

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2269

Depth: 20.4-21.9'

Sample Number: SS-7

Material Description: Light Yellowish Brown Fat CLAY

Date: 11/8/07

Natural Moisture: 28.1

Liquid Limit: 77

Plastic Limit: 26

USCS Class.: CH

Testing Remarks: Specific gravity is assumed.

Organic content = 6.6% (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
175.15	0.00	0.00	#10	0.00	100.0
47.33	0.00	0.00	#20	0.00	100.0
			#40	0.04	99.9
			#60	0.12	99.7
			#100	0.27	99.4
			#140	0.50	98.9
			#200	0.73	98.5

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 47.33

Hygroscopic moisture correction:

Moist weight and tare = 27.56

Dry weight and tare = 27.00

Tare weight = 15.44

Hygroscopic moisture = 4.8%

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: $L = 16.294964 - 0.164 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.2	49.0	44.0	0.0129	50.0	8.1	0.0260	96.4
7.00	23.3	47.0	42.0	0.0129	48.0	8.4	0.0142	92.1
15.00	23.4	46.0	41.1	0.0129	47.0	8.6	0.0098	89.9
30.00	23.3	45.0	40.0	0.0129	46.0	8.8	0.0070	87.7
60.00	23.3	44.0	39.0	0.0129	45.0	8.9	0.0050	85.5
240.00	22.8	42.0	36.9	0.0130	43.0	9.2	0.0025	80.9
1440.00	21.6	39.0	33.6	0.0132	40.0	9.7	0.0011	73.7

MACTEC, Inc.

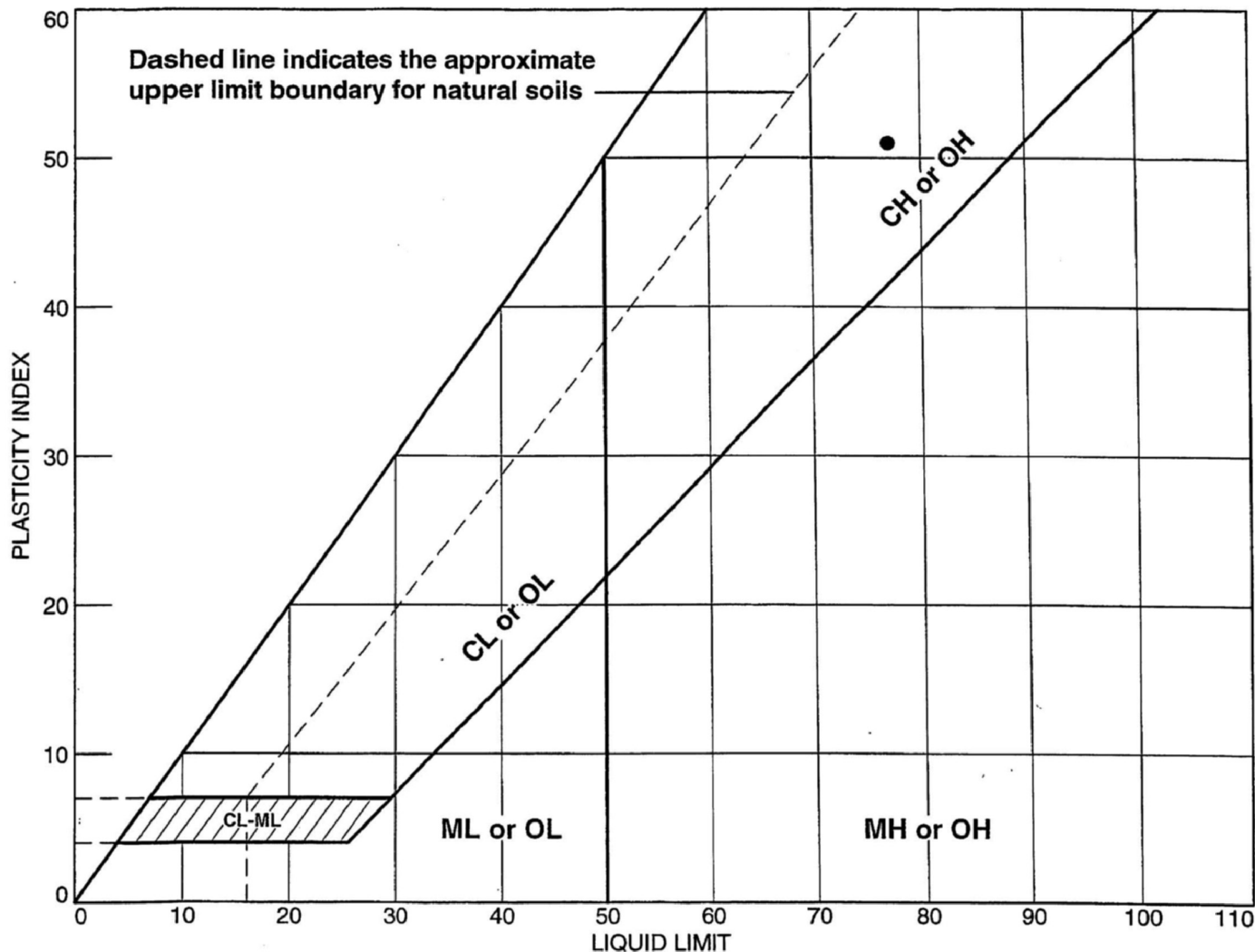
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.1	1.4	1.5	13.0	85.5	98.5

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
						0.0023	0.0046	0.0099	0.0210

Fineness Modulus
0.01

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-7	20.4-21.9'	28.1	26	77	51	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: 20.4-21.9'

Sample Number: SS-7

Material Description: Light Yellowish Brown Fat CLAY

USCS: CH

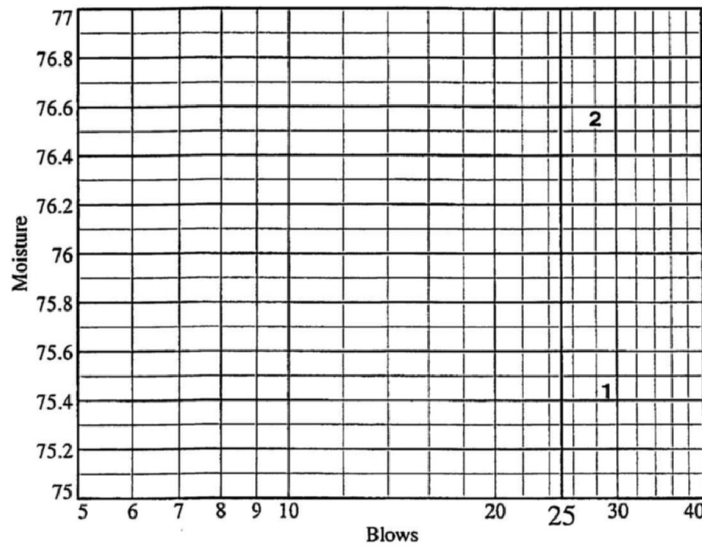
AASHTO: A-7-6(58)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	28.70	28.40				
Dry+Tare	23.11	22.85				
Tare	15.70	15.60				
# Blows	29	28				
Moisture	75.4	76.6				



Liquid Limit= 77
 Plastic Limit= 26
 Plasticity Index= 51
 Natural Moisture= 28.1
 Liquidity Index= 0.0

Plastic Limit Data

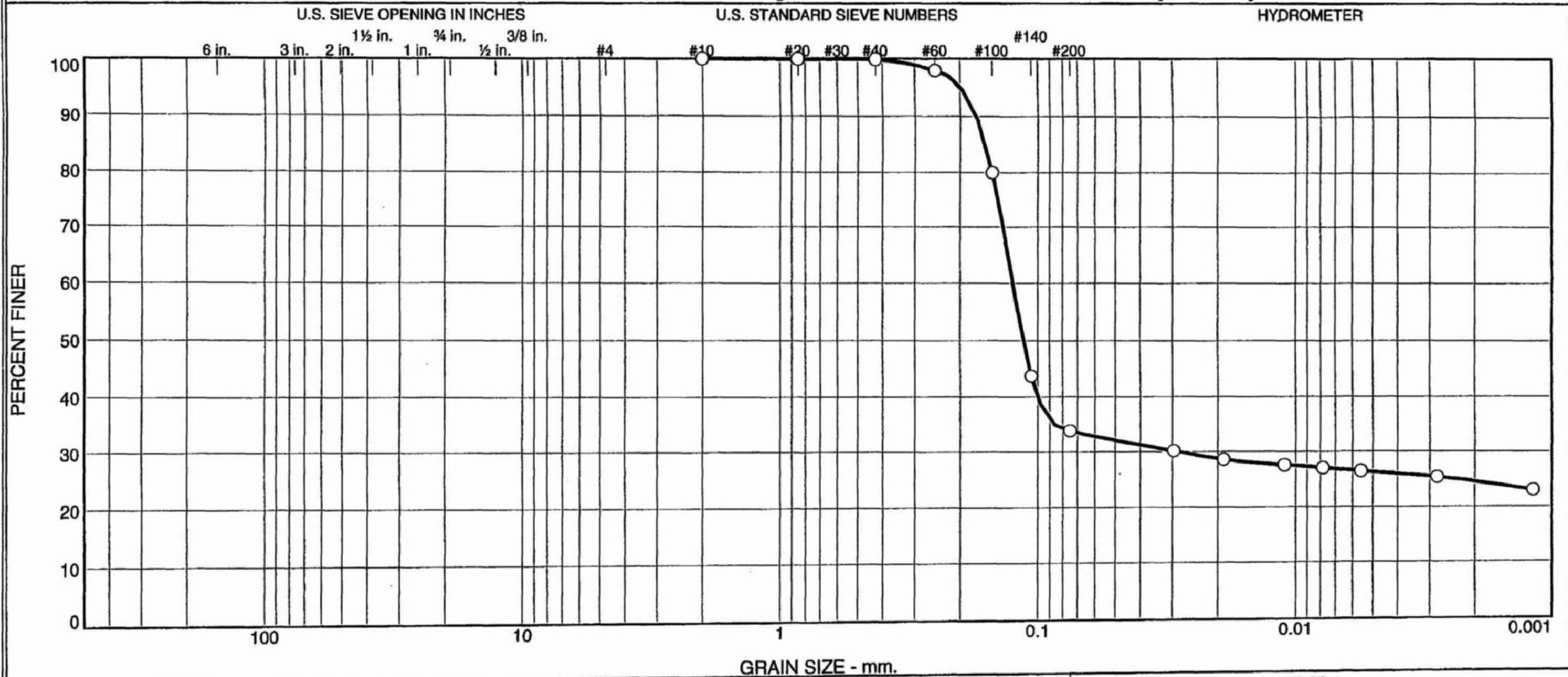
Run No.	1	2	3	4
Wet+Tare	22.70	22.70		
Dry+Tare	21.20	21.20		
Tare	15.40	15.60		
Moisture	25.9	26.8		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
174.42	137.66	6.79	28.1

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	0.1	66.1	7.4	26.4

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2269	SS-8	25.4-26.9'	11/8/07	SC	Pale Yellow Clayey SAND	13.4	25	17

Client Bechtel	MACTEC, Inc.	○ Specific gravity = 2.696 (ASTM D 854-06)
Project Exelon Texas COL (Victoria)		
Project No. 6468071777		
Figure NA	Raleigh, North Carolina	

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: 25.4-26.9'

Sample Number: SS-8

Material Description: Pale Yellow Clayey SAND

Date: 11/8/07

Natural Moisture: 13.4

Liquid Limit: 25

Plastic Limit: 17

USCS Class.: SC

Testing Remarks: Specific gravity = 2.696 (ASTM D 854-06)

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
237.60	0.00	0.00	#10	0.00	100.0
98.71	0.00	0.00	#20	0.04	100.0
			#40	0.08	99.9
			#60	2.02	98.0
			#100	19.78	80.0
			#140	55.53	43.7
			#200	65.33	33.8

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 98.71

Hygroscopic moisture correction:

Moist weight and tare = 26.80

Dry weight and tare = 26.58

Tare weight = 15.30

Hygroscopic moisture = 2.0%

Table of composite correction values:

Temp., deg. C: 10.5 29.8

Comp. corr.: -8.0 -3.5

Meniscus correction only = 1.0

Specific gravity of solids = 2.696

Hydrometer type = 152H

Hydrometer effective depth equation: $L = 16.294964 - 0.164 \times R_m$

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	0.0296	30.1
5.00	23.2	33.0	28.0	0.0129	34.0	10.7	0.0190	28.6
15.00	23.3	32.0	27.0	0.0129	33.0	10.9	0.0110	27.6
30.00	23.3	31.5	26.5	0.0129	32.5	11.0	0.0078	27.1
60.00	23.1	31.0	25.9	0.0130	32.0	11.0	0.0056	26.5
240.00	22.8	30.0	24.9	0.0130	31.0	11.2	0.0028	25.4
1440.00	21.6	28.0	22.6	0.0132	29.0	11.5	0.0012	23.1

MACTEC, Inc.

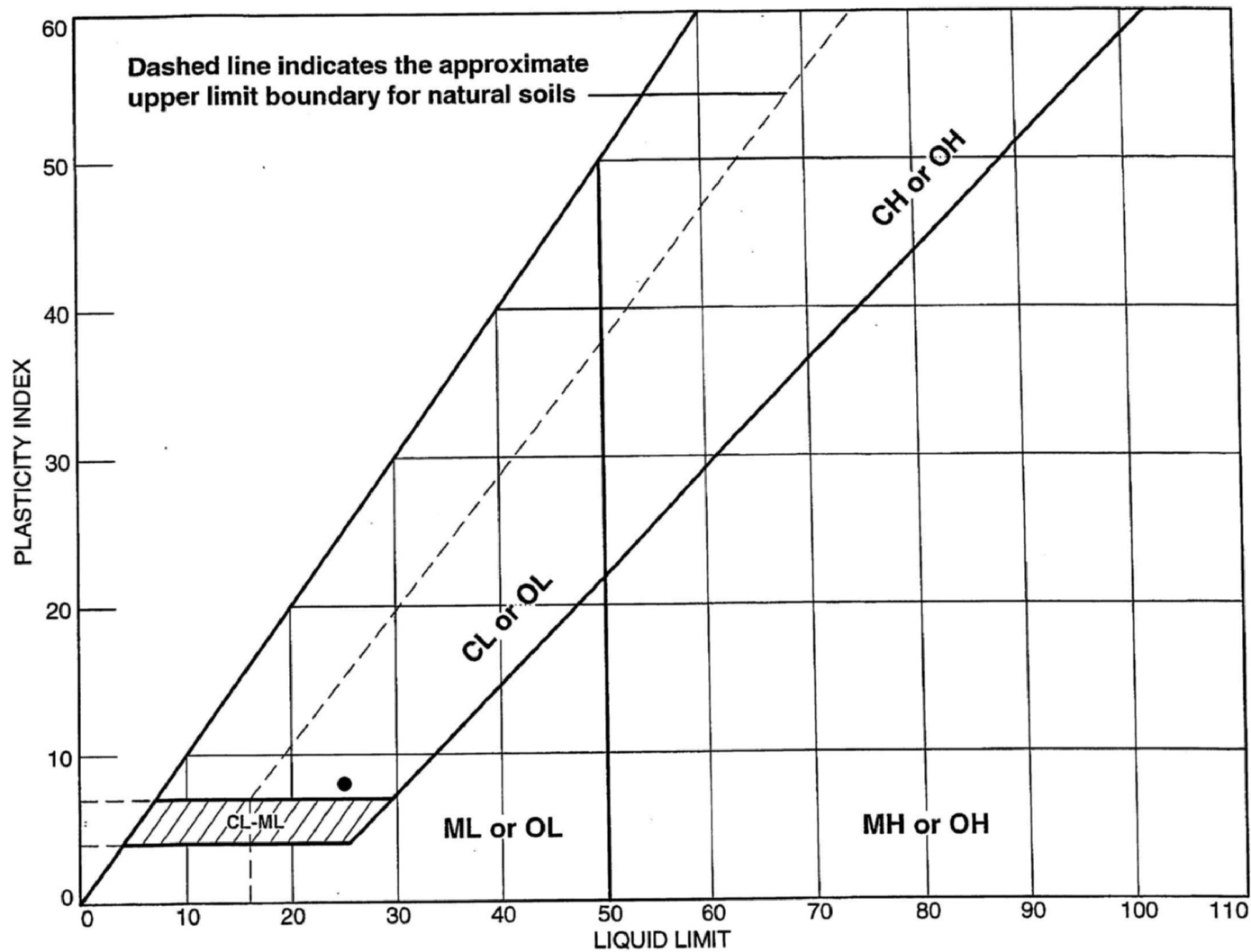
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.1	66.1	66.2	7.4	26.4	33.8

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
			0.0284	0.1138	0.1248	0.1501	0.1596	0.1732	0.1984

Fineness Modulus
0.21

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-8	25.4-26.9'	13.4	17	25	8	SC

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: 25.4-26.9'

Sample Number: SS-8

Material Description: Pale Yellow Clayey SAND

USCS: SC

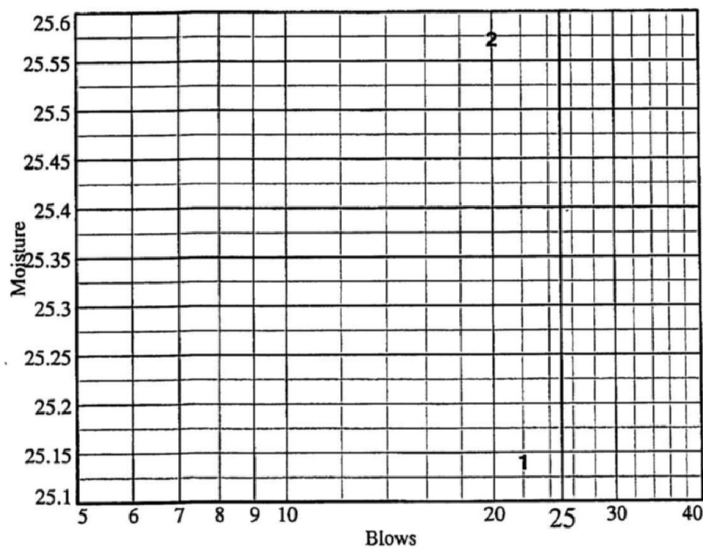
AASHTO: A-2-4(0)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	24.69	25.33				
Dry+Tare	22.90	23.32				
Tare	15.78	15.46				
# Blows	22	20				
Moisture	25.1	25.6				



Liquid Limit= 25
Plastic Limit= 17
Plasticity Index= 8
Natural Moisture= 13.4
Liquidity Index= -0.4

Plastic Limit Data

Run No.	1	2	3	4
Wet+Tare	22.61	25.04		
Dry+Tare	21.61	23.64		
Tare	15.60	15.55		
Moisture	16.6	17.3		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
149.74	133.11	9.19	13.4

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: 11/28/07

SAMPLE IDENTIFICATION: B-2269 SS-8

(A) Mass of oven-dried soil, grams:		75.67
(B) Mass of pycnometer filled with water at test temperature (T), grams:		654.78
(C) Mass of pycnometer, water and soil, grams:		702.40
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:		23.4
(G) Specific Gravity at observed temperature:	$A / [B - (C - A)]$	2.698
(F)	Correction factor:	0.99924
(G x F)	SPECIFIC GRAVITY @ 20°C:	2.696

MATERIAL TESTED:

 - # 4

 - # 10

PREPARATION METHOD:

 DRY

 WET (dispersed)

REMARKS: Estimated % Passing # 4 : 100%

Clayey SAND (SC)

EQUIPMENT USED

SCALES : 3.1.19

OVEN : 5.1.16

THERMOMETER : 5.1.01

PYCNO METER : P-5

TESTED BY: CS

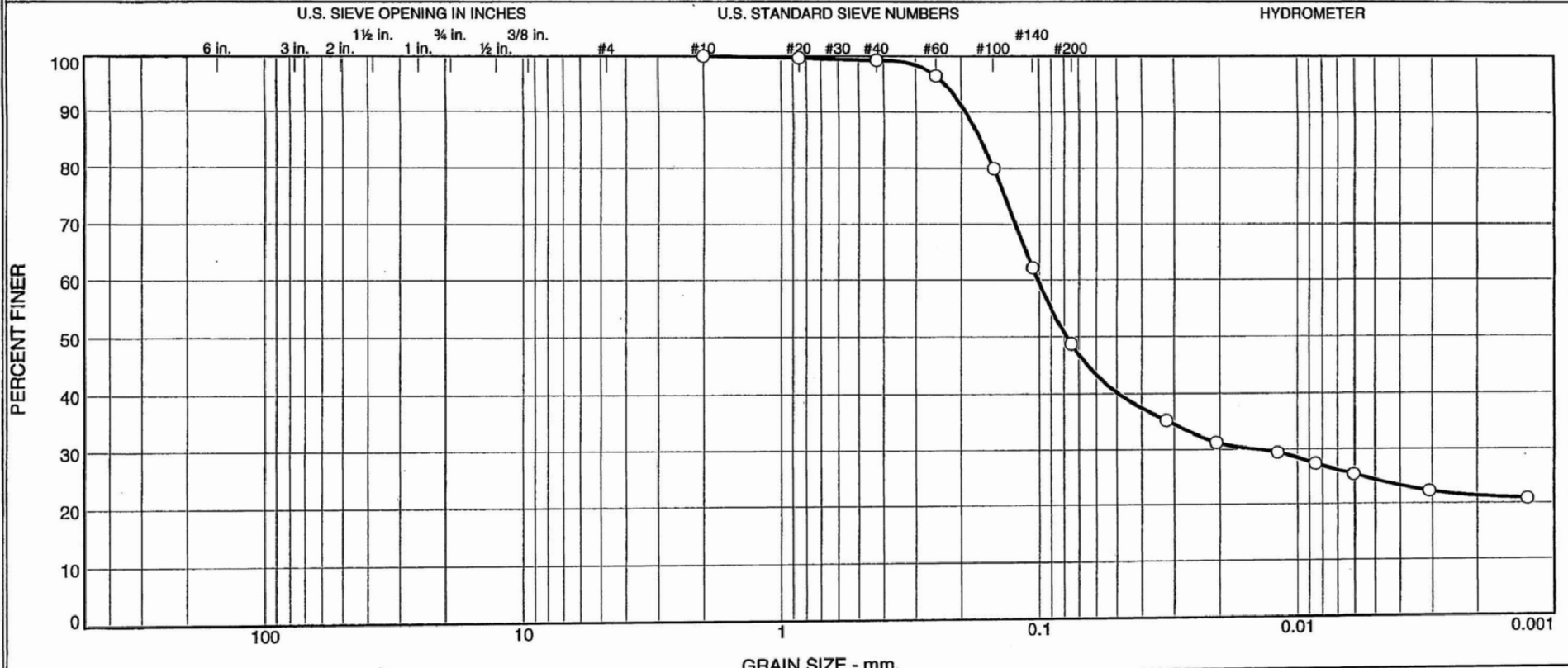
\\Test Reports\Soils\SPECIFIC GRAVITY(ref).xls

REVIEWED BY:

Brian Johnson

DSC 1-25-08

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	0.7	50.6	24.3	24.4

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2269	SS-9	30.4-31.9'	11/8/07	SC	Light Yellowish Brown Clayey SAND	15.5	30	14

Client Bechtel	MACTEC, Inc.	○ Specific gravity is assumed. Organic content = 4.1% (ASTM D 2974-07)
Project Exelon Texas COL (Victoria)		
Project No. 6468071777		
Figure NA	Raleigh, North Carolina	

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: 30.4-31.9'

Sample Number: SS-9

Material Description: Light Yellowish Brown Clayey SAND

Date: 11/8/07

Natural Moisture: 15.5

Liquid Limit: 30

Plastic Limit: 14

USCS Class.: SC

Testing Remarks: Specific gravity is assumed.

Organic content = 4.1% (ASTM D 2974-07)

Tested by: CS

Checked by: LBJ

Steve Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
260.80	0.00	0.00	#10	0.00	100.0
51.56	0.00	0.00	#20	0.17	99.7
			#40	0.38	99.3
			#60	1.86	96.4
			#100	10.33	80.0
			#140	19.51	62.2
			#200	26.43	48.7

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 51.56

Hygroscopic moisture correction:

Moist weight and tare = 28.56

Dry weight and tare = 28.26

Tare weight = 15.44

Hygroscopic moisture = 2.3%

Table of composite correction values:

Temp., deg. C: 10.5 29.8

Comp. corr.: -8.0 -3.5

Meniscus correction only = 1.0

Specific gravity of solids = 2.700

Hydrometer type = 152H

Hydrometer effective depth equation: $L = 16.294964 - 0.164 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.3	23.0	18.0	0.0129	24.0	12.4	0.0321	35.3
5.00	23.2	21.0	16.0	0.0129	22.0	12.7	0.0206	31.3
15.00	23.4	20.0	15.0	0.0129	21.0	12.9	0.0119	29.5
30.00	23.3	19.0	14.0	0.0129	20.0	13.0	0.0085	27.4
60.00	23.2	18.0	13.0	0.0129	19.0	13.2	0.0061	25.4
240.00	22.7	16.5	11.3	0.0130	17.5	13.4	0.0031	22.3
1440.00	21.7	16.0	10.6	0.0132	17.0	13.5	0.0013	20.8

MACTEC, Inc.

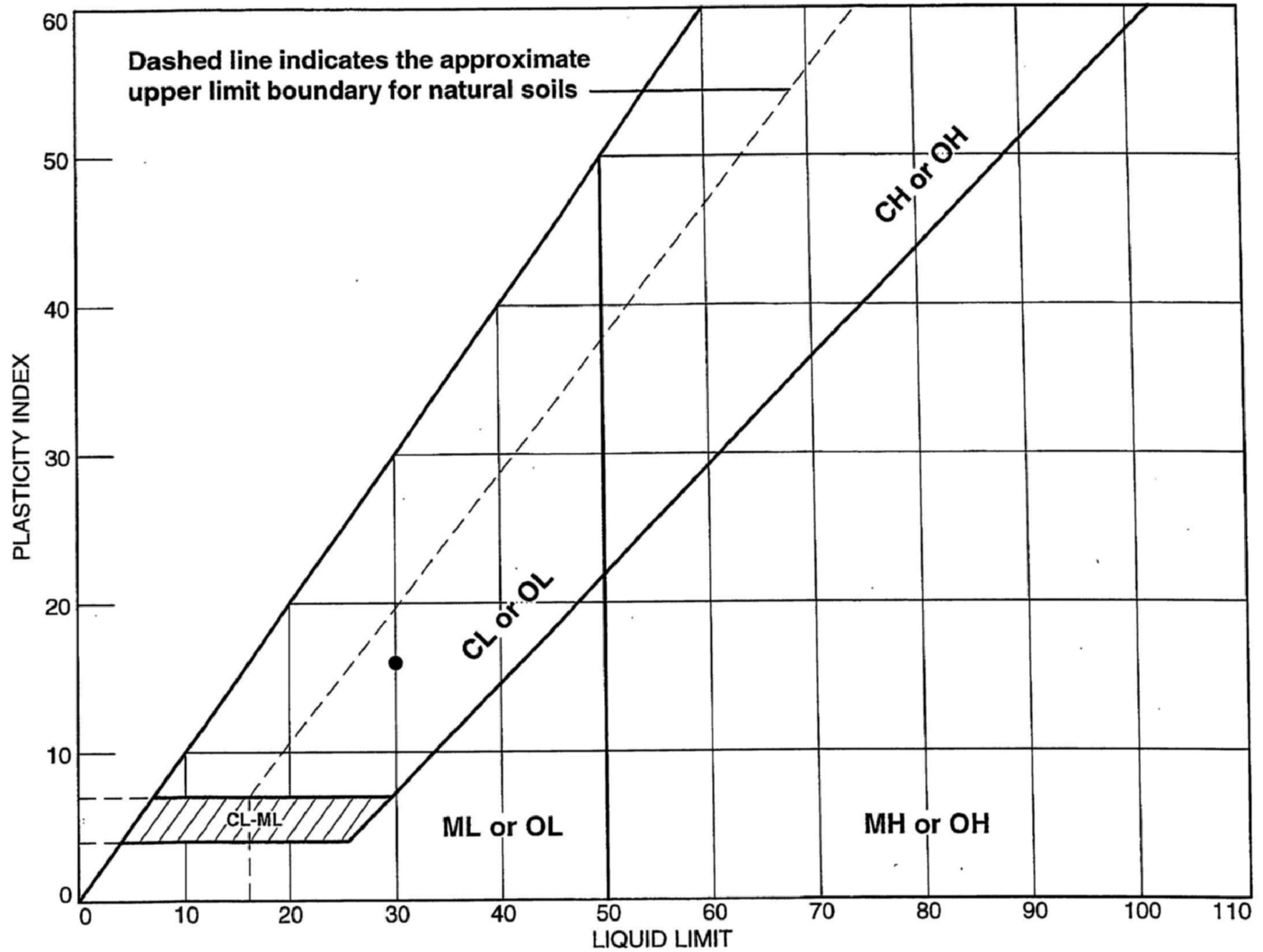
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.7	50.6	51.3	24.3	24.4	48.7

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
			0.0140	0.0781	0.1012	0.1501	0.1681	0.1926	0.2321

Fineness Modulus
0.22

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-9	30.4-31.9'	15.5	14	30	16	SC

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: 30.4-31.9'

Sample Number: SS-9

Material Description: Light Yellowish Brown Clayey SAND

USCS: SC

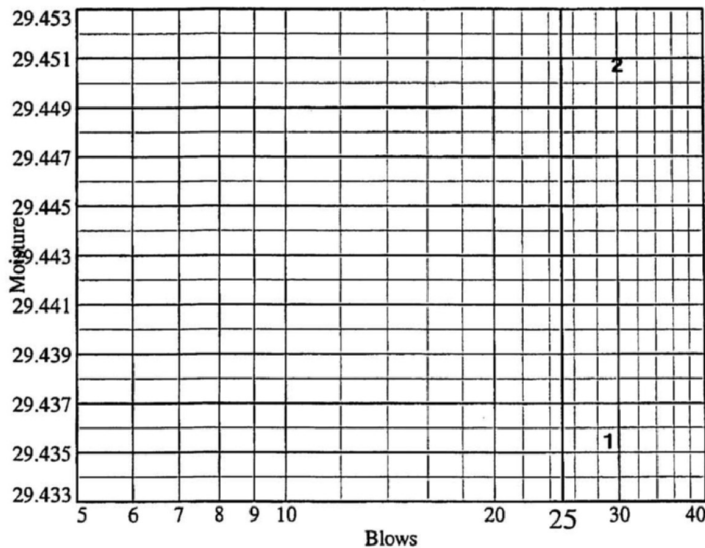
AASHTO: A-6(4)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	28.33	28.93				
Dry+Tare	25.41	25.82				
Tare	15.49	15.26				
# Blows	29	30				
Moisture	29.4	29.5				



Liquid Limit= 30
Plastic Limit= 14
Plasticity Index= 16
Natural Moisture= 15.5
Liquidity Index= 0.1

Plastic Limit Data

Run No.	1	2	3	4
Wet+Tare	22.50	24.40		
Dry+Tare	21.60	23.30		
Tare	15.50	15.50		
Moisture	14.8	14.1		

Natural Moisture Data

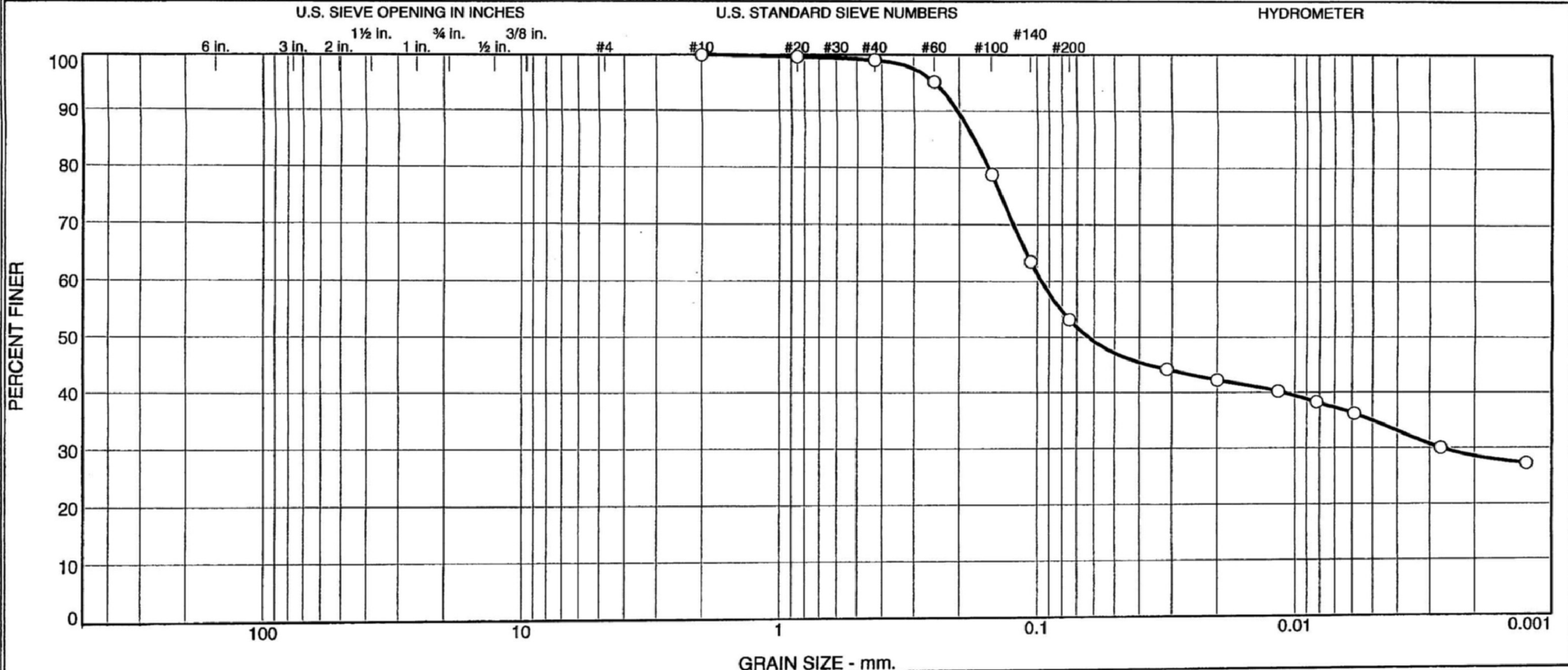
Wet+Tare	Dry+Tare	Tare	Moisture
176.61	154.12	9.34	15.5

MACTEC, Inc.

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

Volume 3, Rev. 0 - 7/10/08

Page 1191 of 2371



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.9	45.9	18.3	34.9

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2269	SS-10	35.4-36.9'	11/8/07	CL	Pale Brown Sandy Lean CLAY	15.0	35	13

Client Bechtel	MACTEC, Inc.	○ Specific gravity is assumed.
Project Exelon Texas COL (Victoria)		
Project No. 6468071777	Figure NA	Raleigh, North Carolina

DCN# EXE805

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: 35.4-36.9'

Sample Number: SS-10

Material Description: Pale Brown Sandy Lean CLAY

Date: 11/8/07

Natural Moisture: 15.0

Liquid Limit: 35

Plastic Limit: 13

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
213.25	0.00	0.00	#10	0.00	100.0
50.43	0.00	0.00	#20	0.16	99.7
			#40	0.47	99.1
			#60	2.46	95.1
			#100	10.71	78.8
			#140	18.40	63.5
			#200	23.61	53.2

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 50.43

Hygroscopic moisture correction:

Moist weight and tare = 27.65

Dry weight and tare = 27.35

Tare weight = 15.57

Hygroscopic moisture = 2.5%

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: $L = 16.294964 - 0.164 \times R_m$

Elapsed Time (min.)	Temp. (deg. C.)	Actual Reading	Corrected Reading	K	Rm	Eff. Depth	Diameter (mm.)	Percent Finer
2.00	23.1	27.0	22.0	0.0129	28.0	11.7	0.0313	44.2
5.00	23.2	26.0	21.0	0.0129	27.0	11.9	0.0199	42.2
15.00	23.2	25.0	20.0	0.0129	26.0	12.0	0.0116	40.2
30.00	23.3	24.0	19.0	0.0129	25.0	12.2	0.0082	38.3
60.00	23.1	23.0	18.0	0.0129	24.0	12.4	0.0059	36.2
296.00	22.9	20.0	14.9	0.0130	21.0	12.9	0.0027	30.0
1440.00	21.4	19.0	13.6	0.0132	20.0	13.0	0.0013	27.3

MACTEC, Inc.

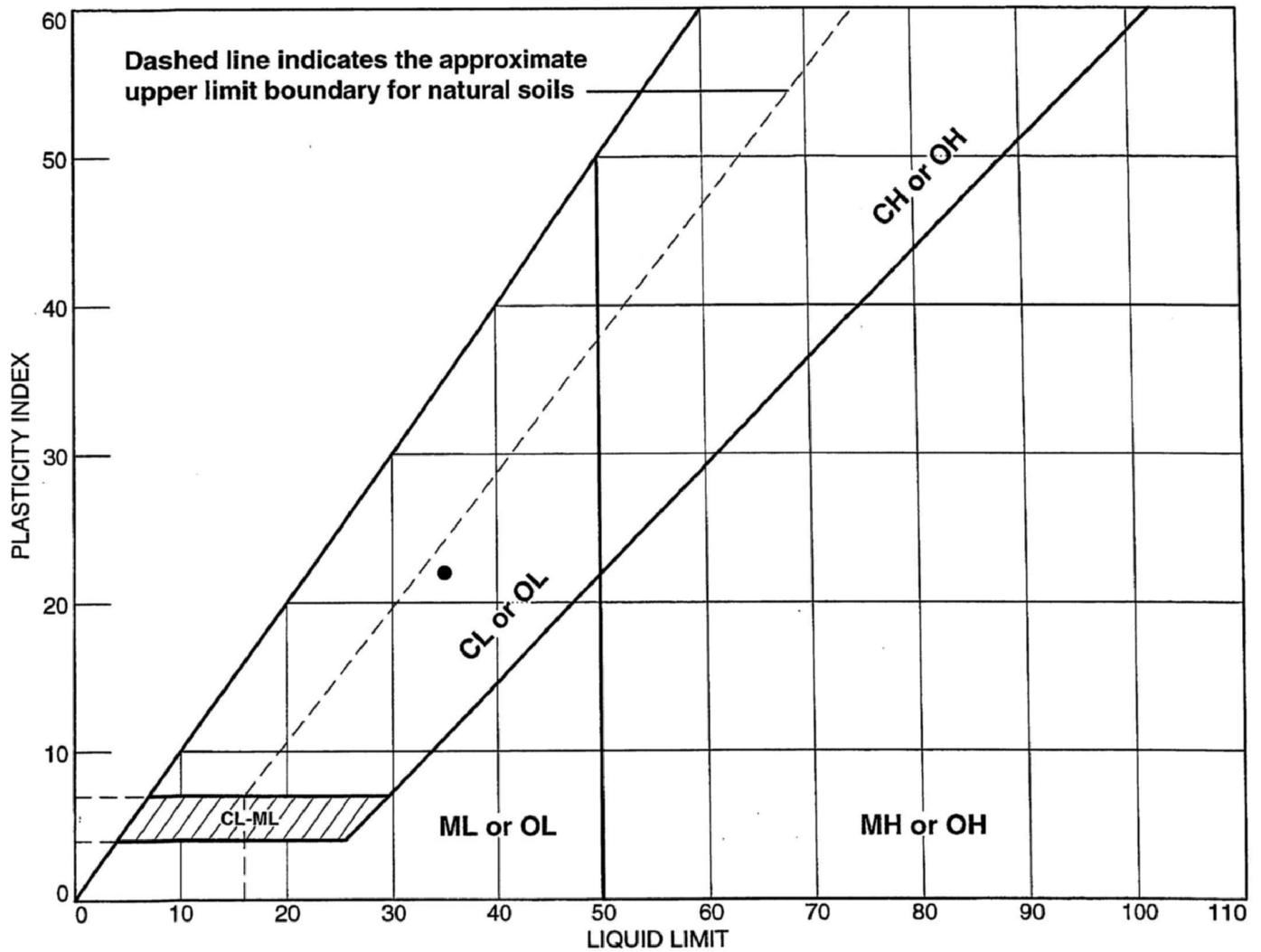
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.9	45.9	46.8	18.3	34.9	53.2

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
			0.0027	0.0632	0.0962	0.1544	0.1751	0.2030	0.2484

Fineness Modulus
0.24

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-10	35.4-36.9'	15.0	13	35	22	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: 35.4-36.9'

Sample Number: SS-10

Material Description: Pale Brown Sandy Lean CLAY

USCS: CL

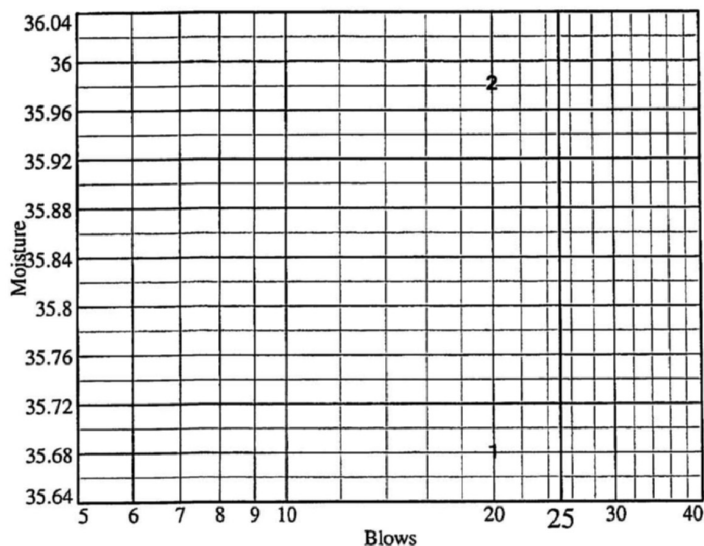
AASHTO: A-6(8)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	24.60	24.88				
Dry+Tare	22.27	22.39				
Tare	15.74	15.47				
# Blows	20	20				
Moisture	35.7	36.0				



Liquid Limit= 35
Plastic Limit= 13
Plasticity Index= 22
Natural Moisture= 15.0
Liquidity Index= 0.1

Plastic Limit Data

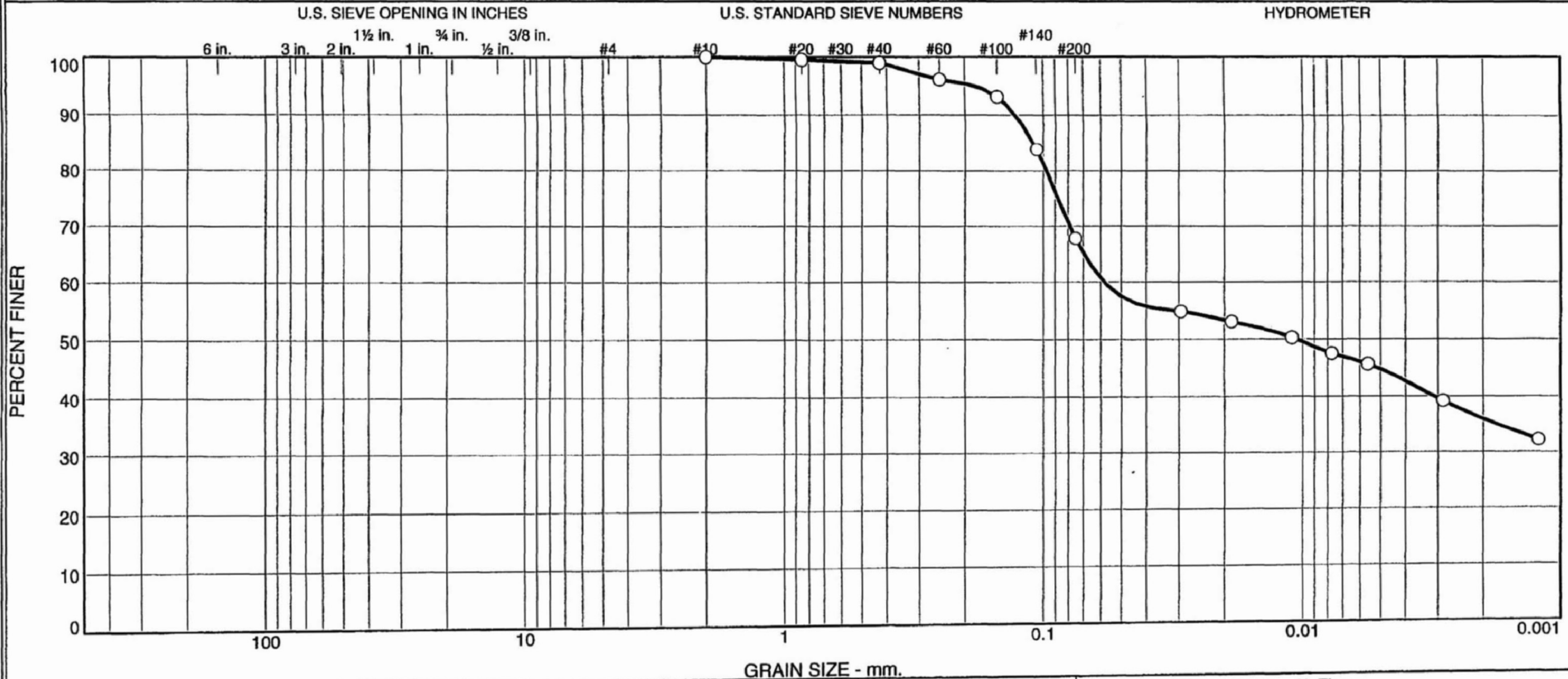
Run No.	1	2	3	4
Wet+Tare	24.06	25.04		
Dry+Tare	23.10	24.00		
Tare	15.66	15.60		
Moisture	12.9	12.4		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
170.77	149.66	9.19	15.0

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	1.0	31.2	23.0	44.8

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2269	SS-11	40.4-41.9'	11/8/07	CL	Yellowish Brown Sandy Lean CLAY	22.5	41	16

Client Bechtel	MACTEC, Inc.	○ Specific gravity is assumed. Organic content = 4.5% (ASTM D 2974-07)
Project Exelon Texas COL (Victoria)		
Project No. 6468071777	Figure NA	Raleigh, North Carolina

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

Volume 3, Rev. 0 - 7/10/08

Page 1196 of 2371

DCN# EXE805

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2269

Depth: 40.4-41.9'

Sample Number: SS-11

Material Description: Yellowish Brown Sandy Lean CLAY

Date: 11/8/07

Natural Moisture: 22.5

Liquid Limit: 41

Plastic Limit: 16

USCS Class.: CL

Testing Remarks: Specific gravity is assumed.

Organic content = 4.5% (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
209.83	0.00	0.00	#10	0.00	100.0
55.85	0.00	0.00	#20	0.26	99.5
			#40	0.57	99.0
			#60	2.16	96.1
			#100	3.86	93.1
			#140	8.99	83.9
			#200	17.96	67.8

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 55.85

Hygroscopic moisture correction:

Moist weight and tare = 29.08

Dry weight and tare = 28.67

Tare weight = 15.62

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: $L = 16.294964 - 0.164 \times R_m$

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	54.8
5.00	23.3	34.0	29.0	0.0129	35.0	10.6	0.0188	53.0
15.00	23.3	32.5	27.5	0.0129	33.5	10.8	0.0110	50.3
31.00	23.3	31.0	26.0	0.0129	32.0	11.0	0.0077	47.5
60.00	23.2	30.0	25.0	0.0129	31.0	11.2	0.0056	45.7
240.00	23.0	26.5	21.5	0.0130	27.5	11.8	0.0029	39.2
1440.00	21.6	23.0	17.6	0.0132	24.0	12.4	0.0012	32.2

MACTEC, Inc.

Fractional Components

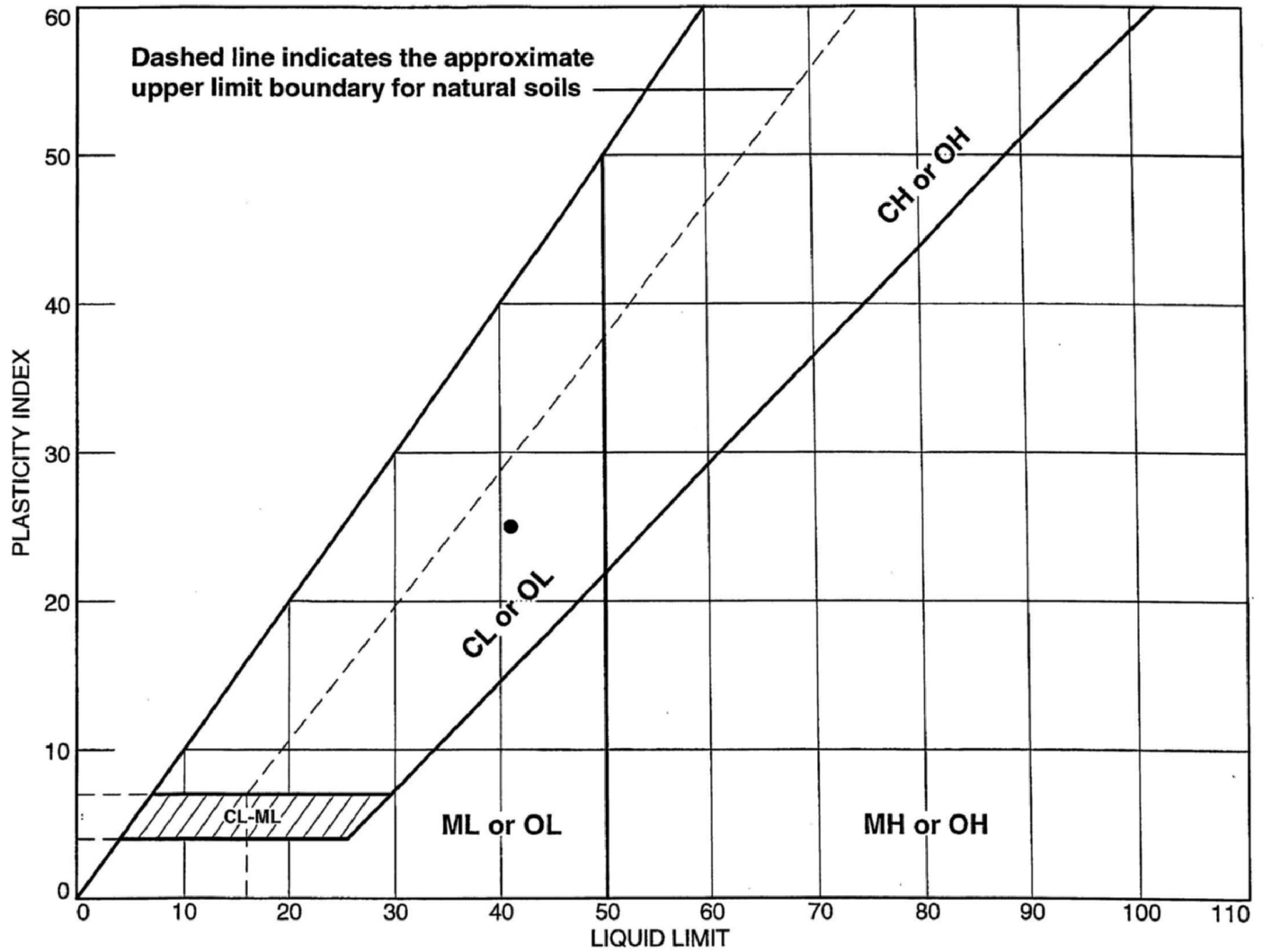
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	1.0	31.2	32.2	23.0	44.8	67.8

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
				0.0106	0.0580	0.0971	0.1090	0.1279	0.1832

Fineness Modulus
0.11

MACTEC, Inc.

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-11	40.4-41.9'	22.5	16	41	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: 40.4-41.9'

Sample Number: SS-11

Material Description: Yellowish Brown Sandy Lean CLAY

USCS: CL

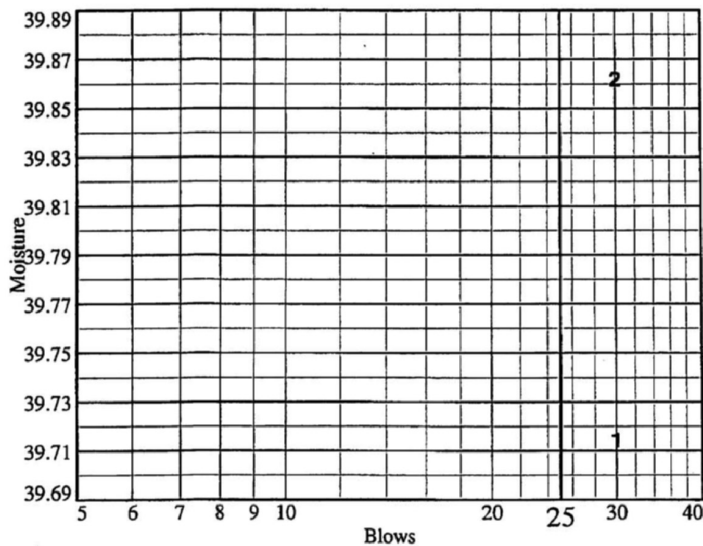
AASHTO: A-7-6(15)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	32.27	30.17				
Dry+Tare	27.54	26.12				
Tare	15.63	15.96				
# Blows	30	30				
Moisture	39.7	39.9				



Liquid Limit= 41
Plastic Limit= 16
Plasticity Index= 25
Natural Moisture= 22.5
Liquidity Index= 0.3

Plastic Limit Data

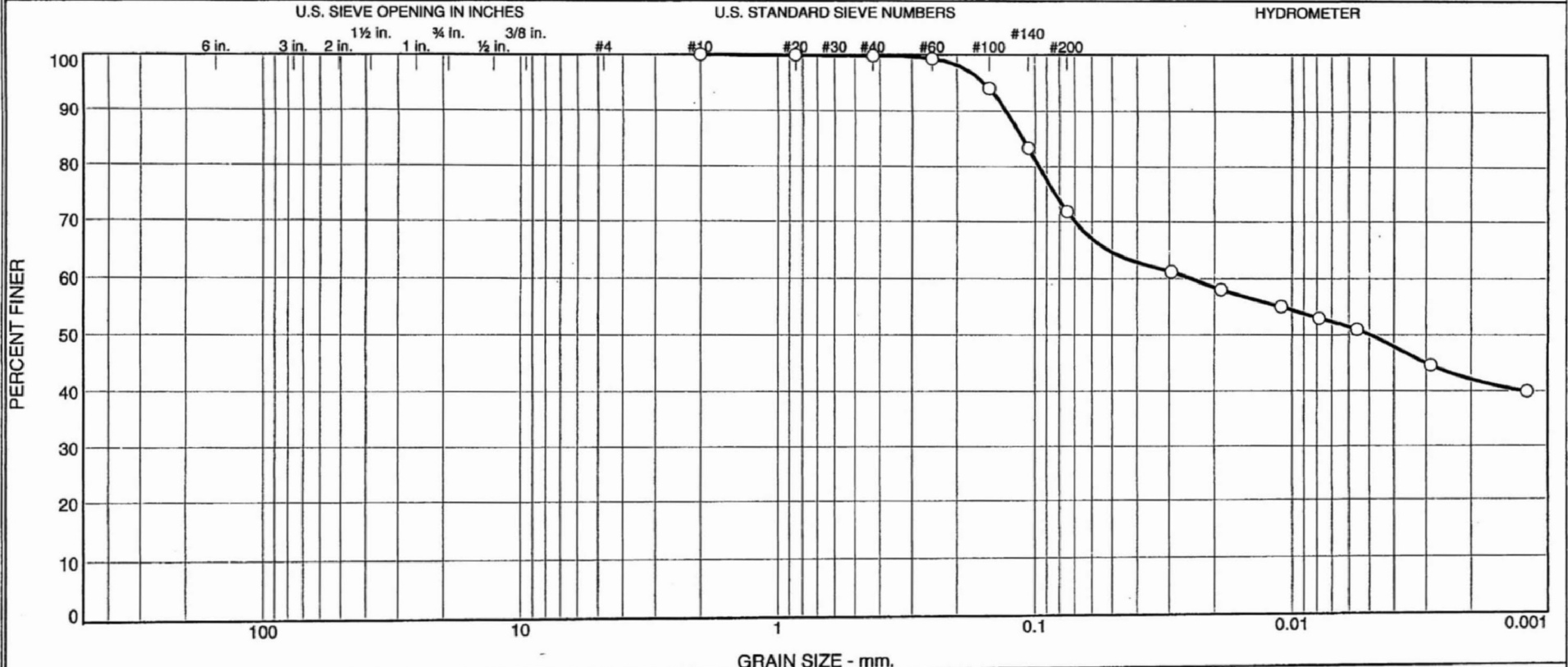
Run No.	1	2	3	4
Wet+Tare	24.20	24.40		
Dry+Tare	23.00	23.20		
Tare	15.40	15.40		
Moisture	15.8	15.4		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
142.24	117.87	9.53	22.5

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	0.2	28.0	21.7	50.1

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2269	SS-12	45.4-46.9'	11/8/07	CH	Brownish Yellow Fat CLAY with sand	20.0	53	17

Client Bechtel	MACTEC, Inc.	○ Specific gravity is assumed.
Project Exelon Texas COL (Victoria)		
Project No. 6468071777		
Figure <u>NA</u>	Raleigh, North Carolina	

Tested By: CS

Checked By: LBJ

DSC 1-25-08

Volume 3, Rev. 0 - 7/10/08

Page 1201 of 2371

DCN# EXE805

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2269

Depth: 45.4-46.9'

Sample Number: SS-12

Material Description: Brownish Yellow Fat CLAY with sand

Date: 11/8/07

Natural Moisture: 20.0

Liquid Limit: 53

Plastic Limit: 17

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
228.86	0.00	0.00	#10	0.00	100.0
50.20	0.00	0.00	#20	0.06	99.9
			#40	0.12	99.8
			#60	0.38	99.2
			#100	3.04	93.9
			#140	8.32	83.4
			#200	14.15	71.8

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 50.2

Hygroscopic moisture correction:

Moist weight and tare = 26.56

Dry weight and tare = 26.17

Tare weight = 15.49

Hygroscopic moisture = 3.7%

Table of composite correction values:

Temp., deg. C: 10.5 29.8

Comp. corr.: -8.0 -3.5

Meniscus correction only = 1.0

Specific gravity of solids = 2.700

Hydrometer type = 152H

Hydrometer effective depth equation: $L = 16.294964 - 0.164 \times R_m$

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	61.2
5.00	23.2	33.5	28.5	0.0129	34.5	10.6	0.0189	58.1
15.00	23.3	32.0	27.0	0.0129	33.0	10.9	0.0110	55.1
30.00	23.3	31.0	26.0	0.0129	32.0	11.0	0.0078	53.1
60.00	23.3	30.0	25.0	0.0129	31.0	11.2	0.0056	51.0
240.00	22.6	27.0	21.8	0.0130	28.0	11.7	0.0029	44.6
1440.00	21.4	25.0	19.5	0.0132	26.0	12.0	0.0012	39.9

MACTEC, Inc.

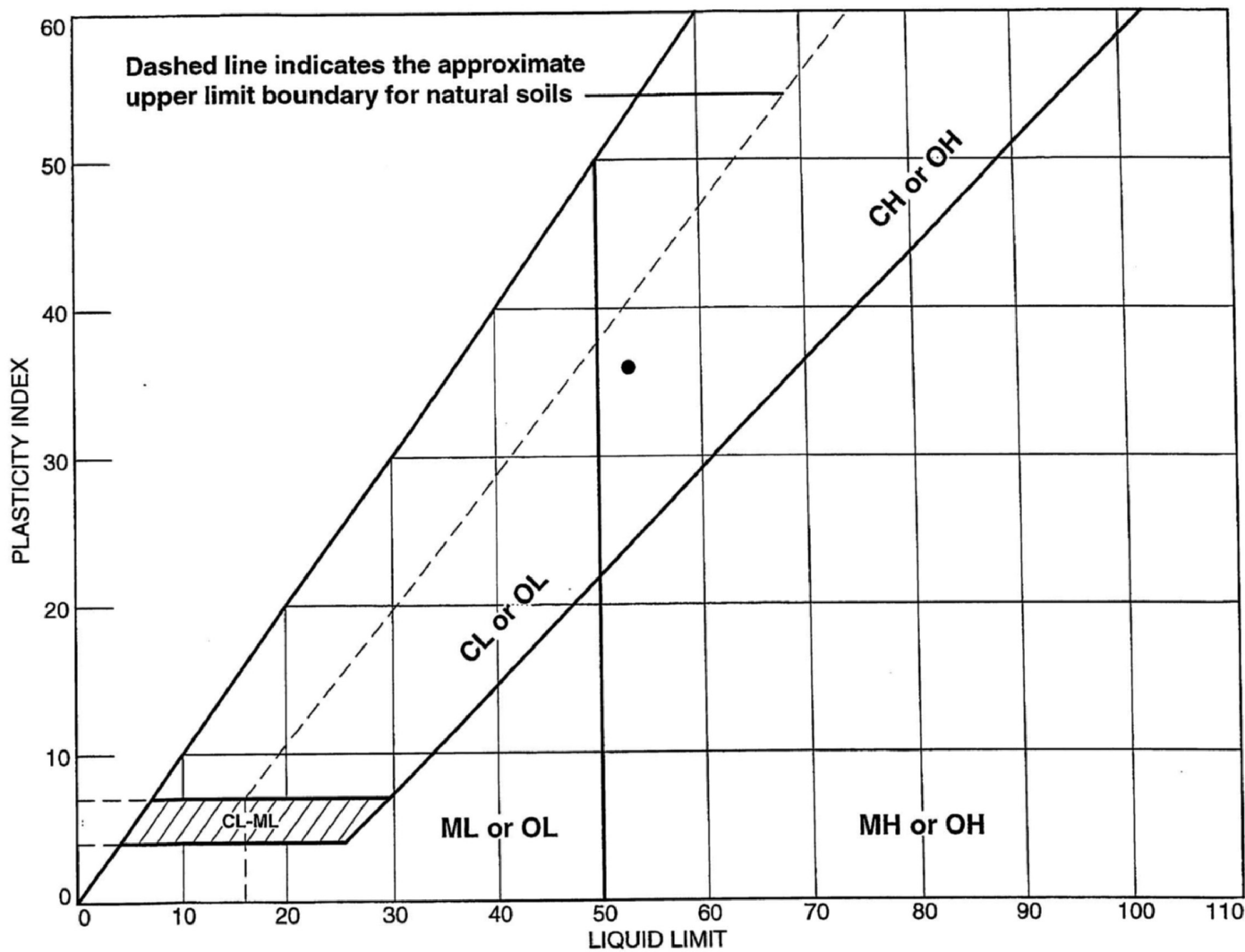
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.2	28.0	28.2	21.7	50.1	71.8

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
				0.0049	0.0245	0.0963	0.1109	0.1292	0.1579

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-12	45.4-46.9'	20.0	17	53	36	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