MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3275	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.7 ft (NAVD88)	NORTHING: 13,413,717 US ft (NAD83)	EASTING: 2,600,944 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 2/19/09	COMPLETED: 2/20/09	CASING DEPTH: 5.0 ft	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.5					Continued from previous page				
									-32.3 POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y 7/4), very dense, wet, medium to coarse grained, few fines, strong HCl reaction, few calcium carbonate nodules *(continued)* 113.0
									FAT CLAY (CH), light gray (2.5Y 7/2), stiff, moist, few fine grained sand, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules, possible caliche, brownish yellow and black staining
-38.8	119.5	4	6	8	14	SS-25			
-48.8	129.5	14	17	25	42	SS-26			-48.8 129.5 CLAYEY SAND (SC), very pale brown (10YR 7/3), dense, moist, fine grained, some fines, weak HCl reaction
-58.8	139.5	13	28	53	81	SS-27			139.5 ft: light gray (2.5Y 7/2), very dense, little fines, strong HCl reaction
									-64.3 145.0 FAT CLAY (CH), light gray (5Y 7/2), brownish yellow (10YR 6/6), stiff, moist, no HCl reaction on clay, trace calcium carbonate, strong HCl reaction on calcium carbonate nodules
-68.8	149.5	5	6	9	15	SS-28			
-78.8	159.5	19	18	26	44	SS-29			-78.8 159.5 POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y 8/3), dense, wet, medium to coarse grained, few fines, no HCl reaction on sand, trace clay pockets, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
									-87.3 168.0

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3275	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.7 ft (NAVD88)	NORTHING: 13,413,717 US ft (NAD83)	EASTING: 2,600,944 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 2/19/09	COMPLETED: 2/20/09	CASING DEPTH: 5.0 ft	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-87.6					Continued from previous page				
-88.8	169.5								SANDY FAT CLAY (CH), pale yellow (5Y 8/2), very stiff, moist, some fine to medium grained sand, weak HCl reaction, few sand seams *(continued)*
		10	11	9	20	SS-30			
-91.3									172.0
-92.8	173.5								POORLY GRADED SAND with silt (SP-SM), very dense, wet, medium to coarse grained, few fines, strong HCl reaction, few calcium carbonate nodules
		17	36	23	59	SS-31			
-94.3									175.0
									Boring Terminated at Elevation -94.3 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By PAR Date 8/10/09

Checked By KAW Date 8·10·09

SHEET 1 OF 4

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3276	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)	NORTHING: 13,413,655 US ft (NAD83)	EASTING: 2,600,722 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/19/09	COMPLETED: 2/21/09	CASING DEPTH: 5.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.5					Ground Surface				80.5 / 0.0
80.5	0.0	3	4	5	9	SS-1			FAT CLAY (CH), very dark grayish brown (10YR 3/2), stiff, dry to moist, few fine grained sand, trace organics, no HCl reaction
76.9	3.6	4	5	7	12	SS-2			76.9 / 3.6 FAT CLAY with sand (CH), very dark grayish brown (10YR 3/2), stiff, moist, little fine grained sand, trace organics, no HCl reaction
74.4	6.1	4	5	9	14	SS-3			74.4 / 6.1 FAT CLAY (CH), light yellowish brown (2.5Y 6/3), stiff, moist, few fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules, trace ferrous staining, trace organics and black streaks
72.0	8.5	4	6	8	14	SS-4			
69.5	11.0	6	10	16	26	SS-5			69.5 / 11.0 FAT CLAY with sand (CH), pale yellow (2.5Y 7/3), very stiff, moist, little fine grained sand, weak HCl reaction, trace carbonate nodules
67.0	13.5	4	9	12	21	SS-6			13.5 ft: trace ferrous staining
62.0	18.5	4	5	9	14	SS-7			62.0 / 18.5 FAT CLAY (CH), light brown (7.5YR 6/4) mottled light gray (5Y 7/2), stiff, moist, few fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules
57.0	23.5	3	5	8	13	SS-8			
52.0	28.5	4	7	9	16	SS-9			28.5 ft: very stiff, weak HCl reaction
47.0	33.5	5	7	10	17	SS-10			33.5 ft: reddish yellow (7.5Y 6/6) mottled light gray (5Y 7/2), no calcium carbonate nodules observed
42.0	38.5	4	5	8	13	SS-11			38.5 ft: stiff
37.0	43.5	6	9	10	19	SS-12			37.0 / 43.5 SANDY FAT CLAY (CH), pale yellow (2.5Y 7/4), very stiff, moist, some fine grained sand, weak HCl reaction
35.5	45.0								SILTY SAND (SM), pale yellow (2.5Y 7/4), firm, wet, fine grained, little fines, no HCl reaction
32.0	48.5	6	8	9	17	SS-13			
27.0	53.5	5	7	12	19	SS-14			53.5 ft: weak HCl reaction

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3276	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)	NORTHING: 13,413,655 US ft (NAD83)	EASTING: 2,600,722 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/19/09	COMPLETED: 2/21/09	CASING DEPTH: 5.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.4					Continued from previous page				
22.0	58.5								SILTY SAND (SM), pale yellow (2.5Y 7/4), firm, wet, fine grained, little fines, no HCl reaction *(continued)*
		9	15	12	27	SS-15			CLAYEY SAND (SC), pale yellow (2.5Y 7/4), very firm, moist, fine grained, little fines, weak HCl reaction
									61.5 ft: softer drilling
19.0	61.5								FAT CLAY (CH), light gray (2.5Y 7/2) mottled brownish yellow (10YR 6/6), stiff, moist, few fine grained sand, trace caliche, weak HCl reaction
17.0	63.5	4	6	9	15	SS-16			
12.0	68.5	4	5	7	12	SS-17			68.5 ft: brown (10YR 5/3) mottled light gray (10YR 7/2)
7.0	73.5	4	7	8	15	SS-18			73.5 ft: light brownish gray (10YR 6/2) mottled brownish yellow (10YR 6/6), no trace caliche
2.0	78.5	5	7	7	14	SS-19			
-2.0	82.5								82.5 ft: harder drilling
-3.0	83.5								SILTY SAND (SM), pale yellow (2.5Y 7/3), firm, wet, fine grained, some fines, no HCl reaction
-8.0	88.5	7	10	7	17	SS-20			
-8.0	88.5								SANDY FAT CLAY (CH), pale yellow (2.5Y 7/3), stiff, wet, some fine grained sand, no HCl reaction
-13.0	93.5	7	8	7	15	SS-21			
-13.5	94.0								93.5 ft: hard, moist, weak HCl reaction
-18.0	98.5	16	22	48	70	SS-22A/B			SILTY SAND (SM), very pale brown (10YR 7/3), very dense, wet, fine grained, weak HCl reaction, trace calcium carbonate nodules
-16.5	97.0								FAT CLAY (CH), pale yellow (2.5Y 7/4), hard, moist, strong HCl reaction, few gravel/calcium carbonate nodules
-19.2	99.7								98.5 ft: slightly cemented
-28.0	108.5	18	29	37	66	SS-23A/B			SILTY SAND (SM), pale yellow (2.5Y 7/4), very dense, wet, fine grained, little fines, no HCl reaction
									106.0 - 108.0 ft: drill chatter
		40	48	50/0.3	98/0.8	SS-24			108.5 ft: very pale brown (10YR 7/3), fine to coarse grained, weak HCl reaction

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3276	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)	NORTHING: 13,413,655 US ft (NAD83)	EASTING: 2,600,722 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/19/09	COMPLETED: 2/21/09	CASING DEPTH: 5.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.7					Continued from previous page				
									SILTY SAND (SM), pale yellow (2.5Y 7/4), very dense, wet, fine grained, little fines, no HCl reaction *(continued)*
-34.5									115.0
-38.0	118.5	8	9	13	22	SS-25			FAT CLAY (CH), light yellowish brown (2.5Y 6/3), very stiff, moist, trace fine grained sand, no HCl reaction on clay, trace organics, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-45.5									126.0
-48.0	128.5	25	37	27	64	SS-26			SILTY SAND (SM), very pale brown (10YR 8/2), very dense, wet, fine grained, little fines, weak HCl reaction
-58.0	138.5	20	30	31	61	SS-27			138.5 ft: pale yellow (2.5Y 7/3), trace calcium carbonate nodules
-60.5									141.0 ft: softer drilling 141.0
-68.0	148.5	4	7	8	15	SS-28			FAT CLAY (CH), pale yellow (2.5Y 7/3), stiff, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules
-76.5									157.0 ft: drill chatter 157.0
-78.0	158.5	20	28	50/0.4	78/0.5	SS-29			SILTY SAND (SM), light gray (10YR 7/2), very dense, wet, fine grained, little fines, weak HCl reaction
									161.0 162.0 ft: bit chatter

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3276	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)	NORTHING: 13,413,655 US ft (NAD83)	EASTING: 2,600,722 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/19/09	COMPLETED: 2/21/09	CASING DEPTH: 5.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-87.8					Continued from previous page				
-88.0	168.5	24	35	38	73	SS-30			SILTY SAND (SM), light gray (10YR 7/2), very dense, wet, fine grained, little fines, weak HCl reaction *(continued)* 168.5 ft: very pale brown (10YR 7/4), fine to coarse grained
-93.0	173.5	28	30	34	64	SS-31			173.5 ft: very pale brown (10YR 7/3)
-94.5	175.0								Boring Terminated at Elevation -94.5 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By PAK Date 8/10/09

Checked By KAW Date 8-10-09

SHEET 1 OF 6

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3277	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,665 US ft (NAD83)	EASTING: 2,601,131 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 300.7 ft	DRILL MACHINE: CME 75 Truck	DRILLER: J. Cook (MILLER)	HAMMER (ID): 140 lb. Auto (100)
DATE STARTED: 2/17/09	COMPLETED: 2/24/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.2					Ground Surface				
80.2	0.0	1	1	3	4	SS-1			FAT CLAY with sand (CH), dark gray (10YR 4/1), soft, moist, little fine grained sand, no HCl reaction, trace roots
76.5	3.7	4	8	12	20	SS-2			SANDY FAT CLAY (CH), light olive gray (5Y 6/2), very stiff, moist, some fine to medium grained sand, strong HCl reaction, few calcium carbonate nodules
74.2	6.0	4	6	8	14	SS-3			FAT CLAY with sand (CH), light yellowish brown (2.5Y 6/8), stiff, moist, little fine to medium grained sand, strong HCl reaction, little calcium carbonate nodules
71.5	8.7	6	7	9	16	SS-4			FAT CLAY (CH), light yellowish brown (10YR 6/4), very stiff, moist, few fine grained sand, strong HCl reaction, few calcium carbonate nodules
68.9	11.3	5	8	11	19	SS-5			FAT CLAY with sand (CH), light yellowish brown (10YR 6/4), very stiff, moist, little fine grained sand, strong HCl reaction, few calcium carbonate nodules, trace black staining
66.6	13.6	3	5	8	13	SS-6			13.6 ft: strong brown (7.5YR 5/6), stiff, little fine to medium grained sand, trace calcium carbonate nodules, few black staining
61.0	19.2	3	5	7	12	SS-7			FAT CLAY (CH), yellowish brown (10YR 5/6) and light greenish gray (10Y 7/1), stiff, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules, black staining
56.0	24.2	3	5	6	11	SS-8			24.2 ft: trace black staining, no calcium carbonate nodules observed
50.9	29.3	4	7	9	16	SS-9			FAT CLAY with sand (CH), brownish yellow (10YR 6/6) and light greenish gray (10Y 8/1), very stiff, moist, little fine grained sand, weak HCl reaction, trace calcium carbonate nodules, black staining
46.0	34.2	7	9	10	19	SS-10			FAT CLAY (CH), yellowish red (5YR 4/6) and light greenish gray (10Y 8/1), very stiff, moist, weak HCl reaction, trace black staining
40.9	39.3	4	5	7	12	SS-11			39.3 ft: strong brown (7.5YR 5/6), stiff, black staining, slickensides
36.0	44.2	3	5	7	12	SS-12			44.2 ft: no HCl reaction
31.0	49.2	3	8	8	18	SS-13A/B			49.2 ft: very stiff, trace calcium carbonate nodules, trace shell fragments
30.3	49.9								CLAYEY SAND (SC), light greenish gray (10Y 7/1) and strong brown (7.5YR 5/6), firm, moist, fine to medium grained, some fines, no HCl reaction
25.9	54.3	7	9	10	19	SS-14			

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3277	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,665 US ft (NAD83)	EASTING: 2,601,131 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 300.7 ft	DRILL MACHINE: CME 75 Truck	DRILLER: J. Cook (MILLER)	HAMMER (ID): 140 lb. Auto (100)
DATE STARTED: 2/17/09	COMPLETED: 2/24/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.1					Continued from previous page				
21.0	59.2	12	20	21	41	SS-15			SILTY SAND (SM), light greenish gray (10Y 7/1), firm, wet, fine to medium grained, some fines, no HCl reaction on sand, few calcium carbonate fragments, weak HCl reaction on calcium carbonate fragments, trace black staining *(continued)* 59.2 ft: light gray (5YR 7/1), dense, little fines, orange staining
15.9	64.3	5	20	23	43	SS-16			64.3 ft: brown (10YR 5/3)
11.0	69.2	4	5	7	12	SS-17			11.7 — 68.5: FAT CLAY (CH), dark gray (5YR 4/1), stiff, moist, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
6.0	74.2	4	7	10	17	SS-18			6.0 — 74.2: SANDY FAT CLAY (CH), light greenish gray (10Y 7/1), very stiff, moist, some fine to medium grained sand, weak HCl reaction, few calcium carbonate nodules, trace orange staining
0.9	79.3	7	9	10	19	SS-19			0.9 — 79.3: FAT CLAY with sand (CH), light greenish gray (10Y 7/1), very stiff, moist, little fine to medium grained sand, weak HCl reaction, trace calcium carbonate nodules
-4.0	84.2	16	25	32	57	SS-20			-2.8 — 83.0: SILTY SAND (SM), light brownish gray (10YR 6/2), very dense, wet, fine to medium grained, little fines, no HCl reaction on sand, trace calcium carbonate fragments
-9.0	89.2	5	10	16	26	SS-21			-6.8 — 87.0: FAT CLAY with sand (CH), greenish gray (10Y 6/1), very stiff, moist, little fine to medium grained sand, weak HCl reaction, few calcium carbonate fragments
-14.1	94.3	8	11	13	24	SS-22			94.3 ft: greenish gray (10Y 6/1) and strong brown (7.5YR 4/6), trace calcium carbonate fragments
-19.0	99.2	16	17	23	40	SS-23A/B			-19.9 — 100.1: 99.2 ft: hard; SILTY SAND (SM), yellowish brown (10YR 5/8), dense, wet, fine to medium grained, little fines, no HCl reaction
-29.0	109.2	13	37	50/0.4	87/0.9	SS-24			-29.0 — 109.2: POORLY GRADED SAND with silt (SP-SM), pinkish gray (7.5YR 7/2), very dense, wet, fine to coarse grained, few fines, weak HCl reaction, few calcium carbonate nodules

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3277	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,665 US ft (NAD83)	EASTING: 2,601,131 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 300.7 ft	DRILL MACHINE: CME 75 Truck	DRILLER: J. Cook (MILLER)	HAMMER (ID): 140 lb. Auto (100)
DATE STARTED: 2/17/09	COMPLETED: 2/24/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.0					Continued from previous page				
									POORLY GRADED SAND with silt (SP-SM), pinkish gray (7.5YR 7/2), very dense, wet, fine to coarse grained, few fines, weak HCl reaction, few calcium carbonate nodules *(continued)*
									-35.8 — 116.0
									FAT CLAY (CH), light greenish gray (10Y 7/1), hard, moist, no HCl reaction, trace calcium carbonate nodules, possible caliche, trace black and orange staining
-39.1	119.3	3	6	29	35	SS-25			
									-44.8 — 125.0
									SILTY SAND (SM), very pale brown (10YR 8/3), very dense, moist, fine to medium grained, some fines, weak HCl reaction
-49.0	129.2	17	30	32	62	SS-26			
-59.0	139.2	39	28	31	59	SS-27			139.2 ft: wet
-69.1	149.3	5	12	17	29	SS-28			-69.1 — 149.3
									SANDY FAT CLAY (CH), light greenish gray (10Y 7/1), very stiff, moist, some fine to medium grained sand, weak HCl reaction, trace calcium carbonate nodules
									-71.8 — 152.0
									SILTY SAND (SM), light greenish gray (10Y 8/1), dense, wet, fine to medium grained, little fines, weak HCl reaction
-79.1	159.3	9	15	17	32	SS-29			

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3277	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,665 US ft (NAD83)	EASTING: 2,601,131 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 300.7 ft	DRILL MACHINE: CME 75 Truck	DRILLER: J. Cook (MILLER)	HAMMER (ID): 140 lb. Auto (100)
DATE STARTED: 2/17/09	COMPLETED: 2/24/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-88.1					Continued from previous page				
-89.0	169.2								
		13	8	18	26	SS-30A/B/C			-89.0 / 169.2; -89.5 / 169.7; -90.0 / 170.2: POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very firm, wet, fine to coarse grained, few fines, weak HCl reaction, few calcium carbonate nodules; FAT CLAY (CH), light greenish gray (10Y 7/1), very stiff, moist, no HCl reaction, few orange staining; SILTY SAND (SM), light gray (10YR 7/1), very firm, wet, fine to medium grained, some fines, weak HCl reaction
-99.0	179.2								-99.0 / 179.2: POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very dense, wet, fine to coarse grained, few fines, weak HCl reaction, trace calcium carbonate nodules
		12	25	31	56	SS-31			-102.8 / 183.0: 183.0 to 184.0 ft: hard drilling and rig chatter; SILTY SAND (SM), very pale brown (10YR 7/3), very dense, wet, fine grained, some fines, weak HCl reaction
-109.0	189.2								
		39	48	48	96	SS-32			
-119.1	199.3								
		50/0.3			50/0.3	SS-33			199.3 ft: very pale brown (10YR 8/2), fine to medium grained, little fines, few calcium carbonate nodules; 200.0 - 202.0 ft: hard drilling
-129.1	209.3								
		23	35	37	72	SS-34			209.3 ft: pale brown (10YR 6/3), trace calcium carbonate nodules
-139.1	219.3								
		16	27	30	57	SS-35			219.3 ft: light yellowish brown (10YR 6/4) to light gray (10YR 7/2), fine to coarse grained, no HCl reaction on sand, some calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3277	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,665 US ft (NAD83)	EASTING: 2,601,131 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 300.7 ft	DRILL MACHINE: CME 75 Truck	DRILLER: J. Cook (MILLER)	HAMMER (ID): 140 lb. Auto (100)
DATE STARTED: 2/17/09	COMPLETED: 2/24/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-144.2					Continued from previous page				
									SILTY SAND (SM), very pale brown (10YR 7/3), very dense, wet, fine grained, some fines, weak HCl reaction *(continued)*
-149.1	229.3								-149.1 — 229.3
		6	17	19	36	SS-36			CLAYEY SAND (SC), yellowish brown (10YR 5/6), light greenish gray (10Y 7/1), dense, moist, fine to medium grained, some fines, weak HCl reaction, few calcium carbonate nodules
-157.8	238.0								SILTY SAND (SM), very pale brown (10YR 7/3), very dense, wet, fine to medium grained, little fines, weak HCl reaction, trace calcium carbonate fragments
-159.0	239.2								
		30	50/0.3		80/0.8	SS-37			
-169.1	249.3								
		15	21	19	40	SS-38A/B			
-169.8	250.0								249.3 ft: dense, few fines, few calcium carbonate fragments
									FAT CLAY with sand (CH), light greenish gray (10Y 7/1), yellowish brown (10YR 5/6), hard, moist, little fine to medium grained sand, weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-173.8	254.0								254.0 ft: hard drilling
									CLAYEY SAND (SC), light greenish gray (10Y 7/1), dense, moist, fine to medium grained, little fines, no HCl reaction on sand, trace calcium carbonate fragments
-179.1	259.3								
		14	20	23	43	SS-39			
-189.0	269.2								
		23	28	36	64	SS-40			
-189.0	269.2								POORLY GRADED SAND (SP), light gray (10YR 7/1), very dense, wet, fine to medium grained, few fines, no HCl reaction
-194.8	275.0								POORLY GRADED SAND with clay (SP-SC), light greenish gray (10Y 7/1), dense, moist, fine to coarse grained, few fines, no HCl reaction, orange staining
-199.0	279.2								
		8	15	21	36	SS-41			

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3277	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,665 US ft (NAD83)	EASTING: 2,601,131 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 300.7 ft	DRILL MACHINE: CME 75 Truck	DRILLER: J. Cook (MILLER)	HAMMER (ID): 140 lb. Auto (100)
DATE STARTED: 2/17/09	COMPLETED: 2/24/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Wing Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-200.3					Continued from previous page				
									POORLY GRADED SAND with clay (SP-SC), light greenish gray (10Y 7/1), dense, moist, fine to coarse grained, few fines, no HCl reaction, orange staining *(continued)*
									-205.8 — 286.0
									POORLY GRADED SAND with silt (SP-SM), light greenish gray (10Y 7/1), very dense, wet, fine to medium grained, few fines, no HCl reaction
-209.1	289.3								
		20	50/0.3		70/0.8	SS-42			
									-216.8 — 297.0
									FAT CLAY (CH), light greenish gray (10Y 7/1) and light brown (7.5YR 6/3), hard, moist, few fine to medium grained sand, weak HCl reaction, few calcium carbonate nodules
-219.0	299.2								
		9	12	21	33	SS-43			
									-220.5 — 300.7
									Boring Terminated at Elevation -220.5 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By WBD Date 11-10-09

Checked By PAR Date 11/10/09

SHEET 1 OF 4

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3278	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,659 US ft (NAD83)	EASTING: 2,600,844 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 2/21/09	COMPLETED: 2/22/09	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.2					Ground Surface				
80.2	0.0	3	5	6	11	SS-1			FAT CLAY (CH), dark gray (10YR 4/1), stiff, dry, few fine grained sand, no HCl reaction
77.3	2.9	1	3	2	5	SS-2			2.9 ft: to light gray (10YR 7/2), firm, moist
75.0	5.2	4	6	6	12	SS-3			5.2 ft: light olive gray (5Y 6/2), stiff
72.6	7.6	5	7	5	12	SS-4			7.6 ft: light gray (5Y 7/2), no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules, trace black staining
70.1	10.1	8	10	10	20	SS-5			10.1 ft: light gray (5Y 7/2) and brownish yellow (10YR 6/6), very stiff, strong HCl reaction, little calcium carbonate nodules
67.7	12.5	6	8	11	19	SS-6			FAT CLAY with sand (CH), light gray (2.5Y 7/2), very stiff, moist, little fine grained sand, strong HCl reaction, trace calcium carbonate nodules
60.7	19.5	3	5	6	11	SS-7			FAT CLAY (CH), light yellowish brown (10YR 6/4), stiff, moist, weak HCl reaction
55.7	24.5	5	9	10	19	SS-8			FAT CLAY with sand (CH), pale yellow (2.5Y 7/3), very stiff, moist, little fine grained sand, weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
50.7	29.5	9	13	19	32	SS-9			FAT CLAY (CH), light gray (2.5Y 7/2) and yellow (10YR 7/6), hard, moist, few fine grained sand, weak HCl reaction, some calcium carbonate nodules
45.7	34.5	15	17	20	37	SS-10			CLAYEY SAND (SC), pale yellow (2.5Y 8/2), dense, moist, fine grained, little fines, strong HCl reaction, few calcium carbonate nodules
40.7	39.5	21	18	31	49	SS-11A/B			39.5 ft: wet
39.6	40.6								FAT CLAY (CH), light gray (5Y 7/2) and brownish yellow (10YR 6/6), hard, moist, few fine grained sand, weak HCl reaction
35.7	44.5	5	9	11	20	SS-12			44.5 ft: light gray (2.5Y 7/2) and light yellowish brown (10YR 6/4), very stiff, few calcium carbonate nodules, strong HCl reaction
30.7	49.5	5	6	8	14	SS-13			SILTY SAND (SM), pale yellow (2.5Y 7/3), firm, wet, fine grained, little fines, no HCl reaction
25.7	54.5	5	8	6	14	SS-14			

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3278	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,659 US ft (NAD83)	EASTING: 2,600,844 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 2/21/09	COMPLETED: 2/22/09	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.1								Continued from previous page
								SILTY SAND (SM), pale yellow (2.5Y 7/3), firm, wet, fine grained, little fines, no HCl reaction *(continued)*
20.7	59.5	4	7	16	SS-15			59.5 ft: light gray (2.5Y 7/2), very firm, moist, weak HCl reaction
15.7	64.5	10	17	20	SS-16			64.5 ft: pale yellow (2.5Y 7/3), dense
10.7	69.5	4	5	7	SS-17			10.7 — 69.5 FAT CLAY (CH), light brownish gray (2.5Y 6/2), stiff, moist, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
5.7	74.5	7	8	9	SS-18			74.5 ft: light olive gray (5Y 6/2), very stiff, few fine grained sand
0.7	79.5	8	11	14	SS-19			79.5 ft: light gray (2.5Y 7/2), few calcium carbonate nodules
-4.3	84.5	12	17	18	SS-20			-4.3 — 84.5 POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y 8/3), dense, wet, fine grained, few fines, no HCl reaction
-9.3	89.5	18	16	20	SS-21			-6.8 — 87.0 87.0 ft: bit chatter; CLAYEY SAND (SC), light gray (5Y 7/2), dense, wet, fine grained, little fines, no HCl reaction on sand, little calcium carbonate lens, strong HCl reaction on calcium carbonate lens
-14.3	94.5	13	24	23	SS-22A/B			94.5 ft: light gray (2.5Y 7/2), moist, some fines, weak HCl reaction, trace calcium carbonate nodules; -15.0 — 95.2 FAT CLAY (CH), light gray (2.5Y 7/2), hard, moist, few fine grained sand, strong HCl reaction
-19.3	99.5	28	43	53	SS-23			-19.3 — 99.5 POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y 8/4), very dense, wet, medium to coarse grained, few fines, strong HCl reaction, little calcium carbonate nodules
-29.3	109.5	23	45	47	SS-24			109.5 ft: yellow (2.5Y 7/8), moist, no HCl reaction on sand, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules

BLOWS PER FOOT (0, 20, 40, 60, 80, 100): 23, 37, 12, 17, 25, 35, 36, 47, 96, 92

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3278	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,659 US ft (NAD83)	EASTING: 2,600,844 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 2/21/09	COMPLETED: 2/22/09	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.0					Continued from previous page				
									POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y 8/4), very dense, wet, medium to coarse grained, few fines, strong HCl reaction, little calcium carbonate nodules *(continued)*
-36.8									117.0
-39.3	119.5	6	11	11	22	SS-25			FAT CLAY (CH), light gray (5Y 7/2), very stiff, moist, few fine grained sand, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-45.8									126.0
-49.3	129.5	19	35	28	63	SS-26			CLAYEY SAND (SC), pale yellow (2.5Y 8/3), very dense, moist, fine grained, some fines, strong HCl reaction
-59.3	139.5	14	24	28	52	SS-27			POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y 8/3), very dense, wet, fine grained, few fines, strong HCl reaction
-67.3									147.5
-69.3	149.5	6	7	8	15	SS-28			FAT CLAY (CH), light gray (5Y 7/2) and brownish yellow (10YR 6/6), stiff, moist, few fine grained sand, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-74.8									155.0
-79.3	159.5	37	48	47	95	SS-29			POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR 8/4), very dense, wet, medium to coarse grained, few fines, weak HCl reaction, trace calcium carbonate nodules

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3278	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,659 US ft (NAD83)	EASTING: 2,600,844 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 2/21/09	COMPLETED: 2/22/09	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-88.1					Continued from previous page				
-89.3	169.5								POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR 8/4), very dense, wet, medium to coarse grained, few fines, weak HCl reaction, trace calcium carbonate nodules *(continued)*
		14	37	36	73	SS-30			169.5 ft: light gray (10YR 7/2) and brownish yellow (10YR 6/6), medium grained
-93.3	173.5								
		15	18	21	39	SS-31			173.5 ft: pale yellow (2.5Y 8/4), dense, strong HCl reaction
									-94.8 175.0
									Boring Terminated at Elevation -94.8 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By RAR Date 8/10/09

Checked By KAW Date 8·10·09

SHEET 1 OF 3

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: B. Mabie
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3279	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 79.7 ft (NAVD88)	NORTHING: 13,413,518 US ft (NAD83)	EASTING: 2,600,997 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 150.0 ft	DRILL MACHINE: CME 550	DRILLER: L. Carter (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (CME-08)
DATE STARTED: 2/10/09	COMPLETED: 2/11/09	CASING DEPTH: 5.0 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
79.7					Ground Surface				79.7 — 0.0
79.7	0.0	2	2	2	4	SS-1			FAT CLAY (CH), black (10YR 2/1), soft, moist, no HCl reaction, organics, roots and grass
76.2	3.5	3	3	5	8	SS-2			3.5 ft: dark gray (10YR 4/1), firm, weak HCl reaction, trace calcium carbonate nodules, black staining
73.7	6.0	2	3	3	6	SS-3			6.0 ft: light gray (10YR 7/2), black and orange staining
71.2	8.5	4	5	8	13	SS-4			8.5 ft: stiff, some caliche, strong HCl reaction
68.7	11.0	5	6	8	14	SS-5			11.0 ft: few fine grained sand, caliche not observed
66.2	13.5	6	6	11	17	SS-6			13.5 ft: mottled reddish yellow (7.5YR 6/6), very stiff
61.2	18.5	3	6	9	15	SS-7			18.5 ft: stiff, weak HCl reaction
56.2	23.5	4	8	9	17	SS-8			23.5 ft: light gray (10YR 7/2), very stiff, few fine grained sand, trace black nodules, no calcium carbonate nodules observed
51.2	28.5	5	7	9	16	SS-9			28.5 ft: trace calcium carbonate nodules
46.2	33.5	5	5	9	14	SS-10			33.5 ft: light gray (10YR 7/2) mottled reddish yellow (7.5YR 6/6), stiff
41.2	38.5	4	7	10	17	SS-11			38.5 ft: very stiff
36.2	43.5	3	6	8	14	SS-12			43.5 ft: stiff
31.2	48.5	4	7	10	17	SS-13			48.5 ft: very stiff, strong HCl reaction, no calcium carbonate nodules observed, caliche
26.2	53.5	6	8	7	15	SS-14			26.2 — 53.5 SILTY SAND (SM), very pale brown (10YR 7/4), firm, wet, fine grained, little fines, weak HCl reaction

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: B. Mable
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3279	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 79.7 ft (NAVD88)	NORTHING: 13,413,518 US ft (NAD83)	EASTING: 2,600,997 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 150.0 ft	DRILL MACHINE: CME 550	DRILLER: L. Carter (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (CME-08)
DATE STARTED: 2/10/09	COMPLETED: 2/11/09	CASING DEPTH: 5.0 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
23.6					Continued from previous page				
21.2	58.5								SILTY SAND (SM), very pale brown (10YR 7/4), firm, wet, fine grained, little fines, weak HCl reaction *(continued)*
		9	13	14	27	SS-15			58.5 ft: very firm
16.2	63.5								16.2 — 63.5
		8	9	6	15	SS-16			FAT CLAY (CH), light gray (10YR 7/2), stiff, moist, strong HCl reaction, calcium carbonate nodules, some caliche, orange staining
11.2	68.5								
		5	6	7	13	SS-17			68.5 ft: black and orange staining
6.2	73.5								
		6	9	9	18	SS-18			73.5 ft: very pale brown (10YR 7/3), very stiff, weak HCl reaction, caliche not observed
1.2	78.5								
		6	9	15	24	SS-19			78.5 ft: caliche, strong HCl reaction 81.0 - 82.0 ft: hard drilling and bit chatter
-1.3	81.0								POORLY GRADED SAND (SP), very pale brown (10YR 7/3), dense, wet, fine grained, weak HCl reaction, trace calcium carbonate nodules
-3.8	83.5								
		13	19	21	40	SS-20			86.0 - 87.5 ft: hard drilling and bit chatter
-7.8	87.5								FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, strong HCl reaction, calcium carbonate nodules, caliche, orange staining
-8.8	88.5								
		8	9	10	19	SS-21			
-13.8	93.5								-13.8 — 93.5 POORLY GRADED SAND (SP), white (10YR 8/1), very dense, moist, fine grained, few fines, strong HCl reaction, caliche, calcium carbonate fragments
		23	42	47	89	SS-22			
-18.8	98.5								-18.8 — 98.5 FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, strong HCl reaction, calcium carbonate nodules, black and orange staining
		5	7	19	26	SS-23			
-28.8	108.5								-28.8 — 108.5 POORLY GRADED SAND (SP), yellow (10YR 7/6), very dense, wet, fine to coarse grained, strong HCl reaction, calcium carbonate nodules
		25	43	57/0.5	100/1.0	SS-24			

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: B. Mable
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3279	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 79.7 ft (NAVD88)	NORTHING: 13,413,518 US ft (NAD83)	EASTING: 2,600,997 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 150.0 ft	DRILL MACHINE: CME 550	DRILLER: L. Carter (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (CME-08)
DATE STARTED: 2/10/09	COMPLETED: 2/11/09	CASING DEPTH: 5.0 ft	BITS USED: 2 15/16" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.5					Continued from previous page				
									POORLY GRADED SAND (SP), yellow (10YR 7/6), very dense, wet, fine to coarse grained, strong HCl reaction, calcium carbonate nodules *(continued)*
-38.8	118.5								-38.8 118.5
		9	12	11	23	SS-25			FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, strong HCl reaction, calcium carbonate nodules, caliche, black and orange staining
-48.8	128.5								-48.8 128.5
		11	17	35	52	SS-26			CLAYEY SAND (SC), very pale brown (10YR 7/3), very dense, moist, fine grained, little fines, strong HCl reaction
-58.8	138.5								-58.8 138.5
		31	41	41	82	SS-27			POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very dense, wet, fine grained, strong HCl reaction
-68.8	148.5								-68.8 148.5
		6	7	8	15	SS-28			FAT CLAY (CH), light gray (10YR 7/2), stiff, moist, weak HCl reaction, trace black and orange staining
									-70.3 150.0
									Boring Terminated at Elevation -70.3 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By PAK Date 8/10/09
Checked By KAW Date 8-10-09
SHEET 1 OF 4

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3280	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)	NORTHING: 13,413,800 US ft (NAD83)	EASTING: 2,600,844 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/22/09	COMPLETED: 2/24/09	CASING DEPTH: 10.0 ft	BITS USED: 2 7/8" Drag Bit

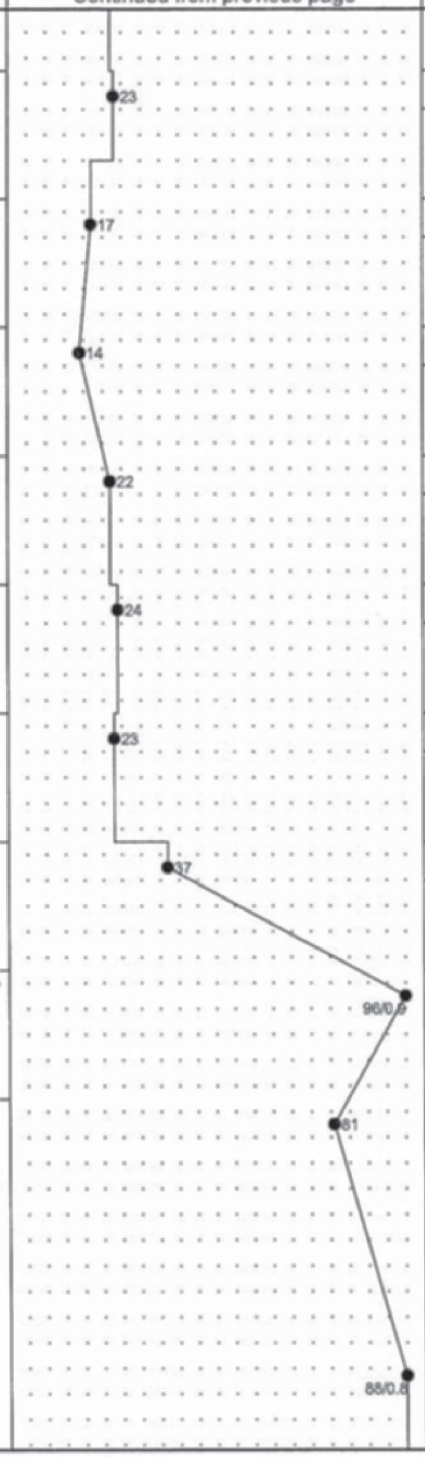
ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.5					Ground Surface				80.5 / 0.0
80.5	0.0	3	4	5	9	SS-1			FAT CLAY with sand (CH), dark gray (10YR 4/1), stiff, moist, little fine grained sand, no HCl reaction, little organics
77.2	3.3	7	9	12	21	SS-2			3.3 ft: light yellowish brown (2.5Y 6/3), very stiff, strong to weak HCl reaction, few calcium carbonate nodules
74.5	6.0	8	9	13	22	SS-3			6.0 ft: pale yellow (2.5Y 7/3)
72.1	8.4	4	5	8	13	SS-4			72.1 / 8.4 FAT CLAY (CH), pale yellow (2.5Y 7/3) mottled brownish yellow (10YR 6/6), stiff, moist, few fine grained sand, weak HCl reaction, little calcium carbonate nodules
69.7	10.8	4	6	9	15	SS-5A/B			69.7 / 10.8; 69.3 / 11.2 SANDY FAT CLAY (CH), pale yellow (2.5Y 7/3), stiff, moist, some fine grained sand
67.0	13.5	5	6	10	16	SS-6			67.0 / 13.5 CLAYEY SAND (SC), pale yellow (2.5Y 7/3), firm, moist, fine grained, some fines, weak HCl reaction, trace calcium carbonate nodules; 65.5 / 15.0 SANDY LEAN CLAY (CL), pale yellow (2.5Y 7/4), very stiff, moist, some fine grained sand, weak HCl reaction
62.0	18.5	4	6	9	15	SS-7			FAT CLAY (CH), brownish yellow (10YR 6/6), stiff, moist, few fine grained sand, weak HCl reaction
57.0	23.5	3	5	7	12	SS-8			23.5 ft: mottled pale yellow (5Y 7/3)
52.0	28.5	4	6	8	14	SS-9			28.5 ft: no HCl reaction, trace organics
47.0	33.5	12	15	32	47	SS-10			49.5 / 31.0 CLAYEY SAND (SC), brownish yellow (10YR 6/6), dense, moist, fine grained quartz, little fines, strong HCl reaction, trace calcium carbonate nodules
42.0	38.5	24	52	47	99	SS-11			42.0 / 38.5 SILTY SAND (SM), pale yellow (2.5Y 7/3), very dense, wet, fine grained, little fines, weak HCl reaction
37.0	43.5	5	7	12	19	SS-12			38.5 / 42.0 FAT CLAY (CH), light yellowish brown (10YR 6/4), very stiff, moist, few fine grained sand, no HCl reaction on clay
32.0	48.5	6	6	7	13	SS-13			48.5 ft: pale yellow (2.5Y 7/3), stiff, trace calcium carbonate nodules
27.0	53.5	8	10	12	22	SS-14			28.0 / 52.5 CLAYEY SAND (SC), pale yellow (2.5Y 7/3), very firm, wet, fine grained, little fines, no HCl reaction

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3280	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)	NORTHING: 13,413,800 US ft (NAD83)	EASTING: 2,600,844 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/22/09	COMPLETED: 2/24/09	CASING DEPTH: 10.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.4					Continued from previous page				
22.0	58.5								CLAYEY SAND (SC), pale yellow (2.5Y 7/3), very firm, wet, fine grained, little fines, no HCl reaction *(continued)*
		11	11	12	23	SS-15			22.0 — 58.5 SILTY SAND (SM), pale yellow (2.5Y 7/3), very firm, wet, fine grained, little fines, no HCl reaction
17.0	63.5								18.5 — 62.0 FAT CLAY (CH), pale yellow (2.5Y 7/3), very stiff, moist, few fine grained sand, weak HCl reaction
		6	7	10	17	SS-16			62.0 ft: bit chatter
12.0	68.5								
		4	6	8	14	SS-17			68.5 ft: light yeloowish brown (2.5Y 6/3) mottled light gray (2.5Y 7/2), stiff, no HCl reaction on clay, trace calcium carbonate nodules
7.0	73.5								
		7	11	11	22	SS-18			73.5 ft: pale yellow (10YR 6/6) and brownish yellow (10YR 6/6), very stiff, weak to no HCl reaction
2.0	78.5								2.0 — 78.5
		7	9	15	24	SS-19			FAT CLAY with sand (CH), light gray (2.5Y 7/2), very stiff, moist, little fine grained sand, weak HCl reaction
-3.0	83.5								-3.0 — 83.5
		8	11	12	23	SS-20			SANDY FAT CLAY (CH), pale yellow (2.5Y 7/2), very stiff, moist, some fine grained sand, weak HCl reaction, trace calcium carbonate nodules
-8.0	88.5								-8.0 — 88.5
		13	18	19	37	SS-21			SILTY SAND (SM), pale yellow (2.5Y 7/3), dense, wet, fine grained, little fines, weak HCl reaction 90.0 to 93.5 ft: hard drilling
-13.0	93.5								
		25	46	50/0.4	96/0.9	SS-22			93.5 ft: yellow (10YR 7/6), very dense, few calcium carbonate nodules, strong HCl reaction
-18.0	98.5								
		21	38	43	81	SS-23			98.5 ft: very pale brown (10YR 7/3), weak HCl reaction, no calcium carbonate nodules observed
-28.0	108.5								
		38	50/0.3		88/0.8	SS-24			108.5 ft: fine to coarse grained quartz sand, trace calcium carbonate nodules



EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3280	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)	NORTHING: 13,413,800 US ft (NAD83)	EASTING: 2,600,844 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/22/09	COMPLETED: 2/24/09	CASING DEPTH: 10.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.7					Continued from previous page				
									SILTY SAND (SM), pale yellow (2.5Y 7/3), dense, wet, fine grained, little fines, weak HCl reaction (continued)
-33.5	114.0								FAT CLAY (CH), light gray (2.5Y 7/2) mottled brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, trace calcium carbonate nodules
-38.0	118.5	10	9	10	19	SS-25			122.0 ft: bit chatter
-41.5	122.0								CLAYEY SAND (SC), pale yellow (2.5Y 7/3), very dense, moist, fine grained, some fines, weak HCl reaction
-48.0	128.5	28	32	51	83	SS-26			
-51.5	132.0								SILTY SAND (SM), very pale brown (10YR 7/4), very dense, wet, fine to coarse grained, little fines, weak to no HCl reaction
-58.0	138.5	16	38	50	88	SS-27			
-60.5	141.0								FAT CLAY (CH), very pale brown (10YR 7/3), very stiff, moist, little fine grained sand, weak HCl reaction, trace calcium carbonate nodules
-68.0	148.5	6	7	9	16	SS-28			
-78.0	158.5								
-78.0	158.5	8	39	49	88	SS-29A/B			FAT CLAY with sand (CH), light gray (10YR 7/2), hard, moist, little fine grained sand, weak HCl reaction
-79.3	159.8								SILTY SAND (SM), pale yellow (2.5Y 7/3), very dense, wet, fine to coarse grained, some fines, weak HCl reaction

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3280	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)	NORTHING: 13,413,800 US ft (NAD83)	EASTING: 2,600,844 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/22/09	COMPLETED: 2/24/09	CASING DEPTH: 10.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-87.8					Continued from previous page				
-88.0	168.5	10	7	7	14	SS-30			SILTY SAND (SM), pale yellow (2.5Y 7/3), very dense, wet, fine to coarse grained, some fines, weak HCl reaction *(continued)* 168.5 ft: light yellowish brown (10YR 6/4), firm, fine grained quartz sand, little fines -91.5 172.0
-93.0	173.5	15	12	11	23	SS-31			FAT CLAY (CH), brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules -94.5 175.0
									Boring Terminated at Elevation -94.5 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By WJD Date 11-10-09
Checked By PAA Date 11/10/09
SHEET 1 OF 4

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3281	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.0 ft (NAVD88)	NORTHING: 13,413,569 US ft (NAD83)	EASTING: 2,600,822 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 2/24/09	COMPLETED: 2/25/09	CASING DEPTH: 10.0 ft	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.0					Ground Surface				80.0 / 0.0
80.0	0.0	2	4	4	8	SS-1			FAT CLAY (CH), dark gray (10YR 4/1), firm, dry, few fine grained sand, no HCl reaction, little root matter
77.2	2.8	3	6	9	15	SS-2			2.5 ft: gray (2.5Y 6/1), stiff, moist
74.9	5.1	1	2	3	5	SS-3			5.1 ft: light gray (5Y 7/2), firm, trace calcium carbonate nodules, strong HCl reaction, no HCl reaction on clay
72.5	7.5	6	7	7	14	SS-4			7.5 ft: stiff, strong HCl reaction, little calcium carbonate nodules
69.9	10.1	4	6	5	11	SS-5			
67.4	12.6	4	7	9	16	SS-6			12.5 ft: very stiff, few fine grained sand, no HCl reaction on clay, few calcium carbonate, strong HCl reaction on calcium carbonate
60.5	19.5	3	4	6	10	SS-7			19.5 ft: and brownish yellow (10YR 6/6), stiff, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
55.5	24.5	6	11	12	23	SS-8			55.5 / 24.5 FAT CLAY with sand (CH), light gray (2.5Y 7/2), very stiff, moist, little fine grained sand, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
50.5	29.5	11	19	22	41	SS-9			29.5 ft: hard, strong HCl reaction, some calcium carbonate nodules
45.5	34.5	8	11	13	24	SS-10			45.5 / 34.5 FAT CLAY (CH), light gray (2.5Y 7/2) and brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, strong HCl reaction, few calcium carbonate nodules
40.5	39.5	2	5	6	11	SS-11			39.5 ft: stiff, no HCl reaction, no calcium carbonate nodules observed
35.5	44.5	3	6	7	13	SS-12			44.5 ft: no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
30.5	49.5	6	7	5	12	SS-13			30.5 / 49.5 CLAYEY SAND (SC), pale yellow (2.5Y 7/3), firm, wet, fine grained, little fines, no HCl reaction
25.5	54.5	5	7	7	14	SS-14			54.5 ft: light gray (5Y 7/2)

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3281	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.0 ft (NAVD88)	NORTHING: 13,413,569 US ft (NAD83)	EASTING: 2,600,822 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 2/24/09	COMPLETED: 2/25/09	CASING DEPTH: 10.0 ft	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
23.9					Continued from previous page				
									CLAYEY SAND (SC), pale yellow (2.5Y 7/3), firm, wet, fine grained, little fines, no HCl reaction *(continued)*
20.5	59.5								20.5 — 59.5
		9	10	12	22	SS-15			POORLY GRADED SAND with silt (SP-SM), light gray (10YR 7/2), very firm, wet, fine grained, few fines, no HCl reaction
15.5	64.5								15.5 — 64.5
		10	8	9	17	SS-16			CLAYEY SAND (SC), light gray (5Y 7/2), firm, wet, fine grained, little fines, no HCl reaction
14.0	66.0								SANDY FAT CLAY (CH), light gray (5Y 7/2), hard, moist, some fine grained sand, weak HCl reaction
10.5	69.5								
		7	11	24	35	SS-17			
5.5	74.5								5.5 — 74.5
		6	9	11	20	SS-18			FAT CLAY with sand (CH), light gray (2.5Y 7/2), very stiff, moist, little fine grained sand, no HCl reaction
0.5	79.5								
		6	6	9	15	SS-19			79.5 ft: stiff, black staining, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-2.5	82.5								POORLY GRADED SAND with silt (SP-SM), light gray (10YR 7/2), dense, wet, fine to medium grained, few fines, no HCl reaction
-4.5	84.5								
		17	22	28	50	SS-20			
-8.5	88.5								FAT CLAY (CH), light gray (5Y 7/2) and brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, weak HCl reaction on clay, little calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-9.5	89.5								
		4	7	9	16	SS-21			
-14.5	94.5								
		11	24	32	56	SS-22			POORLY GRADED SAND with silt (SP-SM), light gray (10YR 7/2) and brownish yellow (10YR 6/8), very dense, wet, fine to medium grained, few fines, no HCl reaction in sand
-19.5	99.5								
		10	23	42	65	SS-23			99.5 ft: pale yellow (2.5Y 7/4), strong HCl reaction, trace calcium carbonate lenses
-29.5	109.5								
		38	60/0.3		98/0.8	SS-24			109.5 ft: very pale brown (10YR 8/4), fine to coarse grained, little calcium carbonate nodules, possible caliche

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3281	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.0 ft (NAVD88)	NORTHING: 13,413,569 US ft (NAD83)	EASTING: 2,600,822 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 2/24/09	COMPLETED: 2/25/09	CASING DEPTH: 10.0 ft	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.2					Continued from previous page				
									POORLY GRADED SAND with silt (SP-SM), light gray (10YR 7/2) and brownish yellow (10YR 6/6), very dense, wet, fine to medium grained, few fines, no HCl reaction in sand *(continued)*
-39.5	119.5								-39.5 / 119.5
		5	8	7	15	SS-25			FAT CLAY (CH), light gray (5Y 7/2) and brownish yellow (10YR 6/6), stiff, moist, few fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-49.5	129.5								-49.5 / 129.5
		10	20	23	43	SS-26			FAT CLAY with sand (CH), light gray (2.5Y 7/2), hard, moist, little fine grained sand, weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-59.5	139.5								-59.5 / 139.5
		18	18	43	61	SS-27			CLAYEY SAND (SC), very pale brown (10YR 7/3), very dense, wet, fine grained, little fines, strong HCl reaction
-69.5	149.5								
		7	11	13	24	SS-28			149.5 ft: light gray (5Y 7/2), very firm, moist, some fines, no HCl reaction on sand, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-79.5	159.5								-79.5 / 159.5
		33	55/0.5		88/1.0	SS-29			POORLY GRADED SAND with silt (SP-SM), light gray (2.5Y 7/2), very dense, wet, medium to coarse grained, few fines, strong HCl reaction, trace calcium carbonate nodules

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3281	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.0 ft (NAVD88)	NORTHING: 13,413,569 US ft (NAD83)	EASTING: 2,600,822 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 2/24/09	COMPLETED: 2/25/09	CASING DEPTH: 10.0 ft	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-88.3					Continued from previous page				
-89.5	169.5								POORLY GRADED SAND with silt (SP-SM), light gray (2.5Y 7/2), very dense, wet, medium to coarse grained, few fines, strong HCl reaction, trace calcium carbonate nodules *(continued)*
		14	31	30	61	SS-30			169.5 ft: and brownish yellow (10YR 6/8), no calcium carbonate nodules
-93.5	173.5								
		23	33	40	73	SS-31			173.5 ft: light gray (2.5Y 7/2), few calcium carbonate nodules
									-95.0 175.0 Boring Terminated at Elevation -95.0 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By PAK Date 8/10/09

Checked By KAW Date 8 · 10 · 09

SHEET 1 OF 5

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: D. Elks
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3282	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,585 US ft (NAD83)	EASTING: 2,601,103 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 249.9 ft	DRILL MACHINE: CME 55 LC Track	DRILLER: D. White (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 02)
DATE STARTED: 3/6/09	COMPLETED: 3/9/09	CASING DEPTH: 3.3 ft	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.2					Ground Surface				80.2 0.0
80.2	0.0	2	2	2	4	SS-1			FAT CLAY (CH), dark gray (10YR 4/1), soft, dry, few fine grained sand, no HCl reaction, organics, roots and grass
76.7	3.5	10	11	12	23	SS-2			3.5 ft: very pale brown (10YR 8/2) mottled yellow (10YR 7/8), very stiff, few fine grained sand, weak HCl reaction
74.2	6.0	2	7	7	14	SS-3			5.0 ft: and light gray (10YR 7/2), stiff, strong HCl reaction, trace calcium carbonate nodules
71.7	8.5	3	5	8	13	SS-4			8.5 ft: very pale brown (10YR 8/2) mottled yellow (10YR 7/8), some calcium carbonate nodules
69.2	11.0	7	7	12	19	SS-5			11.0 ft: very stiff, calcium carbonate nodules not observed
66.7	13.5	5	6	7	13	SS-6			13.5 ft: stiff, black staining
61.7	18.5	5	10	12	22	SS-7			18.5 ft: very stiff, trace calcium carbonate nodules
56.7	23.5	6	5	6	11	SS-8			23.5 ft: light gray (10YR 7/2) mottled yellow (10YR 7/8), stiff, trace fine grained sand, weak HCl reaction, calcium carbonate nodules not observed
51.7	28.5	5	7	9	16	SS-9			28.5 ft: very stiff, moist, trace calcium carbonate nodules
46.7	33.5	6	7	9	16	SS-10			33.5 ft: and very pale brown (10YR 8/2), few fine grained sand, calcium carbonate nodules not observed, black staining
41.7	38.5	4	5	5	10	SS-11			38.5 ft: stiff
36.7	43.5	5	5	6	11	SS-12			43.5 ft: trace calcium carbonate nodules
31.7	48.5	8	8	9	17	SS-13			31.7 48.5 CLAYEY SAND (SC), very pale brown (10YR 8/3), firm, wet, fine grained, some fines, weak HCl reaction
26.7	53.5	11	12	8	20	SS-14			26.7 53.5 POORLY GRADED SAND (SP), light gray (10YR 7/2), firm, wet, fine grained, few fines, no HCl reaction, clayey sand layers

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: D. Elks
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3282	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,585 US ft (NAD83)	EASTING: 2,601,103 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 249.9 ft	DRILL MACHINE: CME 55 LC Track	DRILLER: D. White (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 02)
DATE STARTED: 3/6/09	COMPLETED: 3/9/09	CASING DEPTH: 3.3 ft	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.1					Continued from previous page				
21.7	58.5								POORLY GRADED SAND (SP), light gray (10YR 7/2), firm, wet, fine grained, few fines, no HCl reaction, clayey sand layers *(continued)*
		26	24	18	42	SS-15			58.5 ft: very pale brown (10YR 8/2), dense, weak HCl reaction, clay layers, trace calcium carbonate nodules
16.7	63.5								16.7 — 63.5
		6	8	9	17	SS-16			FAT CLAY (CH), light gray (10YR 7/2) and yellow (10YR 7/8), very stiff, moist, few fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules
11.7	68.5								
		4	7	10	17	SS-17			68.5 ft: and light brownish gray (10YR 6/2), trace fine grained sand, weak HCl reaction
6.7	73.5								
		8	12	14	26	SS-18			73.5 ft: light gray (10YR 7/2) mottled yellow (10YR 7/8), few fine grained sand, some calcium carbonate nodules, black staining
1.7	78.5								
		11	18	13	31	SS-19			78.5 ft: hard, calcium carbonate nodules not observed, caliche lens
-3.3	83.5								-3.3 — 83.5
		10	23	29	52	SS-20			CLAYEY SAND (SC), very pale brown (10YR 8/2), very dense, wet, fine grained, little fines, no HCl reaction on sand, trace calcium carbonate nodules, lean clay layers
-8.3	88.5								-8.3 — 88.5
		5	7	10	17	SS-21			FAT CLAY (CH), very pale brown (10YR 8/2) mottled yellow (10YR 7/8), very stiff, moist, few fine grained sand, strong HCl reaction, some calcium carbonate nodules, caliche lens, trace black staining
-13.3	93.5								-13.3 — 93.5
		13	24	28	52	SS-22			POORLY GRADED SAND (SP), very pale brown (10YR 8/2), very dense, wet, fine grained, trace fines, no HCl reaction on sand, caliche lens
-18.3	98.5								-18.3 — 98.5
		10	13	14	27	SS-23			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR 8/2), very firm, wet, fine grained, few fines, no HCl reaction on sand, caliche lens
-28.3	108.5								-28.3 — 108.5
		48	17	14	31	SS-24A/B			-28.5 — 109.0 POORLY GRADED SAND (SP), very pale brown (10YR 8/2), dense, wet, fine to coarse grained, trace fines, weak HCl reaction

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: D. Elks
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3282	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,585 US ft (NAD83)	EASTING: 2,601,103 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 249.9 ft	DRILL MACHINE: CME 55 LC Track	DRILLER: D. White (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 02)
DATE STARTED: 3/6/09	COMPLETED: 3/9/09	CASING DEPTH: 3.3 ft	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.0					Continued from previous page				
									FAT CLAY (CH), very pale brown (10YR 8/2) mottled yellow (10YR 7/8), hard, moist, trace fine grained sand, weak HCl reaction, trace calcium carbonate nodules *(continued)*
-38.3	118.5	7	24	20	44	SS-25			118.5 ft: light gray (10YR 7/2), caliche lens, no calcium carbonate nodules observed
-48.3	128.5	16	17	29	46	SS-26			-48.3 128.5 SANDY FAT CLAY (CH), very pale brown (10YR 8/2) mottled yellow (10YR 7/8), hard, moist, some fine grained sand, weak HCl reaction
-58.3	138.5	25	29	35	64	SS-27			-58.3 138.5 POORLY GRADED SAND (SP), very pale brown (10YR 8/3), very dense, wet, fine grained, trace fines, weak HCl reaction on sand, caliche lens
-68.3	148.5	8	10	12	22	SS-28			-64.8 145.0 FAT CLAY (CH), very pale brown (10YR 8/2) mottled yellow (10YR 7/8), very stiff, moist, trace fine grained sand, weak HCl reaction, trace calcium carbonate nodules
-78.3	158.5	28	32	28	60	SS-29			-78.3 158.5 POORLY GRADED SAND (SP), very pale brown (10YR 8/2), very dense, wet, fine grained, trace fines, weak HCl reaction, caliche and sand layers

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: D. Elks
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3282	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,585 US ft (NAD83)	EASTING: 2,601,103 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 249.9 ft	DRILL MACHINE: CME 55 LC Track	DRILLER: D. White (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 02)
DATE STARTED: 3/6/09	COMPLETED: 3/9/09	CASING DEPTH: 3.3 ft	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-88.1					Continued from previous page				
-88.3	168.5	28	47	50/0.4	97/0.9	SS-30			CLAYEY SAND (SC), very pale brown (10YR 8/2), very dense, wet, fine grained, little fines, weak HCl reaction, well graded sand layer
-98.3	178.5	21	22	20	42	SS-31			SANDY FAT CLAY (CH), very pale brown (10YR 8/2) mottled yellow (10YR 7/8), hard, moist, some fine to medium grained sand, weak HCl reaction, trace calcium carbonate nodules, poorly graded sand layer
-108.3	188.5	11	14	21	35	SS-32			FAT CLAY (CH), very pale brown (10YR 7/2) mottled yellow (10YR 7/8), hard, moist, few fine grained sand, weak HCl reaction, clayey sand layer
-118.3	198.5	60/0.5			60/0.5	SS-33			CLAYEY SAND (SC), very pale brown (10YR 8/2), very dense, wet, fine grained, little fines, weak HCl reaction, some calcium carbonate nodules
-128.3	208.5	23	34	30	64	SS-34			POORLY GRADED SAND (SP), very pale brown (10YR 7/4), very dense, wet, fine grained, trace fines, weak HCl reaction
-138.3	218.5	37	48	49	97	SS-35			218.5 ft: very pale brown (10YR 8/2), fine to coarse grained, few fines, caliche and clay layers

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: D. Elks
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3282	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,585 US ft (NAD83)	EASTING: 2,601,103 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 249.9 ft	DRILL MACHINE: CME 55 LC Track	DRILLER: D. White (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 02)
DATE STARTED: 3/6/09	COMPLETED: 3/9/09	CASING DEPTH: 3.3 ft	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-144.2					Continued from previous page				
									POORLY GRADED SAND (SP), very pale brown (10YR 7/4), very dense, wet, fine grained, trace fines, weak HCl reaction *(continued)*
-148.3	228.5	29	31	32	63	SS-36			228.5 ft: light gray (10YR 7/2), fine to medium grained, trace fines, weak HCl reaction
-158.3	238.5	45	50/0.3		95/0.8	SS-37			238.5 ft: very pale brown (10YR 8/3), fine grained
-168.3	248.5	16	34	50/0.4	84/0.9	SS-38			-168.3 248.5 SANDY FAT CLAY (CH), very pale brown (10YR 8/2), hard, moist, some fine grained sand, strong HCl reaction, trace calcium carbonate nodules, poorly graded sand and fat clay layers -169.7 249.9 Boring Terminated at Elevation -169.7 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By DAK Date 8/10/09

Checked By KAW Date 8-10-09

SHEET 1 OF 4

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3283	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.3 ft (NAVD88)	NORTHING: 13,413,436 US ft (NAD83)	EASTING: 2,600,979 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/25/09	COMPLETED: 3/3/09	CASING DEPTH: 5.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.3					Ground Surface				
80.3	0.0	2	2	2	4	SS-1			FAT CLAY with sand (CH), olive gray (5Y 4/2), soft, moist, little fine grained sand, no HCl reaction, few organics
76.9	3.4	2	3	6	9	SS-2			3.4 ft: light brownish gray (2.5Y 6/2), stiff, weak to strong HCl reaction, few calcium carbonate nodules
74.4	5.9	6	7	8	15	SS-3			SANDY FAT CLAY (CH), light brownish gray (2.5Y 6/2), stiff, moist, some fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules
71.8	8.5	3	3	5	8	SS-4			FAT CLAY (CH), brownish yellow (10YR 6/6) and light gray (2.5Y 7/2), firm, moist, few fine grained sand, weak HCl reaction, trace organics
69.4	10.9	5	6	10	16	SS-5			FAT CLAY with sand (CH), very pale brown (10YR 7/4), very stiff, moist, little fine grained sand, weak HCl reaction, trace calcium carbonate nodules, trace organics
66.8	13.5	7	9	10	19	SS-6			FAT CLAY (CH), brownish yellow (10YR 6/6) mottled light gray (2.5Y 7/2), very stiff, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules, trace organics
61.8	18.5	4	5	7	12	SS-7			18.5 ft: light yellowish brown (10YR 6/4), stiff
56.8	23.5	3	5	6	11	SS-8			23.5 ft: no calcium carbonate nodules observed
51.8	28.5	3	6	7	13	SS-9			28.5 ft: ferrous staining
46.8	33.5	4	7	8	15	SS-10			33.5 ft: brownish yellow (10YR 6/6) mottled light gray (5Y 7/2)
41.8	38.5	15	16	30	46	SS-11			38.0 ft: hard drilling SILTY SAND (SM), light yellowish brown (10YR 6/4), dense, wet, fine grained, little fines, strong HCl reaction
36.8	43.5	5	6	7	13	SS-12			FAT CLAY (CH), brownish yellow (10YR 6/6) and light gray (5Y 7/2), stiff, moist, few fine grained sand, none to weak HCl reaction, trace calcium carbonate nodules
31.8	48.5	5	7	11	18	SS-13			48.5 ft: very stiff, weak HCl reaction
26.8	53.5	5	9	10	19	SS-14			SILTY SAND (SM), pale yellow (2.5Y 7/4), firm, wet, fine grained, little fines, weak HCl reaction

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3283	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.3 ft (NAVD88)	NORTHING: 13,413,436 US ft (NAD83)	EASTING: 2,600,979 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/25/09	COMPLETED: 3/3/09	CASING DEPTH: 5.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.2					Continued from previous page				
21.8	58.5	16	16	16	32	SS-15			SILTY SAND (SM), pale yellow (2.5Y 7/4), firm, wet, fine grained, little fines, weak HCl reaction *(continued)* 58.5 ft: very pale brown (10YR 8/3), dense
16.8	63.5	9	8	9	17	SS-16			18.3 — 62.0 FAT CLAY (CH), light gray (5Y 5/2) and brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules
11.8	68.5	5	5	9	14	SS-17			68.5 ft: light brownish gray (2.5Y 6/2), stiff, weak HCl reaction
6.8	73.5	5	9	12	21	SS-18			73.5 ft: and pale brown (10YR 6/3), very stiff 77.0 ft: bit chatter
1.8	78.5	6	7	8	15	SS-19			78.5 ft: pale yellow (2.5Y 7/3), stiff, trace to little calcium carbonate nodules 81.0 ft: bit chatter
-3.2	83.5	11	13	20	33	SS-20			-3.2 — 83.5 SANDY FAT CLAY (CH), pale yellow (2.5Y 7/3), hard, moist to wet, some fine grained quartz sand, weak HCl reaction 86.0 ft: bit chatter
-8.2	88.5	12	11	12	23	SS-21			88.5 ft: very stiff, little fine grained sand, trace calcium carbonate nodules
-13.2	93.5	10	18	20	38	SS-22A/B			-14.2 — 94.5 93.5 ft: hard, no calcium carbonate nodules observed SILTY SAND (SM), pale yellow (2.5Y 7/3), dense, wet, fine grained, little fines, weak HCl reaction 96.0-98.0 ft: rig chatter
-18.2	98.5	31	51	36	87	SS-23A/B			-19.1 — 99.4 98.5 ft: very dense FAT CLAY (CH), brownish yellow (10YR 6/6) and light gray (10YR 7/2), hard, moist, few fine grained sand, weak HCl reaction, little calcium carbonate nodules
-28.2	108.5	25	41	50/0.4	91/0.9	SS-24			-22.7 — 103.0 103.0 ft: rig chatter SILTY SAND (SM), pale yellow (2.5Y 7/3), very dense, wet, fine grained, little fines, weak HCl reaction

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3283	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.3 ft (NAVD88)	NORTHING: 13,413,436 US ft (NAD83)	EASTING: 2,600,979 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/25/09	COMPLETED: 3/3/09	CASING DEPTH: 5.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.9					Continued from previous page				
									SILTY SAND (SM), pale yellow (2.5Y 7/3), very dense, wet, fine grained, little fines, weak HCl reaction *(continued)*
									-34.7 / 115.0 FAT CLAY (CH), light gray (2.5Y 7/2) and brownish yellow (10YR 6/5), very stiff, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules, trace organics
-38.2	118.5	4	8	10	18	SS-25			
									-42.7 / 123.0 SILTY SAND (SM), pale yellow (2.5Y 7/3), very dense, wet, mostly fine grained, little fines, weak HCl reaction
									123.0-128.5 ft: bit chatter
-48.2	128.5	16	22	33	55	SS-26			
									136.0 ft: bit chatter
-58.2	138.5	41	32	50	82	SS-27			138.5 ft: moist to wet
									141.0-144.0 ft: bit chatter
									-64.7 / 145.0 FAT CLAY (CH), light yellowish brown (10YR 6/4) mottled light gray (2.5Y 7/2), stiff, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules
-68.2	148.5	5	6	7	13	SS-28			
									-70.7 / 151.0 SILTY SAND (SM), pale yellow (2.5Y 7/3), very dense, wet, fine grained, little fines, weak HCl reaction
-78.2	158.5	16	22	36	58	SS-29			

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3283	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.3 ft (NAVD88)	NORTHING: 13,413,436 US ft (NAD83)	EASTING: 2,600,979 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 175.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 2/25/09	COMPLETED: 3/3/09	CASING DEPTH: 5.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-88.0					Continued from previous page				
-88.2	168.5	22	49	50/0.3	99/0.3	SS-30			SILTY SAND (SM), pale yellow (2.5Y 7/3), very dense, wet, fine grained, little fines, weak HCl reaction *(continued)* 168.5 ft: fine to coarse grained
-93.2	173.5	32	34	34	68	SS-31			-94.7 175.0
									Boring Terminated at Elevation -94.7 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By HAL Date 8/10/09

Checked By KAW Date 8-10-09

SHEET 1 OF 5

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3285A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)	NORTHING: 13,413,442 US ft (NAD83)	EASTING: 2,601,072 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 250.1 ft	DRILL MACHINE: CME 55 D Truck	DRILLER: P. Pitts (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 20)
DATE STARTED: 3/6/09	COMPLETED: 3/9/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.1					Ground Surface				
80.1	0.0	2	2	3	5	SS-1			FAT CLAY (CH), very dark gray (10YR 3/1), firm, moist, few fine grained sand, no HCl reaction, trace fine roots
76.7	3.4	2	5	7	12	SS-2			FAT CLAY with sand (CH), light gray (5Y 7/2), stiff, moist, little fine to medium grained sand, no HCl reaction
74.1	6.0	4	5	7	12	SS-3			
71.5	8.6	3	5	6	11	SS-4			FAT CLAY (CH), greenish gray (10Y 6/1) to strong brown (7.5YR 4/6), stiff, moist, few fine grained sand, no HCl reaction on clay, trace calcium carbonate fragments, strong HCl reaction on calcium carbonate fragments
69.1	11.0	4	6	8	14	SS-5			11.0 ft: few fine to medium grained sand, strong HCl reaction, no calcium carbonate nodules observed
66.6	13.5	4	7	10	17	SS-6			13.5 ft: brown (7.5YR 5/3), very stiff, few fine grained sand, trace black staining, trace calcium carbonate nodules
61.5	18.6	3	6	8	14	SS-7			18.6 ft: stiff, weak HCl reaction, slickensides, no calcium carbonate nodules observed
56.5	23.6	3	6	9	15	SS-8			FAT CLAY with sand (CH), brown (7.5YR 5/4) and light greenish gray (10Y 7/1), stiff, moist, little fine to medium grained sand, weak HCl reaction, trace calcium carbonate nodules, trace black staining
51.5	28.6	5	7	12	19	SS-9			FAT CLAY (CH), light greenish gray (10Y 7/1) and brown (7.5YR 5/4), very stiff, moist, few fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules, weak HCl reaction on calcium carbonate nodules
46.6	33.5	9	7	12	19	SS-10			33.5 ft: light greenish gray (10Y 7/1) and yellowish brown (10YR 5/8), few fine to medium grained sand, strong HCl reaction
41.6	38.5	4	5	9	14	SS-11			38.5 ft: brown (7.5YR 5/4) and light greenish gray (10Y 7/1), stiff, weak HCl reaction, trace black staining, no calcium carbonate nodules observed
36.5	43.6	4	6	9	15	SS-12			
33.1	47.0								FAT CLAY with sand (CH), brown (7.5YR 5/4), very stiff, moist, little fine to medium grained sand, weak HCl reaction, trace calcium carbonate fragments
31.5	48.6	9	12	17	29	SS-13A/B			
30.5	49.6								CLAYEY SAND (SC), brown (7.5YR 5/4), very firm, moist, fine to medium grained, some fines, no HCl reaction
26.5	53.6	5	10	14	24	SS-14			SILTY SAND (SM), pale brown (10YR 6/3), very firm, wet, fine to medium grained, some fines, no HCl reaction

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3285A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)	NORTHING: 13,413,442 US ft (NAD83)	EASTING: 2,601,072 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 250.1 ft	DRILL MACHINE: CME 55 D Truck	DRILLER: P. Pitts (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 20)
DATE STARTED: 3/6/09	COMPLETED: 3/9/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.0					Continued from previous page				
21.5	58.6								SILTY SAND (SM), pale brown (10YR 6/3), very firm, wet, fine to medium grained, some fines, no HCl reaction *(continued)*
		5	26	26	52	SS-15			58.6 ft: pinkish gray (7.5YR 7/2), very dense, little fines, weak HCl reaction
16.4	63.7								
		8	19	13	32	SS-16A/B			15.5 63.7 ft: light gray (10YR7/2), dense, no HCl reaction 64.6
11.5	68.6								FAT CLAY with sand (CH), light greenish gray (10Y 7/1), hard, moist, little fine to medium grained sand, weak HCl reaction, few calcium carbonate fragments
		5	8	11	19	SS-17			11.5 68.6 FAT CLAY (CH), dark gray (5YR 4/1), very stiff, moist, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
6.6	73.5								
		9	12	15	27	SS-18			6.6 73.5 SANDY FAT CLAY (CH), pinkish gray (5YR 6/2), very stiff, moist, some fine to medium grained sand, weak HCl reaction, few calcium carbonate fragments
1.5	78.6								
		11	10	12	22	SS-19			1.5 78.6 FAT CLAY (CH), light greenish gray (10Y 7/1), very stiff, moist, few fine grained sand, no HCl reaction on clay, few calcium carbonate nodules
-3.5	83.6								
		13	27	24	51	SS-20A/B			-3.5 83.6 -4.0 84.1 SANDY FAT CLAY (CH), greenish gray (10Y 6/1), hard, moist, some fine to medium grained sand, strong HCl reaction, few calcium carbonate fragments
-8.5	88.6								-7.4 87.5 SILTY SAND (SM), light gray (10YR 7/2), very dense, wet, fine to medium grained, little fines, no HCl reaction
		12	17	18	35	SS-21			FAT CLAY (CH), greenish gray (10Y 6/1), yellowish brown (10YR 5/4), hard, moist, weak HCl reaction, few calcium carbonate nodules
-13.5	93.6								92.0 ft: strong HCl reaction, little calcium carbonate fragments
		6	15	21	36	SS-22A/B			-14.5 94.6 SILTY SAND (SM), light gray (10YR 7/20, dense, wet, fine to medium grained, little fines, weak HCl reaction
-18.4	98.5								-18.4 98.5
		20	28	33	61	SS-23			POORLY GRADED SAND (SP), yellowish brown (10YR 5/4), very dense, wet, fine to coarse grained, few fines, weak HCl reaction
-28.3	108.4								
		50/0.3			50/0.3	SS-24			108.4 ft: light yellowish brown (10YR 6/4), few calcium carbonate nodules

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3285A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)	NORTHING: 13,413,442 US ft (NAD83)	EASTING: 2,601,072 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 250.1 ft	DRILL MACHINE: CME 55 D Truck	DRILLER: P. Pitts (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 20)
DATE STARTED: 3/6/09	COMPLETED: 3/9/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.1					Continued from previous page				
									-33.9 / 114.0 FAT CLAY (CH), light greenish gray (10Y 7/1) and strong brown (7.5YR 4/6), very stiff, moist, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules, some black staining
-38.4	118.5	7	13	13	26	SS-25			
-48.2	128.3	5	10	13	23	SS-26			128.3 ft: weak HCl reaction, trace orange staining
									-56.9 / 137.0 POORLY GRADED SAND (SP), pale brown (10YR 6/3), very dense, wet, fine to medium grained, few fines, weak HCl reaction
-58.4	138.5	28	43	50/0.4	93/0.9	SS-27			
									-64.9 / 145.0 SANDY FAT CLAY (CH), greenish gray (10Y 6/1), very stiff, moist, some fine to medium grained sand, no HCl reaction on clay, few calcium carbonate fragments
-68.4	148.5	5	8	12	20	SS-28			
									-71.9 / 152.0 SILTY SAND (SM), very pale brown (10YR 8/2), very dense, wet, fine to coarse grained, little fines, no HCl reaction
-78.5	158.6	15	27	25	52	SS-29			

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3285A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)	NORTHING: 13,413,442 US ft (NAD83)	EASTING: 2,601,072 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 250.1 ft	DRILL MACHINE: CME 55 D Truck	DRILLER: P. Pitts (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 20)
DATE STARTED: 3/6/09	COMPLETED: 3/9/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-88.2					Continued from previous page				
-88.4	168.5	18	50/0.5		68/1.0	SS-30			SILTY SAND (SM), very pale brown (10YR 8/2), very dense, wet, fine to coarse grained, little fines, no HCl reaction *(continued)* 168.5 ft: strong brown (7.5YR 4/6), weak HCl reaction
-95.9	176.0								FAT CLAY (CH), yellowish brown (10YR 5/4) and light greenish gray (10Y 7/1), very stiff, moist, weak HCl reaction, trace black staining
-98.4	176.5	7	11	16	27	SS-31			
-104.9	185.0								SILTY SAND (SM), pinkish gray (7.5YR 7/2), very dense, wet, fine to medium grained, little fines, no HCl reaction
-108.5	188.6	21	32	31	63	SS-32			
-118.4	198.5	45	39	50/0.4	89/0.9	SS-33			198.5 ft: weak HCl reaction, trace calcium carbonate fragments
-128.4	208.5	7	23	50/0.4	73/0.9	SS-34			208.5 ft: yellowish brown (10YR 5/6), no HCl reaction, no calcium carbonate nodules observed
-136.9	217.0								CLAYEY SAND (SC), light greenish gray (10Y 7/1), firm, moist, fine to medium grained, some fines, weak HCl reaction
-138.5	218.6	5	5	11	16	SS-35			

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: A. Mwembeshi
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3285A	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)	NORTHING: 13,413,442 US ft (NAD83)	EASTING: 2,601,072 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 250.1 ft	DRILL MACHINE: CME 55 D Truck	DRILLER: P. Pitts (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 20)
DATE STARTED: 3/6/09	COMPLETED: 3/9/09	CASING DEPTH: 3.5 ft	BITS USED: 3 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-144.3					Continued from previous page				
-148.4	228.5								CLAYEY SAND (SC), light greenish gray (10Y 7/1), firm, moist, fine to medium grained, some fines, weak HCl reaction *(continued)*
		20	38	37	75	SS-36			SILTY SAND (SM), light gray (7.5YR 7/2), very dense, wet, fine to coarse grained, little fines, none to weak HCl reaction
-158.5	238.6								
		20	32	50/0.3	82/0.3	SS-37			238.6 ft: very pale brown (10YR 8/2), fine to medium grained, weak HCl reaction
-168.5	248.6								
		23	29	40	69	SS-38			248.6 ft: few calcium carbonate nodules
									-170.0 — Boring Terminated at Elevation -170.0 ft — 250.1

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By WBD Date 11-10-09
Checked By PRA Date 11/10/09
SHEET 1 OF 4

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3286	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)	NORTHING: 13,413,499 US ft (NAD83)	EASTING: 2,601,204 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 174.5 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 3/3/09	COMPLETED: 3/4/09	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.1					Ground Surface				
80.1	0.0	3	4	4	8	SS-1			FAT CLAY with sand (CH), gray (10YR 5/1), firm, dry, little fine grained sand, no HCl reaction, some organics
77.4	2.7								77.6 — 2.5
		3	4	6	10	SS-2			FAT CLAY (CH), very dark gray (10YR 3/1) to light brownish gray (10YR 6/2), stiff, moist, few fine grained sand, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
75.1	5.0								
		6	9	11	20	SS-3			5.0 ft: pale yellow (2.5Y 8/3), very stiff, no HCl reaction, no calcium carbonate nodules observed
72.6	7.5								72.6 — 7.5
		5	7	9	16	SS-4			FAT CLAY with sand (CH), light gray (2.5Y 7/2) and brownish yellow (10YR 6/6), very stiff, moist, little fine grained sand, no HCl reaction
70.1	10.0								70.1 — 10.0
		6	10	12	22	SS-5			FAT CLAY (CH), light gray (5Y 7/2) and brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
67.6	12.5								
		8	9	12	21	SS-6			12.5 ft: light gray (2.5Y 7/2) and brownish yellow (10YR 6/6), strong HCl reaction, trace black staining, no calcium carbonate nodules observed
60.6	19.5								
		6	10	13	23	SS-7			19.5 ft: light gray (10YR 7/1) and very pale brown (10YR 7/4), trace calcium carbonate nodules
55.6	24.5								
		4	7	9	16	SS-8			24.5 ft: and brownish yellow (10YR 6/8), calcium carbonate nodules not observed
50.6	29.5								
		9	11	14	25	SS-9			29.5 ft: few calcium carbonate nodules
45.6	34.5								
		5	7	8	15	SS-10			34.5 ft: and reddish yellow (7.5YR 6/6), stiff, weak HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
40.6	39.5								
		4	5	7	12	SS-11			39.5 ft: brownish yellow (10YR 6/6) with light gray (5Y 7/2), no HCl reaction, calcium carbonate nodules not observed
35.6	44.5								
		4	9	12	21	SS-12			44.5 ft: very stiff, few fine grained sand, little calcium carbonate nodules, strong HCl reaction
30.6	49.5								30.6 — 49.5
		6	10	11	21	SS-13			CLAYEY SAND (SC), pale yellow (2.5Y 7/4), very firm, wet, fine grained, little fines, no HCl reaction, trace calcium carbonate nodules
25.6	54.5								25.6 — 54.5
		9	10	12	22	SS-14			

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3286	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)	NORTHING: 13,413,499 US ft (NAD83)	EASTING: 2,601,204 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 174.5 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 3/3/09	COMPLETED: 3/4/09	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.0					Continued from previous page				
									SANDY FAT CLAY (CH), light gray (2.5Y 7/2), very stiff, moist, some fine grained sand, strong HCl reaction, few calcium carbonate lenses *(continued)*
20.6	59.5								20.6 — 59.5
		47	37	32	69	SS-15			POORLY GRADED SAND with silt (SP-SM), brownish yellow (10YR 6/6) and light gray (10YR 7/2), very dense, wet, fine grained, strong HCl reaction
17.1	63.0								FAT CLAY (CH), light gray (5Y 7/2) and light olive gray (5Y 6/2), stiff, moist, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
15.6	64.5	5	5	8	13	SS-16			
10.6	69.5	4	6	8	14	SS-17			69.5 ft: dark gray (5Y 4/1), few fine grained sand, weak HCl reaction on clay
5.6	74.5	6	9	9	18	SS-18			74.5 ft: very stiff, no recovery
0.6	79.5	11	14	14	28	SS-19			79.5 ft: light gray (5Y 7/2), strong HCl reaction, some calcium carbonate nodules
-4.4	84.5	13	27	29	56	SS-20			-4.4 — 84.5 CLAYEY SAND (SC), pale yellow (2.5Y 7/4), very dense, wet, fine grained, little fines, no HCl reaction on sand, some calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-9.4	89.5	4	9	12	21	SS-21			-9.4 — 89.5 SANDY FAT CLAY (CH), light gray (5Y 7/2) and brownish yellow (10YR 6/6), very stiff, moist, some fine grained sand, weak HCl reaction on clay, little calcium carbonate, strong HCl reaction on calcium carbonate
-11.9	92.0								POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y 7/3), very dense, wet, fine grained, few fines, no HCl reaction on sand, some calcium carbonate, strong HCl reaction on calcium carbonate
-14.4	94.5	13	28	65	93	SS-22			
-19.4	99.5								-19.4 — 99.5
-20.2	100.3								POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR 7/4), very dense, wet, fine grained, few fines, no HCl reaction
		27	39	54	93	SS-23A/B			SANDY FAT CLAY (CH), light gray (2.5Y 7/2), hard, moist, some fine grained sand, strong HCl reaction, some calcium carbonate nodules
-29.4	109.5								-29.4 — 109.5
		100/0.5			100/0.5	SS-24			POORLY GRADED SAND (SP), very pale brown (10YR 7/4), very dense, wet, fine to medium grained, few fines, strong HCl reaction

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3286	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)	NORTHING: 13,413,499 US ft (NAD83)	EASTING: 2,601,204 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 174.5 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 3/3/09	COMPLETED: 3/4/09	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-32.1					Continued from previous page				
									POORLY GRADED SAND (SP), very pale brown (10YR 7/4), very dense, wet, fine to medium grained, few fines, strong HCl reaction *(continued)*
									-36.9 / 117.0 FAT CLAY (CH), light gray (5Y 7/2), very stiff, moist, few fine grained sand, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-39.4	119.5	5	8	11	19	SS-25			
-49.4	129.5	8	12	12	24	SS-26			129.5 ft: light gray (5Y 7/2) and brownish yellow (10YR 6/6), trace calcium carbonate nodules, strong HCl reaction
									-55.9 / 136.0 POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR 7/4), very dense, wet, fine grained, few fines, strong HCl reaction
-59.4	139.5	25	35	39	74	SS-27			
									-66.9 / 147.0 FAT CLAY (CH), brownish yellow (10YR 6/6) and light gray (5Y 7/2), very stiff, moist, weak HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-69.6	149.7	8	12	12	24	SS-28			
-79.4	159.5	10	10	11	21	SS-29A/B			-79.4 / 159.5 -79.9 / 160.0 POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR 7/3), very firm, wet, medium to coarse grained, few fines, no HCl reaction
									SANDY FAT CLAY (CH), light gray (5Y 7/2), very stiff, moist, some fine grained sand, strong HCl reaction, some calcium carbonate nodules
									-84.9 / 165.0 SILTY SAND (SM), light gray (10YR 7/2), very dense, wet, medium to coarse grained, little fines, strong HCl reaction, few calcium carbonate nodules

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3286	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)	NORTHING: 13,413,499 US ft (NAD83)	EASTING: 2,601,204 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 174.5 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 3/3/09	COMPLETED: 3/4/09	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-88.2					Continued from previous page				
-89.4	169.5	26	50	47	97	SS-30			SILTY SAND (SM), light gray (10YR 7/2), very dense, wet, medium to coarse grained, little fines, strong HCl reaction, few calcium carbonate nodules *(continued)*
-93.4	173.5	28	68/0.5		96/1.0	SS-31			-94.4 173.5 ft: pale yellow (2.5Y 8/3) 174.5
									Boring Terminated at Elevation -94.4 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By DAK Date 8/10/09

Checked By KAW Date 8-10-09

SHEET 1 OF 3

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3287	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.3 ft (NAVD88)	NORTHING: 13,413,394 US ft (NAD83)	EASTING: 2,600,912 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 150.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 3/4/09	COMPLETED: 3/5/09	CASING DEPTH: 10.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.3					Ground Surface				80.3 / 0.0
80.3	0.0	2	3	2	5	SS-1			FAT CLAY with sand (CH), very dark gray (10YR 3/1), firm, dry to moist, little fine grained sand, weak HCl reaction, little organics
76.9	3.4	6	8	13	21	SS-2			76.9 / 3.4 SANDY FAT CLAY (CH), pale yellow (2.5Y 7/3), very stiff, moist, some fine grained sand, weak HCl reaction, trace organics, brownish yellow staining
74.2	6.1	5	9	9	18	SS-3			
71.8	8.5	2	6	8	14	SS-4			71.8 / 8.5 FAT CLAY (CH), brownish yellow (10YR 6/6) mottled light gray (2.5Y 7/2), stiff, moist, few fine grained sand, weak HCl reaction
69.3	11.0	5	8	12	20	SS-5			11.0 ft: pale yellow (2.5Y 7/3), very stiff, trace calcium carbonate nodules
66.8	13.5	8	10	11	21	SS-6			13.5 ft: light gray (2.5Y 7/2) and brownish yellow (10YR 6/6), trace organics
61.8	18.5	3	6	7	13	SS-7			18.5 ft: light yellowish brown (10YR 6/4), stiff
56.8	23.5	4	5	6	11	SS-8			23.5 ft: light gray (2.5Y 7/2) mottling, no calcium carbonate nodules observed
51.8	28.5	3	6	9	15	SS-9			51.8 / 28.5 FAT CLAY with sand (CH), pale yellow (2.5Y 7/3), stiff, moist, little fine grained sand, weak HCl reaction, trace calcium carbonate nodules, trace brownish yellow staining
46.8	33.5	8	6	9	15	SS-10			46.8 / 33.5 33.0 ft: hard drilling; SANDY FAT CLAY (CH), pale yellow (2.5Y 7/3), stiff, moist, some fine grained sand, weak HCl reaction
41.8	38.5	4	5	7	12	SS-11			41.8 / 38.5 FAT CLAY (CH), brownish yellow (10YR 6/6) mottled light gray (2.5Y 7/2), stiff, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules
36.8	43.5	4	6	8	14	SS-12			43.5 ft: light yellowish brown (10YR 6/4) mottled light gray (2.5Y 7/2)
31.8	48.5	4	5	7	12	SS-13			
26.8	53.5	10	10	10	20	SS-14			26.8 / 53.5 SANDY FAT CLAY (CH), very pale brown (2.5Y 7/3), very stiff, moist, some fine grained sand, weak HCl reaction; 24.3 / 56.0

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3287	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.3 ft (NAVD88)	NORTHING: 13,413,394 US ft (NAD83)	EASTING: 2,600,912 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 150.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 3/4/09	COMPLETED: 3/5/09	CASING DEPTH: 10.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.2					Continued from previous page				
									56.0 ft: drill chatter
21.8	58.5								SILTY SAND (SM), pale yellow (2.5Y 7/4), olive yellow (2.5Y 6/6), dense, wet, fine grained, little fines, no HCl reaction *(continued)*
		17	22	27	49	SS-15			
									61.0 ft: drill chatter
16.8	63.5								16.8 — 63.5
		10	9	10	19	SS-16			FAT CLAY (CH), pale yellow (2.5Y 7/3) mottled brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules
11.8	68.5								
		6	7	9	16	SS-17			68.5 ft: light brownish gray (10YR 6/2)
6.8	73.5								6.8 — 73.5
		5	9	12	21	SS-18			FAT CLAY with sand (CH), light yellowish brown (2.5Y 6/4), very stiff, moist, little fine grained sand, weak HCl reaction, trace calcium carbonate nodules, trace organics
1.8	78.5								
		7	9	13	22	SS-19			78.5 ft: trace to little calcium carbonate nodules
-3.2	83.5								-3.2 — 83.5
		10	11	12	23	SS-20			SILTY SAND (SM), pale yellow (2.5Y 7/3), very firm, wet, fine grained, little fines, weak HCl reaction
-8.2	88.5								-8.2 — 88.5
		7	10	14	24	SS-21			SANDY FAT CLAY (CH), pale yellow (2.5Y 7/3), very stiff, moist, some fine grained sand, weak HCl reaction
									91.5 - 92.0 ft: drill chatter
-11.2									-11.2 — 91.5
-13.2	93.5								SILTY SAND (SM), pale yellow (2.5Y 7/3), very dense, wet, fine grained, little fines, strong HCl reaction
		16	35	50/0.4	85/0.9	SS-22			
-18.2	98.5								
		10	22	25	47	SS-23			98.5 ft: dense, fine to coarse grained, some fines, trace calcium carbonate nodules
-28.2	108.5								
		50/0.3			50/0.3	SS-24			108.5 ft: very dense, weak HCl reaction, no calcium carbonate nodules observed
									-31.7 — 112.0

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: R. Clark
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3287	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.3 ft (NAVD88)	NORTHING: 13,413,394 US ft (NAD83)	EASTING: 2,600,912 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 150.0 ft	DRILL MACHINE: CME 45 C Track	DRILLER: D. Rhodes (MACTEC RAL)	HAMMER (ID): 140 lb. Auto (MEC 12)
DATE STARTED: 3/4/09	COMPLETED: 3/5/09	CASING DEPTH: 10.0 ft	BITS USED: 2 7/8" Drag Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
-31.9					Continued from previous page				
									FAT CLAY (CH), light brownish gray (2.5Y 6/2), very stiff, moist, few fine grained sand, weak to strong HCl reaction, few calcium carbonate nodules, caliche *(continued)*
-38.2	118.5								
		9	9	15	24	SS-25			118.0 ft: drill chatter 119.5 - 122.0 ft: drill chatter
									-41.7 — 122.0 CLAYEY SAND (SC), pale yellow (2.5Y 7/3), dense, wet to moist, fine grained, some fines, strong HCl reaction, trace calcium carbonate nodules
-48.2	128.5								
		12	15	32	47	SS-26			
									-51.7 — 132.0 132.0 - 133.0 ft: drill chatter SILTY SAND (SM), pale yellow (2.5Y 7/3), very dense, wet, fine grained, little fines, strong to weak HCl reaction, trace calcium carbonate nodules
-58.2	138.5								
		25	30	43	73	SS-27			
									-64.7 — 145.0 SANDY FAT CLAY (CH), light gray (2.5Y 7/2), very stiff, moist, some fine grained sand, weak HCl reaction, trace calcium carbonate nodules
-68.2	148.5								
		9	11	17	28	SS-28			-69.7 — 150.0
									Boring Terminated at Elevation -69.7 ft

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 8/10/09

MACTEC

GEOTECHNICAL BORING LOG

Prepared By WBD Date 11-19-09
Checked By RAL Date 1/10/09

SHEET 1 OF 3

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3288	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,286 US ft (NAD83)	EASTING: 2,601,039 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 151.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 3/7/09	COMPLETED: 3/8/09	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
80.2					Ground Surface				80.2 / 0.0
80.2	0.0	3	4	5	9	SS-1			FAT CLAY (CH), dark gray (10YR 4/1), stiff, dry, few fine grained sand, no HCl reaction, little organics
77.7	2.5	1	2	4	6	SS-2			77.7 / 2.5 FAT CLAY with sand (CH), dark gray (10YR 4/1) to light gray (10YR 7/2), firm, moist, little fine grained sand, strong HCl reaction, few calcium carbonate nodules
75.2	5.0	5	6	6	12	SS-3			5.0 ft: stiff, weak HCl reaction, no calcium carbonate nodules observed
72.7	7.5	3	3	5	8	SS-4			72.7 / 7.5 FAT CLAY (CH), light gray (2.5Y 7/2), firm, moist, few fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
70.2	10.0	3	6	6	12	SS-5			10.0 ft: brownish yellow (10YR 6/6) and light gray (5Y 7/2), stiff, weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
67.7	12.5	4	6	5	11	SS-6			12.5 ft: little black staining
60.7	19.5	3	4	6	10	SS-7			19.5 ft: very pale brown (10YR 7/4), no HCl reaction on clay, trace calcium carbonate nodules
55.7	24.5	3	5	7	12	SS-8			24.5 ft: very pale brown (10YR 7/4) and light gray (2.5Y 7/2), HCl reaction weak on clay
50.7	29.5	6	11	10	21	SS-9			50.7 / 29.5 SANDY FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, some fine grained sand, no HCl reaction
45.7	34.5	6	8	11	19	SS-10			34.5 ft: light gray (2.5Y 7/2), no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
40.7	39.5	10	12	13	25	SS-11			39.5 ft: light gray (5Y 7/2), some calcium carbonate nodules, strong HCl reaction
35.7	44.5	4	5	6	11	SS-12			35.7 / 44.5 FAT CLAY (CH), brownish yellow (10YR 6/6) and light gray (5Y 7/2), stiff, moist, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
30.7	49.5	4	6	8	14	SS-13			49.5 ft: light gray (2.5Y 7/2) and very pale brown (10YR 7/4), few fine grained sand
25.7	54.5	6	9	12	21	SS-14			54.5 ft: light gray (5Y 7/2) and brownish yellow (10Y 6/8), very stiff, weak HCl reaction on clay, few

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09

MACTEC

BECHTEL NO.: 25352	MACTEC NO.: 6468-07-1777	COUNTY: Victoria, TX	GEOLOGIST: S. Woodham
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS			GROUND WATER (ft)
BORING NO.: B-3288	DRILL METHOD: Mud Rotary	SAMPLE METHODS: SPT	0 HR. ND
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)	NORTHING: 13,413,286 US ft (NAD83)	EASTING: 2,601,039 US ft (NAD83)	24 HR. ND
TOTAL DEPTH: 151.0 ft	DRILL MACHINE: CME 550 X	DRILLER: R. Landeros (MACTEC ATL)	HAMMER (ID): 140 lb. Auto (MEC 22)
DATE STARTED: 3/7/09	COMPLETED: 3/8/09	CASING DEPTH: N/A	BITS USED: 2 15/16" Roller Cone Bit

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT (0 20 40 60 80 100)	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
24.1					Continued from previous page				
									23.7 calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules — 56.5
20.4	59.8								CLAYEY SAND (SC), light gray (10YR 7/2), very firm, wet, fine grained, little fines, no HCl reaction
		4	11	15	26	SS-15			
15.7	64.5								15.7 — 64.5
		15	11	6	17	SS-16			FAT CLAY (CH), light gray (5Y 7/2), very stiff, moist, few fine grained sand, no HCl reaction on clay, little calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
10.7	69.5								
		6	7	9	16	SS-17			69.5 ft: light olive gray (5Y 6/2) and brownish yellow (10YR 6/6), weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
5.7	74.5								5.7 — 74.5
		5	7	9	16	SS-18			FAT CLAY with sand (CH), pale yellow (2.5Y 7/3), very stiff, moist, little fine grained sand, weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
0.7	79.5								0.7 — 79.5
		8	11	15	26	SS-19			CLAYEY SAND (SC), light gray (2.5Y 7/2), very firm, moist, fine grained, some fines, no HCl reaction on sand, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-4.3	84.5								-4.3 — 84.5
		8	20	27	47	SS-20			POORLY GRADED SAND with silt (SP-SM), light gray (10YR 7/2), dense, wet, fine to medium grained, few fines, weak HCl reaction
-9.3	89.5								-9.3 — 89.5
		24	30	31	61	SS-21			CLAYEY SAND (SC), light gray (2.5Y 7/2), very dense, moist, fine grained, some fines, strong HCl reaction, some calcium carbonate nodules
-14.3	94.5								
		19	32	27	59	SS-22			94.5 ft: to brownish yellow (10YR 6/8), medium to coarse grained, strong HCl reaction. calcium carbonate nodules not observed
-19.3	99.5								-19.3 — 99.5
		10	32	56/0.4	88/0.9	SS-23			SANDY FAT CLAY (CH), light gray (2.5Y 7/2) and brownish yellow (10YR 6/8), hard, moist, some fine grained sand, weak HCl reaction, some calcium carbonate nodules — -20.8 — 101.0
-29.3	109.5								POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR 8/4), very dense, wet, medium to coarse grained, few fines, strong HCl reaction, trace calcium carbonate nodules
		34	66	52/0.4	118/0.9	SS-24			

EXELON COL BORE VICTORIA PHASE III.GPJ EXELON COL.GDT 10/20/09