

GRAIN SIZE DISTRIBUTION TEST DATA

1/24/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2182A

Depth: 43.5-45

Sample Number: SS-12

Material Description: Olive Brown Sandy Lean CLAY

Date: 11/29/07

Natural Moisture: 15.8

Liquid Limit: 24

Plastic Limit: 16

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
271.77	0.00	0.00	#10	0.00	100.0
50.71	0.00	0.00	#20	1.00	98.0
			#40	1.86	96.3
			#60	2.42	95.2
			#100	6.14	87.9
			#140	14.54	71.3
			#200	20.44	59.7

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 50.71

Hygroscopic moisture correction:

Moist weight and tare = 27.17

Dry weight and tare = 26.93

Tare weight = 15.49

Hygroscopic moisture = 2.1%

Table of composite correction values:

Temp., deg. C: 12.2 27.1

Comp. corr.: -7.0 -3.0

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	18.8	30.0	24.8	0.0136	31.0	11.2	0.0323	49.3
5.00	18.9	28.0	22.8	0.0136	29.0	11.5	0.0207	45.4
15.00	18.9	25.0	19.8	0.0136	26.0	12.0	0.0122	39.4
30.00	19.1	24.0	18.9	0.0136	25.0	12.2	0.0087	37.5
60.00	19.5	23.0	18.0	0.0135	24.0	12.4	0.0061	35.8
250.00	21.4	19.5	15.0	0.0132	20.5	12.9	0.0030	29.8
1440.00	21.3	18.0	13.4	0.0132	19.0	13.2	0.0013	26.8

MACTEC, Inc.

Fractional Components

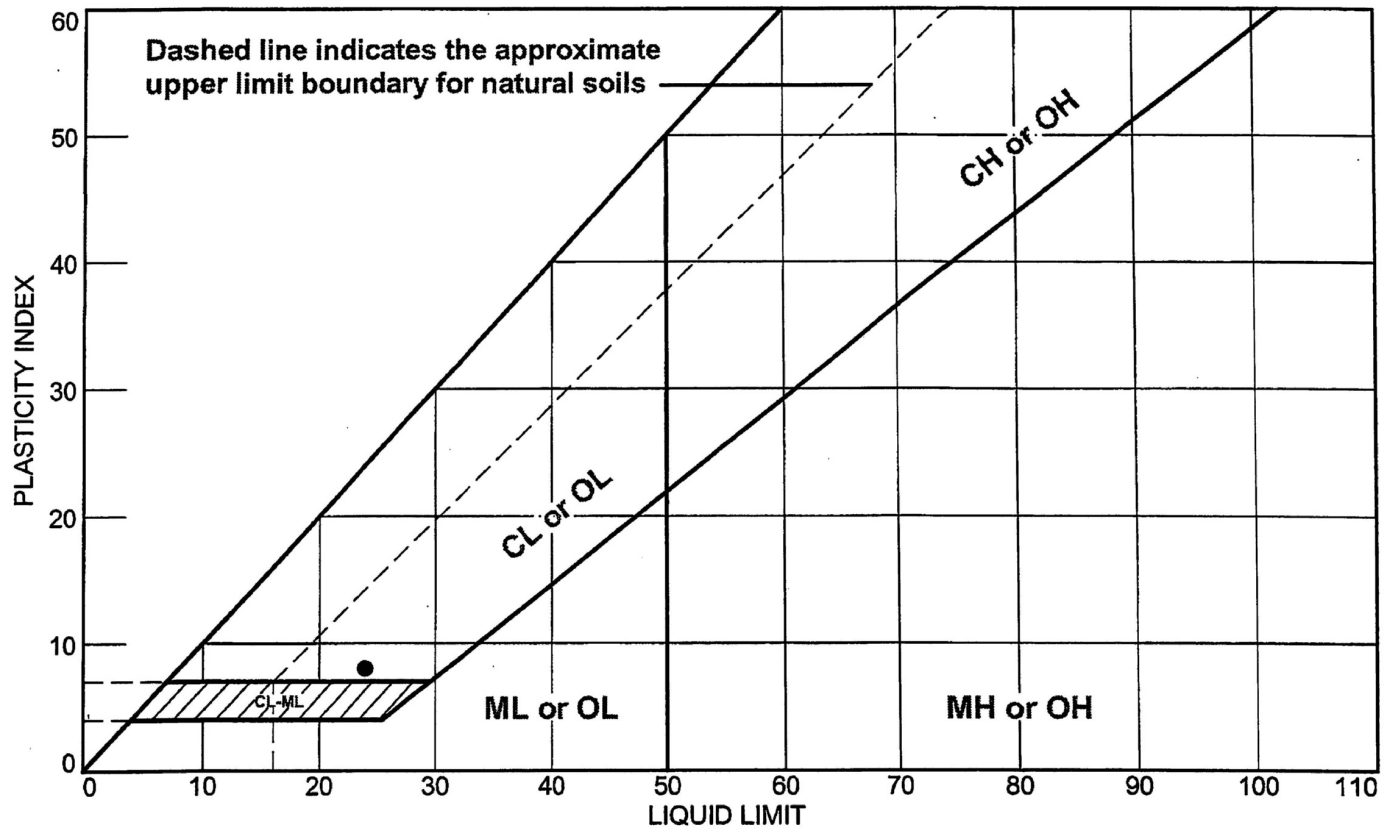
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	3.7	36.6	40.3	25.5	34.2	59.7

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
			0.0031	0.0355	0.0760	0.1261	0.1399	0.1598	0.2311

Fineness Modulus
0.21

MACTEC, Inc.

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•	Boring B-2182A	SS-12	43.5-45	15.8	16	24	8	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-2182A

Depth: 43.5-45

Sample Number: SS-12

Material Description: Olive Brown Sandy Lean CLAY

USCS: CL

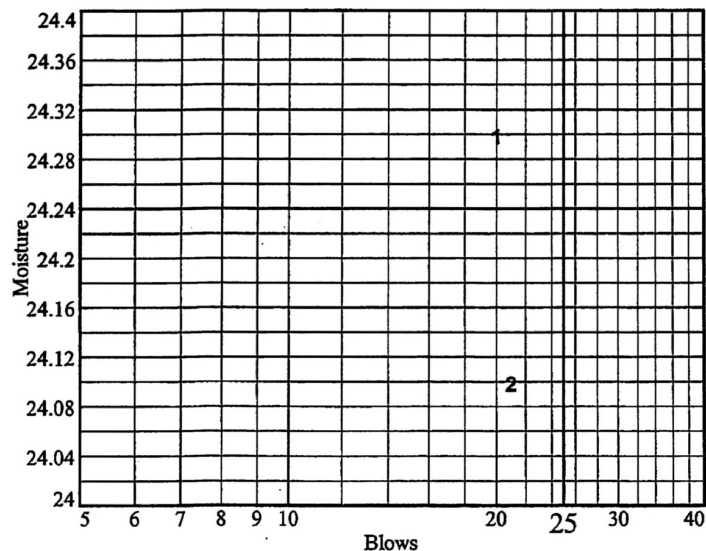
AASHTO: A-4(2)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	31.13	29.53				
Dry+Tare	28.10	26.79				
Tare	15.63	15.42				
# Blows	20	21				
Moisture	24.3	24.1				



Liquid Limit= 24
 Plastic Limit= 16
 Plasticity Index= 8
 Natural Moisture= 15.8
 Liquidity Index= 0.0

Plastic Limit Data

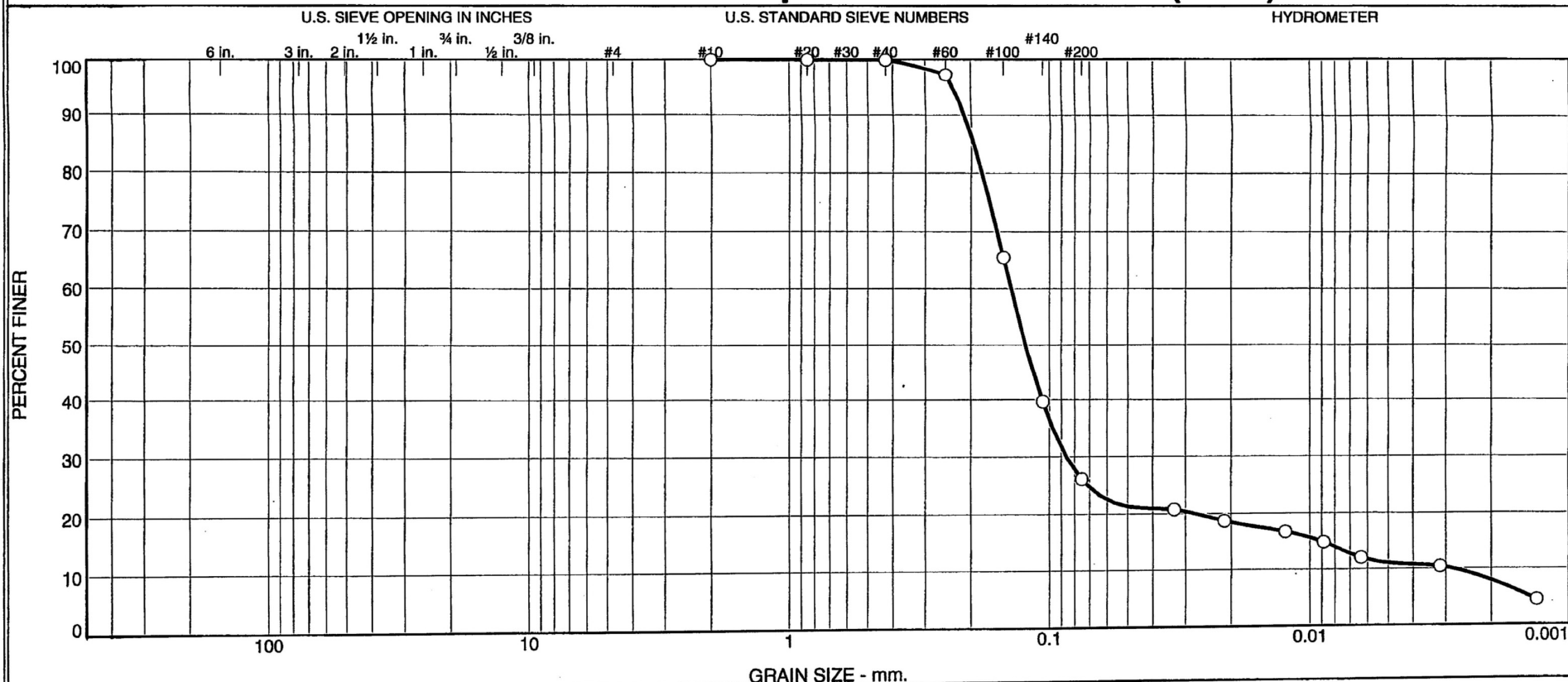
Run No.	1	2	3	4
Wet+Tare	25.60	23.50		
Dry+Tare	24.25	22.39		
Tare	15.60	15.50		
Moisture	15.6	16.1		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
174.20	151.31	6.80	15.8

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	73.8	15.1	11.0

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2182A	SS-13	48.5-50.0	11/29/07	SM	Brownish Yellow Silty SAND	ND	16	15

Client Bechtel		MACTEC, Inc.	○ Specific gravity is assumed ND = Not determined.
Project Exelon Texas COL (Victoria)			
Project No. 6468071777	Figure NA		

GRAIN SIZE DISTRIBUTION TEST DATA

1/25/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2182A

Depth: 48.5-50.0

Sample Number: SS-13

Material Description: Brownish Yellow Silty SAND

Date: 11/29/07

Natural Moisture: ND

Liquid Limit: 16

Plastic Limit: 15

USCS Class.: SM

Testing Remarks: Specific gravity is assumed

ND = Not determined.

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
254.47	0.00	0.00	#10	0.00	100.0
101.09	0.00	0.00	#20	0.03	100.0
			#40	0.08	99.9
			#60	2.80	97.2
			#100	34.89	65.5
			#140	60.99	39.7
			#200	74.69	26.1

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 101.09

Hygroscopic moisture correction:

Moist weight and tare = 28.14

Dry weight and tare = 27.96

Tare weight = 15.47

Hygroscopic moisture = 1.4%

Table of composite correction values:

Temp., deg. C: 12.2 27.1

Comp. corr.: -7.0 -3.0

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	19.2	26.0	20.9	0.0136	27.0	11.9	0.0331	20.7
5.00	19.1	24.0	18.9	0.0136	25.0	12.2	0.0212	18.7
15.00	19.3	22.0	16.9	0.0136	23.0	12.5	0.0124	16.8
30.00	19.6	20.0	15.0	0.0135	21.0	12.9	0.0088	14.9
60.00	20.0	17.0	12.1	0.0134	18.0	13.3	0.0063	12.0
240.00	21.5	15.0	10.5	0.0132	16.0	13.7	0.0031	10.4
1440.00	21.5	9.0	4.5	0.0132	10.0	14.7	0.0013	4.5

MACTEC, Inc.

Fractional Components

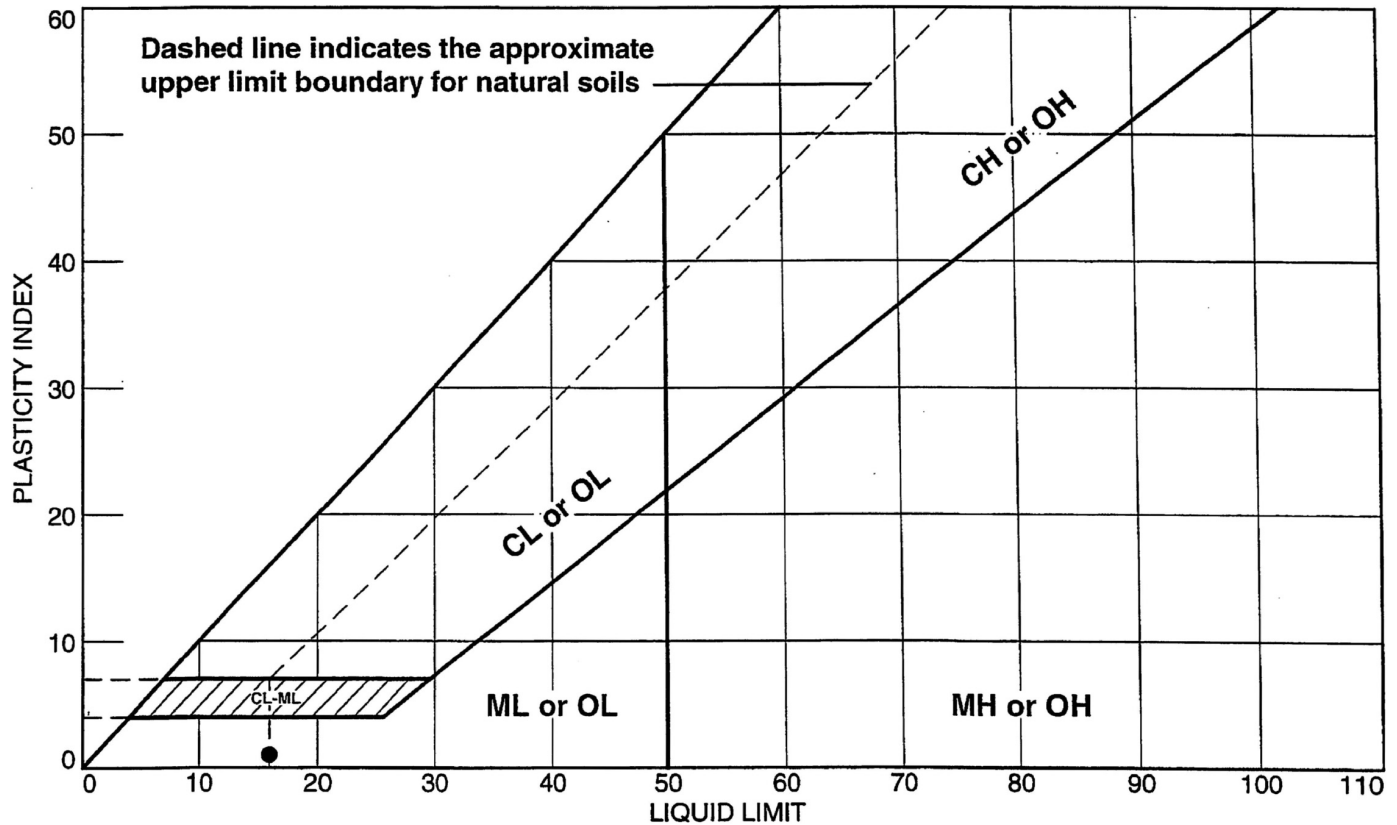
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.1	73.8	73.9	15.1	11.0	26.1

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
0.0028	0.0090	0.0274	0.0860	0.1233	0.1401	0.1815	0.1954	0.2124	0.2353

Fineness Modulus	C _u	C _c
0.36	50.11	18.87

MACTEC, Inc.

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•	Boring B-2182A	SS-13	48.5-50.0	ND	15	16	1	SM

MACTEC, Inc.

Raleigh, North Carolina

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project No.: 6468071777

Figure NA

Tested By: CS

Checked By: LBJ DSC 1-26-08

LIQUID AND PLASTIC LIMIT TEST DATA

1/25/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2182A

Depth: 48.5-50.0

Sample Number: SS-13

Material Description: Brownish Yellow Silty SAND

USCS: SM

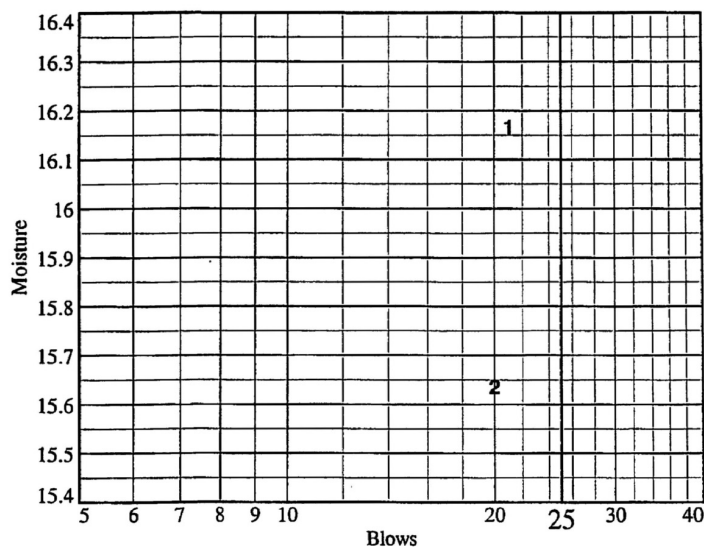
AASHTO: A-2-4(0)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	29.42	27.50				
Dry+Tare	27.48	25.88				
Tare	15.48	15.52				
# Blows	21	20				
Moisture	16.2	15.6				



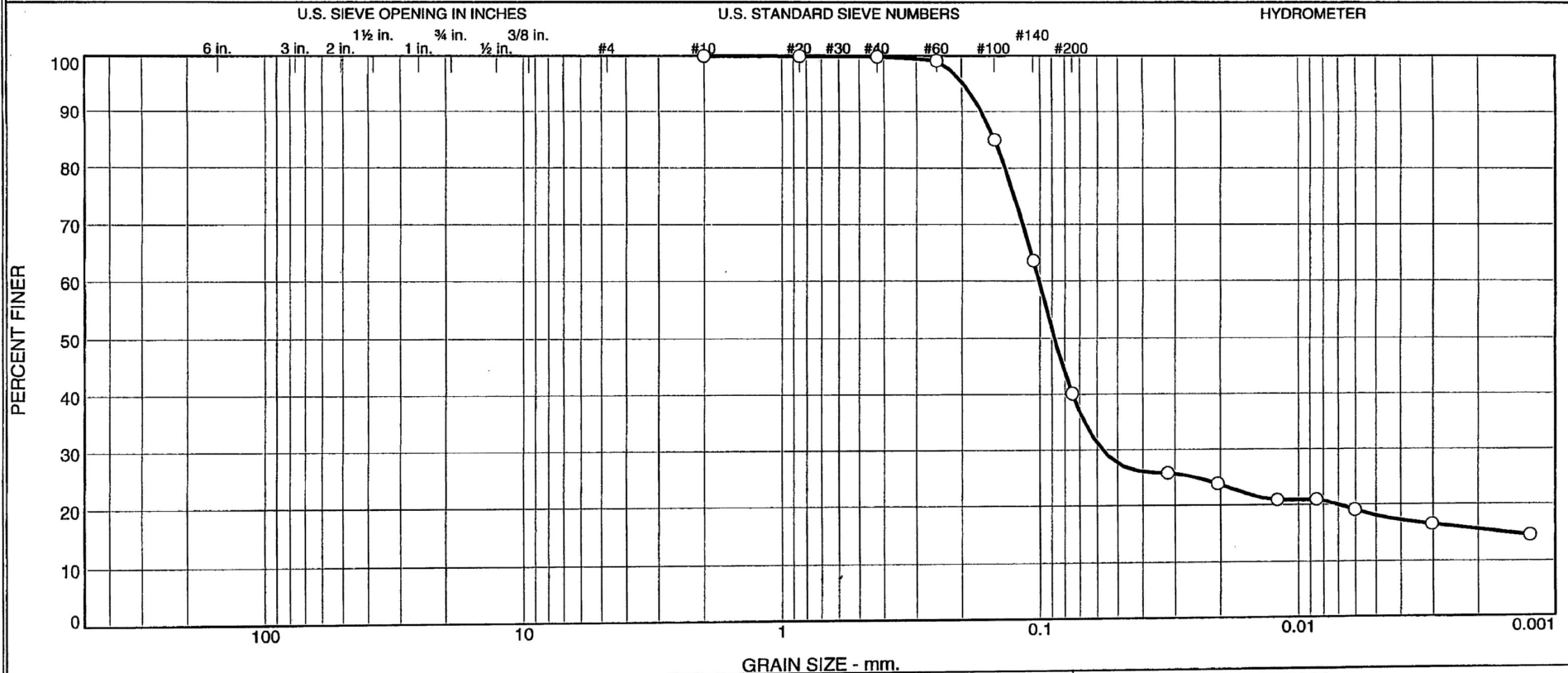
Liquid Limit= 16
 Plastic Limit= 15
 Plasticity Index= 1
 Natural Moisture= ND

Plastic Limit Data

Run No.	1	2	3	4	
Wet+Tare	24.11	29.29			
Dry+Tare	23.00	27.53			
Tare	15.56	15.50			
Moisture	14.9	14.6			

MACTEC, Inc.

Particle Size Distribution Report / ASTM D 6913-04e1



GRAIN SIZE - mm.								
	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.0	0.0	0.1	59.8	22.0	18.1

[illegible]

Client	Bechtel
Project	Exelon Texas COL (Victoria)

MACTEC, Inc.

Raleigh, North Carolina

○ Specific gravity is assumed
ND = Not determined.

Project No. 6468071777

Figure **NA**

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-2182A

Depth: 53.5-55.0

Sample Number: SS-14

Material Description: Light Gray Clayey SAND

Date: 11/29/07

Natural Moisture: ND

Liquid Limit: 24

Plastic Limit: 16

USCS Class.: SC

Testing Remarks: Specific gravity is assumed

ND = Not determined.

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
268.47	0.00	0.00	#10	0.00	100.0
101.14	0.00	0.00	#20	0.05	100.0
			#40	0.14	99.9
			#60	0.84	99.2
			#100	15.19	85.0
			#140	36.81	63.6
			#200	60.55	40.1

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 101.14

Hygroscopic moisture correction:

Moist weight and tare = 26.40

Dry weight and tare = 26.17

Tare weight = 15.57

Hygroscopic moisture = 2.2%

Table of composite correction values:

Temp., deg. C: 12.2 27.1

Comp. corr.: -7.0 -3.0

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	19.0	31.0	25.8	0.0136	32.0	11.0	0.0320	25.8
5.00	19.2	29.0	23.9	0.0136	30.0	11.4	0.0205	23.9
15.00	19.4	26.0	20.9	0.0135	27.0	11.9	0.0120	20.9
30.00	19.5	26.0	21.0	0.0135	27.0	11.9	0.0085	20.9
61.00	19.9	24.0	19.1	0.0135	25.0	12.2	0.0060	19.0
240.00	21.7	21.0	16.6	0.0132	22.0	12.7	0.0030	16.5
1440.00	21.5	19.0	14.5	0.0132	20.0	13.0	0.0013	14.5

MACTEC, Inc.

Fractional Components

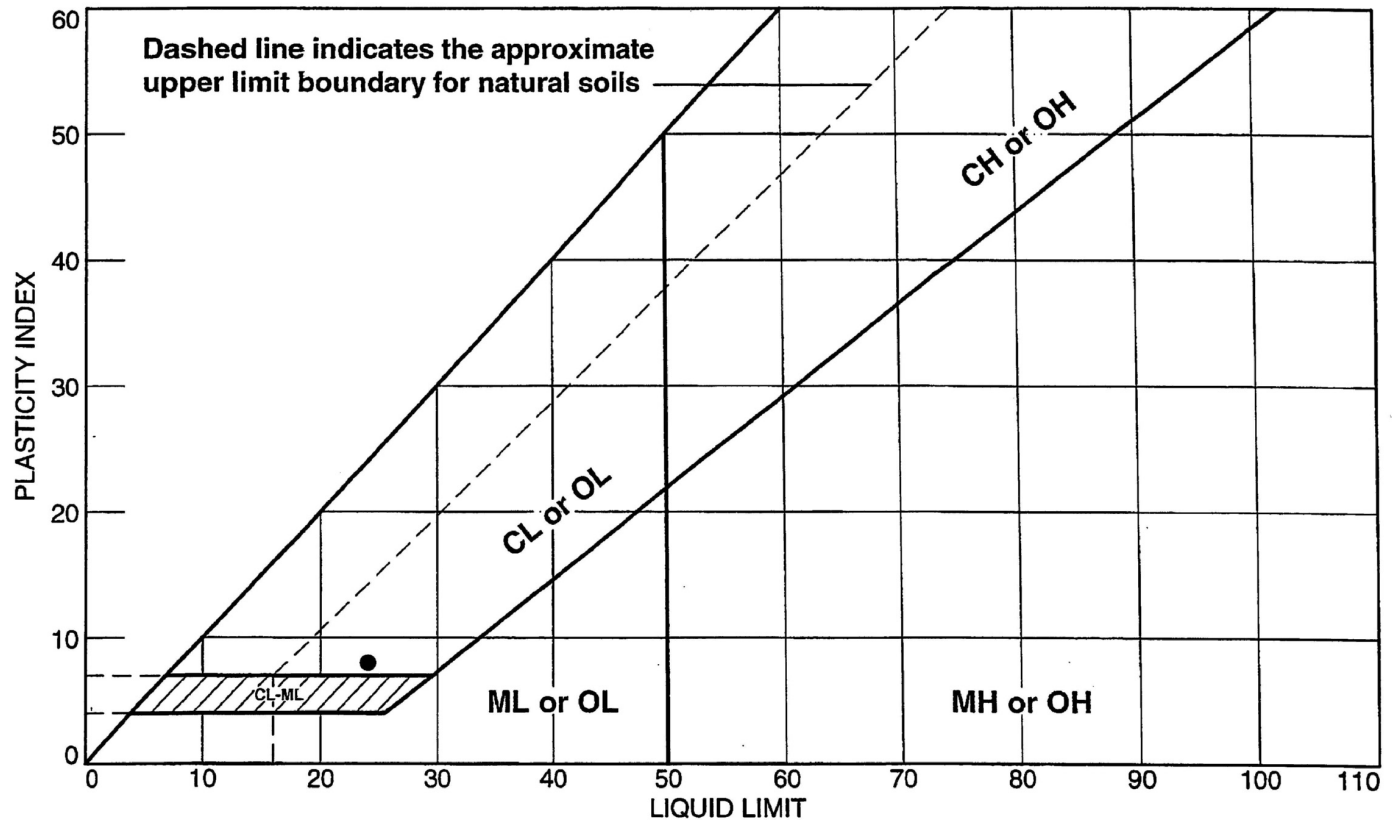
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	0.1	59.8	59.9	22.0	18.1	40.1

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
	0.0016	0.0070	0.0572	0.0878	0.1008	0.1365	0.1501	0.1685	0.1973

Fineness Modulus
0.16

MACTEC, Inc.

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	Boring B-2182A	SS-14	53.5-55.0	ND	16	24	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

Disc 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-2182A

Depth: 53.5-55.0

Sample Number: SS-14

Material Description: Light Gray Clayey SAND

USCS: SC

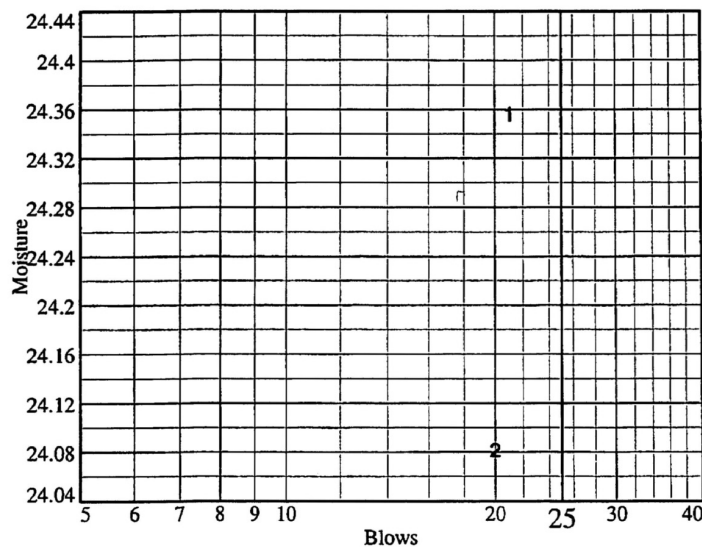
AASHTO: A-4(0)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	33.34	35.60				
Dry+Tare	29.84	31.73				
Tare	15.47	15.66				
# Blows	21	20				
Moisture	24.4	24.1				



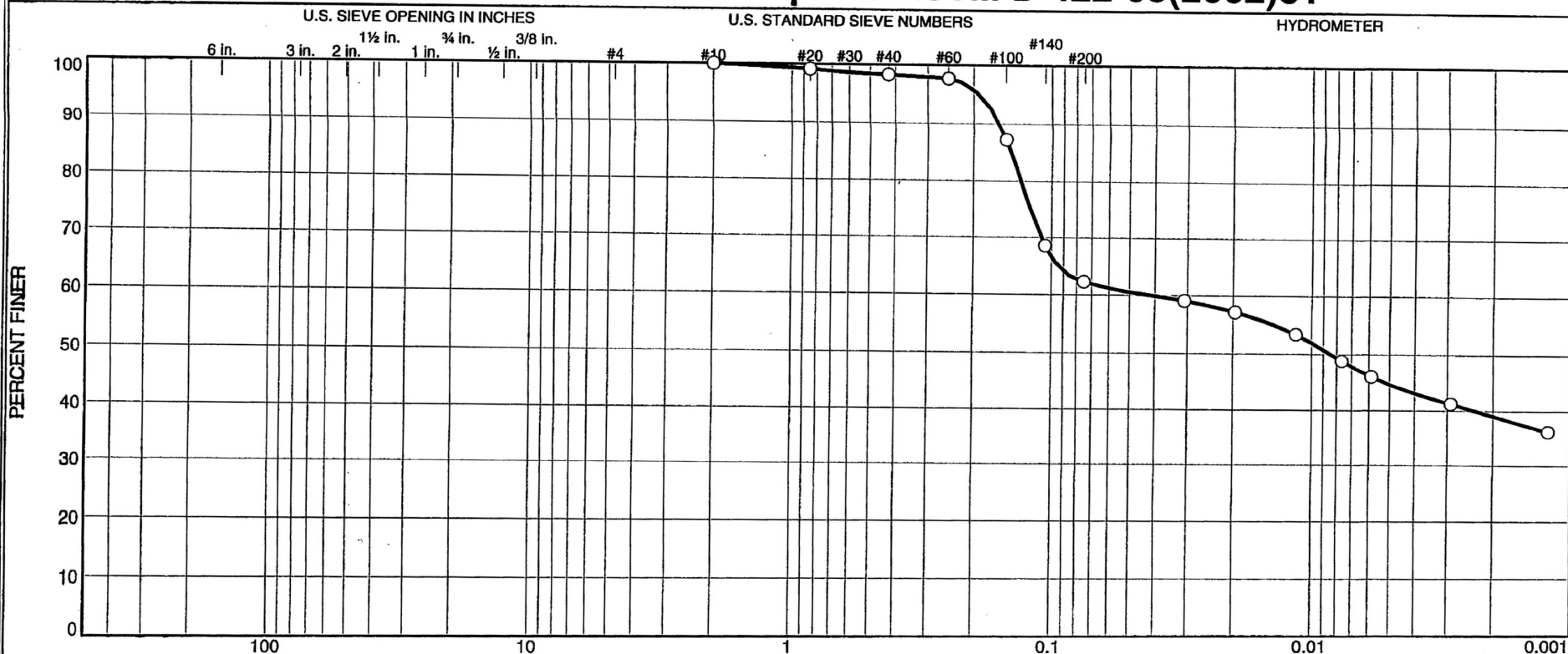
Liquid Limit= 24
 Plastic Limit= 16
 Plasticity Index= 8
 Natural Moisture= ND

Plastic Limit Data

Run No.	1	2	3	4
Wet+Tare	24.10	23.50		
Dry+Tare	22.91	22.41		
Tare	15.50	15.50		
Moisture	16.1	15.8		

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	1.7	36.0	17.6	44.7

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2182A	SS-15	58.5-60	11/29/07	CL	Pale Brown Sandy Lean CLAY	19.2	33	13

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 1-26-08

GRAIN SIZE DISTRIBUTION TEST DATA

1/26/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2182A

Depth: 58.5-60

Sample Number: SS-15

Material Description: Pale Brown Sandy Lean CLAY

Date: 11/29/07

Natural Moisture: 19.2

Liquid Limit: 33

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
265.80	0.00	0.00	#10	0.00	100.0
53.20	0.00	0.00	#20	0.45	99.2
			#40	0.88	98.3
			#60	1.20	97.7
			#100	6.72	87.4
			#140	16.70	68.6
			#200	20.06	62.3

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 53.2

Hygroscopic moisture correction:

Moist weight and tare = 26.77

Dry weight and tare = 26.42

Tare weight = 15.54

Hygroscopic moisture = 3.2%

Table of composite correction values:

Temp., deg. C: 12.2 27.1

Comp. corr.: -7.0 -3.0

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	19.0	36.0	30.8	0.0136	37.0	10.2	0.0308	59.1
5.00	19.0	35.0	29.8	0.0136	36.0	10.4	0.0196	57.2
15.00	19.2	33.0	27.9	0.0136	34.0	10.7	0.0115	53.5
35.00	19.5	30.5	25.5	0.0135	31.5	11.1	0.0076	48.8
60.00	19.7	29.0	24.0	0.0135	30.0	11.4	0.0059	46.1
245.00	21.4	26.0	21.5	0.0132	27.0	11.9	0.0029	41.2
1440.00	21.2	23.5	18.9	0.0132	24.5	12.3	0.0012	36.3

MACTEC, Inc.

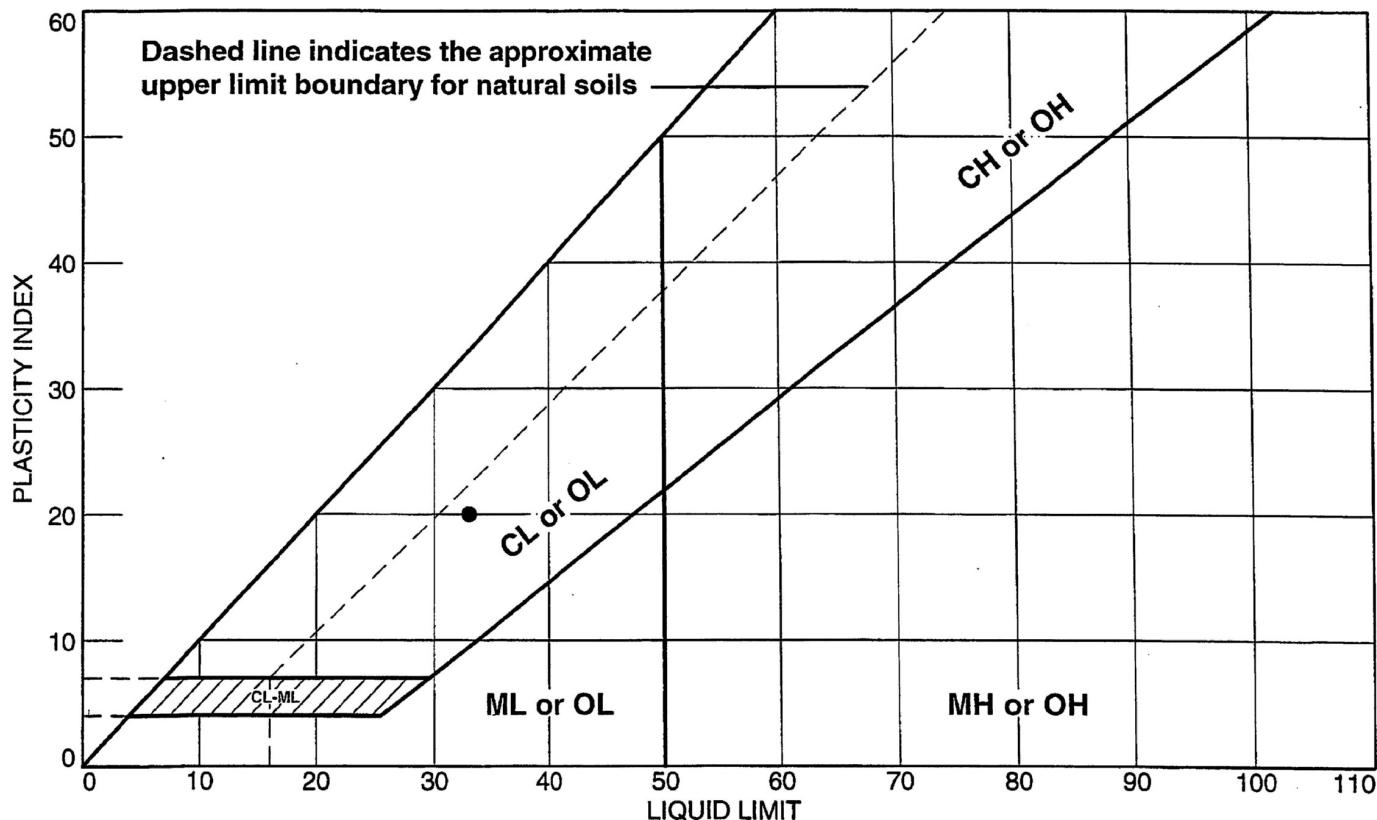
Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	0.0	0.0	0.0	1.7	36.0	37.7	17.6	44.7	62.3

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
				0.0084	0.0415	0.1311	0.1432	0.1594	0.1902

Fineness Modulus
0.16

LIQUID AND PLASTIC LIMITS TEST REPORT ASTM D4318 (05)



SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
•	Boring B-2182A	SS-15	58.5-60	19.2	13	33	20	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 1-26-08

LIQUID AND PLASTIC LIMIT TEST DATA

1/26/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2182A

Depth: 58.5-60

Sample Number: SS-15

Material Description: Pale Brown Sandy Lean CLAY

USCS: CL

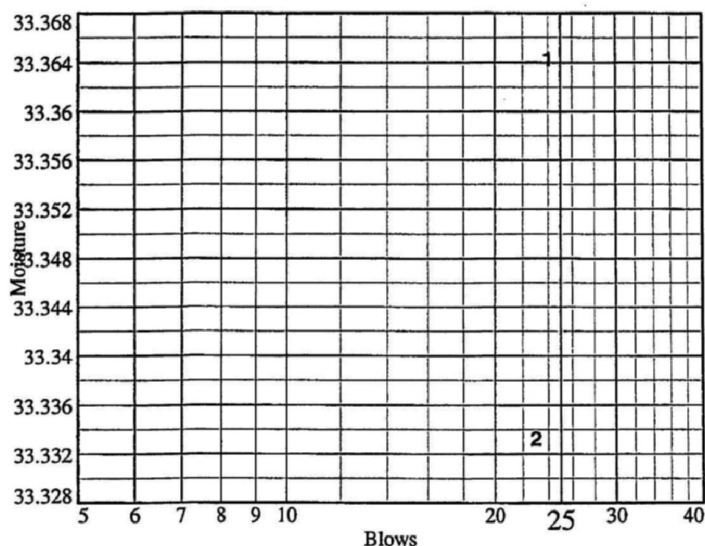
AASHTO: A-6(9)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	29.80	35.79				
Dry+Tare	26.21	30.76				
Tare	15.45	15.67				
# Blows	24	23				
Moisture	33.4	33.3				



Liquid Limit= 33
 Plastic Limit= 13
 Plasticity Index= 20
 Natural Moisture= 19.2
 Liquidity Index= 0.3

Plastic Limit Data

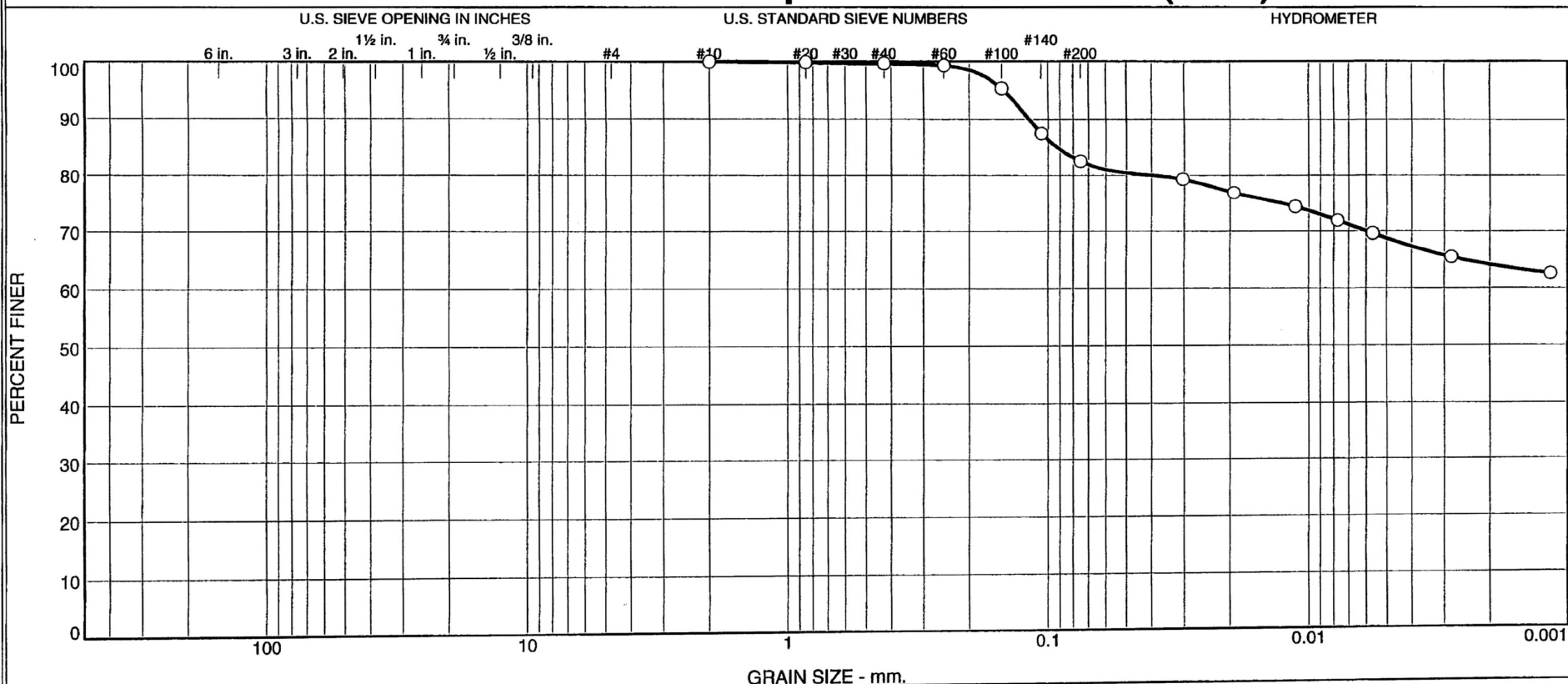
Run No.	1	2	3	4
Wet+Tare	24.89	25.45		
Dry+Tare	23.82	24.29		
Tare	15.59	15.43		
Moisture	13.0	13.1		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
156.50	132.37	6.80	19.2

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	0.3	17.2	13.8	68.7

Source	Sample #	Depth/Elev.	Date Sampled	USCS	Material Description	NM %	LL	PL
Boring B-2182A	SS-16	63.5-65	11/29/07	CH	Brown Fat CLAY with sand	25.7	52	17

Client Bechtel

Project Exelon Texas COL (Victoria)

Project No. 6468071777

Figure NA

MACTEC, Inc.

Raleigh, North Carolina

○ Specific gravity = 2.745 (ASTM D 854-06)
 Organic Content = 1.6% (ASTM D 2974-07)

GRAIN SIZE DISTRIBUTION TEST DATA

3/12/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2182A

Depth: 63.5-65

Sample Number: SS-16

Material Description: Brown Fat CLAY with sand

Date: 11/29/07

Natural Moisture: 25.7

Liquid Limit: 52

Plastic Limit: 17

USCS Class.: CH

Testing Remarks: Specific gravity = 2.745 (ASTM D 854-06)

Organic Content = 1.6% (ASTM D 2974-07)

Tested by: CS

Checked by: LBJ

Siege Test Data

Dry Sample and Tare (grams)	Tare (grams)	Cumulative Pan Tare Weight (grams)	Sieve Opening Size	Cumulative Weight Retained (grams)	Percent Finer
212.70	0.00	0.00	#10	0.00	100.0
45.04	0.00	0.00	#20	0.06	99.9
			#40	0.15	99.7
			#60	0.31	99.3
			#100	2.10	95.3
			#140	5.61	87.5
			#200	7.86	82.5

Hydrometer Test Data

Hydrometer test uses material passing #10

Percent passing #10 based upon complete sample = 100.0

Weight of hydrometer sample = 45.04

Hygroscopic moisture correction:

Moist weight and tare = 28.55

Dry weight and tare = 26.54

Tare weight = 15.53

Hygroscopic moisture = 18.3%

Table of composite correction values:

Temp., deg. C: 12.2 27.1

Comp. corr.: -7.0 -3.0

Meniscus correction only = 1.0

Specific gravity of solids = 2.745

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	19.0	36.0	30.8	0.0134	37.0	10.2	0.0304	79.3
5.00	19.2	35.0	29.9	0.0134	36.0	10.4	0.0193	76.8
15.00	19.3	34.0	28.9	0.0134	35.0	10.6	0.0112	74.3
32.00	19.5	33.0	28.0	0.0134	34.0	10.7	0.0077	71.9
60.00	19.9	32.0	27.1	0.0133	33.0	10.9	0.0057	69.6
240.00	21.4	30.0	25.5	0.0130	31.0	11.2	0.0028	65.5
1440.00	21.0	29.0	24.4	0.0131	30.0	11.4	0.0012	62.7

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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	0.3	17.2	17.5	13.8	68.7	82.5

D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
						0.0402	0.0920	0.1182	0.1473

Fineness Modulus
0.05

Figure 2: Plasticity Chart (U.S. Customary Units)

The chart plots Plasticity Index (PI) on the y-axis (0 to 60) against Liquid Limit (LL) on the x-axis (0 to 110). The regions are defined as follows:

- CL or OL**: Shaded region for low plasticity clays.
- CH or OH**: Region for high plasticity clays and organic soils.
- ML or OL**: Region for medium plasticity clays and organic soils.
- MH or OH**: Region for high plasticity silts and organic soils.

A dashed line indicates the approximate upper limit boundary for natural soils. A data point is plotted at LL = 52 and PI = 35, which falls in the CH or OH region.

SOIL DATA								
	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	USCS
●	Boring B-2182A	SS-16	63.5-65	25.7	17	52	35	CH

Figure NA

DCN# EXE805

LIQUID AND PLASTIC LIMIT TEST DATA

1/26/2008

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Project Number: 6468071777

Location: Boring B-2182A

Depth: 63.5-65

Sample Number: SS-16

Material Description: Brown Fat CLAY with sand

USCS: CH

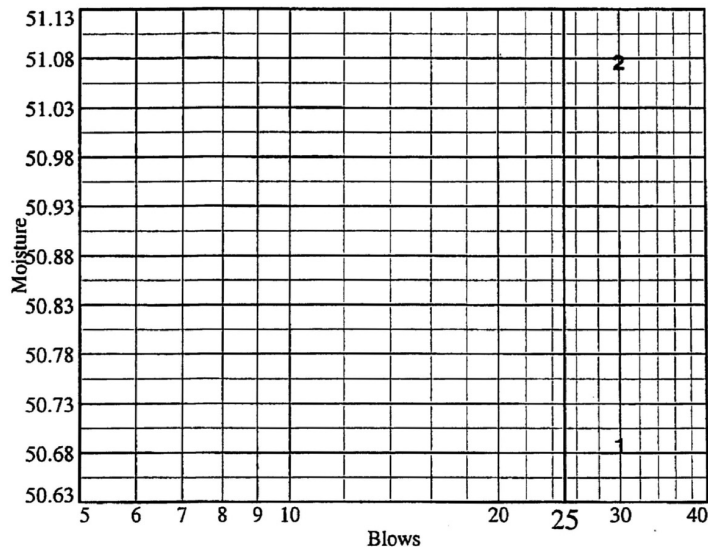
AASHTO: A-7-6(29)

Tested by: CS

Checked by: LBJ

Liquid Limit Data

Run No.	1	2	3	4	5	6
Wet+Tare	29.67	28.12				
Dry+Tare	24.88	23.85				
Tare	15.43	15.49				
# Blows	30	30				
Moisture	50.7	51.1				



Liquid Limit= 52
 Plastic Limit= 17
 Plasticity Index= 35
 Natural Moisture= 25.7
 Liquidity Index= 0.2

Plastic Limit Data

Run No.	1	2	3	4
Wet+Tare	23.83	24.88		
Dry+Tare	22.64	23.51		
Tare	15.48	15.48		
Moisture	16.6	17.1		

Natural Moisture Data

Wet+Tare	Dry+Tare	Tare	Moisture
190.30	153.35	9.30	25.7

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: 12/13/07

SAMPLE IDENTIFICATION: B-2182A SS-16

(A) Mass of oven-dried soil, grams:	52.21
(B) Mass of pycnometer filled with water at test temperature (T), grams:	656.67
(C) Mass of pycnometer, water and soil, grams:	689.87
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:	22.5
(G) Specific Gravity at observed temperature:	$A / [A + (B - C)]$ 2.746
(F) <i>Correction factor:</i>	0.99945
(G x F) SPECIFIC GRAVITY @ 20°C:	2.745

MATERIAL TESTED:

☒ X

- # 4

☐

- # 10

PREPARATION METHOD:

☒ X

DRY

☐

WET (dispersed)

REMARKS: Estimated % Passing # 4 : 100%

Fat CLAY with sand (CH)

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER : 5.1.01

PYCNOMETER : P-6

TESTED BY: CS

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

REVIEWED BY: Brian Johnson

DSC 1-25-08