

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: 2/26/08

SAMPLE IDENTIFICATION: TP-2352 BULK 1,4-5'

(A) Mass of oven-dried soil, grams:	50.29
(B) Mass of pycnometer filled with water at test temperature (T), grams:	656.53
(C) Mass of pycnometer, water and soil, grams:	687.95
(T) Temperature of pycnometer, water and soil, °C when mass (C) determined:	21.3
(G) Specific Gravity at observed temperature: $A / [B - (C - A)]$	2.665
(F) Correction factor:	0.99972
(G x F) SPECIFIC GRAVITY @ 20°C:	2.664

MATERIAL TESTED:

☒ X

- # 4

☐

- # 10

PREPARATION METHOD:

☒ X

DRY

☐

WET (dispersed)

REMARKS: Estimated % Passing # 4 : 100

Sandy Lean CLAY (CL) - Visual

EQUIPMENT USED

SCALES : 3.1.99

OVEN : 5.1.16

THERMOMETER : 5.1.01

PYCNO METER : P-6

TESTED BY: CS

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

REVIEWED BY: Brian Johnson

DSC 3-4-08

Organic Content – Test Pits



ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

Project No. 6468071777
Tested By CS
Test Date 2/19/2008

Project Name Exelon COL
Reviewed By LBJ DSC
Review Date 2/29/2008 3-4-08

Boring No.	TP-2310	TP-2310	TP-2310	TP-2310
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	0.0-1.0	5	7.5	10.0
A) Tare No.	SS	F-1	80	JJ
B) Tare Weight, grams	6.88	9.21	6.67	6.78
C) Wet Soil + Tare, grams	237.96	232.61	157.75	254.28
D) Dry Soil + Tare, grams	204.16	205.69	137.87	235.23
E) Weight of Dry Soil, grams [D - B]	197.28	196.48	131.20	228.45
F) Weight of Moisture, grams [C - D]	33.80	26.92	19.88	19.05
G) Moisture Content, % $[F * 100 / E]$	17.1	13.7	15.2	8.3
(based on oven-dried weight)				
H) Tare No.	9	H		
I) Weight of Tare, grams	53.88	52.09		
J) Weight of Over-Dried Soil + Tare, grams	174.25	172.53		
K) Weight of Oven- Dried Soil, grams [J - I]	120.37	120.44		
L) Weight of Ignited Soil + Tare, grams	172.26	171.52		
M) Ash, grams [L - I]	118.38	119.43		
N) Ash Content, % $[M * 100 / K]$	98.3	99.2		
O) Organic Matter, % $[100 - N]$	1.7	0.8		

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16
scales: 3.1.19

muffle furnace 5.1.17



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Boring No.	TP-2314	TP-2314	TP-2314	TP-2314
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	0.0-1.0	5.0	7.0	10.0
A) Tare No.	511	JP-16	305	317
B) Tare Weight, grams	9.51	6.80	9.51	9.34
C) Wet Soil + Tare, grams	205.77	183.25	242.76	207.10
D) Dry Soil + Tare, grams	177.40	153.77	205.35	170.49
E) Weight of Dry Soil, grams [D - B]	167.89	146.97	195.84	161.15
F) Weight of Moisture, grams [C - D]	28.37	29.48	37.41	36.61
G) Moisture Content, % [F * 100 / E]	16.9	20.1	19.1	22.7
(based on oven-dried weight)				
H) Tare No.	S	Q		
I) Weight of Tare, grams	53.45	51.15		
J) Weight of Over-Dried Soil + Tare, grams	167.45	158.35		
K) Weight of Oven- Dried Soil, grams [J - I]	114.00	107.20		
L) Weight of Ignited Soil + Tare, grams	165.92	151.18		
M) Ash, grams [L - I]	112.47	100.03		
N) Ash Content, % [M *100 / K]	98.7	93.3		
O) Organic Matter, % [100 - N]	1.3	6.7		

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16
scales: 3.1.19

muffle furnace 5.1.17



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Boring No.	TP-2317	TP-2317	TP-2317	TP-2317
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	1.0	3.5-5.0	5.0-8.0	8.0-10.0
A) Tare No.	84	H	81	519
B) Tare Weight, grams	6.63	6.54	6.68	9.16
C) Wet Soil + Tare, grams	182.39	208.21	151.37	202.36
D) Dry Soil + Tare, grams	156.17	175.89	131.00	178.74
E) Weight of Dry Soil, grams [D - B]	149.54	169.35	124.32	169.58
F) Weight of Moisture, grams [C - D]	26.22	32.32	20.37	23.62
G) Moisture Content, % [F * 100 / E]	17.5	19.1	16.4	13.9
(based on oven-dried weight)				
H) Tare No.	H	S		
I) Weight of Tare, grams	52.13	53.41		
J) Weight of Over-Dried Soil + Tare, grams	146.31	162.46		
K) Weight of Oven- Dried Soil, grams [J - I]	94.18	109.05		
L) Weight of Ignited Soil + Tare, grams	142.61	160.13		
M) Ash, grams [L - I]	90.48	106.72		
N) Ash Content, % [M * 100 / K]	96.1	97.9		
O) Organic Matter, % [100 - N]	3.9	2.1		

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16
scales: 3.1.19

muffle furnace 5.1.17



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(ASTM D2974-07)

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Project Name Exelon COL
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Boring No.	TP-2319	TP-2319	TP-2319	TP-2319
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	1.0	3.5-5.0	6.5	10.0
A) Tare No.	Orange	T	LL	JP-23
B) Tare Weight, grams	9.19	6.74	6.80	6.74
C) Wet Soil + Tare, grams	257.13	207.41	174.25	188.03
D) Dry Soil + Tare, grams	228.50	184.24	154.95	171.87
E) Weight of Dry Soil, grams [D - B]	219.31	177.50	148.15	165.13
F) Weight of Moisture, grams [C - D]	28.63	23.17	19.30	16.16
G) Moisture Content, % [F * 100 / E]	13.1	13.1	13.0	9.8
(based on oven-dried weight)				
H) Tare No.	S	Q		
I) Weight of Tare, grams	53.46	51.18		
J) Weight of Over-Dried Soil + Tare, grams	148.70	157.62		
K) Weight of Oven- Dried Soil, grams [J - I]	95.24	106.44		
L) Weight of Ignited Soil + Tare, grams	147.70	154.75		
M) Ash, grams [L - I]	94.24	103.57		
N) Ash Content, % [M *100 / K]	99.0	97.3		
O) Organic Matter, % [100 - N]	1.0	2.7		

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16
scales: 3.1.19

muffle furnace 5.1.17



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Project Name Exelon COL
Reviewed By LBJ DSC
Review Date 3/1/2008 3-4-08

Boring No.	TP-2320	TP-2320	TP-2320	TP-2320
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	1.0	4.0	5.0-10.0	10.0
A) Tare No.	B	2B	B-1	319
B) Tare Weight, grams	6.67	9.39	9.24	9.26
C) Wet Soil + Tare, grams	214.17	114.37	183.27	160.85
D) Dry Soil + Tare, grams	177.86	100.53	164.63	148.00
E) Weight of Dry Soil, grams [D - B]	171.19	91.14	155.39	138.74
F) Weight of Moisture, grams [C - D]	36.31	13.84	18.64	12.85
G) Moisture Content, % [F * 100 / E]	21.2	15.2	12.0	9.3
(based on oven-dried weight)				
H) Tare No.	9	H	N	
I) Weight of Tare, grams	53.89	52.07	55.58	
J) Weight of Over-Dried Soil + Tare, grams	146.58	138.74	143.91	
K) Weight of Oven- Dried Soil, grams [J - I]	92.69	86.67	88.33	
L) Weight of Ignited Soil + Tare, grams	144.03	137.13	141.58	
M) Ash, grams [L - I]	90.14	85.06	86.00	
N) Ash Content, % [M *100 / K]	97.2	98.1	97.4	
O) Organic Matter, % [100 - N]	2.8	1.9	2.6	

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16
scales: 3.1.19

muffle furnace 5.1.17



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Project No. 6468071777
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Review Date 3/1/2008 3-4-08

Boring No.	TP-2321	TP-2321	TP-2321	TP-2321
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	1.0	4.0	7.0	10.0
A) Tare No.	DIP	HH	JP-12	VV
B) Tare Weight, grams	9.17	6.82	6.73	6.77
C) Wet Soil + Tare, grams	208.49	202.51	176.61	166.84
D) Dry Soil + Tare, grams	162.25	176.58	153.15	146.99
E) Weight of Dry Soil, grams [D - B]	153.08	169.76	146.42	140.22
F) Weight of Moisture, grams [C - D]	46.24	25.93	23.46	19.85
G) Moisture Content, % $[F * 100 / E]$	30.2	15.3	16.0	14.2
(based on oven-dried weight)				
H) Tare No.	G	L		
I) Weight of Tare, grams	53.10	51.53		
J) Weight of Over-Dried Soil + Tare, grams	153.41	167.36		
K) Weight of Oven- Dried Soil, grams [J - I]	100.31	115.83		
L) Weight of Ignited Soil + Tare, grams	146.52	163.20		
M) Ash, grams [L - I]	93.42	111.67		
N) Ash Content, % $[M * 100 / K]$	93.1	96.4		
O) Organic Matter, % $[100 - N]$	6.9	3.6		

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16
scales: 3.1.19

muffle furnace 5.1.17



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Boring No.	TP-2332	TP-2332	TP-2332	TP-2332	TP-2332
Sample No.	S-1	S-5	S-2	S-3	S-4
Sample Depth, Ft.	2.0	2.5	5.0	7.0	10.0
A) Tare No.	SS	BB	JP-11	L	P
B) Tare Weight, grams	6.90	9.47	6.95	9.17	6.85
C) Wet Soil + Tare, grams	244.81	135.37	133.40	171.92	159.85
D) Dry Soil + Tare, grams	216.65	115.35	119.37	155.92	148.94
E) Weight of Dry Soil, grams [D - B]	209.75	105.88	112.42	146.75	142.09
F) Weight of Moisture, grams [C - D]	28.16	20.02	14.03	16.00	10.91
G) Moisture Content, % $[F * 100 / E]$	13.4	18.9	12.5	10.9	7.7
(based on oven-dried weight)					
H) Tare No.	R	N	R		
I) Weight of Tare, grams	52.49	55.59	52.49		
J) Weight of Over-Dried Soil + Tare	154.09	162.21	155.94		
K) Weight of Oven- Dried Soil, gram	101.60	106.62	103.45		
L) Weight of Ignited Soil + Tare, gram	153.10	158.60	154.00		
M) Ash, grams [L - I]	100.61	103.01	101.51		
N) Ash Content, % $[M * 100 / K]$	99.0	96.6	98.1		
O) Organic Matter, % $[100 - N]$	1.0	3.4	1.9		

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16 muffle furna 5.1.17
 scales: 3.1.19



ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

Project No. 6468071777
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Project Name Exelon COL
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 Review Date 3/1/2008 3-4-08

Boring No.	TP-2334	TP-2334	TP-2334	TP-2334
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	1.0	2.0-5.0	7.0	10.0
A) Tare No.	Purple	516	I	JP-15
B) Tare Weight, grams	9.33	9.44	9.10	6.87
C) Wet Soil + Tare, grams	198.96	174.67	138.32	188.22
D) Dry Soil + Tare, grams	171.81	153.34	121.28	167.39
E) Weight of Dry Soil, grams [D - B]	162.48	143.90	112.18	160.52
F) Weight of Moisture, grams [C - D]	27.15	21.33	17.04	20.83
G) Moisture Content, % $[F * 100 / E]$	16.7	14.8	15.2	13.0
(based on oven-dried weight)				
H) Tare No.	H	Q		
I) Weight of Tare, grams	52.08	51.14		
J) Weight of Over-Dried Soil + Tare	148.71	147.42		
K) Weight of Oven- Dried Soil, gram	96.63	96.28		
L) Weight of Ignited Soil + Tare, gram	146.80	143.27		
M) Ash, grams [L - I]	94.72	92.13		
N) Ash Content, % $[M * 100 / K]$	98.0	95.7		
O) Organic Matter, % $[100 - N]$	2.0	4.3		

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16 muffle furna 5.1.17
 scales: 3.1.19



ORGANIC CONTENT TEST REPORT

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Project Name Exelon COL
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 Review Date 3/1/2008 3-4-08

Boring No.	TP-2335	TP-2335	TP-2335	TP-2335
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	2.0	4.0	6.0	10.0
A) Tare No.	81	514	DIP	2B
B) Tare Weight, grams	6.67	9.18	9.16	9.38
C) Wet Soil + Tare, grams	212.94	186.25	240.99	225.48
D) Dry Soil + Tare, grams	174.66	163.34	217.68	210.80
E) Weight of Dry Soil, grams [D - B]	167.99	154.16	208.52	201.42
F) Weight of Moisture, grams [C - D]	38.28	22.91	23.31	14.68
G) Moisture Content, % $[F * 100 / E]$	22.8	14.9	11.2	7.3
(based on oven-dried weight)				
H) Tare No.	S	9	9	
I) Weight of Tare, grams	53.43	53.88	53.88	
J) Weight of Over-Dried Soil + Tare	154.32	154.87	157.70	
K) Weight of Oven- Dried Soil, gram	100.89	100.99	103.82	
L) Weight of Ignited Soil + Tare, gram	152.11	152.78	153.67	
M) Ash, grams [L - I]	98.68	98.90	99.79	
N) Ash Content, % $[M * 100 / K]$	97.8	97.9	96.1	
O) Organic Matter, % $[100 - N]$	2.2	2.1	3.9	

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16 muffle furna 5.1.17
 scales: 3.1.19



ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

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 Review Date 3/1/2008 3-4-08

Boring No.	TP-2337	TP-2337	TP-2337	TP-2337
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	1.0	4.0	7.0	10.0
A) Tare No.	P	JP-11	JP-15	BB
B) Tare Weight, grams	6.83	6.88	6.88	9.66
C) Wet Soil + Tare, grams	234.57	235.03	214.28	231.07
D) Dry Soil + Tare, grams	194.36	199.09	182.92	198.53
E) Weight of Dry Soil, grams [D - B]	187.53	192.21	176.04	188.87
F) Weight of Moisture, grams [C - D]	40.21	35.94	31.36	32.54
G) Moisture Content, % $[F * 100 / E]$	21.4	18.7	17.8	17.2
(based on oven-dried weight)				
H) Tare No.	Q	S	Q	
I) Weight of Tare, grams	51.15	53.42	51.15	
J) Weight of Over-Dried Soil + Tare, grams	150.55	142.39	151.55	
K) Weight of Oven- Dried Soil, grams [J - I]	99.40	88.97	100.40	
L) Weight of Ignited Soil + Tare, grams	147.54	139.60	147.22	
M) Ash, grams [L - I]	96.39	86.18	96.07	
N) Ash Content, % $[M * 100 / K]$	97.0	96.9	95.7	
O) Organic Matter, % $[100 - N]$	3.0	3.1	4.3	

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16
 scales: 3.1.19

muffle furnace 5.1.17



ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

Project No. 6468071777
Tested By CS
Test Date 2/19/2008

Project Name Exelon COL
Reviewed By LBJ DSC
Review Date 3/1/2008 3-4-08

Boring No.	TP-2351	TP-2351	TP-2351	TP-2351
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	1.0	4.0	6.0	3.5-10.0
A) Tare No.	305	CHIP	VV	JJ
B) Tare Weight, grams	9.66	9.31	6.75	6.80
C) Wet Soil + Tare, grams	239.30	253.80	214.64	239.74
D) Dry Soil + Tare, grams	184.74	225.76	199.86	224.63
E) Weight of Dry Soil, grams [D - B]	175.08	216.45	193.11	217.83
F) Weight of Moisture, grams [C - D]	54.56	28.04	14.78	15.11
G) Moisture Content, % [F * 100 / E]	31.2	13.0	7.7	6.9
(based on oven-dried weight)				
H) Tare No.	H	9		
I) Weight of Tare, grams	52.10	53.86		
J) Weight of Over-Dried Soil + Tare, grams	145.13	148.73		
K) Weight of Oven- Dried Soil, grams [J - I]	93.03	94.87		
L) Weight of Ignited Soil + Tare, grams	139.84	147.72		
M) Ash, grams [L - I]	87.74	93.86		
N) Ash Content, % [M *100 / K]	94.3	98.9		
O) Organic Matter, % [100 - N]	5.7	1.1		

Remarks: Furnace temperature set @ 440° C

Equipment used:

oven: 5.1.16
scales: 3.1.19

muffle furnace 5.1.17



ORGANIC CONTENT TEST REPORT

(ASTM D2974-07)

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Boring No.	TP-2352	TP-2352	TP-2352	TP-2352
Sample No.	S-1	S-2	S-3	S-4
Sample Depth, Ft.	1.0	4.0-5.0	7.0	10.0
A) Tare No.	JP-23	80	LL	BB
B) Tare Weight, grams	6.74	6.66	6.78	9.66
C) Wet Soil + Tare, grams	159.46	181.11	232.78	231.07
D) Dry Soil + Tare, grams	131.45	155.72	155.28	198.53
E) Weight of Dry Soil, grams [D - B]	124.71	149.06	148.50	188.87
F) Weight of Moisture, grams [C - D]	28.01	25.39	77.50	32.54
G) Moisture Content, % $[F * 100 / E]$	22.5	17.0	21.9	17.2
(based on oven-dried weight)				
H) Tare No.	Q	S	H	
I) Weight of Tare, grams	51.16	53.42	52.04	
J) Weight of Over-Dried Soil + Tare, grams	125.52	161.26	151.63	
K) Weight of Oven- Dried Soil, grams [J - I]	74.36	107.84	99.59	
L) Weight of Ignited Soil + Tare, grams	123.79	159.77	148.26	
M) Ash, grams [L - I]	72.63	106.35	96.22	
N) Ash Content, % $[M * 100 / K]$	97.7	98.6	96.6	
O) Organic Matter, % $[100 - N]$	2.3	1.4	3.4	

Remarks: Furnace temperature set @ 440° C

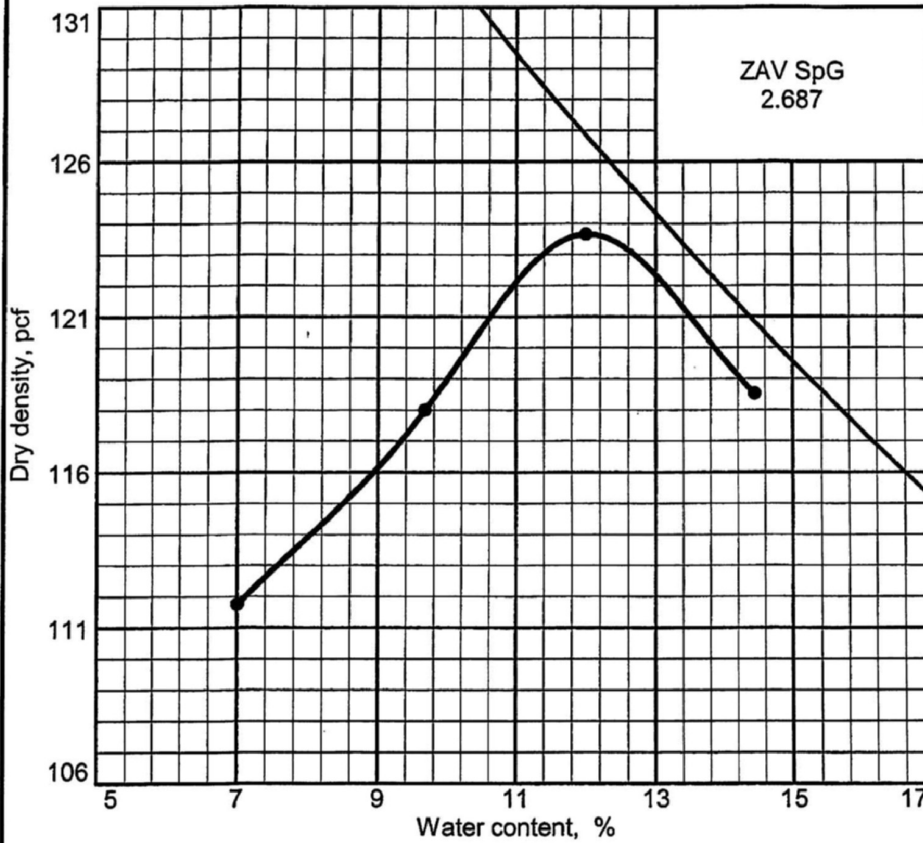
Equipment used:

oven: 5.1.16
 scales: 3.1.19

muffle furnace 5.1.17

Modified Proctor Compaction Tests – Test Pits

COMPACTION TEST REPORT/ ASTM D-1557-02



Curve No.
TP- 2310 B1

Test Specification:
ASTM D 1557-02 Method A Modified

Preparation Method Dry
Hammer Wt. 10 lb.
Hammer Drop 18 in.(mechanical)
Number of Layers five
Blows per Layer 25
Mold Size .03317 cu.ft.
Test Performed on Material
Passing No.4 **Sieve**
NM 13.7 **LL** 33 **PI** 18
Sp.G. (ASTM D 854) 2.687
%>No.4 0.0 **%<No.200** 57.6
USCS CL **AASHTO** A-6(7)
Date Sampled 1/23/08
Date Tested 2/28/08
Tested By AWH

TESTING DATA

	1	2	3	4	5	6
WM + WS	6006.7	6154.7	6291.6	6248.6		
WM	4205.9	4205.9	4205.9	4205.9		
WW + T #1	545.30	556.60	617.90	690.40		
WD + T #1	510.00	508.10	552.40	604.10		
TARE #1	6.60	6.90	6.70	7.00		
WW + T #2	N/A	N/A	N/A	N/A		
WD + T #2	N/A	N/A	N/A	N/A		
TARE #2	N/A	N/A	N/A	N/A		
MOISTURE	7.0	9.7	12.0	14.5		
DRY DENSITY	111.7	118.0	123.7	118.5		

TEST RESULTS

Maximum dry density = 123.5 pcf
 Optimum moisture = 12.0 %

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

● **Source:** TP-2310 **Sample No.:** Bulk-1 **Elev./Depth:** 5.0'

MACTEC, Inc.
Raleigh, North Carolina

Material Description

Pale Yellow Sandy Lean CLAY

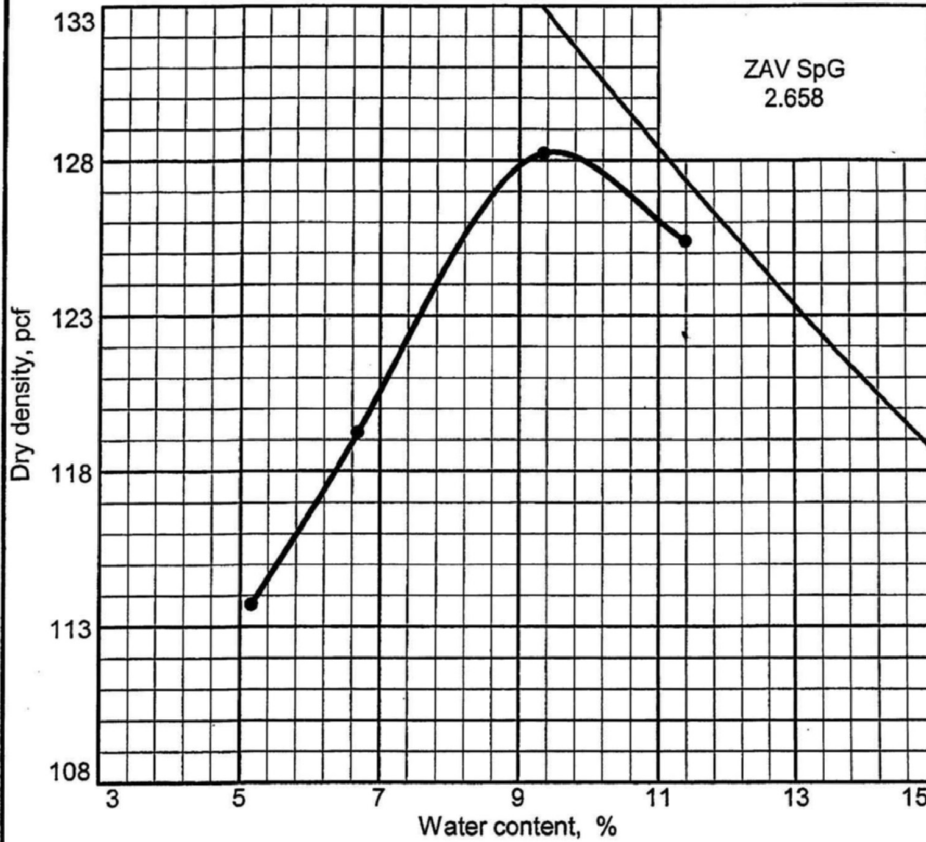
Remarks:

Natural Moisture obtained from Jar Sample S-2,5'

Checked by: LBJ
Title: LAB MANAGER

DSC
 4-2-08
 Figure NA

COMPACTION TEST REPORT/ ASTM D-1557-02



Curve No.
TP 2310 B2

Test Specification:

ASTM D 1557-02 Method A Modified

Preparation Method Dry
 Hammer Wt. 10 lb.
 Hammer Drop 18 in.(mechanical)
 Number of Layers five
 Blows per Layer 25
 Mold Size .03317 cu.ft.

Test Performed on Material

Passing No.4 Sieve
 NM 8.3 LL 24 PI 7
 Sp.G. (ASTM D 854) 2.658
 %>No.4 0.0 %<No.200 28.9
 USCS SC-SM AASHTO A-2-4(0)
 Date Sampled 1/23/08
 Date Tested 2/28/08
 Tested By AWH

TESTING DATA

	1	2	3	4	5	6
WM + WS	6005.2	6119.7	6315.7	6307.3		
WM	4205.9	4205.9	4205.9	4205.9		
WW + T #1	547.60	530.50	557.70	701.20		
WD + T #1	521.00	497.70	510.60	630.20		
TARE #1	6.30	6.80	7.10	6.90		
WW + T #2	N/A	N/A	N/A	N/A		
WD + T #2	N/A	N/A	N/A	N/A		
TARE #2	N/A	N/A	N/A	N/A		
MOISTURE	5.2	6.7	9.4	11.4		
DRY DENSITY	113.7	119.2	128.2	125.4		

TEST RESULTS

Maximum dry density = 128.5 pcf

Optimum moisture = 9.5 %

Project No. 6468071777 Client: Bechtel

Project: Exelon Texas COL (Victoria)

• Source: TP-2310

Sample No.: Bulk-2

Elev./Depth: 10.0'

MACTEC, Inc.

Raleigh, North Carolina

Material Description

Olive Yellow Silty, Clayey SAND

Remarks:

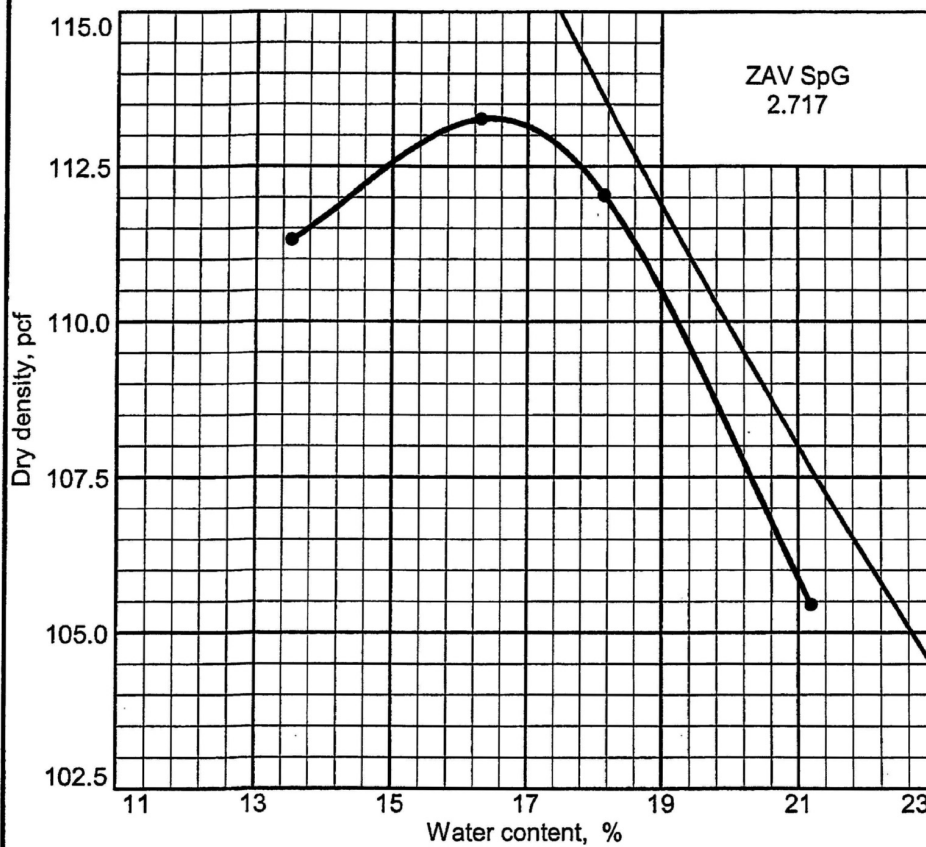
Natural Moisture obtained from Jar Sample S-4, 10'

Checked by: LBJ

Title: LAB MANAGER

DSC
4-2-08
Figure NR

COMPACTION TEST REPORT/ ASTM D-1557-02



Curve No.
TP 2314 B2

Test Specification:
ASTM D 1557-02 Method A Modified

Preparation Method Dry
Hammer Wt. 10 lb.
Hammer Drop 18 in.(mechanical)
Number of Layers five
Blows per Layer 25
Mold Size .03317 cu.ft.

Test Performed on Material
Passing No.4 **Sieve**

NM 22.7 **LL** 54 **PI** 31

Sp.G. (ASTM D 854) 2.717

%>No.4 0.0 **%<No.200** 95.7

USCS CH **AASHTO** A-7-6(33)

Date Sampled 1/22/08

Date Tested 2/28/08

Tested By AWH

TESTING DATA

	1	2	3	4	5	6
WM + WS	6107.3	6187.8	6197.4	6128.7		
WM	4205.9	4205.9	4205.9	4205.9		
WW + T #1	543.80	577.10	760.70	604.70		
WD + T #1	479.80	497.20	644.90	500.10		
TARE #1	6.80	6.90	6.70	6.60		
WW + T #2	N/A	N/A	N/A	N/A		
WD + T #2	N/A	N/A	N/A	N/A		
TARE #2	N/A	N/A	N/A	N/A		
MOISTURE	13.5	16.3	18.1	21.2		
DRY DENSITY	111.3	113.3	112.0	105.4		

TEST RESULTS

Maximum dry density = 113.5 pcf

Optimum moisture = 16.5 %

Project No. 6468071777 **Client:** Bechtel

Project: Exelon Texas COL (Victoria)

● **Source:** TP-2314

Sample No.: Bulk-2

Elev./Depth: 5.0-10.0'

MACTEC, Inc.

Raleigh, North Carolina

Material Description

Light Yellowish Brown Fat CLAY

Remarks:

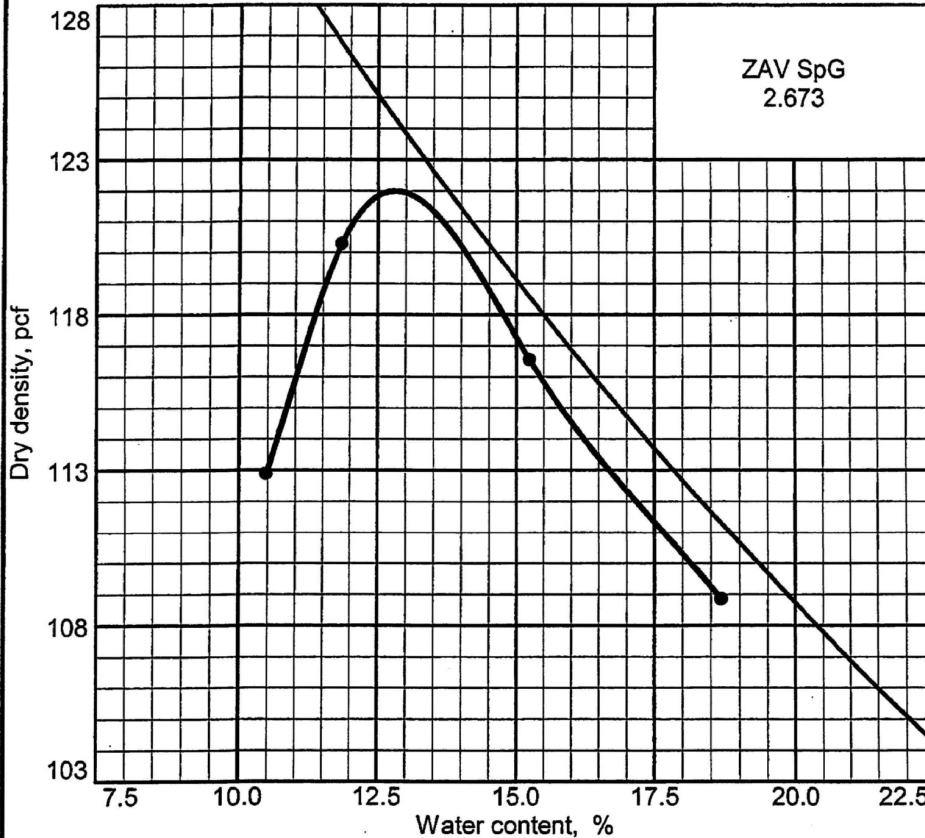
Natural Moisture obtained from Jar Sample S-4,10'

Checked by: LBJ

Title: LAB MANAGER

DSC
4-2-08
Figure NA

COMPACTION TEST REPORT/ ASTM D-1557-02



Curve No.
TP 2317 B1

Test Specification:
ASTM D 1557-02 Method A Modified

Preparation Method DRY
Hammer Wt. 10 lb.
Hammer Drop 18 in.(mechanical)
Number of Layers five
Blows per Layer 25
Mold Size .03317 cu.ft.

Test Performed on Material
Passing No.4 **Sieve**

NM 19.1 **LL** 48 **PI** 24
Sp.G. (ASTM D 854) 2.673

%>No.4 0.0 **%<No.200** 69.0

USCS CL **AASHTO** A-7-6(16)

Date Sampled 1/22/08

Date Tested 2/28/08

Tested By AWH

TESTING DATA

	1	2	3	4	5	6
WM + WS	6082.4	6229.8	6226.8	6149.7		
WM	4205.9	4205.9	4205.9	4205.9		
WW + T #1	685.80	829.40	695.10	631.90		
WD + T #1	621.40	742.30	604.10	533.50		
TARE #1	6.70	6.80	6.90	6.80		
WW + T #2	N/A	N/A	N/A	N/A		
WD + T #2	N/A	N/A	N/A	N/A		
TARE #2	N/A	N/A	N/A	N/A		
MOISTURE	10.5	11.8	15.2	18.7		
DRY DENSITY	112.9	120.3	116.6	108.9		

TEST RESULTS

Maximum dry density = 122.0 pcf

Optimum moisture = 13.0 %

Project No. 6468071777 **Client:** Bechtel

Project: Exelon Texas COL (Victoria)

● **Source:** TP-2317

Sample No.: Bulk-1

Elev./Depth: 3.0-5.0'

MACTEC, Inc.

Raleigh, North Carolina

Material Description

Gray Sandy Lean CLAY

Remarks:

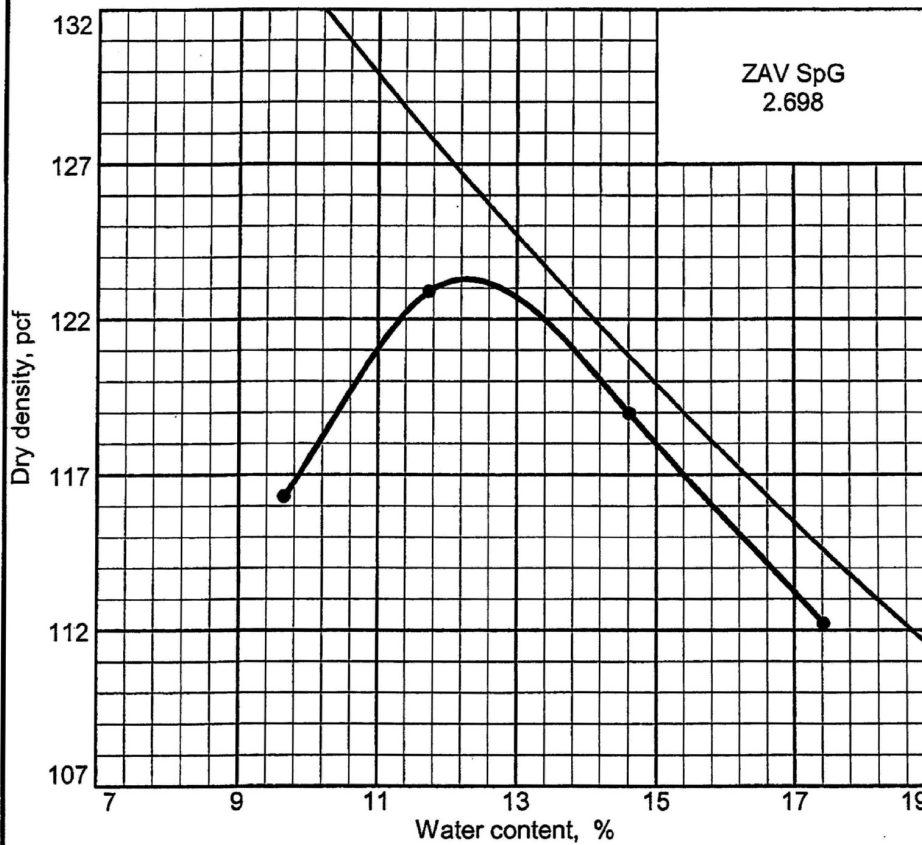
Natural Moisture obtained from Jar Sample S-2,3,5-5.0'

Checked by: LBJ

Title: LAB MANAGER

DSC
4-2-08
Figure N/A

COMPACTION TEST REPORT/ ASTM D-1557-02



Curve No.
TP 2317 B2

Test Specification:
ASTM D 1557-02 Method A Modified

Preparation Method Dry
Hammer Wt. 10 lb.
Hammer Drop 18 in.(mechanical)
Number of Layers five
Blows per Layer 25
Mold Size .03317 cu.ft.

Test Performed on Material
Passing No.4 **Sieve**

NM 16.4 **LL** 45 **PI** 28

Sp.G. (ASTM D 854) 2.698

%>No.4 0.0 **%<No.200** 79.5

USCS CL **AASHTO** A-7-6(22)

Date Sampled 1/22/08

Date Tested 2/28/08

Tested By AWH

TESTING DATA

	1	2	3	4	5	6
WM + WS	6124.6	6271.8	6257.4	6188.5		
WM	4205.9	4205.9	4205.9	4205.9		
WW + T #1	572.80	822.50	685.40	680.50		
WD + T #1	522.90	736.80	598.90	580.60		
TARE #1	6.20	6.70	7.00	7.30		
WW + T #2	N/A	N/A	N/A	N/A		
WD + T #2	N/A	N/A	N/A	N/A		
TARE #2	N/A	N/A	N/A	N/A		
MOISTURE	9.7	11.7	14.6	17.4		
DRY DENSITY	116.3	122.9	119.0	112.2		

TEST RESULTS

Maximum dry density = 123.5 pcf

Optimum moisture = 12.5 %

Project No. 6468071777 **Client:** Bechtel

Project: Exelon Texas COL (Victoria)

● **Source:** TP-2317

Sample No.: Bulk-2

Elev./Depth: 5.0-10.0

MACTEC, Inc.

Raleigh, North Carolina

Material Description

Pale Yellow Lean CLAY with sand

Remarks:

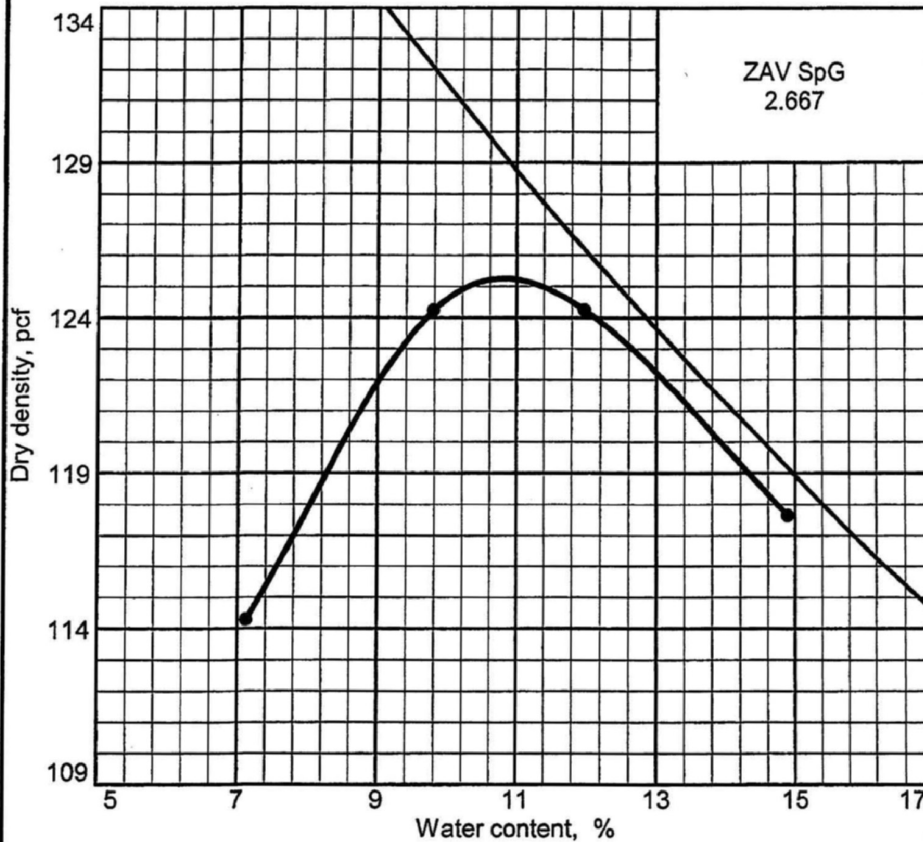
Natural Moisture obtained from Jar Sample S-3 5.0-8.0'

Checked by: LBJ

Title: LAB MANAGER

DSC
4-2-08
Figure NA

COMPACTION TEST REPORT/ ASTM D-1557-02



**Curve No.
TP 2319 B2**

Test Specification:
ASTM D 1557-02 Method A Modified

Preparation Method Dry
Hammer Wt. 10 lb.
Hammer Drop 18 in.(mechanical)
Number of Layers five
Blows per Layer 25
Mold Size .03317 cu.ft.

Test Performed on Material
Passing No.4 **Sieve**

NM 13.0 **LL** 32 **PI** 10

Sp.G. (ASTM D 854) 2.667

%>No.4 0.0 **%<No.200** 47.3

USCS SC **AASHTO** A-4(2)

Date Sampled 1/20/08

Date Tested 2/28/08

Tested By AWH

TESTING DATA

	1	2	3	4	5	6
WM + WS	6047.8	6257.9	6299.1	6239.5		
WM	4205.9	4205.9	4205.9	4205.9		
WW + T #1	683.90	579.90	767.00	731.90		
WD + T #1	638.90	528.80	685.70	637.90		
TARE #1	7.10	6.70	7.00	6.70		
WW + T #2	N/A	N/A	N/A	N/A		
WD + T #2	N/A	N/A	N/A	N/A		
TARE #2	N/A	N/A	N/A	N/A		
MOISTURE	7.1	9.8	12.0	14.9		
DRY DENSITY	114.3	124.2	124.2	117.6		

TEST RESULTS

Maximum dry density = 125.0 pcf

Optimum moisture = 11.0 %

Project No. 6468071777 **Client:** Bechtel

Project: Exelon Texas COL (Victoria)

● **Source:** TP-2319

Sample No.: Bulk-2

Elev./Depth: 3.0-10'

MACTEC, Inc.

Raleigh, North Carolina

Material Description

Light Brownish Gray Clayey SAND

Remarks:

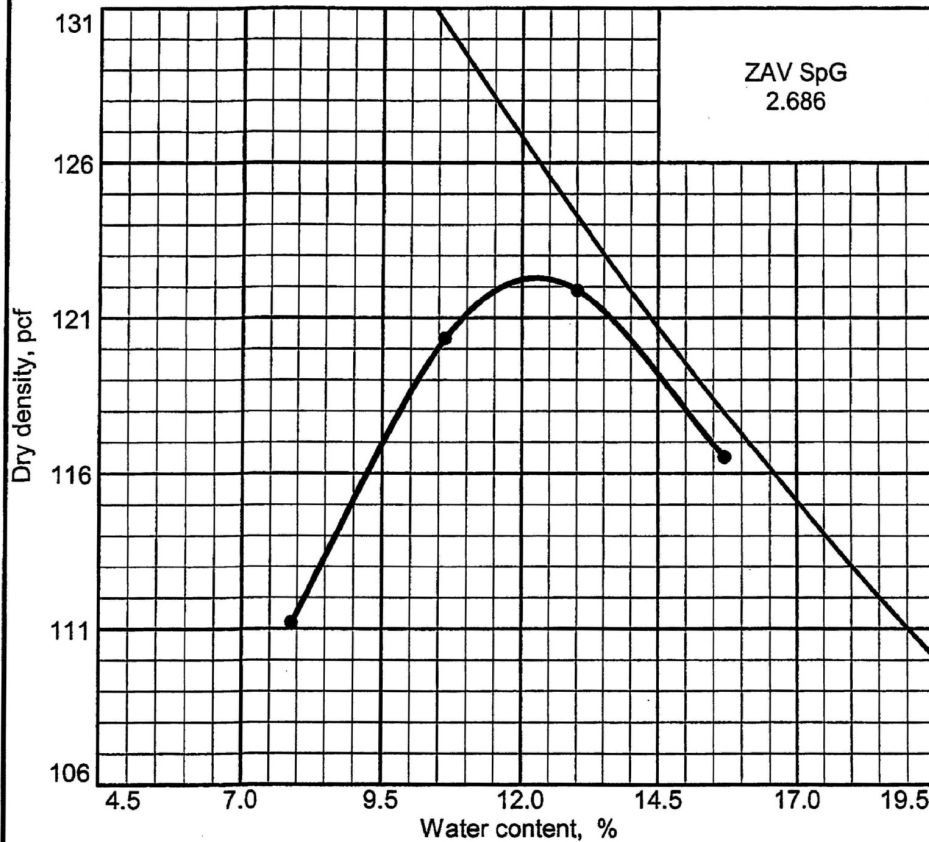
Natural Moisture obtained from Jar Sample S-3,6.5'

Checked by: LBJ

Title: LAB MANAGER

DSC
4-2-08
Figure N/A

COMPACTION TEST REPORT/ ASTM D-1557-02



Curve No.
TP 2320 B1

Test Specification:
ASTM D 1557-02 Method A Modified

Preparation Method Dry
Hammer Wt. 10 lb.
Hammer Drop 18 in.(mechanical)
Number of Layers five
Blows per Layer 25
Mold Size .03317 cu.ft.

Test Performed on Material
Passing No.4 **Sieve**

NM 12.0 **LL** 42 **PI** 25

Sp.G. (ASTM D 854) 2.686

%>No.4 0.0 **%<No.200** 61.8

USCS CL **AASHTO** A-7-6(13)

Date Sampled 1/19/08

Date Tested 2/28/08

Tested By AWH

TESTING DATA

	1	2	3	4	5	6
WM + WS	6011.2	6208.6	6278.3	6234.2		
WM	4205.9	4205.9	4205.9	4205.9		
WW + T #1	534.10	637.90	656.80	686.10		
WD + T #1	495.50	577.30	581.90	593.90		
TARE #1	7.00	6.50	6.40	6.70		
WW + T #2	N/A	N/A	N/A	N/A		
WD + T #2	N/A	N/A	N/A	N/A		
TARE #2	N/A	N/A	N/A	N/A		
MOISTURE	7.9	10.6	13.0	15.7		
DRY DENSITY	111.2	120.3	121.9	116.5		

TEST RESULTS

Maximum dry density = 122.5 pcf

Optimum moisture = 12.5 %

Project No. 6468071777 **Client:** Bechtel

Project: Exelon Texas COL (Victoria)

● **Source:** TP-2320

Sample No.: Bulk 1

Elev./Depth: 5.0'

MACTEC, Inc.

Raleigh, North Carolina

Material Description

Light Brownish Gray Sandy Lean CLAY

Remarks:

Natural Moisture obtained from Jar Sample S-3,5-10'

Checked by: LBJ

Title: LAB MANAGER

DSC
4-2-08
Figure NA