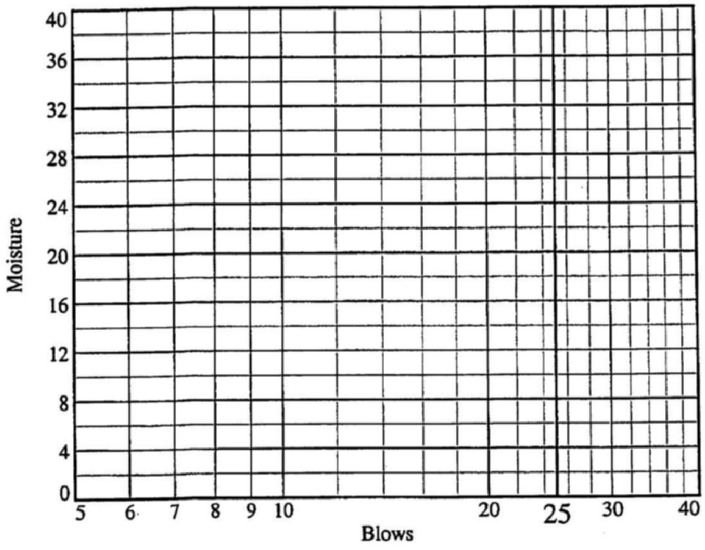
LIQUID AND PLASTIC LIMIT TEST DATA

1/26/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2265
Depth: 152.5-154.0
Sample Number: SS-29
Material Description: Light Gray Silty SAND
USCS: SM
AASHTO: A-2-4(0)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare						
Dry+Tare						
Tare						
# Blows						
Moisture						



Liquid Limit= NV
Plastic Limit= NP
Plasticity Index= NP
Natural Moisture= 19.9

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare					
Dry+Tare					
Tare					
Moisture					

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
128.00	108.30	9.30	19.9

MACTEC, Inc.

MACTEC ENGINEERING AND CONSULTING, INC.
RALEIGH, NORTH CAROLINA

REPORT OF THE STANDARD TEST METHOD FOR SPECIFIC GRAVITY OF SOILS
Performed in General Accordance with ASTM D 854-06 (Method B)

PROJECT NAME:EXELON COL PROJECT (VICTORIA)

PROJECT NUMBER: 6468071777

DATE: 1/20/08

SAMPLE IDENTIFICATION: B-2265 SS-29

(A) Mass of oven-dried soil, grams:		75.60
(B) Mass of pycnometer filled with water at test temperature (T), grams:		655.02
(C) Mass of pycnometer, water and soil, grams:		702.10
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		21.3
(G) Specific Gravity at observed temperature:	A / [C - (C - A)]	2.651
(F)	***Correction factor:***	0.99972
(G x F)	**SPECIFIC GRAVITY @ 20°C:**	2.650

MATERIAL TESTED: [X] **- # 4** [ ] **- # 10**

PREPARATION METHOD: [X] **DRY** [ ] **WET (dispersed)**

REMARKS: Estimated % Passing # 4 : 100%

Silty SAND (SM)

EQUIPMENT USED

SCALES : 3.1.19

OVEN : 5.1.16

THERMOMETER : 5.1.01

PYCNOMETER : P-5

TESTED BY: CS

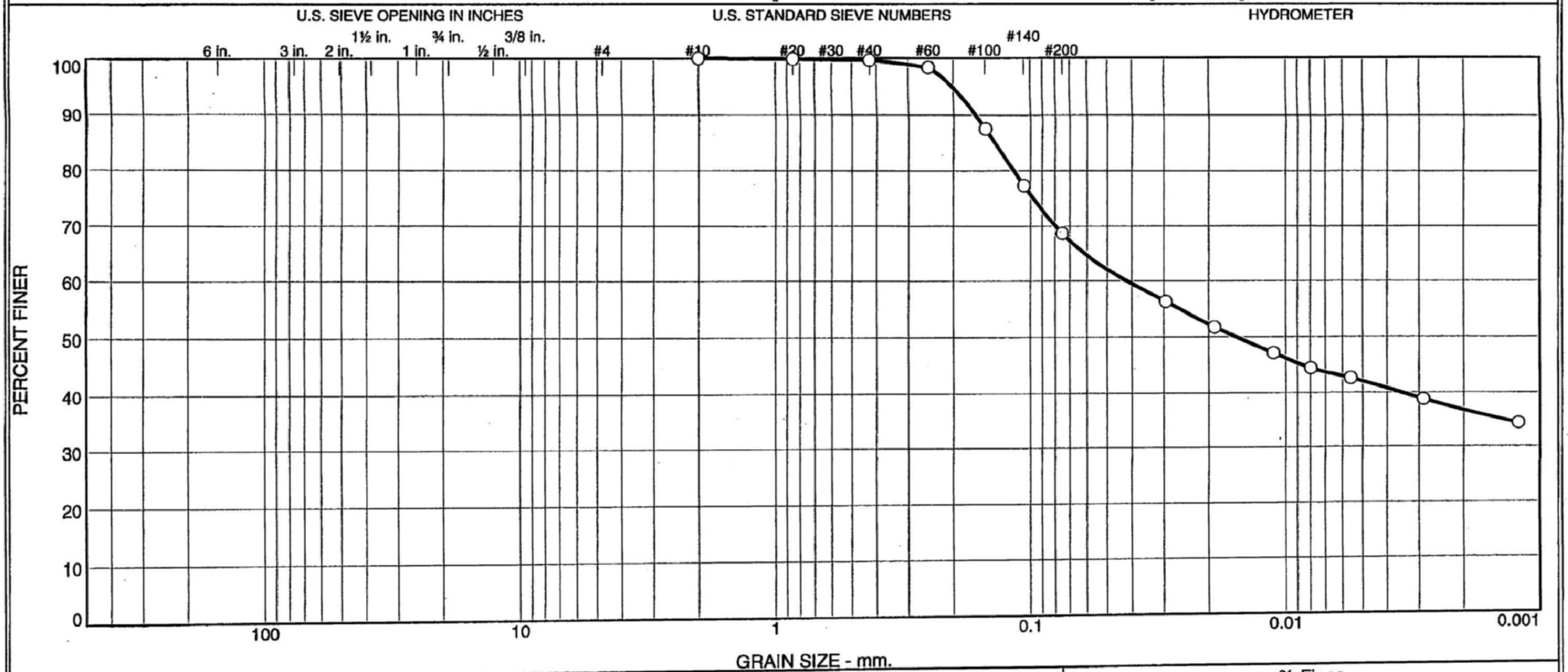
\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY: Brian Johnson

KAW 1/26/08

Boring B-2269

Particle Size Distribution Report / ASTM D-422-63(2002)e1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.4	30.9	26.6	42.1

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2269	SS-1	0-1.5'	11/8/07	CL	Black Sandy Lean CLAY	16.8	42	15

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific gravity is assumed.
Organic content = 3.8% (ASTM D 2974-07)

Tested By: CS **Checked By:** LBJ DSC 1-25-08

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 0-1.5' **Sample Number:** SS-1
Material Description: Black Sandy Lean CLAY
Date: 11/8/07 **Natural Moisture:** 16.8
Liquid Limit: 42 **Plastic Limit:** 15 **USCS Class.:** CL
Testing Remarks: Specific gravity is assumed.
Organic content = 3.8% (ASTM D 2974-07)
Tested by: CS **Checked by:** LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
220.64	0.00	0.00	#10	0.00	100.0
54.48	0.00	0.00	#20	0.08	99.9
			#40	0.21	99.6
			#60	0.91	98.3
			#100	6.77	87.6
			#140	12.35	77.3
			#200	17.06	68.7

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =54.48
Hygroscopic moisture correction:
Moist weight and tare = 26.92
Dry weight and tare = 26.70
Tare weight = 15.52
Hygroscopic moisture = 2.0%
Table of composite correction values:

Temp., deg. C:	10.5	29.5
Comp. corr.:	-8.0	-3.5

Meniscus correction only = 1.0
Specific gravity of solids = 2.700
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 - 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.0	35.5	30.5	0.0130	36.5	10.3	0.0294	56.4
5.00	23.0	33.0	28.0	0.0130	34.0	10.7	0.0190	51.8
15.00	23.1	30.5	25.5	0.0129	31.5	11.1	0.0111	47.2
30.00	23.2	29.0	24.0	0.0129	30.0	11.4	0.0080	44.4
62.00	23.3	28.0	23.0	0.0129	29.0	11.5	0.0056	42.6
240.00	23.0	26.0	21.0	0.0130	27.0	11.9	0.0029	38.8
1440.00	21.4	24.0	18.6	0.0132	25.0	12.2	0.0012	34.4

Fractional Components

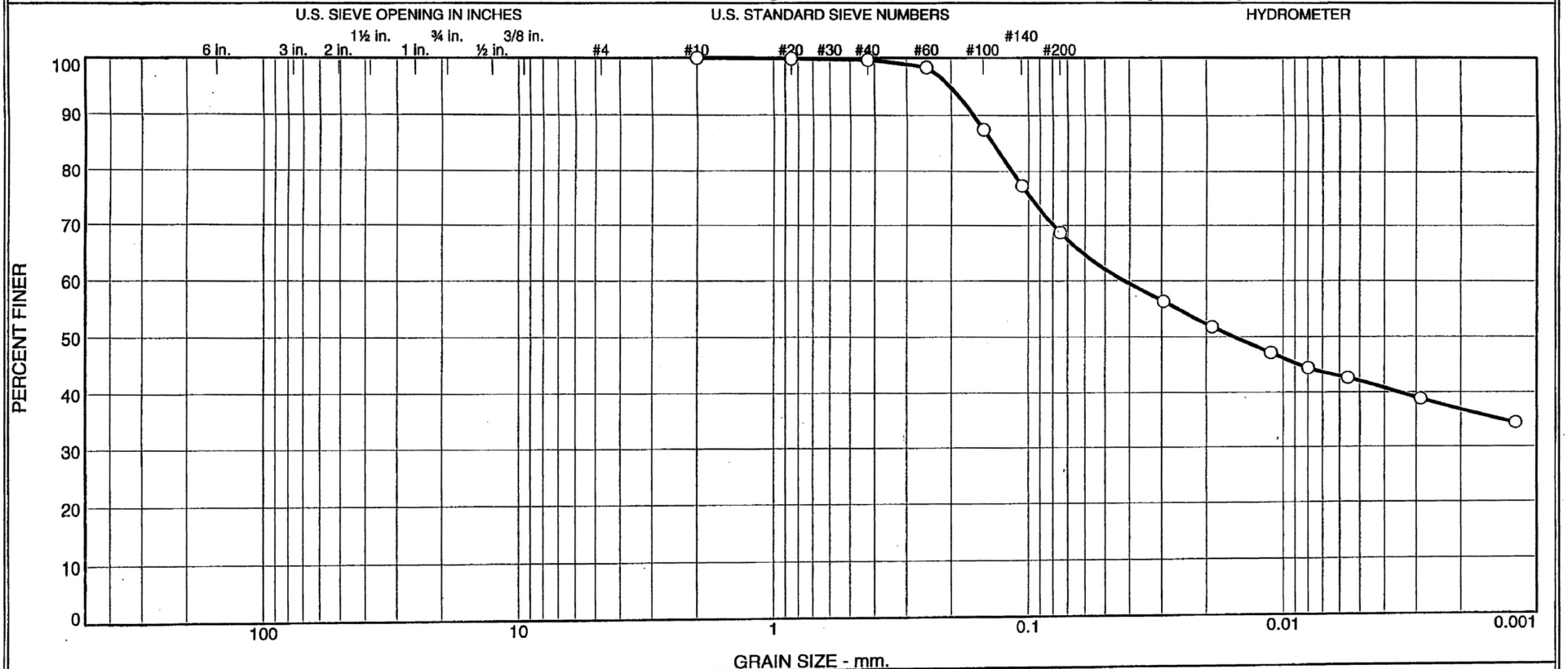
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.4	30.9	31.3	26.6	42.1	68.7

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0156	0.0418	0.1161	0.1373	0.1638	0.2024

Fineness Modulus
0.14

Boring B-2269

Particle Size Distribution Report / ASTM D-422-63(2002)e1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.4	30.9	26.6	42.1

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2269	SS-1	0-1.5'	11/8/07	CL	Black Sandy Lean CLAY	16.8	42	15

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific gravity is assumed.
Organic content = 3.8% (ASTM D 2974-07)

Tested By: CS **Checked By:** LBJ DSC 1-25-08

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 0-1.5' **Sample Number:** SS-1
Material Description: Black Sandy Lean CLAY
Date: 11/8/07 **Natural Moisture:** 16.8
Liquid Limit: 42 **Plastic Limit:** 15 **USCS Class.:** CL
Testing Remarks: Specific gravity is assumed.
Organic content = 3.8% (ASTM D 2974-07)
Tested by: CS **Checked by:** LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
220.64	0.00	0.00	#10	0.00	100.0
54.48	0.00	0.00	#20	0.08	99.9
			#40	0.21	99.6
			#60	0.91	98.3
			#100	6.77	87.6
			#140	12.35	77.3
			#200	17.06	68.7

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =54.48
Hygroscopic moisture correction:
Moist weight and tare = 26.92
Dry weight and tare = 26.70
Tare weight = 15.52
Hygroscopic moisture = 2.0%
Table of composite correction values:

Temp., deg. C:	10.5	29.5
Comp. corr.:	-8.0	-3.5

Meniscus correction only = 1.0
Specific gravity of solids = 2.700
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 - 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.0	35.5	30.5	0.0130	36.5	10.3	0.0294	56.4
5.00	23.0	33.0	28.0	0.0130	34.0	10.7	0.0190	51.8
15.00	23.1	30.5	25.5	0.0129	31.5	11.1	0.0111	47.2
30.00	23.2	29.0	24.0	0.0129	30.0	11.4	0.0080	44.4
62.00	23.3	28.0	23.0	0.0129	29.0	11.5	0.0056	42.6
240.00	23.0	26.0	21.0	0.0130	27.0	11.9	0.0029	38.8
1440.00	21.4	24.0	18.6	0.0132	25.0	12.2	0.0012	34.4

MACTEC, Inc.

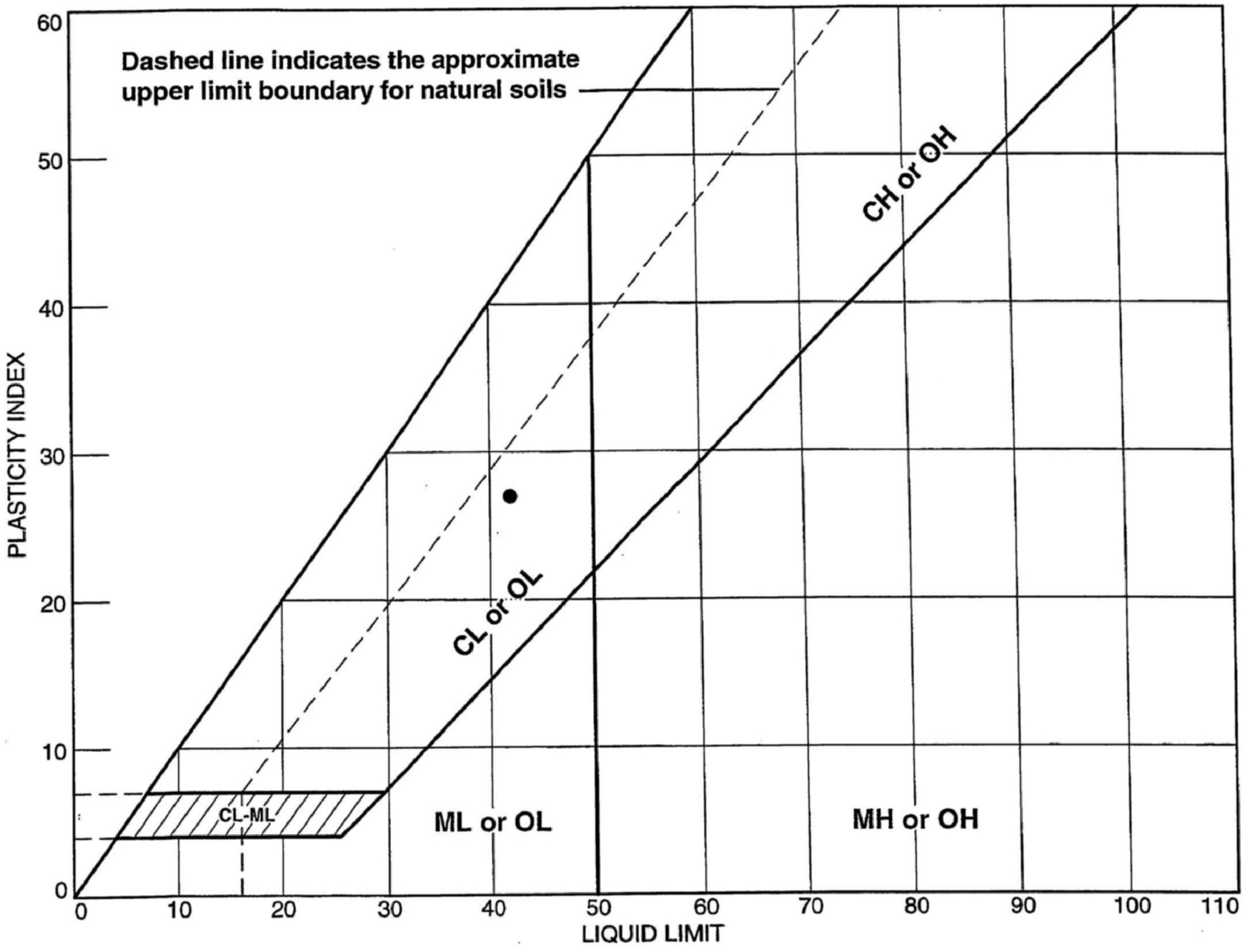
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.4	30.9	31.3	26.6	42.1	68.7

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0156	0.0418	0.1161	0.1373	0.1638	0.2024

Fineness Modulus
0.14

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA

SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	Boring B-2269	SS-1	0-1.5'	16.8	15	42	27	CL

MACTEC, Inc. **Raleigh, North Carolina**	**Client:** Bechtel **Project:** Exelon Texas COL (Victoria) **Project No.:** 6468071777 **Figure** NA

Tested By: CS **Checked By:** LBJ DSC 1-25-08

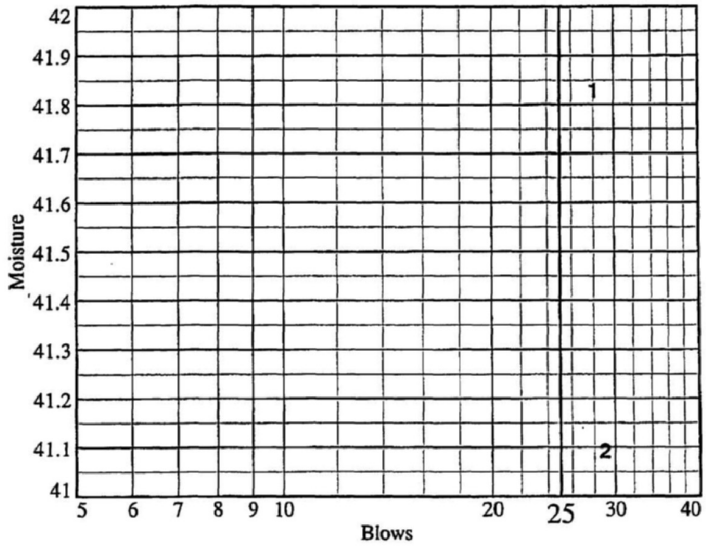
LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 0-1.5'
Sample Number: SS-1
Material Description: Black Sandy Lean CLAY
USCS: CL
AASHTO: A-7-6(16)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	29.30	31.50				
Dry+Tare	25.23	26.84				
Tare	15.50	15.50				
# Blows	28	29				
Moisture	41.8	41.1				



Liquid Limit= 42
Plastic Limit= 15
Plasticity Index= 27
Natural Moisture= 16.8
Liquidity Index= 0.1

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	24.00	23.20			
Dry+Tare	22.90	22.20			
Tare	15.60	15.50			
Moisture	15.1	14.9			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
189.59	163.64	9.41	16.8

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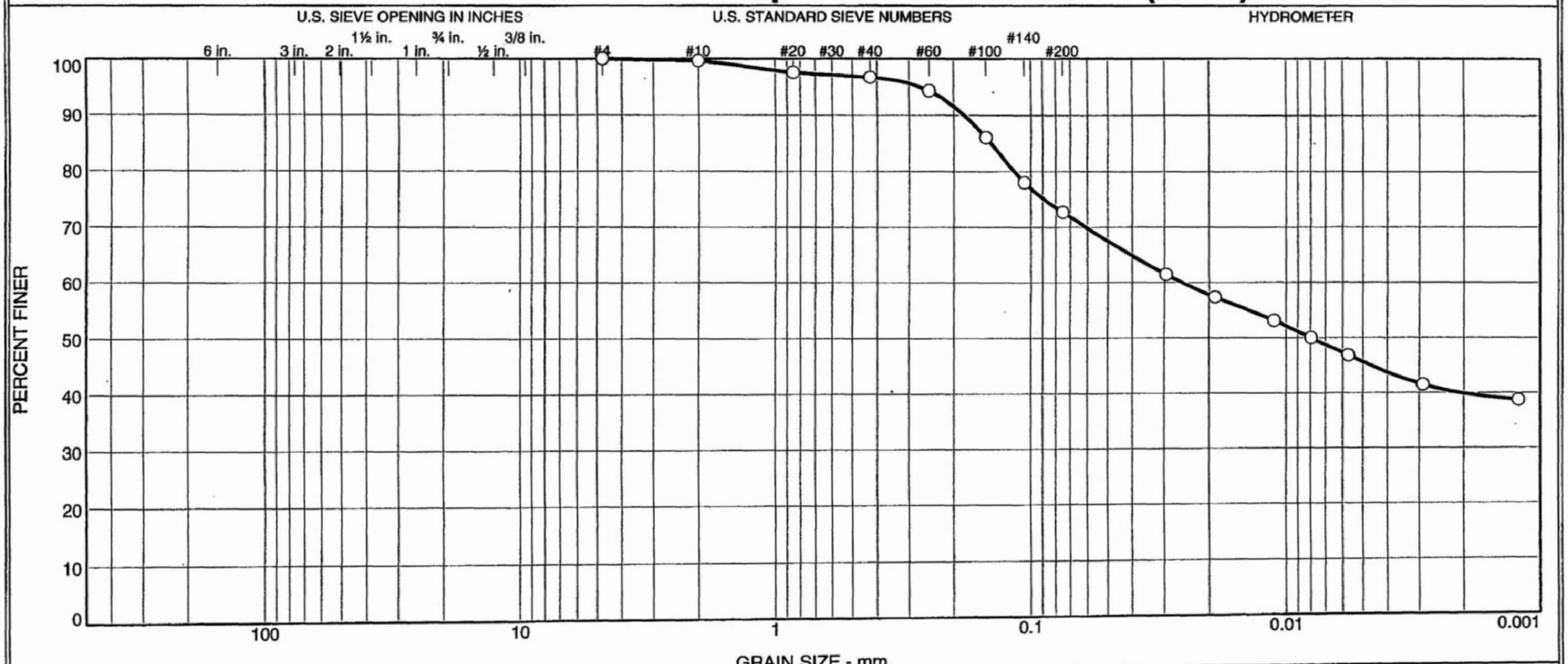
Particle Size Distribution Report / ASTM D-422-63(2002)e1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.3	3.0	24.0	27.1	45.6

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2269	SS-2	3.5-5.0'	11/8/07	CH	Gray and Light Brownish Gray Fat CLAY with sand	20.4	50	15

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific gravity is assumed.

Tested By: CS **Checked By:** LBJ DSC 1-25-08

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 3.5-5.0' **Sample Number:** SS-2
Material Description: Gray and Light Brownish Gray Fat CLAY with sand
Date: 11/8/07 **Natural Moisture:** 20.4
Liquid Limit: 50 **Plastic Limit:** 15 **USCS Class.:** CH
Testing Remarks: Specific gravity is assumed.
Tested by: CS **Checked by:** LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
201.68	0.00	0.00	#4	0.00	100.0
			#10	0.68	99.7
48.99	0.00	0.00	#20	1.01	97.6
			#40	1.45	96.7
			#60	2.64	94.3
			#100	6.64	86.2
			#140	10.64	78.0
			#200	13.24	72.7

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 99.7
Weight of hydrometer sample =48.99
Hygroscopic moisture correction:
Moist weight and tare = 29.39
Dry weight and tare = 28.92
Tare weight = 15.43
Hygroscopic moisture = 3.5%
Table of composite correction values:

Temp., deg. C:	10.5	29.5
Comp. corr.:	-8.0	-3.5

Meniscus correction only = 1.0
Specific gravity of solids = 2.700
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 - 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.3	34.5	29.5	0.0129	35.5	10.5	0.0295	61.5
5.00	23.3	32.5	27.5	0.0129	33.5	10.8	0.0190	57.3
15.00	23.2	30.5	25.5	0.0129	31.5	11.1	0.0111	53.1
30.00	23.2	29.0	24.0	0.0129	30.0	11.4	0.0080	50.0
60.00	23.1	27.5	22.5	0.0129	28.5	11.6	0.0057	46.8
240.00	22.9	25.0	19.9	0.0130	26.0	12.0	0.0029	41.5
1440.00	21.5	24.0	18.6	0.0132	25.0	12.2	0.0012	38.7

MACTEC, Inc.

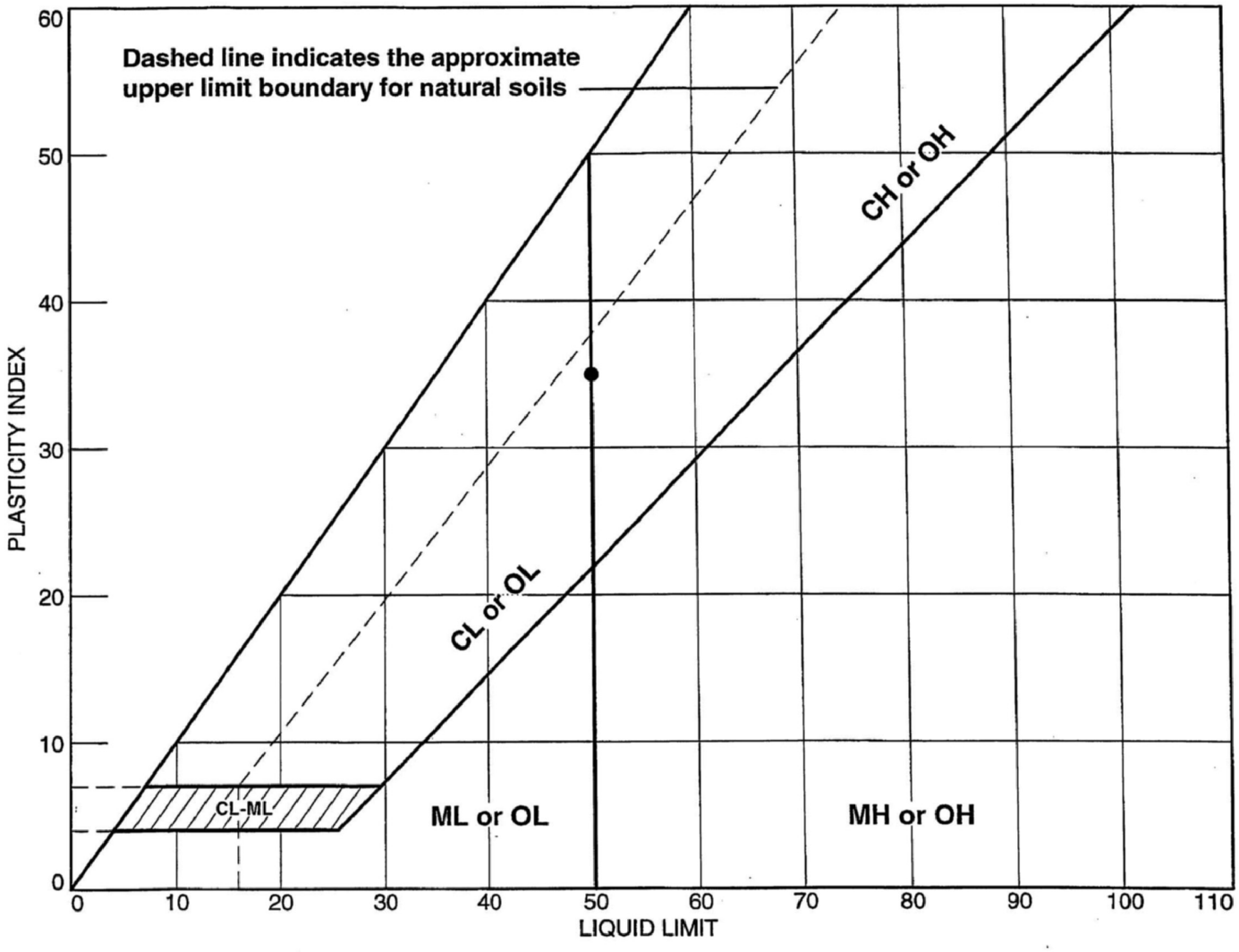
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.3	3.0	24.0	27.3	27.1	45.6	72.7

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0080	0.0255	0.1161	0.1427	0.1816	0.2722

Fineness Modulus
0.23

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	Boring B-2269	SS-2	3.5-5.0'	20.4	15	50	35	CH

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project No.: 6468071777 **Figure** NA

Tested By: CS **Checked By:** LBJ DSC 1-25-08

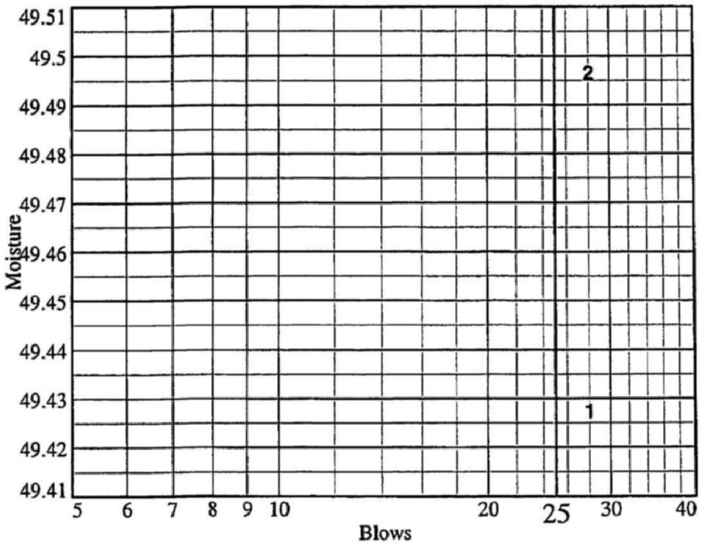
LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 3.5-5.0' **Sample Number:** SS-2
Material Description: Gray and Light Brownish Gray Fat CLAY with sand
USCS: CH **AASHTO:** A-7-6(24)
Tested by: CS **Checked by:** LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	23.25	24.38				
Dry+Tare	20.66	21.43				
Tare	15.42	15.47				
# Blows	28	28				
Moisture	49.4	49.5				



Liquid Limit= 50
Plastic Limit= 15
Plasticity Index= 35
Natural Moisture= 20.4
Liquidity Index= 0.2

Plastic Limit Data

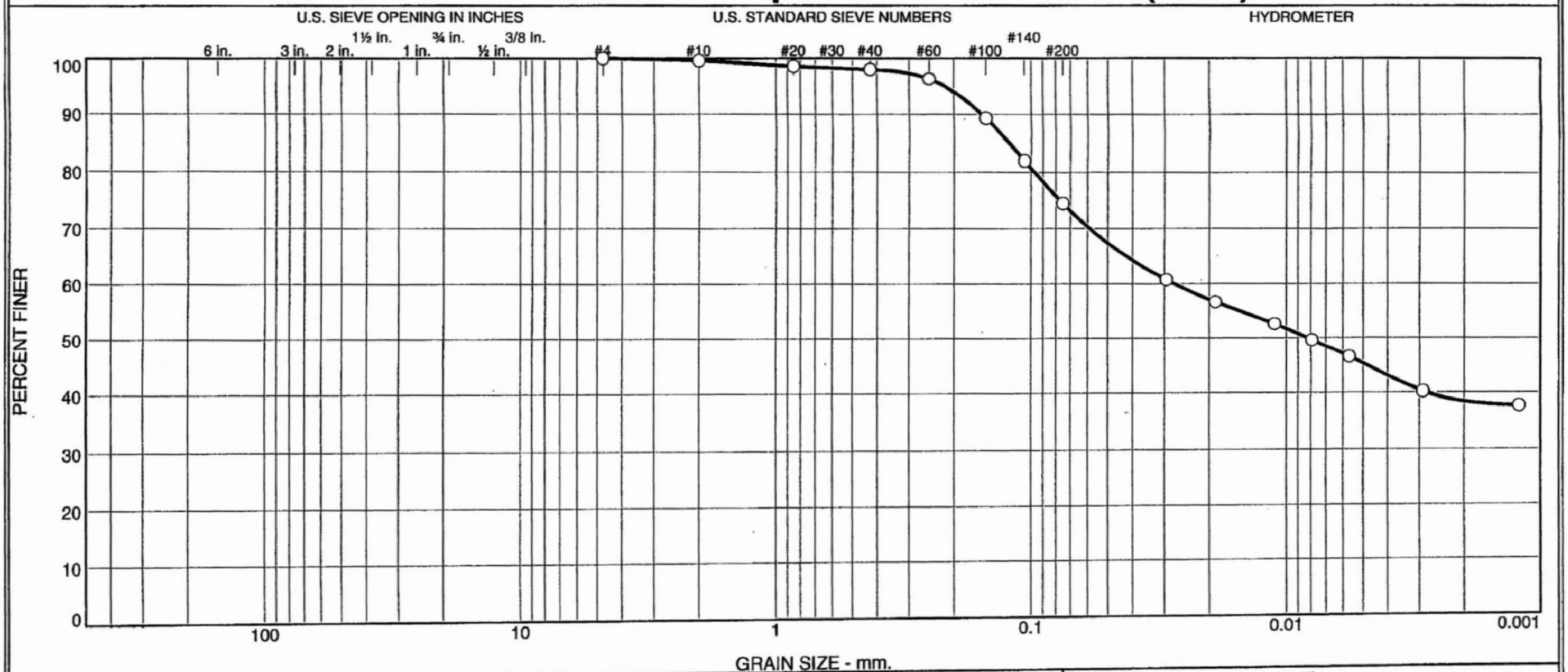
Run No.	1	2	3	4	
Wet+Tare	23.90	23.57			
Dry+Tare	22.83	22.51			
Tare	15.47	15.47			
Moisture	14.5	15.1			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
151.77	127.64	9.30	20.4

MACTEC, Inc.

Particle Size Distribution Report / ASTM D-422-63(2002)e1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.4	1.5	23.6	29.2	45.3

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2269	SS-3	6-7.5'	11/8/07	CH	Light Brownish Gray Fat CLAY with sand	22.0	51	16

Client Bechtel
Project Exelon Texas COL (Victoria)
Project No. 6468071777 Figure NA

MACTEC, Inc.
Raleigh, North Carolina

○ Specific gravity is assumed.
Organic content = 4.3% (ASTM D 2794-07)

Tested By: CS **Checked By:** LBJ DSC 1-25-08

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 6-7.5' **Sample Number:** SS-3
Material Description: Light Brownish Gray Fat CLAY with sand
Date: 11/8/07 **Natural Moisture:** 22.0
Liquid Limit: 51 **Plastic Limit:** 16 **USCS Class.:** CH
Testing Remarks: Specific gravity is assumed.
Organic content = 4.3% (ASTM D 2794-07)
Tested by: CS **Checked by:** LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
237.75	0.00	0.00	#4	0.00	100.0
			#10	0.91	99.6
50.27	0.00	0.00	#20	0.50	98.6
			#40	0.79	98.1
			#60	1.65	96.3
			#100	5.17	89.4
			#140	8.90	82.0
			#200	12.69	74.5

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 99.6
Weight of hydrometer sample =50.27
Hygroscopic moisture correction:
Moist weight and tare = 27.69
Dry weight and tare = 27.31
Tare weight = 15.47
Hygroscopic moisture = 3.2%
Table of composite correction values:

Temp., deg. C:	10.5	29.5
Comp. corr.:	-8.0	-3.5

Meniscus correction only = 1.0
Specific gravity of solids = 2.700
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 - 0.164 x Rm

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.3	35.0	30.0	0.0129	36.0	10.4	0.0294	60.7
5.00	23.3	33.0	28.0	0.0129	34.0	10.7	0.0189	56.7
15.00	23.2	31.0	26.0	0.0129	32.0	11.0	0.0111	52.6
30.00	23.3	29.5	24.5	0.0129	30.5	11.3	0.0079	49.6
60.00	23.3	28.0	23.0	0.0129	29.0	11.5	0.0057	46.6
240.00	22.7	25.0	19.9	0.0130	26.0	12.0	0.0029	40.2
1440.00	21.7	24.0	18.7	0.0132	25.0	12.2	0.0012	37.7

MACTEC, Inc.

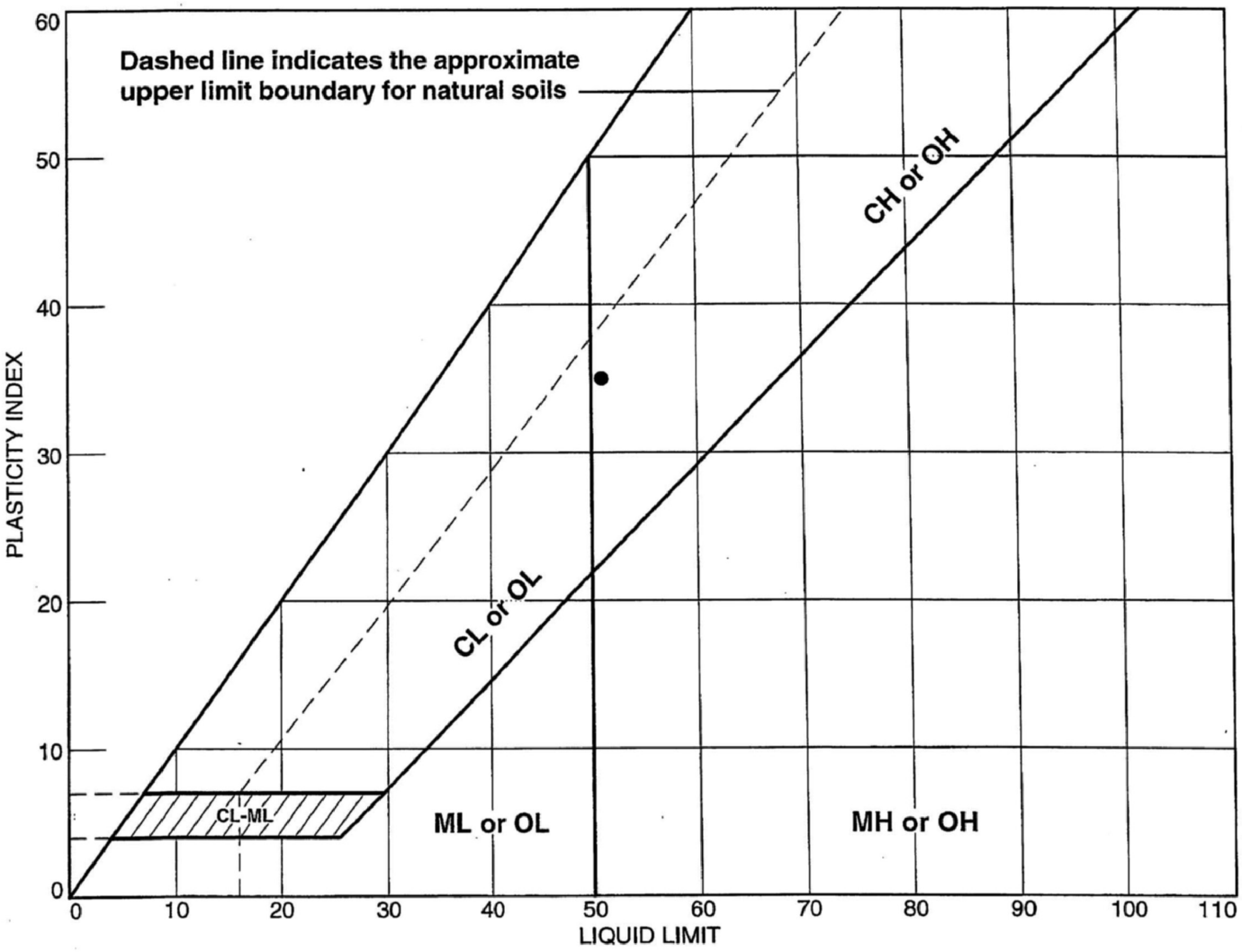
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.4	1.5	23.6	25.5	29.2	45.3	74.5

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0083	0.0274	0.0970	0.1214	0.1551	0.2169

Fineness Modulus
0.16

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	Boring B-2269	SS-3	6-7.5'	22.0	16	51	35	CH

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project No.: 6468071777 **Figure** NA

Tested By: CS **Checked By:** LBJ DSC 1-25-08

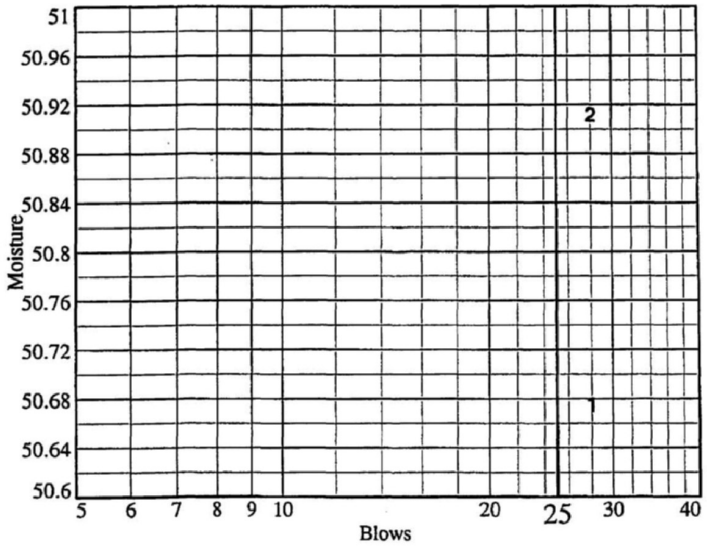
LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 6-7.5' **Sample Number:** SS-3
Material Description: Light Brownish Gray Fat CLAY with sand
USCS: CH **AASHTO:** A-7-6(25)
Tested by: CS **Checked by:** LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	22.15	24.62				
Dry+Tare	19.90	21.55				
Tare	15.46	15.52				
# Blows	28	28				
Moisture	50.7	50.9				



Liquid Limit= 51
Plastic Limit= 16
Plasticity Index= 35
Natural Moisture= 22.0
Liquidity Index= 0.2

Plastic Limit Data

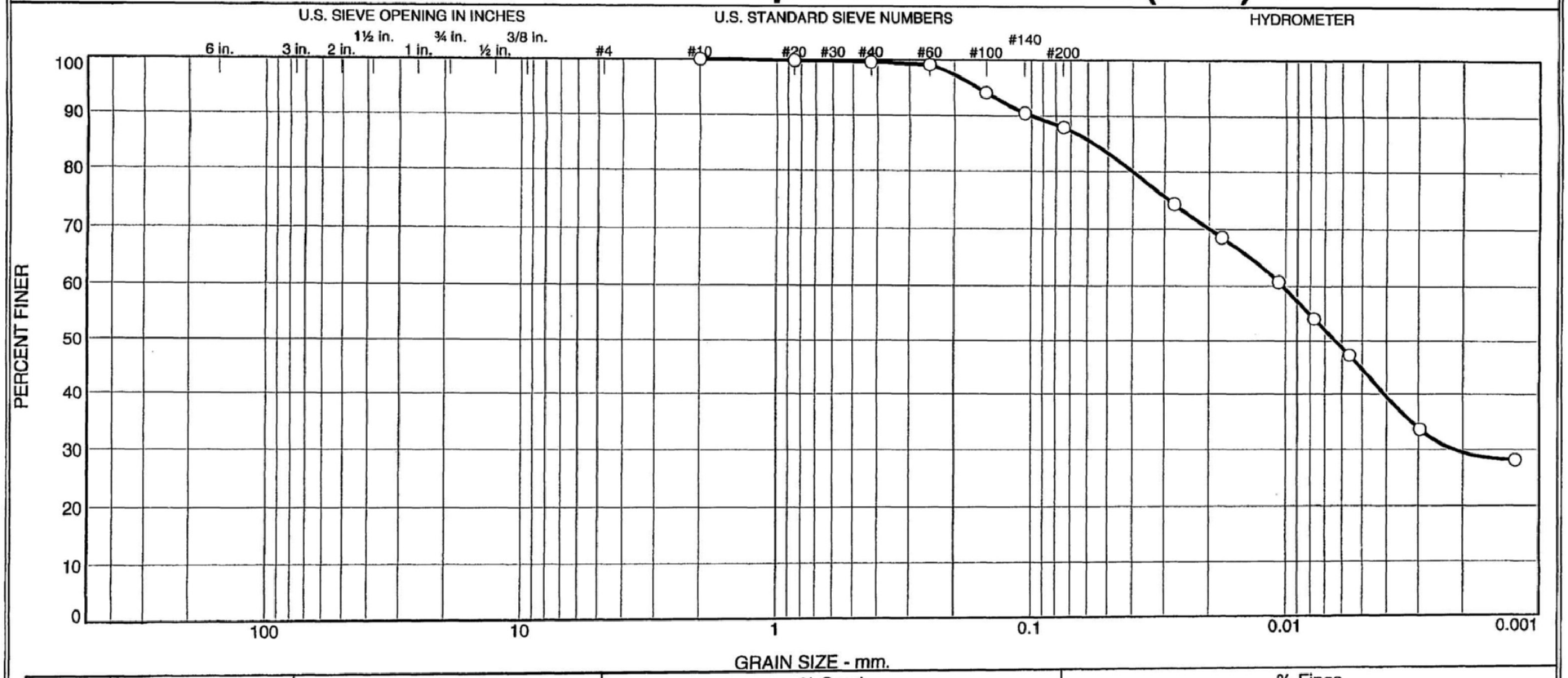
Run No.	1	2	3	4	
Wet+Tare	25.44	24.99			
Dry+Tare	24.11	23.71			
Tare	15.53	15.48			
Moisture	15.5	15.6			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
142.19	117.72	6.60	22.0

MACTEC, Inc.

Particle Size Distribution Report / ASTM D-422-63(2002)e1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.4	11.6	43.3	44.7

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2269	SS-4	8.5-10'	11/8/07	CL	Brownish Yellow Lean CLAY	17.0	40	14

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific gravity is assumed.

Tested By: CS **Checked By:** LBJ DSC 1-25-08

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 8.5-10'
Sample Number: SS-4
Material Description: Brownish Yellow Lean CLAY
Date: 11/8/07
Natural Moisture: 17.0
Liquid Limit: 40
Plastic Limit: 14
USCS Class.: CL
Testing Remarks: Specific gravity is assumed.
Tested by: CS
Checked by: LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
261.32	0.00	0.00	#10	0.00	100.0
52.60	0.00	0.00	#20	0.11	99.8
			#40	0.23	99.6
			#60	0.47	99.1
			#100	3.13	94.0
			#140	5.01	90.5
			#200	6.29	88.0

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =52.6
Hygroscopic moisture correction:
Moist weight and tare = 28.27
Dry weight and tare = 27.94
Tare weight = 15.52
Hygroscopic moisture = 2.7%
Table of composite correction values:

Temp., deg. C:	10.5	29.5
Comp. corr.:	-8.0	-3.5

Meniscus correction only = 1.0
Specific gravity of solids = 2.700
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 - 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.2	43.5	38.5	0.0129	44.5	9.0	0.0274	74.3
5.00	23.3	40.5	35.5	0.0129	41.5	9.5	0.0178	68.6
15.00	23.1	36.5	31.5	0.0129	37.5	10.1	0.0106	60.8
30.00	23.3	33.0	28.0	0.0129	34.0	10.7	0.0077	54.1
60.00	23.2	29.5	24.5	0.0129	30.5	11.3	0.0056	47.3
240.00	22.6	22.5	17.4	0.0130	23.5	12.4	0.0030	33.5
1440.00	21.6	20.0	14.6	0.0132	21.0	12.9	0.0012	28.2

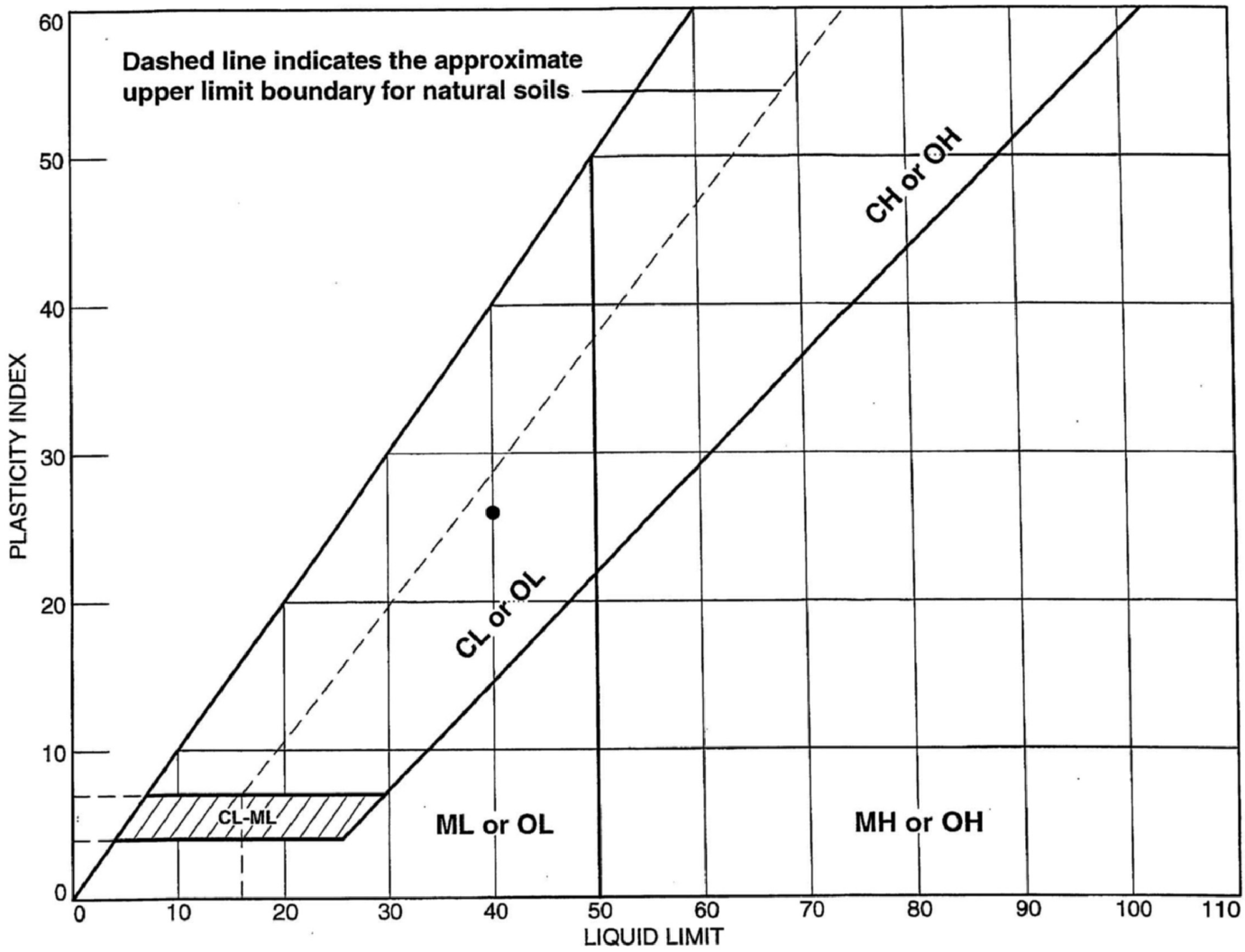
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.4	11.6	12.0	43.3	44.7	88.0

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
			0.0022	0.0064	0.0102	0.0399	0.0565	0.0995	0.1626

Fineness Modulus
0.07

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	Boring B-2269	SS-4	8.5-10'	17.0	14	40	26	CL

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project No.: 6468071777 **Figure** NA

Tested By: CS **Checked By:** LBJ DSC 1-25-08

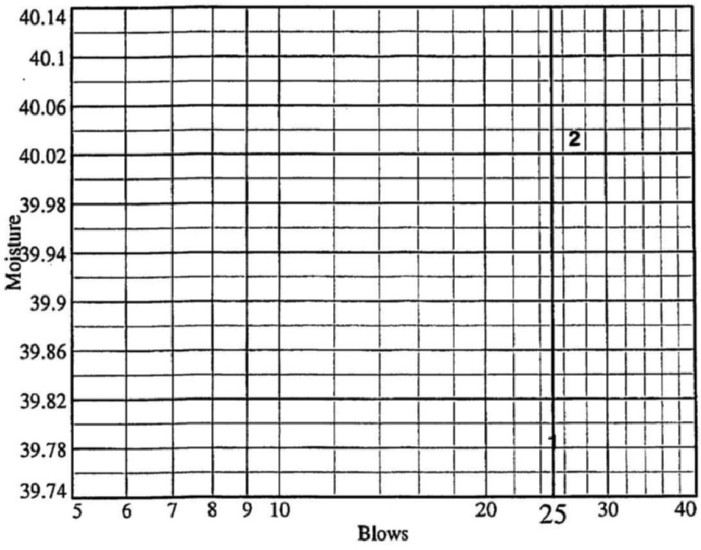
LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 8.5-10'
Sample Number: SS-4
Material Description: Brownish Yellow Lean CLAY
USCS: CL
AASHTO: A-6(22)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	23.31	23.92				
Dry+Tare	21.09	21.51				
Tare	15.51	15.49				
# Blows	25	27				
Moisture	39.8	40.0				



Liquid Limit= 40
Plastic Limit= 14
Plasticity Index= 26
Natural Moisture= 17.0
Liquidity Index= 0.1

Plastic Limit Data

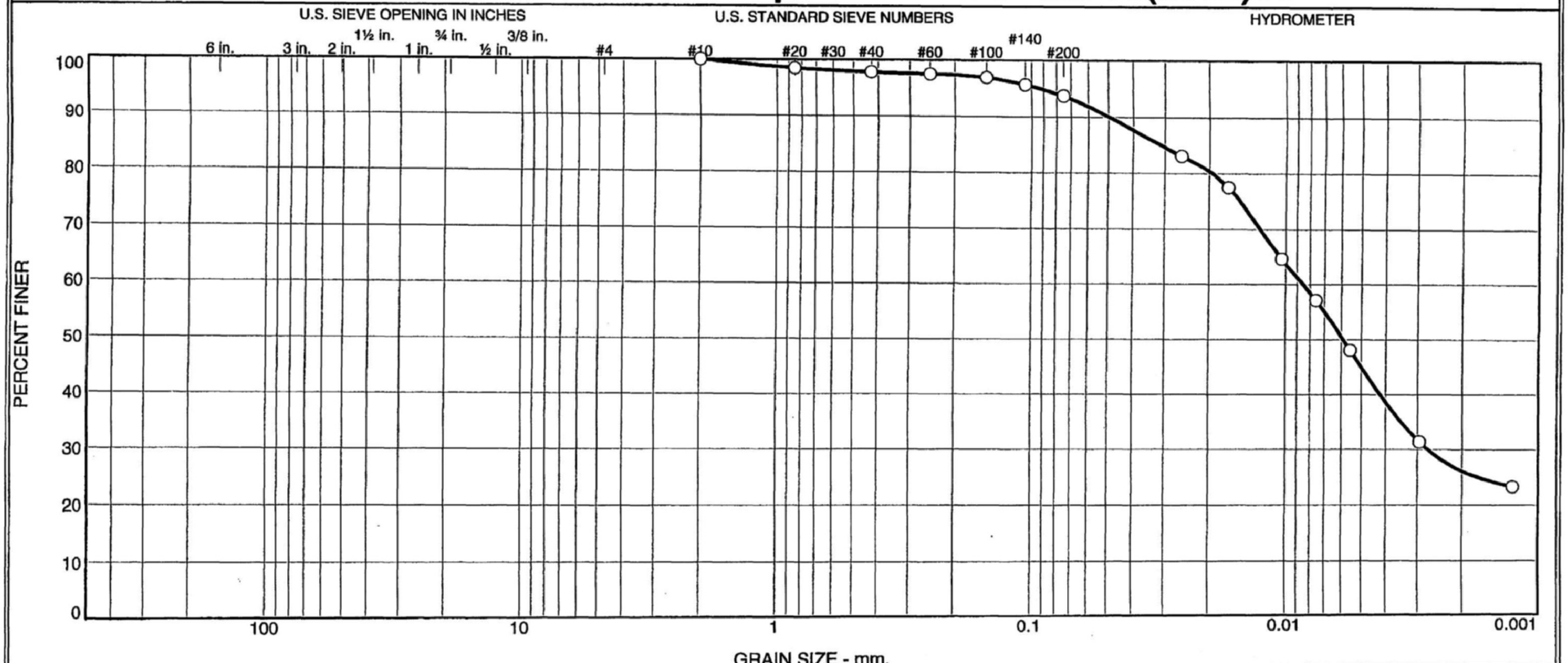
Run No.	1	2	3	4	
Wet+Tare	20.76	22.28			
Dry+Tare	20.16	21.42			
Tare	15.69	15.49			
Moisture	13.4	14.5			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
143.15	123.69	9.28	17.0

MACTEC, Inc.

Particle Size Distribution Report / ASTM D-422-63(2002)e1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	2.2	4.2	48.6	45.0

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2269	SS-5	11-12.5'	11/8/07	CL	Brownish Yellow Lean CLAY	18.0	40	15

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific gravity is assumed.
Organic content = 3.1% (ASTM D 2974-07)

Tested By: CS **Checked By:** LBJ DSC 1-25-08

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 11-12.5' **Sample Number:** SS-5
Material Description: Brownish Yellow Lean CLAY
Date: 11/8/07 **Natural Moisture:** 18.0
Liquid Limit: 40 **Plastic Limit:** 15 **USCS Class.:** CL
Testing Remarks: Specific gravity is assumed.
Organic content = 3.1% (ASTM D 2974-07)
Tested by: CS **Checked by:** LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
232.03	0.00	0.00	#10	0.00	100.0
53.67	0.00	0.00	#20	0.81	98.5
			#40	1.20	97.8
			#60	1.36	97.5
			#100	1.68	96.9
			#140	2.37	95.6
			#200	3.41	93.6

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =53.67
Hygroscopic moisture correction:
Moist weight and tare = 26.31
Dry weight and tare = 26.29
Tare weight = 15.44
Hygroscopic moisture = 0.2%
Table of composite correction values:

Temp., deg. C:	10.5	29.5
Comp. corr.:	-8.0	-3.5

Meniscus correction only = 1.0
Specific gravity of solids = 2.700
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 - 0.164 x Rm

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.2	50.0	45.0	0.0129	51.0	7.9	0.0257	83.1
5.00	23.2	47.0	42.0	0.0129	48.0	8.4	0.0168	77.5
15.00	23.1	40.0	35.0	0.0129	41.0	9.6	0.0103	64.6
30.00	23.1	36.0	31.0	0.0129	37.0	10.2	0.0076	57.2
60.00	23.4	31.0	26.1	0.0129	32.0	11.0	0.0055	48.1
240.00	23.2	22.0	17.0	0.0129	23.0	12.5	0.0030	31.4
1440.00	21.6	18.0	12.6	0.0132	19.0	13.2	0.0013	23.3

MACTEC, Inc.

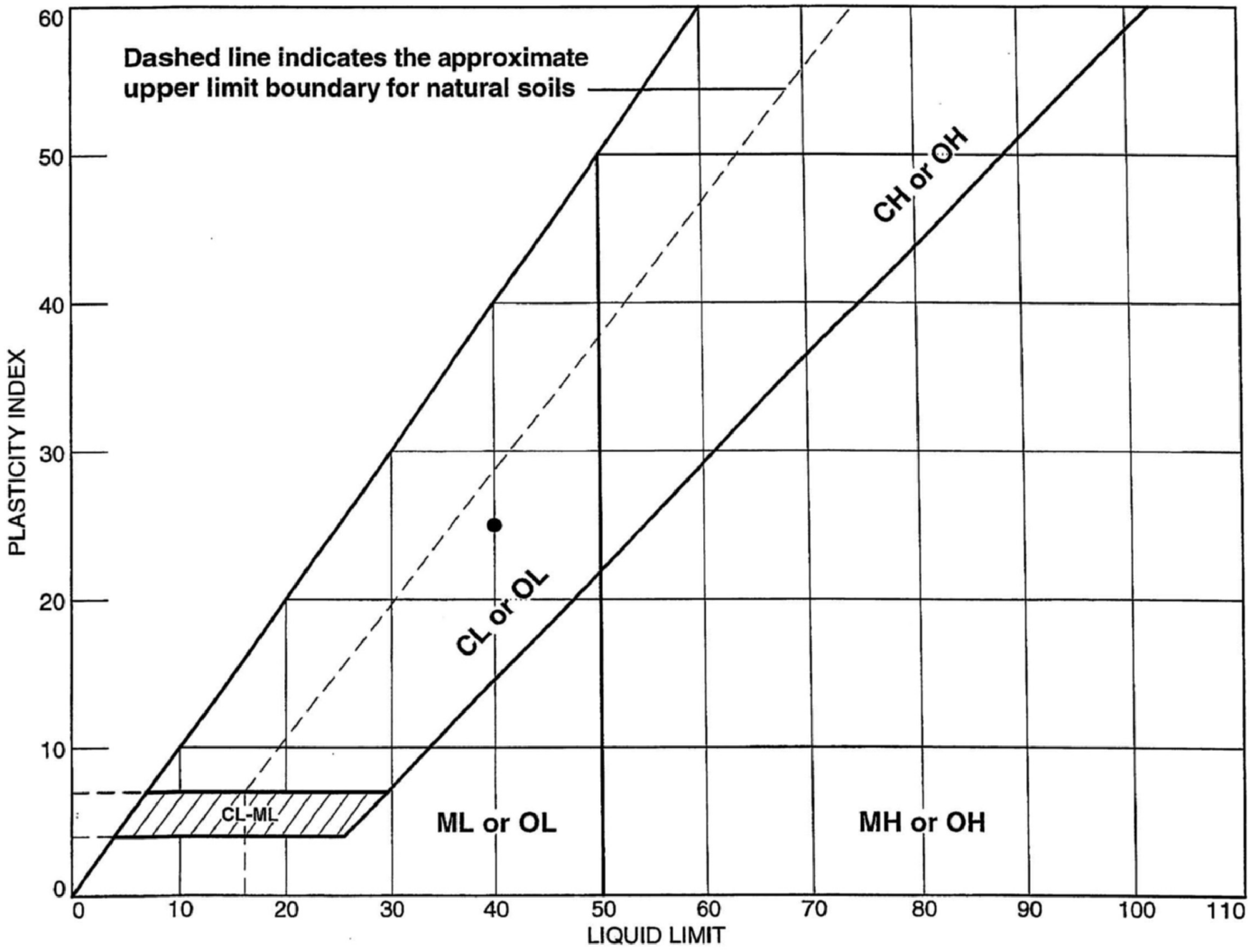
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	2.2	4.2	6.4	48.6	45.0	93.6

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
			0.0027	0.0059	0.0085	0.0194	0.0311	0.0497	0.0939

Fineness Modulus
0.08

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	Boring B-2269	SS-5	11-12.5'	18.0	15	40	25	CL

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project No.: 6468071777 **Figure** NA

Tested By: CS **Checked By:** LBJ DSC 1-25-08

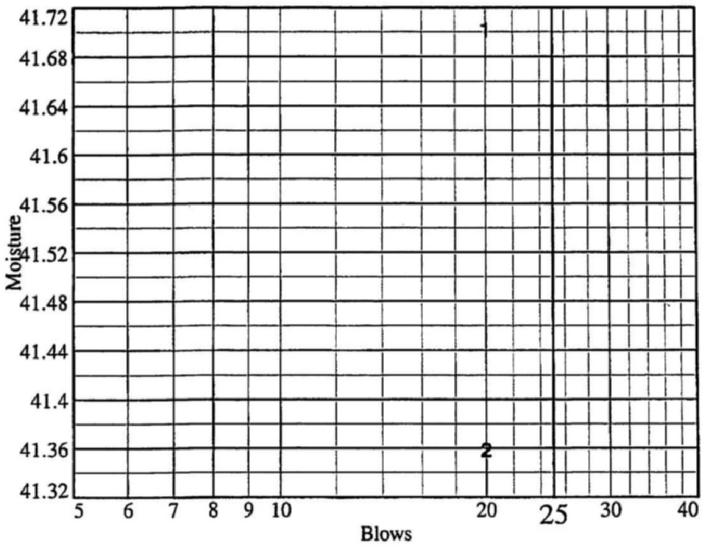
LIQUID AND PLASTIC LIMIT TEST DATA

1/24/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 11-12.5'
Sample Number: SS-5
Material Description: Brownish Yellow Lean CLAY
USCS: CL
AASHTO: A-6(24)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	28.86	32.32				
Dry+Tare	24.94	27.39				
Tare	15.54	15.47				
# Blows	20	20				
Moisture	41.7	41.4				



Liquid Limit= 40
Plastic Limit= 15
Plasticity Index= 25
Natural Moisture= 18.0
Liquidity Index= 0.1

Plastic Limit Data

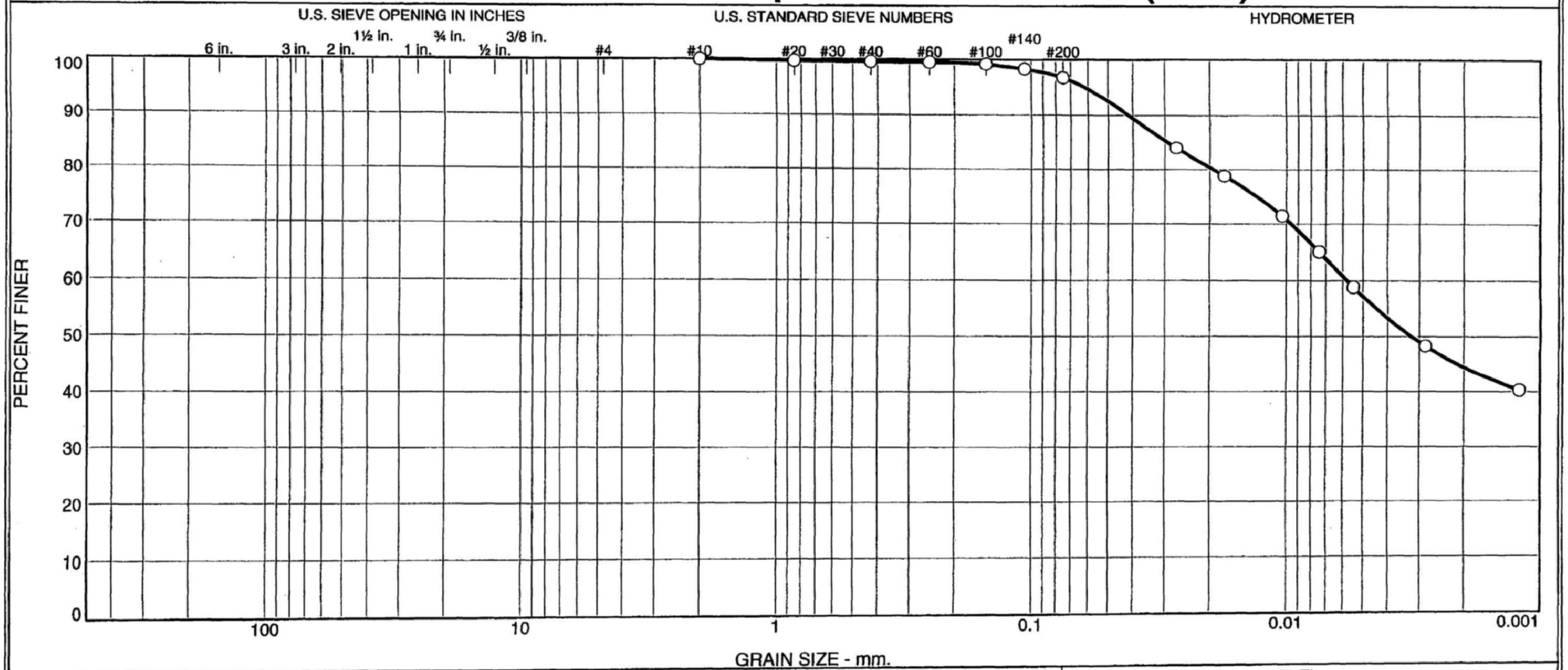
Run No.	1	2	3	4	
Wet+Tare	24.50	26.30			
Dry+Tare	23.40	24.90			
Tare	16.00	15.40			
Moisture	14.9	14.7			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
159.20	136.32	9.16	18.0

MACTEC, Inc.

Particle Size Distribution Report / ASTM D 422-63(2002)e1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
O	0.0	0.0	0.0	0.0	0.4	2.9	39.4	57.3

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
O	Boring B-2269	SS-6	13.5-15.0'	11/8/07	CH	Brownish Yellow Fat CLAY	21.1	54	19

Client Bechtel
Project Exelon Texas COL (Victoria)
Project No. 6468071777 Figure NA

MACTEC, Inc.
Raleigh, North Carolina

O Specific gravity is assumed.

Tested By: CS **Checked By:** LBJ ZHU 4/30/08

GRAIN SIZE DISTRIBUTION TEST DATA

4/9/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 13.5-15.0'
Sample Number: SS-6
Material Description: Brownish Yellow Fat CLAY
Date: 11/8/07
Natural Moisture: 21.1
Liquid Limit: 54
Plastic Limit: 19
USCS Class.: CH
Testing Remarks: Specific gravity is assumed.
Tested by: CS
Checked by: LBJ

Sieve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
218.64	0.00	0.00	#10	0.00	100.0
48.56	0.00	0.00	#20	0.13	99.7
			#40	0.20	99.6
			#60	0.24	99.5
			#100	0.41	99.2
			#140	0.83	98.3
			#200	1.60	96.7

Hydrometer Test Data

Hydrometer test uses material passing #10
Percent passing #10 based upon complete sample = 100.0
Weight of hydrometer sample =48.56
Hygroscopic moisture correction:
Moist weight and tare = 26.64
Dry weight and tare = 26.30
Tare weight = 15.47
Hygroscopic moisture = 3.1%
Table of composite correction values:

Temp., deg. C:	10.5	29.5
Comp. corr.:	-8.0	-3.5

Meniscus correction only = 1.0
Specific gravity of solids = 2.700
Hydrometer type = 152H
Hydrometer effective depth equation: L = 16.294964 - 0.164 **x Rm**

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.2	45.0	40.0	0.0129	46.0	8.8	0.0270	84.0
5.00	23.2	42.5	37.5	0.0129	43.5	9.2	0.0175	78.8
15.00	23.3	39.0	34.0	0.0129	40.0	9.7	0.0104	71.5
31.00	23.2	36.0	31.0	0.0129	37.0	10.2	0.0074	65.1
60.00	23.4	33.0	28.1	0.0129	34.0	10.7	0.0055	58.9
240.00	23.0	28.0	23.0	0.0130	29.0	11.5	0.0028	48.2
1440.00	21.8	24.5	19.2	0.0131	25.5	12.1	0.0012	40.3

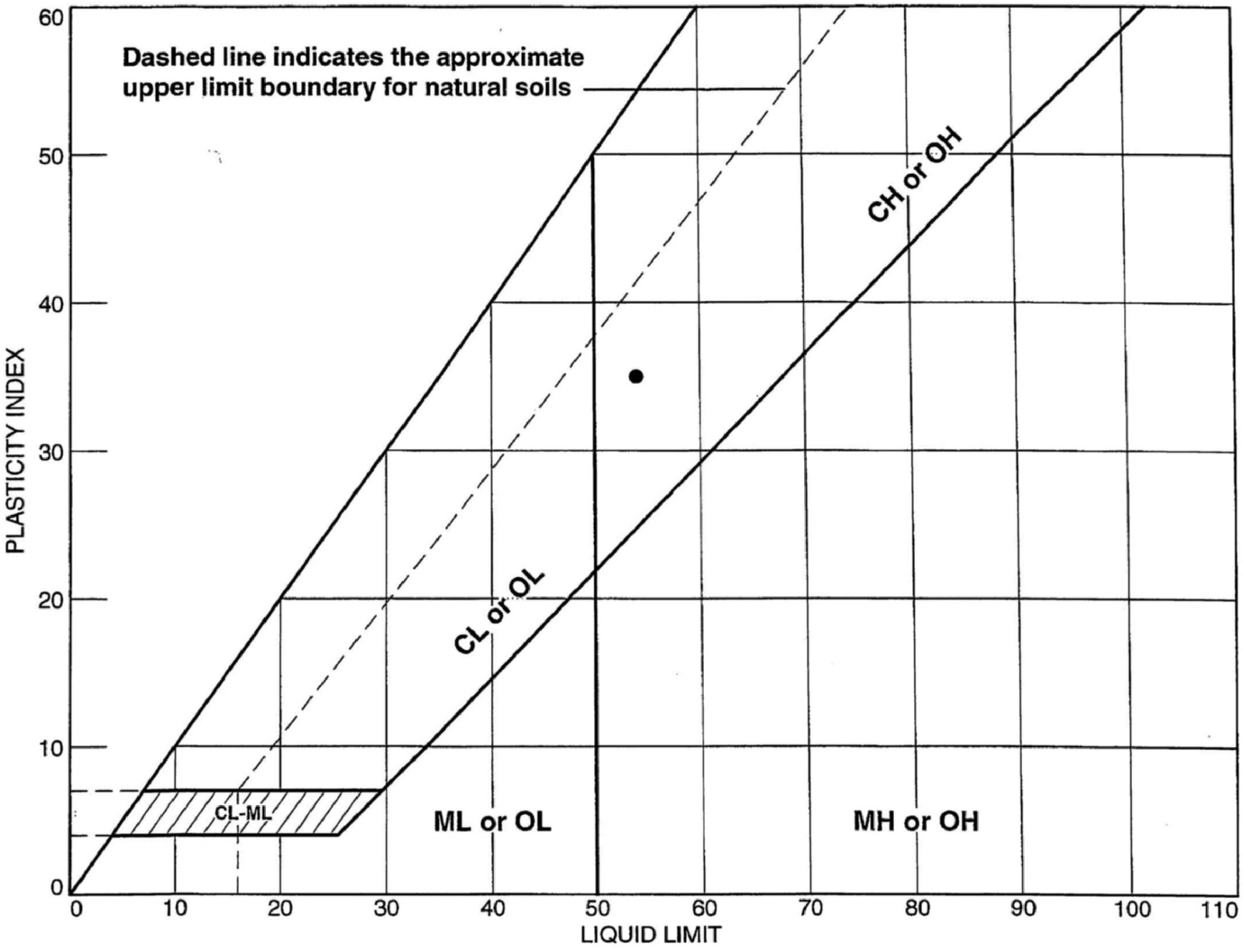
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.4	2.9	3.3	39.4	57.3	96.7

D_{10}	D_{15}	D_{20}	D_{30}	D_{50}	D_{60}	D_{80}	D_{85}	D_{90}	D_{95}
				0.0032	0.0058	0.0194	0.0291	0.0415	0.0618

Fineness Modulus
0.02

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	Boring B-2269	SS-6	13.5-15.0'	21.1	19	54	35	CH

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project No.: 6468071777
Figure NA

Tested By: CS **Checked By:** LBJ ZHU 4/30/08

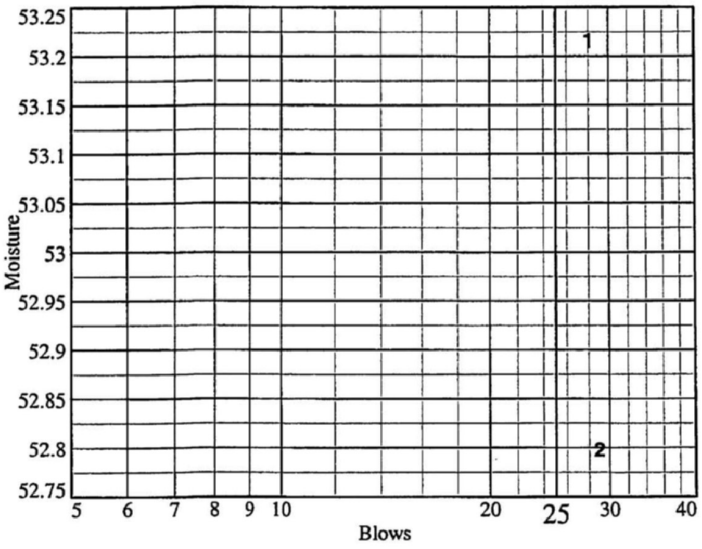
LIQUID AND PLASTIC LIMIT TEST DATA

4/9/2008

Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project Number: 6468071777
Location: Boring B-2269
Depth: 13.5-15.0'
Sample Number: SS-6
Material Description: Brownish Yellow Fat CLAY
USCS: CH
AASHTO: A-7-6(37)
Tested by: CS
Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	28.90	25.60				
Dry+Tare	24.35	22.11				
Tare	15.80	15.50				
# Blows	28	29				
Moisture	53.2	52.8				



Liquid Limit= 54
Plastic Limit= 19
Plasticity Index= 35
Natural Moisture= 21.1
Liquidity Index= 0.1

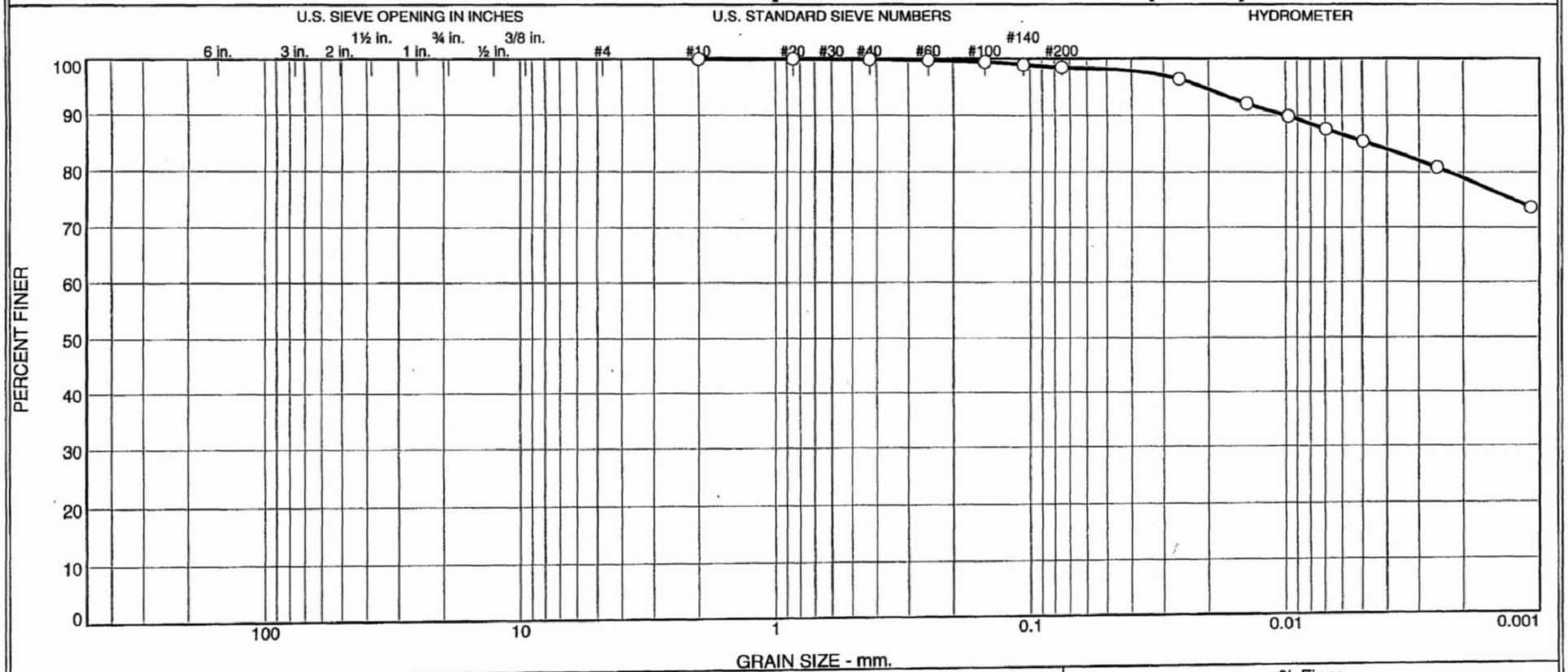
Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	22.8	23.8			
Dry+Tare	21.60	22.50			
Tare	15.40	15.50			
Moisture	19.4	18.6			

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
129.41	108.02	6.65	21.1

Particle Size Distribution Report / ASTM D-422-63(2002)e1



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.1	1.4	13.0	85.5

	Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
○	Boring B-2269	SS-7	20.4-21.9'	11/8/07	CH	Light Yellowish Brown Fat CLAY	28.1	77	26

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777 Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific gravity is assumed.
Organic content = 6.6% (ASTM D 2974-07)

Tested By: CS **Checked By:** LBJ DSC 1-25-08