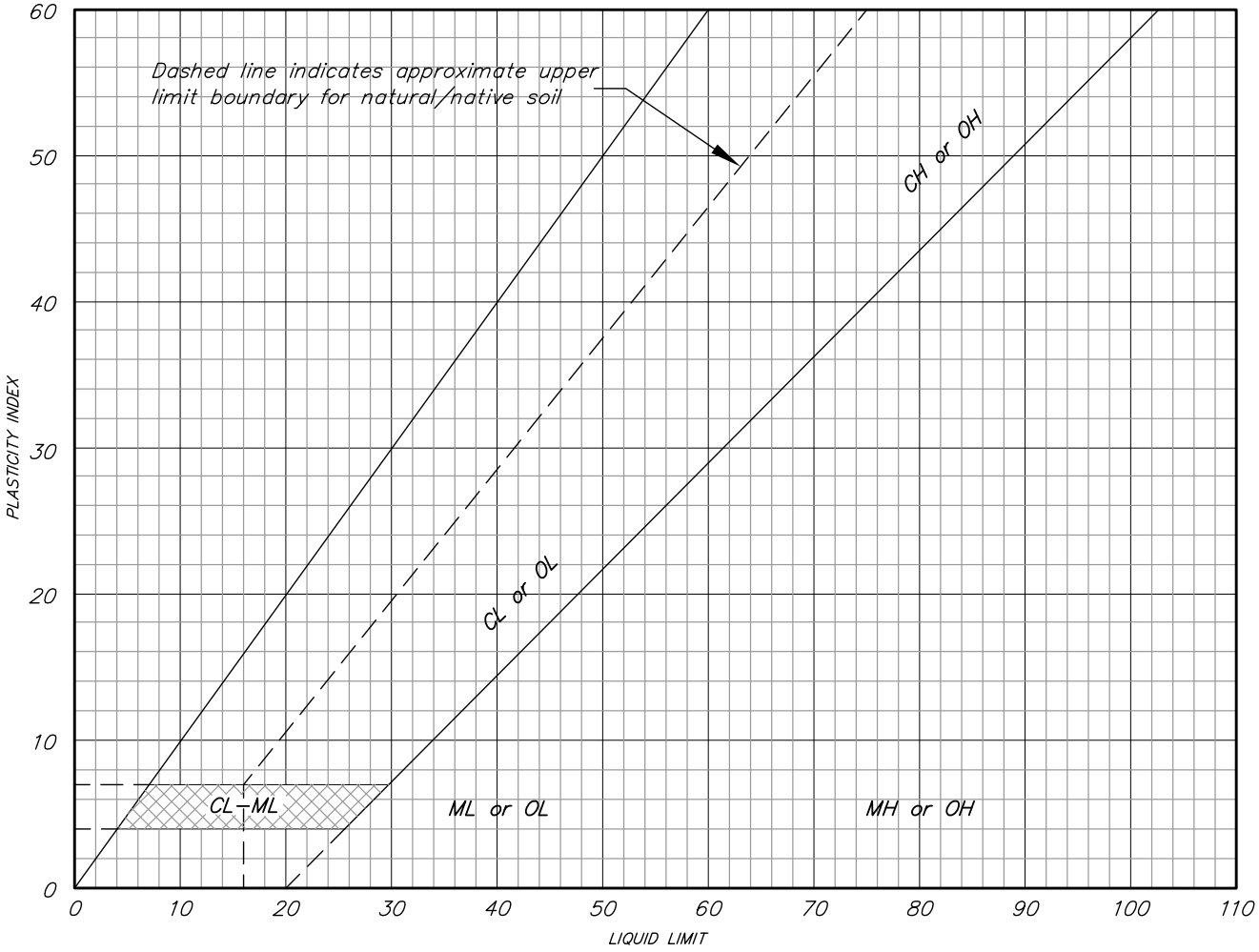
CLIENT: SRK CONSULTING

PROJECT: BISHOP MILL

SAMPLED BY: BB TESTED BY: PS TESTED ON: 5/7/2010

EXCAVATION: TP-2

SAMPLING INTERVAL: 0-12 FT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
◉ Light brown silty sand						SM

REMARKS:

◉ Prepared sample will not roll or groove

PAUL STONE, LABORATORY MANAGER

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SIERRA GEOTECHNICAL SERVICES INC.

ENVIRONMENTAL GEOTECHNICAL GEOLOGY HYDROGEOLOGY MATERIALS

ATTERBERG LIMITS REPORT

PER ASTM TEST METHOD D4318

JOB NUMBER: 3.31008 SAMPLE DATE: 4/28/2010

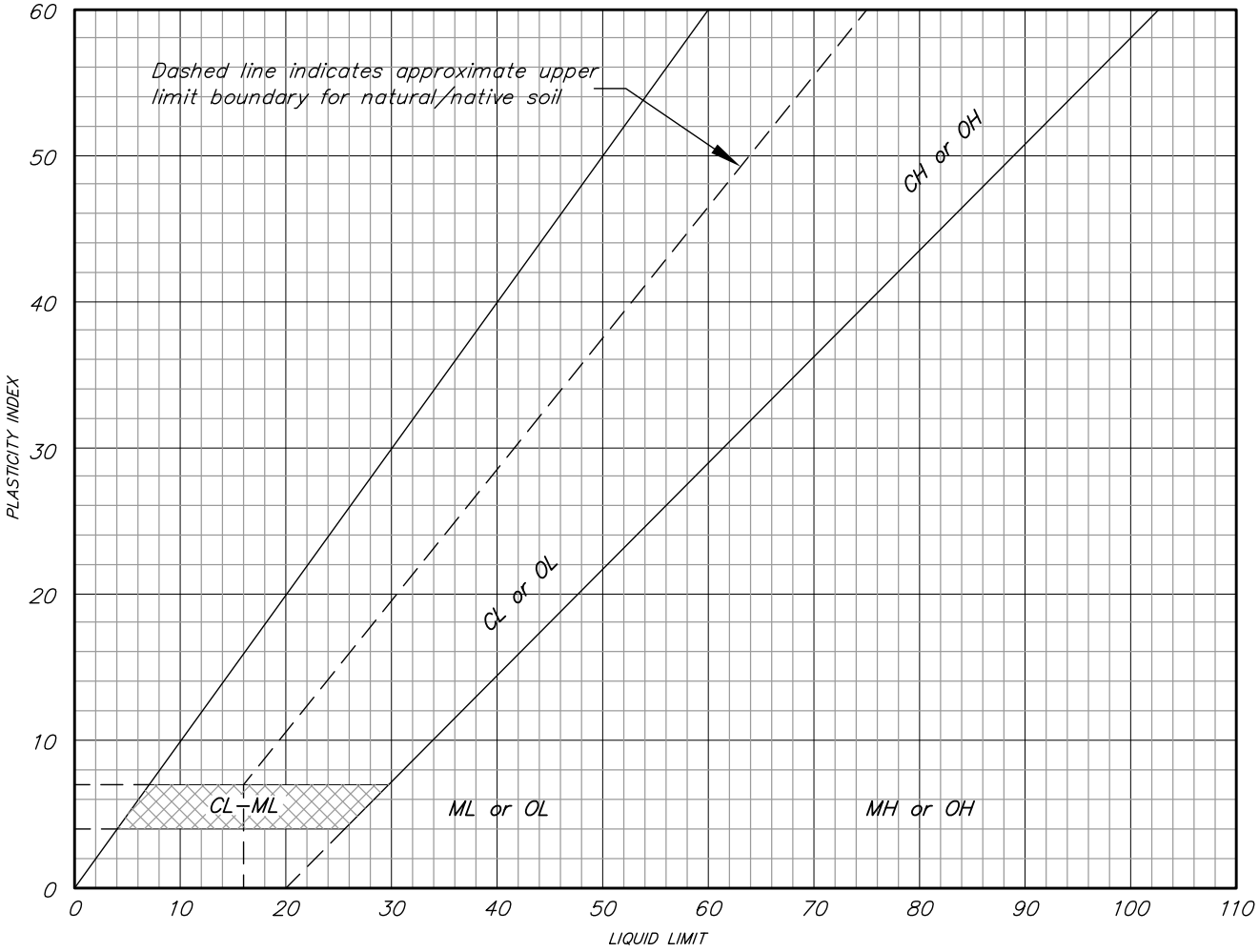
CLIENT: SRK CONSULTING

PROJECT: BISHOP MILL

SAMPLED BY: BB TESTED BY: PS TESTED ON: 5/7/2010

EXCAVATION: TP-2

SAMPLING INTERVAL: 12-15 FT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
◉ Light brown silty sand						SM

REMARKS:

◉ Prepared sample will not roll or groove

PAUL STONE, LABORATORY MANAGER

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SIERRA GEOTECHNICAL SERVICES INC.

ENVIRONMENTAL GEOTECHNICAL GEOLOGY HYDROGEOLOGY MATERIALS

MAXIMUM DENSITY CURVE

PER ASTM TEST METHOD D1557

JOB NUMBER: 3.31008 SAMPLE DATE: 4/28/2010

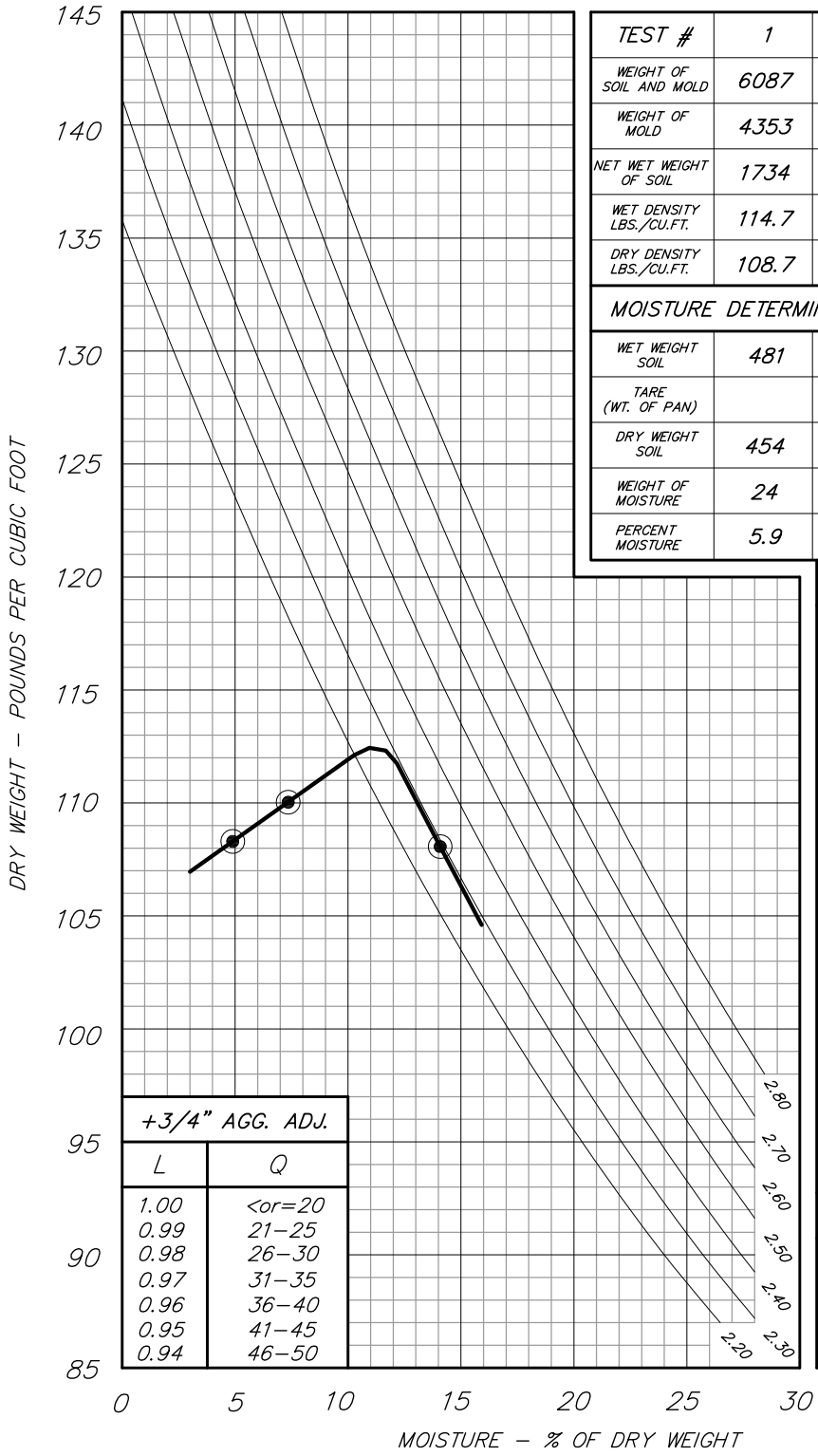
CLIENT: SRK CONSULTING

PROJECT: BISHOP MILL

SAMPLED BY: BB TESTED BY: PS TESTED ON: 5/7/2010

EXCAVATION: TP-2

SAMPLING INTERVAL: 0-12 FT



TEST #	1	2	3	4	5
WEIGHT OF SOIL AND MOLD	6087	6158	6220		
WEIGHT OF MOLD	4353	4353	4353		
NET WET WEIGHT OF SOIL	1734	1805	1867		
WET DENSITY LBS./CU.FT.	114.7	119.4	123.5		
DRY DENSITY LBS./CU.FT.	108.7	110.2	108.1		
MOISTURE DETERMINATION					
WET WEIGHT SOIL	481	495	491		
TARE (WT. OF PAN)					
DRY WEIGHT SOIL	454	457	430		
WEIGHT OF MOISTURE	24	38	61		
PERCENT MOISTURE	5.9	8.3	14.2		

+3/4" AGG. ADJ.	
L	Q
1.00	<or=20
0.99	21-25
0.98	26-30
0.97	31-35
0.96	36-40
0.95	41-45
0.94	46-50

ROCK CORRECTION (CTM 231)		
K	MAXIMUM DRY DENSITY (g/cc)	
M	TOTAL SAMPLE WEIGHT (g)	
N	+3/4" WT. IN AIR (g)	
O	+3/4" WT. IN WATER (g)	
P	+3/4" VOLUME (cc) (N-O)	
Q	% +3/4" 100(N/M) (SEE L)	
R	% -3/4" (100-Q)	
S	DENSITY OF +3/4" (N/P)	
T	% +3/4"/DEN. +3/4" (Q/SL)	
U	% -3/4"/DEN. -3/4" (R/K)	
V	SUM OF T AND U (T+U)	
W	ADJ. DENSITY gm/cc (100/V)	
X	ADJ. DENSITY lbs/ft^3(62.4·W)	

RESULTS	
MAXIMUM DRY DENSITY (lbs/ft^3)	112.5
WITH ROCK CORRECTION	
OPTIMUM MOISTURE (% DRY WT.)	11.0

PAUL STONE, LABORATORY MANAGER

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Project:	Bishop Mill	*Job No.:*	3.31008
Client:	SRK Consulting	*Delivered by:*	BB
Sampled by:	BB	*Tested by:*	PS
Sample Date:	4/28/2010	*Delivered Date:*	4/28/2010
Sample Location:	Retention Ponds	*Test Date:*	5/7/2010
Description:	TP-3 at 0-12 ft	*Initial Dry Weights (g):*	1941/498/372

Sieve No.	Fine Wt. Ret.	Fine % Ret.	Fine % Pass	Coarse Wt. Ret.	Coarse % Ret.	Coarse % Pass	Fine + Coarse	Operating Range	Contract Compliance
2”									
1-1/2”									
1”				0	0	100	100		
3/4”				30	1.5	98.5	98.5		
1/2”				31	1.5	98.5	98.5		
3/8”				42	2	98	98		
1/4”									
4				87	4	96	96		
5									
6									
7									
8	12	2	98				94		
10									
12									
14									
16	31	6	94				90		
18									
20									
30	55	11	89				85		
40									
50	87	17	83				80		
60									
70									
80									
100	170	34	66				63		
200	304	61	39				37		
PAN	372								
F.M.									

Remarks:

Paul Stone, Laboratory Manager

SIERRA GEOTECHNICAL SERVICES INC.

ENVIRONMENTAL GEOTECHNICAL GEOLOGY HYDROGEOLOGY MATERIALS

ATTERBERG LIMITS REPORT

PER ASTM TEST METHOD D4318

JOB NUMBER: 3.31008 SAMPLE DATE: 4/28/2010

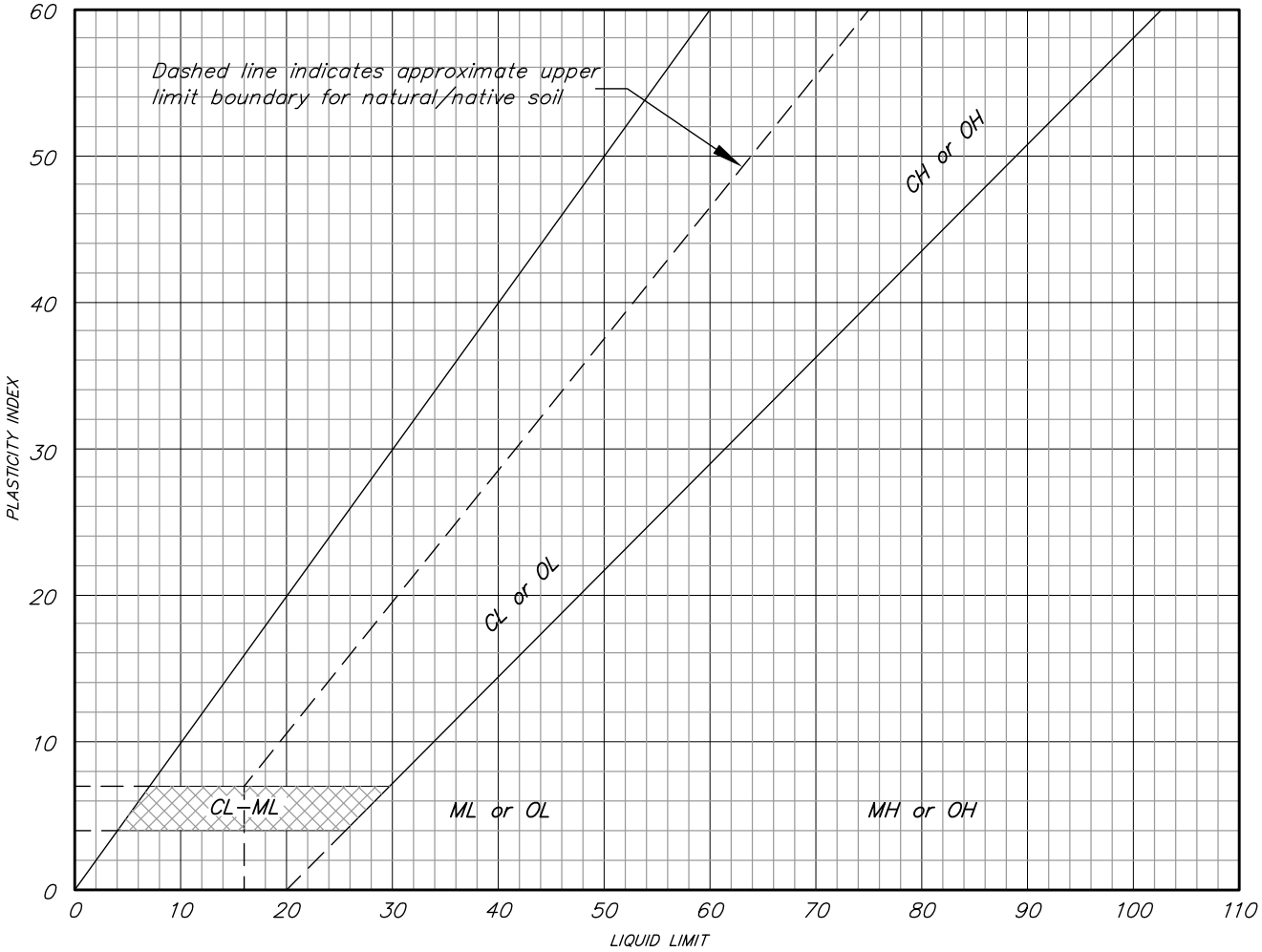
CLIENT: SRK CONSULTING

PROJECT: BISHOP MILL

SAMPLED BY: BB TESTED BY: PS TESTED ON: 5/7/2010

EXCAVATION: TP-3

SAMPLING INTERVAL: 0-12 FT



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
◉ Light brown silty sand						SM

REMARKS:

◉ Prepared sample will not roll or groove

PAUL STONE, LABORATORY MANAGER

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SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES

Project:	Bishop Mill	*Job No.:*	3.31008
Client:	SRK Consulting	*Delivered by:*	BB
Sampled by:	BB	*Tested by:*	PS
Sample Date:	4/28/2010	*Delivered Date:*	4/28/2010
Sample Location:	Retention Ponds	*Test Date:*	5/7/2010
Description:	BS-1 Pond Sidewall	*Initial Dry Weights (g):*	319/154

Sieve No.	Fine Wt. Ret.	Fine % Ret.	Fine % Pass	Coarse Wt. Ret.	Coarse % Ret.	Coarse % Pass	Fine + Coarse	Operating Range	Contract Compliance
2”									
1-1/2”									
1”									
3/4”									
1/2”									
3/8”									
1/4”									
4	4	1	99						
5									
6									
7									
8	7	2	98						
10									
12									
14									
16	10	3	97						
18									
20									
30	12	4	96						
40									
50	16	5	95						
60									
70									
80									
100	23	7	93						
200	53	16.6	83.4						
PAN	154								
F.M.									

Remarks:

Paul Stone, Laboratory Manager

SIERRA GEOTECHNICAL SERVICES INC.

ENVIRONMENTAL GEOTECHNICAL GEOLOGY HYDROGEOLOGY MATERIALS

ATTERBERG LIMITS REPORT

PER ASTM TEST METHOD D4318

JOB NUMBER: 3.31008 SAMPLE DATE: 4/28/2010

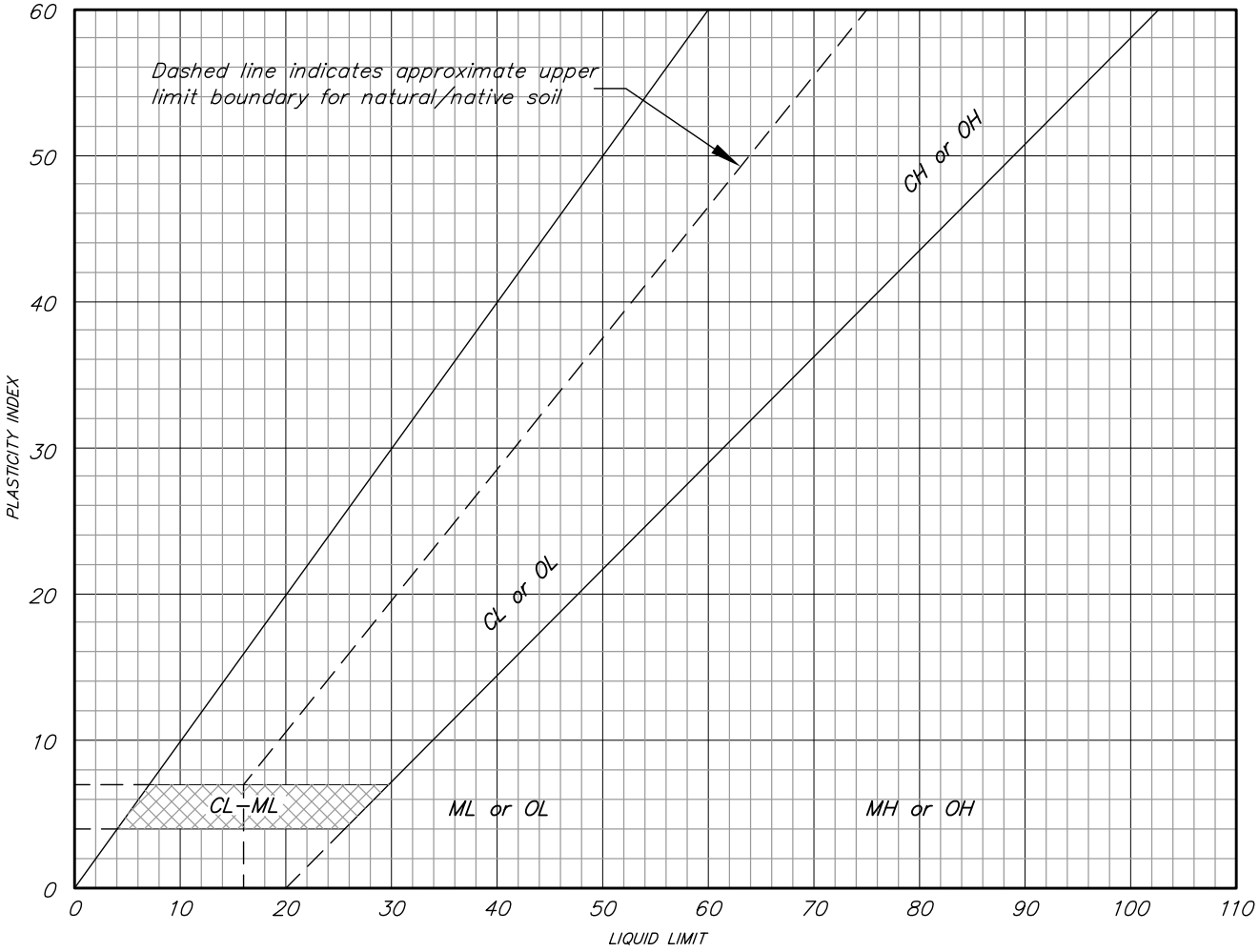
CLIENT: SRK CONSULTING

PROJECT: BISHOP MILL

SAMPLED BY: BB TESTED BY: PS TESTED ON: 5/7/2010

EXCAVATION: BS-1

SAMPLING INTERVAL: POND SIDEWALL



MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
◉ Light brown silty sand						SM

REMARKS:

◉ Prepared sample will not roll or groove

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SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES

Project:	Bishop Mill	*Job No.:*	3.31008
Client:	SRK Consulting	*Delivered by:*	BB
Sampled by:	BB	*Tested by:*	PS
Sample Date:	4/28/2010	*Delivered Date:*	4/28/2010
Sample Location:	Retention Ponds	*Test Date:*	5/7/2010
Description:	Tailings	*Initial Dry Weights (g):*	360/260

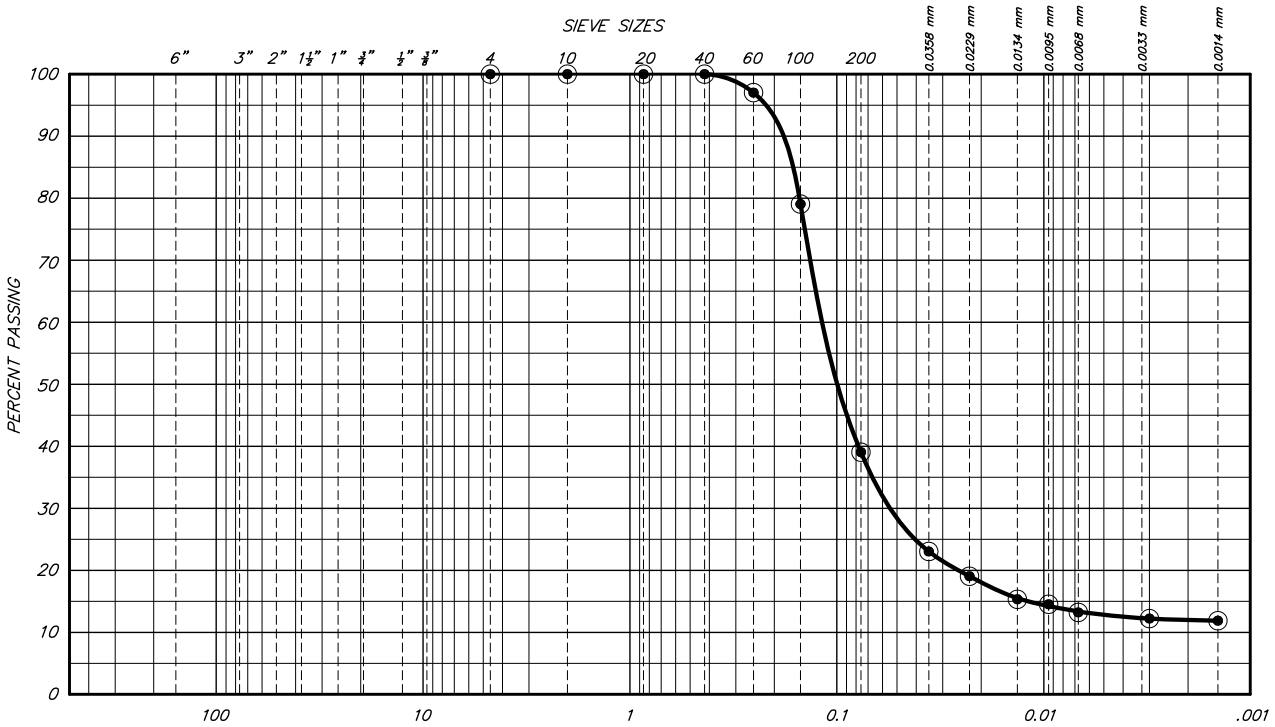
Sieve No.	Fine Wt. Ret.	Fine % Ret.	Fine % Pass	Coarse Wt. Ret.	Coarse % Ret.	Coarse % Pass	Fine + Coarse	Operating Range	Contract Compliance
2”									
1-1/2”									
1”									
3/4”									
1/2”									
3/8”									
1/4”									
4	0	0	100						
5									
6									
7									
8	0	0	100						
10									
12									
14									
16	0	0	100						
18									
20									
30	0.5	0.1	99.9						
40									
50	3.6	1.0	98.9						
60									
70									
80									
100	61	17	83						
200	195	54.2	45.8						
PAN	260								
F.M.									

Remarks:

Paul Stone, Laboratory Manager

PARTICLE SIZE DISTRIBUTION REPORT

PER ASTM TEST METHOD D422



% >3"	% GRAVEL		% SAND			% FINES	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	0	0	61	26	13

SIEVE SIZE	PERCENT PASSING	SPECIFIED PERCENT	PASS? (N=No)
No. 4	100		
No. 10	100		
No. 20	100		
No. 40	100		
No. 60	97		
No. 100	79		
No. 200	39		
0.0358 mm	23		
0.0229 mm	19		
0.0134 mm	15		
0.0095 mm	15		
0.0068 mm	13		
0.0033 mm	12		
0.0014 mm	12		

SOIL DESCRIPTION

Light brown silty sand (SM)

ATTERBERG LIMITS

PL= LL= PI=

COEFFICIENTS

D_{85}= 0.1684 D_{60}= 0.1089 D_{50}= 0.0926

D_{30}= 0.0579 D_{15}= 0.0139 D_{10}=

C_U= C_C=

CLASSIFICATION

USCS= AASHTO=

REMARKS

Specific Gravity (per ASTM D854) = 2.68

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549 OLD MAMMOTH ROAD, SUTIE 222, MAMMOTH LAKES, CALIFORNIA 93546
www.sierrageotechnicalinc.com

PROJECT: BISHOP MILL	CLIENT: SRK CONSULTING
SAMPLE NO: TAILINGS	DEPTH (ft):
DATE: 5/7/2010	DRAFTED BY: DD
JOB NO.: 3.31008	LAB MANAGER: PAUL STONE

Sierra Geotechnical Services

MAXIMUM DENSITY CURVE

PER ASTM TEST METHOD 1557-00 AND CTM 231-01

JOB NUMBER: 3.31008 DATE: 6/2010

PROJECT: SRK – BISHOP MILL

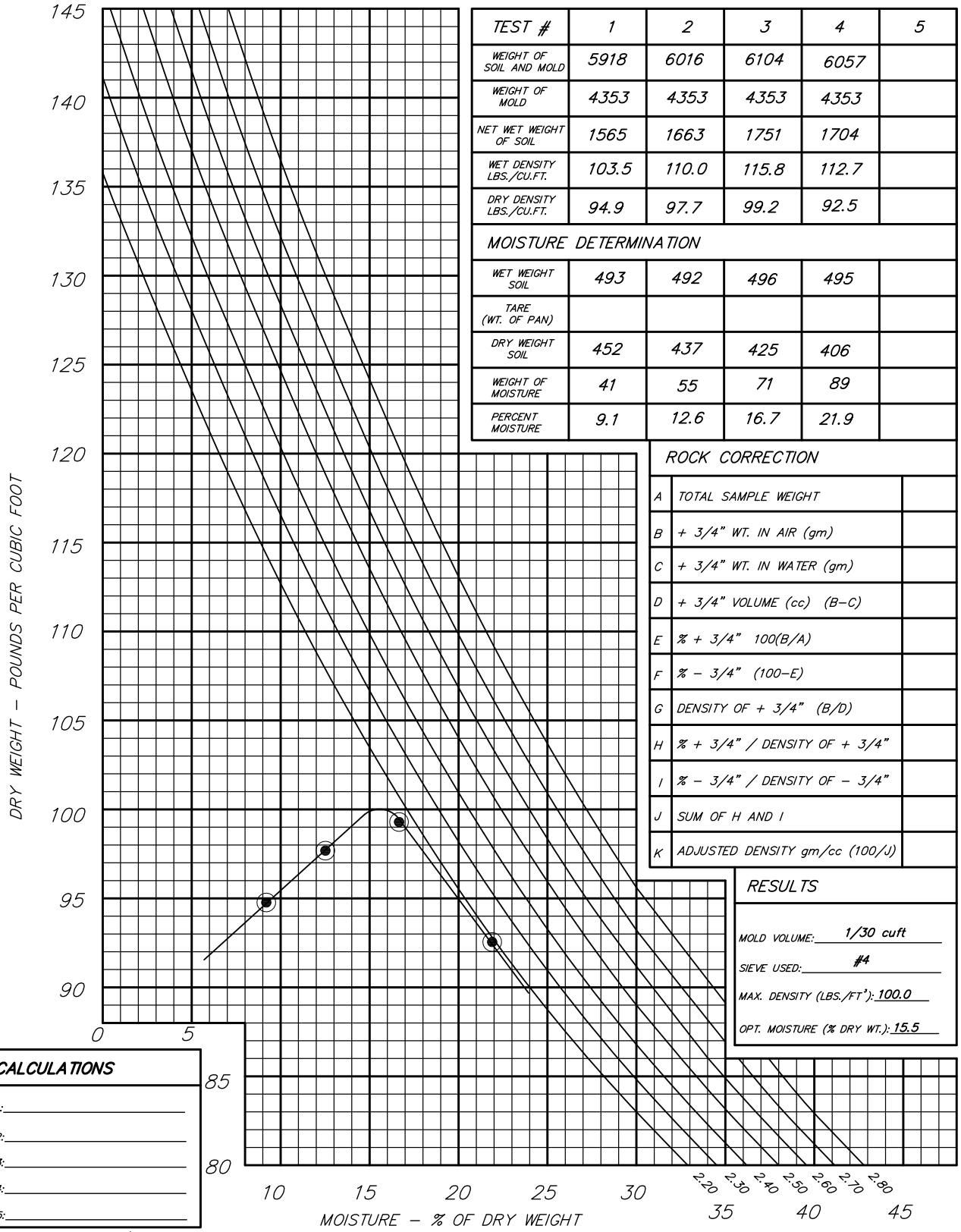
SAMPLED BY: SRK TESTED BY: PS

EXCAVATION: BLEND TP-1/TP-3 DEPTH (FT.): 0-12'

SOIL CLASSIFICATION: SM-ML

DESIGNATION:

TEST #	1	2	3	4	5
WEIGHT OF SOIL AND MOLD	5918	6016	6104	6057	
WEIGHT OF MOLD	4353	4353	4353	4353	
NET WET WEIGHT OF SOIL	1565	1663	1751	1704	
WET DENSITY LBS./CU.FT.	103.5	110.0	115.8	112.7	
DRY DENSITY LBS./CU.FT.	94.9	97.7	99.2	92.5	
MOISTURE DETERMINATION					
WET WEIGHT SOIL	493	492	496	495	
TARE (WT. OF PAN)					
DRY WEIGHT SOIL	452	437	425	406	
WEIGHT OF MOISTURE	41	55	71	89	
PERCENT MOISTURE	9.1	12.6	16.7	21.9	



ROCK CORRECTION

A	TOTAL SAMPLE WEIGHT	
B	+ 3/4" WT. IN AIR (gm)	
C	+ 3/4" WT. IN WATER (gm)	
D	+ 3/4" VOLUME (cc) (B-C)	
E	% + 3/4" 100(B/A)	
F	% – 3/4" (100-E)	
G	DENSITY OF + 3/4" (B/D)	
H	% + 3/4" / DENSITY OF + 3/4"	
I	% – 3/4" / DENSITY OF – 3/4"	
J	SUM OF H AND I	
K	ADJUSTED DENSITY gm/cc (100/J)	

RESULTS

MOLD VOLUME: 1/30 cuft

SIEVE USED: #4

MAX. DENSITY (LBS./FT³): 100.0

OPT. MOISTURE (% DRY WT.): 15.5

CALCULATIONS

1:

2:

3:

4:

5:

Maxdense.dwg – 7/2003

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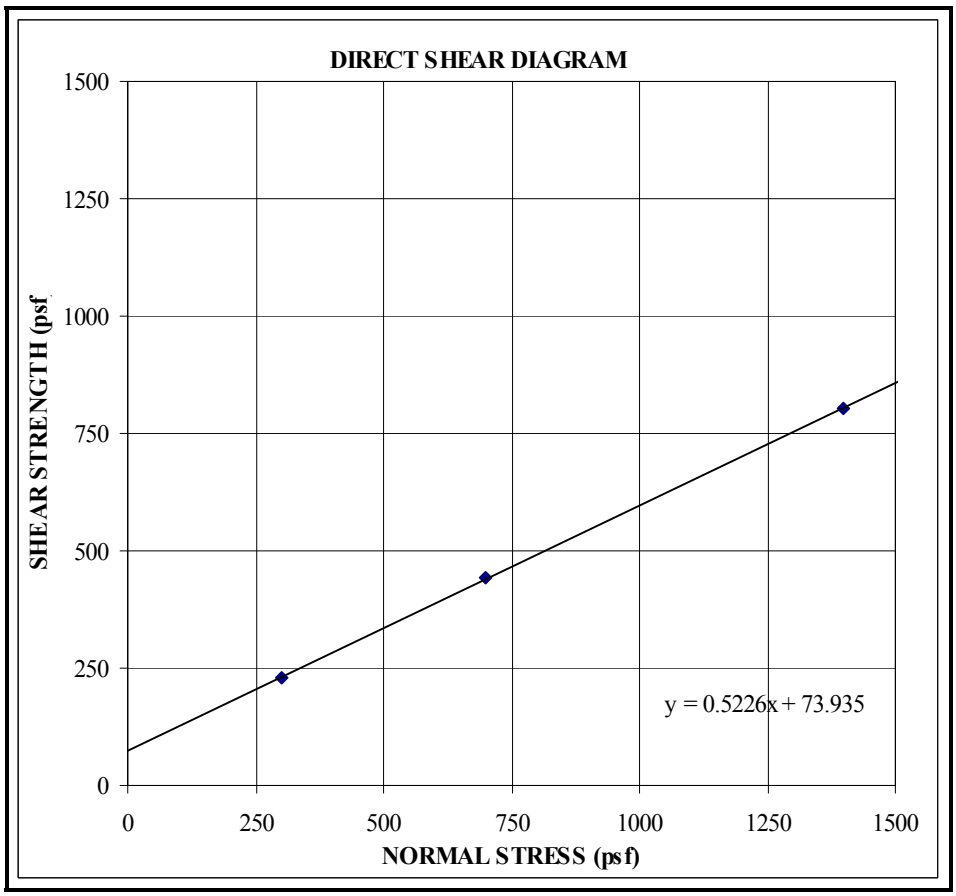


Trench No. TP-1 and 3

Sample Depth: 0-12 feet

Friction Angle: 26 degrees

Cohesion: 74 psf

Dry Density: 90 pcf

Remolded to: 90%

Date Tested: 6/2010

PROJECT: SRK- BISHOP MILL

3.31008

Sierra Geotechnical Services

MAXIMUM DENSITY CURVE

PER ASTM TEST METHOD 1557-00 AND CTM 231-01

JOB NUMBER: 3.31008 DATE: 6/2010

PROJECT: SRK – BISHOP MILL

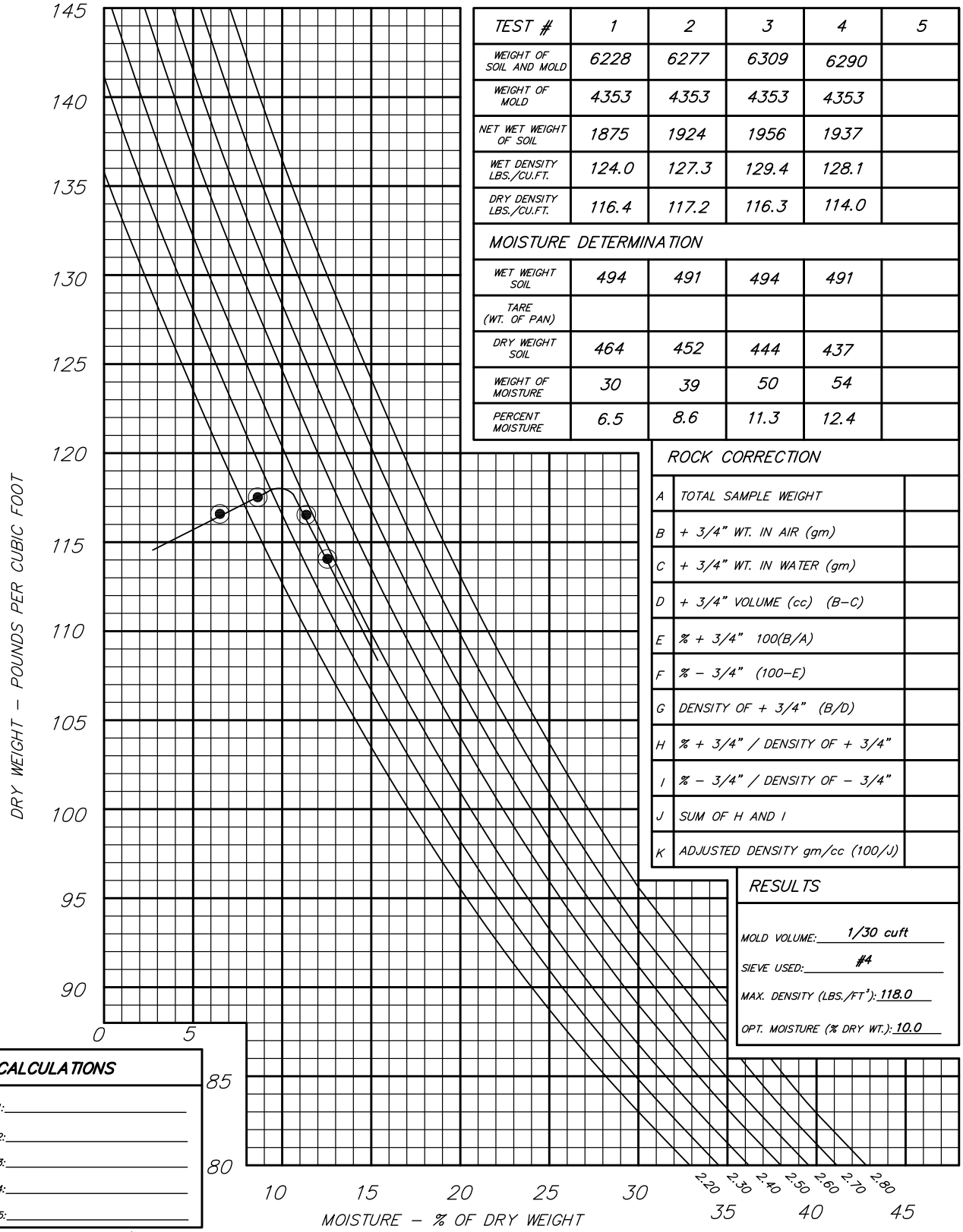
SAMPLED BY: SRK TESTED BY: PS

EXCAVATION: BLEND TP-1/TP-2 DEPTH (FT.): 10-15'

SOIL CLASSIFICATION: SM

DESIGNATION:

TEST #	1	2	3	4	5
WEIGHT OF SOIL AND MOLD	6228	6277	6309	6290	
WEIGHT OF MOLD	4353	4353	4353	4353	
NET WET WEIGHT OF SOIL	1875	1924	1956	1937	
WET DENSITY LBS./CU.FT.	124.0	127.3	129.4	128.1	
DRY DENSITY LBS./CU.FT.	116.4	117.2	116.3	114.0	
MOISTURE DETERMINATION					
WET WEIGHT SOIL	494	491	494	491	
TARE (WT. OF PAN)					
DRY WEIGHT SOIL	464	452	444	437	
WEIGHT OF MOISTURE	30	39	50	54	
PERCENT MOISTURE	6.5	8.6	11.3	12.4	



ROCK CORRECTION		
A	TOTAL SAMPLE WEIGHT	
B	+ 3/4" WT. IN AIR (gm)	
C	+ 3/4" WT. IN WATER (gm)	
D	+ 3/4" VOLUME (cc) (B–C)	
E	% + 3/4" 100(B/A)	
F	% – 3/4" (100–E)	
G	DENSITY OF + 3/4" (B/D)	
H	% + 3/4" / DENSITY OF + 3/4"	
I	% – 3/4" / DENSITY OF – 3/4"	
J	SUM OF H AND I	
K	ADJUSTED DENSITY gm/cc (100/J)	

RESULTS

MOLD VOLUME: 1/30 cuft

SIEVE USED: #4

MAX. DENSITY (LBS./FT³): 118.0

OPT. MOISTURE (% DRY WT.): 10.0

CALCULATIONS

1:

2:

3:

4:

5:

Maxdense.dwg – 7/2003

Sierra Geotechnical Services

MAXIMUM DENSITY CURVE

PER ASTM TEST METHOD 1557-00 AND CTM 231-01

JOB NUMBER: 3.31008 DATE: 6/2010

PROJECT: SRK – BISHOP MILL

SAMPLED BY: SRK TESTED BY: PS

EXCAVATION: BLEND TP-1/TP-3 DEPTH (FT.): 0-12'

SOIL CLASSIFICATION: SM-ML

DESIGNATION:

TEST #	1	2	3	4	5
WEIGHT OF SOIL AND MOLD	5918	6016	6104	6057	
WEIGHT OF MOLD	4353	4353	4353	4353	
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WET WEIGHT SOIL	493	492	496	495	
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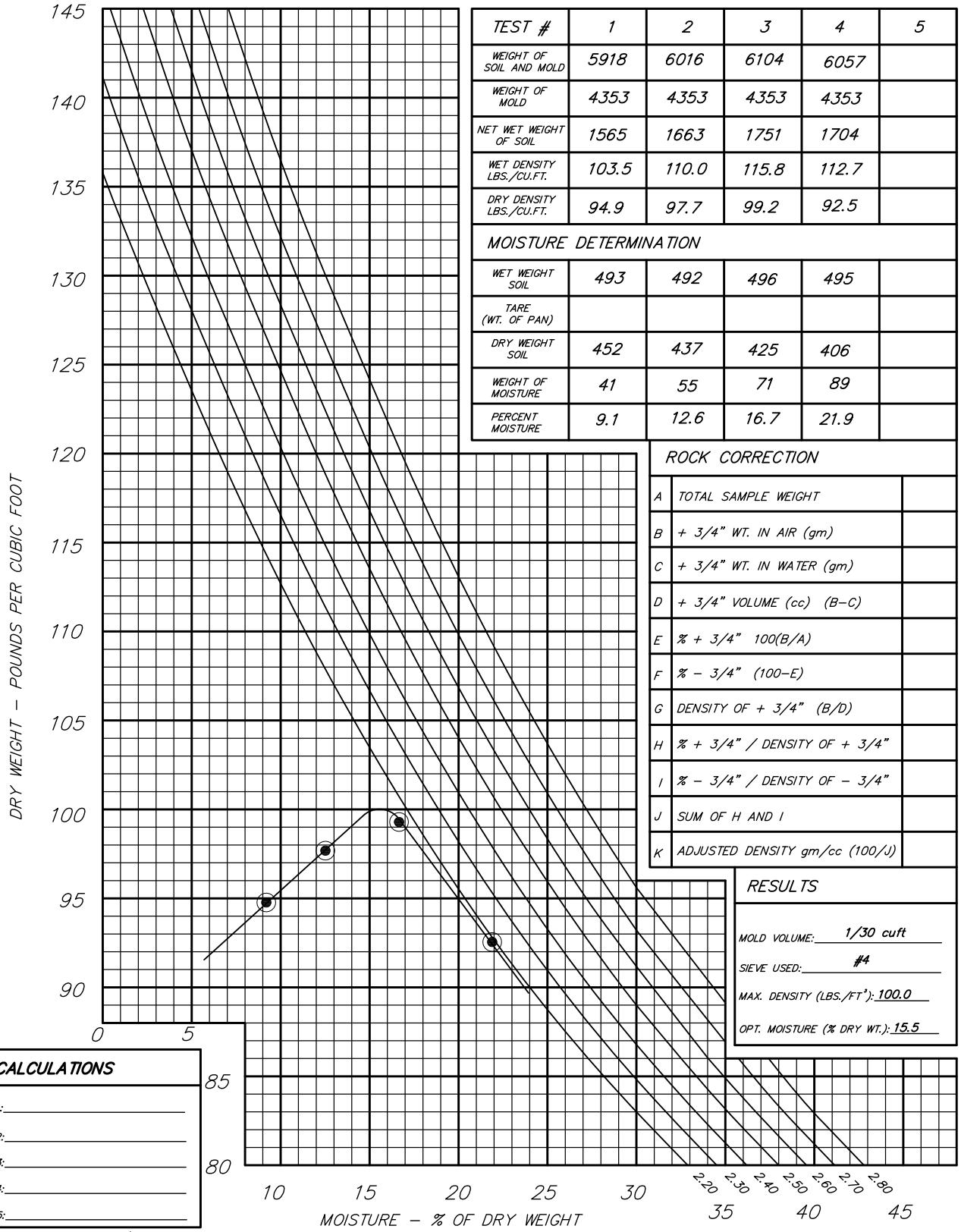

ROCK CORRECTION

A	TOTAL SAMPLE WEIGHT	
B	+ 3/4" WT. IN AIR (gm)	
C	+ 3/4" WT. IN WATER (gm)	
D	+ 3/4" VOLUME (cc) (B-C)	
E	% + 3/4" 100(B/A)	
F	% – 3/4" (100-E)	
G	DENSITY OF + 3/4" (B/D)	
H	% + 3/4" / DENSITY OF + 3/4"	
I	% – 3/4" / DENSITY OF – 3/4"	
J	SUM OF H AND I	
K	ADJUSTED DENSITY gm/cc (100/J)	

RESULTS

MOLD VOLUME: 1/30 cuft

SIEVE USED: #4

MAX. DENSITY (LBS./FT³): 100.0

OPT. MOISTURE (% DRY WT.): 15.5

CALCULATIONS

1:

2:

3:

4:

5:

Maxdense.dwg – 7/2003

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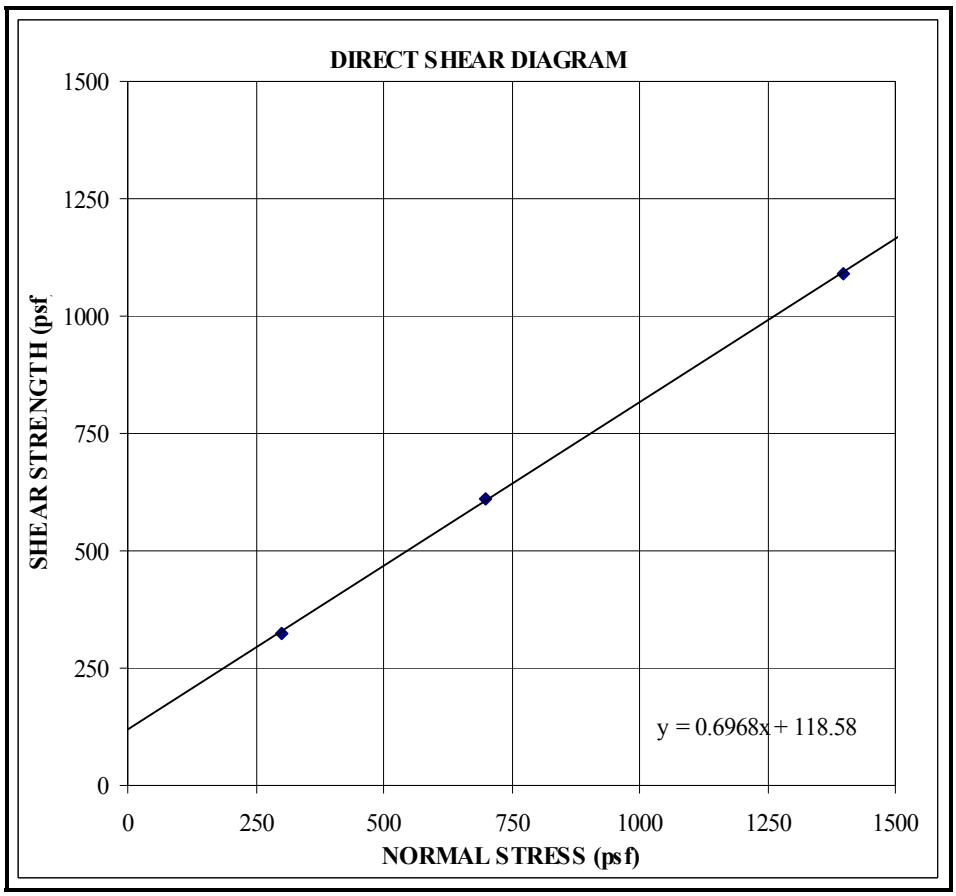

Trench No. TP-1 and 2

Sample Depth: 10-15 feet

Friction Angle: 35 degrees

Cohesion: 119 psf

Dry Density: 106 pcf

Remolded to: 90%

Date Tested: 6/2010

PROJECT: SRK- BISHOP MILL

3.31008

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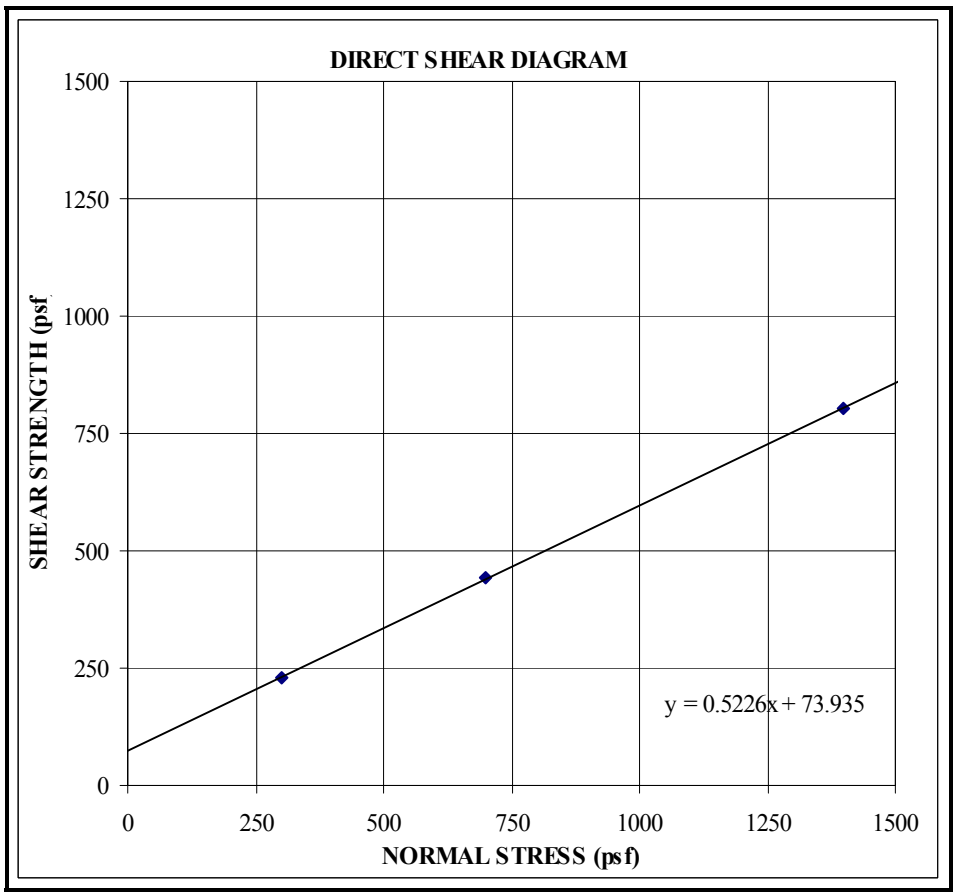

Trench No. TP-1 and 3

Sample Depth: 0-12 feet

Friction Angle: 26 degrees

Cohesion: 74 psf

Dry Density: 90 pcf

Remolded to: 90%

Date Tested: 6/2010

PROJECT: SRK- BISHOP MILL

3.31008