



SHEET 5 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-3179B		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND						
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)		NORTHING: 13,412,088		US ft (NAD83)		EASTING: 2,599,525 US ft (NAD83)						
24 HR. ND												
TOTAL DEPTH: 250.2 ft		DRILL MACHINE: CME 75 Truck		DRILLER: J. Cook (MILLER)		HAMMER (ID): 140 lb. Auto (100)						
DATE STARTED: 2/8/09		COMPLETED: 2/11/09		CASING DEPTH: 3.4 ft		BITS USED: 3 7/8" Wing Bit						
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100		
-144.2					Continued from previous page							
-148.4	228.6	8	14	19						SS-36		SILTY SAND (SM), light gray (10YR 7/1), very dense, wet, fine grained, some fines, weak HCl reaction, few calcium carbonate nodules, little orange staining (continued)
-158.5	238.7	17	35	50/0.3						SS-37		FAT CLAY (CH), light greenish gray (10Y 7/1) and yellowish brown (10YR 5/6), hard, moist, strong HCl reaction
-168.5	248.7	48	39	32						SS-38A/B		SILTY SAND (SM), pinkish gray (7.5YR 7/2), very dense, wet, fine to medium grained, some fines, strong HCl reaction
												241.0 - 243.0 ft: hard drilling, bit chatter
												248.7 ft: fine grained, weak HCl reaction, trace orange staining
												FAT CLAY with sand (CH), light greenish gray (10Y 7/1) and yellowish brown (10YR 5/6), hard, moist, little fine grained sand, strong HCl reaction, few carbonate nodules
												Boring Terminated at Elevation -170.0 ft

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



GEOTECHNICAL BORING LOG

Prepared By WSD Date 11-10-09Checked By RAA 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-3180			DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT						
GROUND SURFACE ELEV.: 80.4 ft (NAVD88)			NORTHING: 13,411,995 US ft (NAD83)			EASTING: 2,599,329 US ft (NAD83)						
TOTAL DEPTH: 175.0 ft			DRILL MACHINE: CME 550 X			DRILLER: R. Landeros (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (MEC 22)			
DATE STARTED: 2/5/09			COMPLETED: 2/6/09			CASING DEPTH: 9.0 ft			BITS USED: 2 15/16" Roller Cone Bit			
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80			
80.4					Ground Surface							80.4
80.4	0.0	3	3	3								FAT CLAY (CH), dark gray (2.5Y 4/1), firm, moist, few fine grained sand, no HCl reaction on clay, little organics
77.9	2.5	WOH	WOH	2								2.5 ft: gray (2.5Y 5/1), soft, few calcium carbonate nodules, strong HCl reaction, trace organics
75.4	5.0	1	2	3			5.0 ft: light brownish gray (2.5Y 6/2), firm, trace calcium carbonate nodules					
72.9	7.5	3	5	7			7.5 ft: light gray (5Y 7/2), stiff, weak HCl reaction, brownish yellow staining, no calcium carbonate nodules observed					
70.4	10.0	4	7	9			10.0 ft: pale yellow (2.5Y 7/3), very stiff, no HCl reaction on clay, trace black and brownish yellow staining, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules					
67.9	12.5	4	5	7			12.5 ft: very pale brown (10Y 7/3), stiff, few calcium carbonate nodules, black staining					
60.8	19.6	5	5	7			19.6 ft: light gray (5Y 7/2), trace calcium carbonate nodules, few black and yellowish brown staining					
55.8	24.6	4	6	7			24.6 ft: yellow (10YR 7/8) and light gray (5Y 7/2), weak HCl reaction, trace black staining, no calcium carbonate nodules observed					
50.8	29.6	7	8	10			29.6 ft: FAT CLAY with sand (CH), light gray (2.5Y 7/2) and yellow (10YR 7/8), very stiff, moist, little fine grained sand, strong HCl reaction					
45.9	34.5	3	4	6			34.5 ft: FAT CLAY (CH), brownish yellow (10YR 6/6) and light gray (2.5Y 7/2), stiff, moist, no HCl reaction on clay					
40.8	39.6	5	7	11			39.6 ft: brownish yellow (10YR 6/8), very stiff, few fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules					
35.8	44.6	4	6	7			44.6 ft: with light gray (2.5y 7/2), stiff, no HCl reaction on clay, no calcium carbonate nodules observed					
30.8	49.6	4	7	8			49.6 ft: with gray (2.5Y 5/1), trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules					
25.8	54.6	8	15	25								

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



SHEET 2 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-3180		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND							
GROUND SURFACE ELEV.: 80.4 ft (NAVD88)		NORTHING: 13,411,995		US ft (NAD83)		EASTING: 2,599,329 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: 2/5/09		COMPLETED: 2/6/09		CASING DEPTH: 9.0 ft		BITS USED: 2 15/16" Roller Cone Bit							
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION	
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100	NO.		MOI
24.3					Continued from previous page								
20.8	59.6	8	11	14							SS-15		FAT CLAY with sand (CH), light gray (2.5Y 7/2), hard, moist, little fine grained sand, no HCl reaction on clay, up to gravel-sized calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules (continued)
15.8	64.6	8	11	10							SS-16		FAT CLAY (CH), light gray (2.5Y 7/2) and light yellowish brown (2.5Y 6/4), very stiff, moist, few fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
10.8	69.6	11	12	10							SS-17		64.6 ft: light brownish gray (2.5Y 6/2) to light gray (2.5Y 7/2), few calcium carbonate nodules
5.7	74.7	7	10	11							SS-18		69.6 ft: little yellowish brown staining
0.8	79.6	5	7	9							SS-19		FAT CLAY with sand (CH), light gray (2.5Y 7/2), very stiff, moist, little fine grained sand, no HCl reaction on clay, little calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-4.2	84.6	8	6	6							SS-20A/B		SANDY FAT CLAY (CH), light gray (2.5Y 7/2), very stiff, moist, some fine grained sand, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-9.2	89.6	2	3	13							SS-21		CLAYEY SAND (SC), very pale brown (10YR 7/3), firm, moist, fine grained, some fines, no HCl reaction
-14.2	94.6	12	21	20							SS-22		SANDY FAT CLAY (CH), light gray (2.5Y 7/2), stiff, moist, some fine grained sand, no HCl reaction
-19.2	99.6	18	34	51							SS-23		SANDY LEAN CLAY (CL), pale yellow (2.5Y 7/4), very stiff, moist, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-29.2	109.6	7	8	11							SS-24		POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y 7/3), dense, wet, fine to medium grained, few fines, no HCl reaction
													99.6 ft: pale yellow (2.5Y 8/3), very dense, fine to coarse grained, strong HCl reaction, caliche
													FAT CLAY (CH), pale yellow (5Y 8/2), brownish yellow (10YR 6/5), very stiff, moist, weak HCl reaction, trace calcium carbonate nodules

EXELON COL BORE VICTORIA PHASE II (GP) EXELON COL GDT 10/20/09



SHEET 3 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-3180		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND						
GROUND SURFACE ELEV.: 80.4 ft (NAVD88)		NORTHING: 13,411,995		US ft (NAD83)		EASTING: 2,599,329 US ft (NAD83)						
TOTAL DEPTH: 175.0 ft		DRILL MACHINE: CME 550 X		DRILLER: R. Landeros (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (MEC 22)						
DATE STARTED: 2/5/09		COMPLETED: 2/6/09		CASING DEPTH: 9.0 ft		BITS USED: 2 15/16" Roller Cone Bit						
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100	MOI	
-31.8					Continued from previous page							
-39.2	119.6	6	9	13	● 22					SS-25		FAT CLAY (CH), pale yellow (5Y 8/2), brownish yellow (10YR 6/6), very stiff, moist, weak HCl reaction, trace calcium carbonate nodules (continued)
-49.2	129.6	7	6	18	● 24					SS-26		119.6 ft: light gray (10YR 7/2), few fine grained sand, no HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-59.2	139.6	10	12	11	● 23					SS-27A/B		CLAYEY SAND (SC), light gray (2.5Y 7/2), very firm, moist, fine grained, some fines, no HCl reaction
-69.2	149.6	16	21	23	● 44					SS-28		POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR 7/3), very firm, wet, fine grained, few fines, no HCl reaction
-79.5	159.9	8	24	26	● 50					SS-29A/B		SANDY FAT CLAY (CH), pale yellow (5Y 7/3), very stiff, moist, some fine grained sand, no HCl reaction
												149.6 ft: light gray (2.5Y 7/2), hard, strong HCl reaction
												POORLY GRADED SAND (SP), very pale brown (10YR 7/4), dense, wet, medium to coarse grained, few fines, no HCl reaction

EXELON COL BORE VICTORIA PHASE III(GP) EXELON COL_GDT 10/20/09



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-3180		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND						
GROUND SURFACE ELEV.: 80.4 ft (NAVD88)		NORTHING: 13,411,995 US ft (NAD83)		EASTING: 2,599,329 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: 2/5/09		COMPLETED: 2/6/09		CASING DEPTH: 9.0 ft		BITS USED: 2 15/16" Roller Cone Bit						
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100	MOI	
-87.9					Continued from previous page							
-89.2	169.6	8	10	18	●25					SS-30		POORLY GRADED SAND (SP), very pale brown (10YR 7/4), dense, wet, medium to coarse grained, few fines, no HCl reaction (continued) 169.6 ft: pale yellow (2.5Y 7/3), very firm, trace gravel
-93.1	173.5	12	13	18	●31					SS-31		
												-93.1 173.5
												-94.6 175.0
												POORLY GRADED SAND with silt (SP-SM), pale yellow (2.5Y 7/3), dense, wet, medium to coarse grained, little fines, weak HCl reaction Boring Terminated at Elevation -94.6 ft

EXELON COL BORE VICTORIA PHASE III(GP) EXELON COL.GDT 10/20/09



GEOTECHNICAL BORING LOG

Prepared By RAU 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: G. Pillappa									
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS							GROUND WATER (ft)								
BORING NO.: B-3181		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND							
GROUND SURFACE ELEV.: 80.0 ft (NAVD88)		NORTHING: 13,412,058		US ft (NAD83)		EASTING: 2,599,555	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: 2/6/09		COMPLETED: 2/8/09		CASING DEPTH: 5.0 ft			BITS USED: 2 7/8" Drag Bit								
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100				NO.	
80.0					Ground Surface								80.0	0.0	
80.0	0.0	2	4	3						SS-1		80.0	SANDY FAT CLAY (CH), black (N 2.5/), firm, dry to moist, some fine grained sand, strong HCl reaction, trace roots and organics		
76.3	3.7	1	2	4						SS-2		76.3	3.7	FAT CLAY (CH), olive gray (5Y 4/2), firm, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules	
73.8	6.2	2	5	6						SS-3				6.2 ft: light brownish gray (2.5Y 6/2), stiff, strong HCl reaction	
71.5	8.5	3	6	6						SS-4				8.5 ft: light gray (2.5Y 7/2) mottled brownish yellow (10YR 6/6)	
69.0	11.0	2	5	7						SS-5				11.0 ft: light brownish gray (2.5Y 6/2), weak to strong HCl reaction	
66.5	13.5	3	5	9						SS-6				13.5 ft: light gray (5Y 7/2) mottled yellowish brown (10YR 5/6), little fine grained sand, weak HCl reaction	
61.5	18.5	3	4	6						SS-7				18.5 ft: light olive gray (5Y 6/2) mottled brownish yellow (10YR 6/6), no HCl reaction on clay, trace black staining	
56.5	23.5	4	4	6						SS-8				23.5 ft: few fine grained sand, weak HCl reaction, no calcium carbonate nodules observed	
51.5	28.5	4	8	12						SS-9				28.5 ft: very stiff, little fine grained sand, strong HCl reaction	
46.5	33.5	4	6	9						SS-10				33.5 ft: brownish yellow (10YR 6/6), stiff, few fine grained sand	
41.5	38.5	3	5	7						SS-11				38.5 ft: brownish yellow (10YR 6/6) mottled gray (5Y 6/1), weak HCl reaction	
36.5	43.5	3	7	8						SS-12					
31.5	48.5	4	8	10						SS-13				48.5 ft: very stiff	
26.5	53.5	4	6	13						SS-14			26.5	53.5	FAT CLAY with sand (CH), light yellowish brown (2.5Y 6/3), very stiff, moist, little fine grained sand, weak HCl reaction, trace calcium carbonate nodules

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



SHEET 2 OF 4

BECHTEL NO.: 25352		MACTEC NO.: 6468-07-1777		COUNTY: Victoria, TX		GEOLOGIST: G. Pillappa								
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS							GROUND WATER (ft)							
BORING NO.: B-3181		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND								
GROUND SURFACE ELEV.: 80.0 ft (NAVD88)		NORTHING: 13,412,058		US ft (NAD83)		EASTING: 2,599,555 US ft (NAD83)								
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: 2/6/09		COMPLETED: 2/8/09		CASING DEPTH: 5.0 ft		BITS USED: 2 7/8" Drag Bit								
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION		
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100				
23.9					Continued from previous page									
21.5	58.5	10	15	15							SS-15	21.5	58.5	FAT CLAY with sand (CH), light yellowish brown (2.5Y 6/3), very stiff, moist, little fine grained sand, weak HCl reaction, trace calcium carbonate nodules (continued)
16.5	63.5	5	7	10							SS-16			FAT CLAY (CH), light gray (5Y 7/1), very stiff, moist, little fine grained sand, strong HCl reaction, trace calcium carbonate nodules, trace shell fragments
11.5	68.5	3	4	8							SS-17			63.5 ft: light olive gray (5Y 6/2), few fine grained sand, no HCl reaction on clay
6.5	73.5	11	50/0.4								SS-18			68.5 ft: pale yellow (2.5Y 7/3), stiff, strong HCl reaction
1.5	78.5	6	7	9							SS-19			6.5 ft: POORLY GRADED SAND with clay (SP-SC), light gray (2.5Y 7/2), very dense, wet, fine grained, few fines, no HCl reaction
-3.5	83.5	12	14	14							SS-20			1.5 ft: FAT CLAY (CH), light olive gray (5Y 6/2) mottled red (2.5YR 4/6), very stiff, moist, few fine grained sand, no HCl reaction
-8.5	88.5	17	22	25							SS-21			-3.5 ft: POORLY GRADED SAND with clay (SP-SC), light gray (2.5Y 7/2), very firm, wet, fine grained, few fines, no HCl reaction
-13.5	93.5	7	11	18							SS-22			-8.5 ft: SANDY FAT CLAY (CH), pale yellow (5Y 7/3), hard, moist, some fine grained sand, none to strong HCl reaction, few calcium carbonate nodules
-18.5	98.5	24	30	29							SS-23			-13.5 ft: POORLY GRADED SAND with clay (SP-SC), light brownish gray (2.5Y 6/2), very firm, wet, fine grained, few fines, no HCl reaction
-28.5	108.5	5	8	12							SS-24			98.5 ft: very dense
														-28.5 ft: FAT CLAY (CH), pale olive (5Y 6/3) mottled brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules

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



BECHTEL NO.: 25352			MACTEC NO.: 6468-07-1777			COUNTY: Victoria, TX			GEOLOGIST: G. Pillappa			
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS									GROUND WATER (ft)			
BORING NO.: B-3181			DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT						
GROUND SURFACE ELEV.: 80.0 ft (NAVD88)			NORTHING: 13,412,058			US ft (NAD83)			EASTING: 2,599,555 US ft (NAD83)			
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: 2/6/09			COMPLETED: 2/8/09			CASING DEPTH: 5.0 ft			BITS USED: 2 7/8" Drag Bit			
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100		
-32.2					Continued from previous page							
-38.5	118.5											FAT CLAY (CH), pale olive (5Y 6/3) mottled brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, weak HCl reaction, trace calcium carbonate nodules (continued)
		6	9	14						SS-25		FAT CLAY with sand (CH), light yellowish brown (2.5Y 6/3), very stiff, moist, little fine grained sand, strong HCl reaction, trace calcium carbonate nodules and black staining
-48.5	128.5											
		15	24	29						SS-26		POORLY GRADED SAND with clay (SP-SC), light gray (5Y 7/1) to pale yellow (2.5Y 7/3), very dense, wet, fine to medium grained, few fines, no HCl reaction
-58.5	138.5											
		18	20	23						SS-27		138.5 ft: dense, fine grained
-68.5	148.5											
		9	12	14						SS-28		SANDY FAT CLAY (CH), light gray (2.5Y 7/2), very stiff, moist, some fine grained sand, strong HCl reaction
-78.5	158.5											
		12	14	45						SS-29		FAT CLAY (CH), pale yellow (2.5Y 7/3) mottled brownish yellow (10YR 6/6), hard, moist, few fine grained sand, strong HCl reaction, trace calcium carbonate nodules

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



SHEET 4 OF 4

BECHTEL NO.: 25352		MACTEC NO.: 6468-07-1777		COUNTY: Victoria, TX		GEOLOGIST: G. Pillappa									
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS							GROUND WATER (ft) 0 HR. ND 24 HR. ND								
BORING NO.: B-3181		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT											
GROUND SURFACE ELEV.: 80.0 ft (NAVD88)		NORTHING: 13,412,058 US ft (NAD83)		EASTING: 2,599,555 US ft (NAD83)											
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: 2/6/09		COMPLETED: 2/8/09		CASING DEPTH: 5.0 ft		BITS USED: 2 7/8" Drag Bit									
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT						SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100					
-88.3					Continued from previous page										
-88.5	168.5	31	50/0.4		 81/0.9						SS-30			-88.5	POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y 7/3), very dense, wet, fine grained, few fines, strong HCl reaction
-93.5	173.5	35	50/0.4		 85/0.9						SS-31			-95.0	
														175.0	Boring Terminated at Elevation -95.0 ft

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



GEOTECHNICAL BORING LOG

Prepared By RAM Date 8/10/09Checked By KAW Date 8.10.09

SHEET 1 OF 4

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-3182		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND					
GROUND SURFACE ELEV.: 79.8 ft (NAVD88)		NORTHING: 13,411,777		US ft (NAD83)		EASTING: 2,599,588 US ft (NAD83)		24 HR.	ND				
TOTAL DEPTH: 175.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (CME-08)						
DATE STARTED: 2/5/09		COMPLETED: 2/7/09		CASING DEPTH: 5.0 ft			BITS USED: 2 15/16" Drag Bit						
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION	
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			NO.
79.8					Ground Surface							79.8	0.0
79.8	0.0	3	4	7						SS-1		FAT CLAY (CH), black (10YR 2/1), stiff, moist, no HCl reaction on clay, trace organics, roots and grass	
76.3	3.5	3	5	5						SS-2		3.5 ft: dark gray (10YR 4/1), weak HCl reaction, calcium carbonate nodules, black staining	
73.8	6.0	3	5	7						SS-3		6.0 ft: light gray (10YR 7/2), strong HCl reaction	
71.3	8.5	4	5	6						SS-4		8.5 ft: very pale brown (10YR 7/4), black and orange staining	
68.8	11.0	4	5	9						SS-5		11.0 ft: light gray (10YR 7/2)	
66.3	13.5	4	6	9						SS-6		13.5 ft: caliche	
61.3	18.5	4	4	5						SS-7		18.5 ft: weak HCl reaction, no caliche observed	
56.3	23.5	4	5	7						SS-8		23.5 ft: mottled reddish yellow (7.5YR 6/6), black staining	
51.3	28.5	5	5	8						SS-9		28.5 ft: light gray (10YR 7/2), black and orange staining	
46.3	33.5	6	8	10						SS-10		33.5 ft: light gray (10YR 7/2) mottled reddish yellow (7.5YR 6/6), very stiff, few fine grained sands, caliche	
41.3	38.5	5	8	11						SS-11			
36.3	43.5	5	7	10						SS-12		43.5 ft: reddish yellow (7.5YR 6/6)	
31.3	48.5	5	6	10						SS-13		48.5 ft: light gray (10YR 7/2) mottled reddish yellow (7.5YR 6/6), caliche	
26.3	53.5	6	7	9						SS-14		53.5 ft: light gray (10YR 7/2), strong HCl reaction	

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



SHEET 2 OF 4

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-3182		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR. ND						
GROUND SURFACE ELEV.: 79.8 ft (NAVD88)		NORTHING: 13,411,777		US ft (NAD83)		EASTING: 2,599,588		US ft (NAD83)					
24 HR. ND													
TOTAL DEPTH: 175.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (CME-08)						
DATE STARTED: 2/5/09		COMPLETED: 2/7/09		CASING DEPTH: 5.0 ft			BITS USED: 2 15/16" Drag Bit						
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION	
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			NO.
23.6					Continued from previous page								
21.3	58.5												FAT CLAY (CH), black (10YR 2/1), stiff, moist, no HCl reaction on clay, trace organics, roots and grass (continued)
		5	13	14									58.5 ft: light gray (10YR 7/2), very stiff, strong HCl reaction
16.3	63.5												63.5 ft: few fine sand, trace orange staining
		6	8	10									
11.3	68.5												11.3
		13	10	16									CLAYEY SAND (SC), very pale brown (10YR 7/4), very firm, moist, fine grained, some fines, strong HCl reaction, trace calcium carbonate nodules
6.3	73.5												6.3
		11	17	21									POORLY GRADED SAND (SP), very pale brown (10YR 7/4), dense, wet, fine grained, strong HCl reaction, trace calcium carbonate nodules
1.3	78.5												78.5 ft: firm, few fines, no HCl reaction, no calcium carbonate nodules observed
		8	8	11									
-3.8	83.5												-3.8
		14	33	35									FAT CLAY (CH), white (10YR 8/1), hard, moist, strong HCl reaction, caliche
-8.8	88.5												-8.8
		10	60	47/0.5									POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR 7/3), very dense, wet, fine grained, few fines, strong HCl reaction, caliche
-13.8	93.5												-13.8
		60/0.4											POORLY GRADED SAND (SP), white (10YR 8/1), very dense, moist, fine grained, strong HCl reaction, caliche
-18.8	98.5												-18.8
		39	37	48									98.5 ft: very pale brown (10YR 8/4), wet, fine to coarse grained, few gravel, no caliche observed
-28.8	108.5												-28.8
		7	10	13									FAT CLAY with sand (CH), light gray (10YR 7/2) mottled reddish yellow (7.5YR 6/6), very stiff, moist, little fine grained sand, trace calcium carbonate nodules, black staining

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



SHEET 3 OF 4

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) 0 HR. ND 24 HR. ND				
BORING NO.: B-3182			DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT							
GROUND SURFACE ELEV.: 79.8 ft (NAVD88)			NORTHING: 13,411,777			US ft (NAD83)						EASTING: 2,599,588 US ft (NAD83)	
TOTAL DEPTH: 175.0 ft			DRILL MACHINE: CME 550			DRILLER: L. Carter (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (CME-08)				
DATE STARTED: 2/5/09			COMPLETED: 2/7/09			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								
-38.8	118.5	7	11	10						SS-25			FAT CLAY with sand (CH), light gray (10YR 7/2) mottled reddish yellow (7.5YR 6/6), very stiff, moist, little fine grained sand, trace calcium carbonate nodules, black staining (continued)
-48.8	128.5	23	40	50/0.3						SS-26			FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, strong HCl reaction, few to little calcium carbonate nodules, caliche, trace black and orange staining
-58.8	138.5	8	7	10						SS-27			POORLY GRADED SAND (SP), very pale brown (10YR 8/2), very dense, wet, fine grained, no HCl reaction
-68.8	148.5	5	3	4						SS-28			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR 7/3), loose, wet, fine grained, few fines, weak HCl reaction
-78.8	158.5	23	39	50/0.4						SS-29			POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very dense, wet, fine to medium grained, strong HCl reaction

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

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



GEOTECHNICAL BORING LOG

Prepared By PAK Date 8/10/09Checked By KAW Date 8-10-09

SHEET 1 OF 4

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-3183		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND							
GROUND SURFACE ELEV.: 79.9 ft (NAVD83)		NORTHING: 13,411,924 US ft (NAD83)		EASTING: 2,599,713 US ft (NAD83)		24 HR. ND							
TOTAL DEPTH: 173.8 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)							
DATE STARTED: 2/7/09		COMPLETED: 2/8/09		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
79.9					Ground Surface								
79.9	0.0	3	4	5						SS-1			FAT CLAY (CH), black (10YR 2/1), stiff, moist, no HCl reaction on clay, organics, roots and grass
76.4	3.5	3	4	5						SS-2			3.5 ft: very dark gray (10YR 3/1), strong HCl reaction, calcium carbonate nodules, black staining
73.9	6.0	4	4	6						SS-3			6.0 ft: light gray (10YR 7/2), few fine grained sand, orange staining
71.4	8.5	4	6	7						SS-4			8.5 ft: caliche
68.9	11.0	4	7	9						SS-5			11.0 ft: very stiff, no caliche observed
66.4	13.5	4	4	7						SS-6			13.5 ft: stiff, weak HCl reaction
61.4	18.5	3	4	5						SS-7			18.5 ft: strong HCl reaction
56.4	23.5	3	5	8						SS-8			23.5 ft: mottled reddish yellow (7.5YR 6/6), weak HCl reaction
51.4	28.5	5	7	10						SS-9			28.5 ft: very stiff
46.4	33.5	3	5	9						SS-10			33.5 ft: stiff, strong HCl reaction
41.4	38.5	6	8	10						SS-11			38.5 ft: very stiff, caliche lens
36.4	43.5	5	6	10						SS-12			43.5 ft: weak HCl reaction
31.4	48.5	4	7	8						SS-13			48.5 ft: stiff
26.4	53.5	5	6	13						SS-14			53.5 ft: light gray (10YR 7/2), very stiff, strong HCl reaction

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



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-3183		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND						
GROUND SURFACE ELEV.: 79.9 ft (NAVD88)		NORTHING: 13,411,924		US ft (NAD83)		EASTING: 2,599,713	US ft (NAD83)	24 HR.	ND					
TOTAL DEPTH: 173.8 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (CME-08)							
DATE STARTED: 2/7/09		COMPLETED: 2/8/09		CASING DEPTH: 5.0 ft			BITS USED: 2 15/16" Drag Bit							
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION		
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			NO.	MOI
23.8					Continued from previous page									
21.4	58.5													FAT CLAY (CH), black (10YR 2/1), stiff, moist, no HCl reaction on clay, organics, roots and grass (continued)
		8	10	10										58.5 ft: caliche
16.4	63.5													
		6	8	10										
11.4	68.5													
		10	13	16										
6.4	73.5													
		10	17	15										
1.4	78.5													
		4	5	9										
-3.6	83.5													
		7	6	6										
-8.6	88.5													
		14	16	24										
-13.6	93.5													
		23	18	22										
-18.6	98.5													
		36	37	41										
-28.6	108.5													
		7	10	15										

EXELON COL BORE VICTORIA PHASE III/GP1 EXELON COL GDT 8/10/09



SHEET 3 OF 4

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-3183		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND					
GROUND SURFACE ELEV.: 79.9 ft (NAVD88)		NORTHING: 13,411,924		US ft (NAD83)		EASTING: 2,599,713 US ft (NAD83)		24 HR.	ND				
TOTAL DEPTH: 173.8 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (CME-08)						
DATE STARTED: 2/7/09		COMPLETED: 2/8/09		CASING DEPTH: 5.0 ft			BITS USED: 2 15/16" Drag Bit						
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
-32.3					Continued from previous page								
-38.6	118.5	6	9	10	19					SS-25			FAT CLAY (CH), light gray (10YR 7/2), reddish yellow (7.5YR 6/8), very stiff, moist, weak HCl reaction, calcium carbonate nodules, black staining (continued)
-48.6	128.5	6	11	16	27					SS-26			118.5 ft: light gray (10YR 7/2), few fine grained sand, strong HCl reaction, orange staining
-58.6	138.5	23	27	21	48					SS-27			POORLY GRADED SAND (SP), light gray (10YR 7/2), very firm, wet, fine to medium grained, no HCl reaction
-68.6	148.5	4	8	6	14					SS-28			138.5 ft: no recovery
-70.1	150.0	4	8	14	22					SS-29			148.5 ft: no recovery
-78.6	158.5	9	13	17	30					SS-30			SANDY FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, some fine grained sand, weak HCl reaction, orange staining
													POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very firm, wet, fine to medium grained, no HCl reaction

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



SHEET 4 OF 4

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-3183		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND									
GROUND SURFACE ELEV.: 79.9 ft (NAVD88)		NORTHING: 13,411,924		US ft (NAD83)		EASTING: 2,599,713 US ft (NAD83)									
TOTAL DEPTH: 173.8 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)									
DATE STARTED: 2/7/09		COMPLETED: 2/8/09		CASING DEPTH: 5.0 ft		BITS USED: 2 15/16" Drag Bit									
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
		0.5ft	0.5ft	0.5ft	0	20	40	60	80					100	
-88.4					Continued from previous page										
-88.5	168.5	70/0.4								SS-31			POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very firm, wet, fine to medium grained, no HCl reaction (continued) 168.5 ft: very dense, weak HCl reaction, calcium carbonate nodules		
-93.6	173.5														
		70/0.3								SS-32					
													-93.9	173.8	Boring Terminated at Elevation -93.9 ft

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



GEOTECHNICAL BORING LOG

Prepared By RAH Date 8/10/09Checked By KAW Date 8.10.09

SHEET 1 OF 6

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-3184		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND							
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)		NORTHING: 13,411,653		US ft (NAD83)		EASTING: 2,599,603 US ft (NAD83)							
TOTAL DEPTH: 300.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)							
DATE STARTED: 2/25/09		COMPLETED: 3/5/09		CASING DEPTH: 5.0 ft		BITS USED: 4" Drag Bit							
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
80.2					Ground Surface							80.2	0.0
80.2	0.0	4	4	7	●11					SS-1			
76.7	3.5	5	6	7	●13					SS-2			3.5 ft: gray (10YR 5/1), strong HCl reaction, calcium carbonate nodules, black staining
74.2	6.0	5	6	6	●12					SS-3			6.0 ft: light gray (10YR 7/2), orange staining
71.7	8.5	5	7	8	●15					SS-4			
69.2	11.0	7	8	11	●19					SS-5			11.0 ft: very stiff, weak HCl reaction
66.7	13.5	6	9	13	●22					SS-6			13.5 ft: strong HCl reaction
61.7	18.5	5	7	7	●14					SS-7			18.5 ft: stiff
56.7	23.5	5	6	9	●15					SS-8			23.5 ft: mottled reddish yellow (7.5YR 6/6)
51.7	28.5	7	8	11	●19					SS-9			28.5 ft: very pale brown (10YR 7/3), very stiff, weak HCl reaction
46.7	33.5	6	9	10	●19					SS-10			33.5 ft: mottled light gray (10YR 7/2) and reddish yellow (7.5YR 6/6), low fine grained sand, caliche, strong HCl reaction, no calcium carbonate nodules observed
41.7	38.5	6	9	14	●23					SS-11			38.5 ft: reddish yellow (7.5YR 6/2), weak HCl reaction, no caliche observed
36.7	43.5	7	7	12	●19					SS-12			43.5 ft: light gray (10YR 7/2) mottled with reddish yellow (7.5YR 6/6), trace calcium carbonate
31.7	48.5	6	8	12	●20					SS-13			
26.7	53.5	7	10	13	●23					SS-14			53.5 ft: light gray (10YR 7/2), strong HCl reaction

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



SHEET 2 OF 6

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-3184		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR. ND					
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)		NORTHING: 13,411,653		US ft (NAD83)		EASTING: 2,599,603 US ft (NAD83)		24 HR. ND				
TOTAL DEPTH: 300.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (CME-08)					
DATE STARTED: 2/25/09		COMPLETED: 3/5/09		CASING DEPTH: 5.0 ft			BITS USED: 4" Drag Bit					
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100		
24.1					Continued from previous page							
21.7	58.5				● 25					SS-15		FAT CLAY (CH), dark gray (10YR 4/1), stiff, moist, few fine grained sand, weak HCl reaction, organics, grass and roots (continued) 58.5 ft: caliche
		8	13	12								
16.7	63.5				● 23					SS-16		63.5 ft: very pale brown (10YR 7/3), no caliche observed
		7	10	13								
11.7	68.5				● 25					SS-17		68.5 ft: light gray (10YR 7/2), caliche
		8	8	17								
6.7	73.5				● 29					SS-18		6.7
		12	14	15								POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very firm, wet, fine grained, few fines, no HCl reaction
1.7	78.5				● 34					SS-19		78.5 ft: dense, fine to coarse grained, weak HCl reaction
		12	18	16								
-3.3	83.5				● 17					SS-20		-3.3
		9	8	9								FAT CLAY (CH), light gray (10YR 7/2) mottled reddish yellow (7.5YR 6/6), very stiff, moist, strong HCl reaction, caliche, black staining
-8.3	88.5				● 37					SS-21		-8.3
		11	16	21								CLAYEY SAND (SC), very pale brown (10YR 7/3), dense, moist, fine grained, some fines, strong HCl reaction, caliche, black and orange staining
-13.3	93.5				● 33					SS-22		-13.3
		14	14	19								POORLY GRADED SAND (SP), very pale brown (10YR 7/3), dense, wet, fine to medium grained, few fines, weak HCl reaction, orange staining
-18.3	98.5				● 103/0.8					SS-23		-18.3
		53	50/0.3									98.5 ft: very dense, fine to coarse grained, strong HCl reaction
-28.3	108.5				● 20					SS-24		-28.3
		7	8	12								FAT CLAY (CH), light gray (10YR 7/2) and reddish yellow (7.5YR 6/6), very stiff, moist, weak HCl reaction, calcium carbonate nodules, black staining

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



SHEET 3 OF 6

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-3184		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND							
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)		NORTHING: 13,411,653		US ft (NAD83)		EASTING: 2,599,603 US ft (NAD83)							
TOTAL DEPTH: 300.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)							
DATE STARTED: 2/25/09		COMPLETED: 3/5/09		CASING DEPTH: 5.0 ft		BITS USED: 4" Drag Bit							
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
-32.0					Continued from previous page								
-38.3	118.5	7	9	10									FAT CLAY (CH), light gray (10YR 7/2) and reddish yellow (7.5YR 6/6), very stiff, moist, weak HCl reaction, calcium carbonate nodules, black staining (continued)
													118.5 ft: light gray (10YR 7/2), strong HCl reaction, orange staining
-48.3	128.5	25	24	16									POORLY GRADED SAND (SP), very pale brown (10YR 7/3), dense, wet, fine to medium grained, few fines, weak HCl reaction
-58.3	138.5	WOR	12	21									FAT CLAY (CH), light gray (10YR 7/2), hard, moist, no HCl reaction, black and orange staining
-68.3	148.5	13	19	21									POORLY GRADED SAND (SP), light gray (10YR 7/2), dense, wet, fine to medium grained, no HCl reaction, light orange staining
-78.3	158.5	31	40	47									148.5 ft: very pale brown (10YR 7/3), weak HCl reaction
													158.5 ft: very dense, fine to coarse grained, strong HCl reaction, trace calcium carbonate nodules

EXELON COL BORE VICTORIA PHASE IILGPJ EXELON COL.GDT 8/10/09



SHEET 4 OF 6

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-3184		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND					
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)		NORTHING: 13,411,653		US ft (NAD83)		EASTING: 2,599,603		US ft (NAD83)	24 HR.	ND			
TOTAL DEPTH: 300.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (CME-08)						
DATE STARTED: 2/25/09		COMPLETED: 3/5/09		CASING DEPTH: 5.0 ft			BITS USED: 4" Drag Bit						
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
-88.1					Continued from previous page								
-88.3	168.5	26	29	35						SS-30			POORLY GRADED SAND (SP), light gray (10YR 7/2), dense, wet, fine to medium grained, no HCl reaction, light orange staining (continued)
-98.3	178.5	27	42	26						SS-31			
-108.3	188.5	26	47	43						SS-32			188.5 ft: weak HCl reaction
-118.3	198.5	34	43	37						SS-33			198.5 ft: fine grained, no calcium carbonate nodules observed
-128.3	208.5	18	27	27						SS-34			SANDY FAT CLAY (CH), light gray (10YR 7/2), hard, moist, some fine grained sand, strong HCl reaction, caliche, orange staining
-138.3	218.5	8	11	15						SS-35			FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, strong HCl reaction, calcium carbonate nodules, orange staining

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



SHEET 5 OF 6

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-3184		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND						
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)		NORTHING: 13,411,653		US ft (NAD83)		EASTING: 2,599,603	US ft (NAD83)	24 HR.	ND					
TOTAL DEPTH: 300.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (CME-08)							
DATE STARTED: 2/25/09		COMPLETED: 3/5/09		CASING DEPTH: 5.0 ft			BITS USED: 4" Drag Bit							
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION		
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			NO.	MOI
-144.2					Continued from previous page									
-148.3	228.5									SS-36		FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, strong HCl reaction, calcium carbonate nodules, orange staining (continued)		
		12	15	19										
-158.3	238.5									SS-37		-158.3	238.5	POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very dense, wet, fine grained, strong HCl reaction
		48	50/0.1											
-168.3	248.5									SS-36		-168.3	248.5	CLAYEY SAND (SC), very pale brown (10YR 7/3), very dense, wet, fine grained, some fines, weak HCl reaction
		24	48	49										
-178.3	258.5									SS-39		-178.3	258.5	POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very dense, wet, fine to medium grained, strong HCl reaction, trace calcium carbonate nodules, some orange staining
		24	34	36										
-188.3	268.5									SS-40		-188.3	268.5	FAT CLAY (CH), light gray (10YR 7/2), hard, moist, strong HCl reaction, calcium carbonate nodules, orange and black staining
		8	14	18										
-198.3	278.5									SS-41		-198.3	278.5	
		26	34	53										

EXELON COL BORE VICTORIA PHASE III (GP) EXELON COL GDT 8/10/09



SHEET 6 OF 6

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-3184		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND							
GROUND SURFACE ELEV.: 80.2 ft (NAVD88)		NORTHING: 13,411,653		US ft (NAD83)		EASTING: 2,599,603 US ft (NAD83)							
TOTAL DEPTH: 300.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)							
DATE STARTED: 2/25/09		COMPLETED: 3/5/09		CASING DEPTH: 5.0 ft		BITS USED: 4" Drag Bit							
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				
-200.3					Continued from previous page								
-208.3	288.5												POORLY GRADED SAND (SP), light gray (10YR 7/2), very dense, wet, fine to medium grained, weak HCl reaction, orange staining (continued)
		10	15	17									
-218.3	298.5									SS-42			FAT CLAY (CH), light gray (10YR 7/2), hard, moist, strong HCl reaction, calcium carbonate nodules, orange and black staining
		11	16	23									
										SS-43			298.5 ft: mottled reddish yellow (7.5YR 6/8), weak HCl reaction
													Boring Terminated at Elevation -219.8 ft

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



GEOTECHNICAL BORING LOG

Prepared By RAK Date 8/10/09Checked By KAW Date 8.10.09

SHEET 1 OF 5

BECHTEL NO.: 25352		MACTEC NO.: 6468-07-1777		COUNTY: Victoria, TX		GEOLOGIST: J. Liles							
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS							GROUND WATER (ft)						
BORING NO.: B-3185A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND							
GROUND SURFACE ELEV.: 79.8 ft (NAVD88)		NORTHING: 13,411,833		US ft (NAD83)		EASTING: 2,599,722 US ft (NAD83)							
TOTAL DEPTH: 250.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)							
DATE STARTED: 3/5/09		COMPLETED: 3/7/09		CASING DEPTH: 5.0 ft		BITS USED: 3 7/8" Drag Bit							
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
79.8					Ground Surface								79.8 0.0
79.8	0.0	WOH	WOH	WOH	70						SS-1		FAT CLAY (CH), black (10YR 2/1), very soft, moist, trace fine grained sand, no HCl reaction, trace grass and small roots
76.3	3.5	WOH	2	5	7						SS-2		3.5 ft: very dark gray (10YR 3/1), firm, trace calcium carbonate nodules, strong HCl reaction
73.8	6.0	6	5	8	13						SS-3		6.0 ft: light gray (10YR 7/2), stiff, weak HCl reaction on clay, orange and black staining
71.4	8.4	5	7	8	15						SS-4		8.4 ft: few fine grained sand, few calcium carbonate nodules, strong HCl reaction
68.8	11.0	8	8	10	18						SS-5		11.0 ft: very stiff
66.3	13.5	5	6	10	16						SS-6		
61.3	18.5	4	5	6	11						SS-7		18.5 ft: stiff
56.3	23.5	4	6	6	12						SS-8		23.5 ft: mottled yellowish brown (10YR 5/6), weak HCl reaction, no calcium carbonate nodules observed
51.3	28.5	7	10	13	23						SS-9		51.3 28.5 FAT CLAY with sand (CH), light gray (2.5Y 7/2) mottled yellowish brown (10YR 5/6), very stiff, moist, little fine grained sand, strong HCl reaction
46.3	33.5	6	7	11	18						SS-10		46.3 33.5 FAT CLAY (CH), yellowish brown (10YR 5/6) mottled light gray (2.5Y 7/2), very stiff, moist, few fine grained sand, weak HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
41.3	38.5	6	9	13	22						SS-11		
36.3	43.5	6	8	12	20						SS-12		43.5 ft: weak HCl reaction, no calcium carbonate nodules observed
31.3	48.5	6	9	11	20						SS-13		48.5 ft: black staining
26.3	53.5	6	9	11	20						SS-14		53.5 ft: light gray (2.5Y 7/2), weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules, orange

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



SHEET 2 OF 5

BECHTEL NO.: 25352		MACTEC NO.: 6468-07-1777		COUNTY: Victoria, TX		GEOLOGIST: J. Liles		
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS							GROUND WATER (ft)	
BORING NO.: B-3185A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		
GROUND SURFACE ELEV.: 79.8 ft (NAVD88)		NORTHING: 13,411,833		US ft (NAD83)		EASTING: 2,599,722 US ft (NAD83)		
24 HR. ND		TOTAL DEPTH: 250.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		
HAMMER (ID): 140 lb. Auto (CME-08)		DATE STARTED: 3/5/09		COMPLETED: 3/7/09		CASING DEPTH: 5.0 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.		LOG		
SOIL AND ROCK DESCRIPTION								
23.7				Continued from previous page				
21.3		58.5		7		9		
16.3		63.5		8		11		
11.3		68.5		10		14		
6.3		73.5		16		22		
1.3		78.5		7		8		
-3.7		83.5		6		7		
-8.7		88.5		11		16		
-13.7		93.5		49		47		
-18.7		98.5		49		63		
-28.7		108.5		8		19		

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



SHEET 3 OF 5

BECHTEL NO.: 25352		MACTEC NO.: 6468-07-1777		COUNTY: Victoria, TX		GEOLOGIST: J. Liles						
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS							GROUND WATER (ft)					
BORING NO.: B-3185A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND				
GROUND SURFACE ELEV.: 79.8 ft (NAVD88)		NORTHING: 13,411,833		US ft (NAD83)		EASTING: 2,599,722 US ft (NAD83)		24 HR.	ND			
TOTAL DEPTH: 250.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (CME-08)					
DATE STARTED: 3/5/09		COMPLETED: 3/7/09		CASING DEPTH: 5.0 ft			BITS USED: 3 7/8" Drag Bit					
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100		
-32.4					Continued from previous page							
-38.7	118.5	8	8	10						SS-25		FAT CLAY (CH), light gray (2.5Y 7/2) mottled yellowish brown (10YR 5/6), hard, moist, few fine grained sand, no HCl reaction on clay, thin caliche layers, strong HCl reaction on caliche layers (continued)
												118.5 ft: very stiff, weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules, orange staining, no caliche observed
-48.7	128.5	11	20	20						SS-26		POORLY GRADED SAND (SP), light gray (2.5Y 7/2), dense, wet, fine grained, trace fines, no HCl reaction
-58.7	138.5	12	21	25						SS-27		138.5 ft: pale yellow (2.5Y 7/3), fine to medium grained
												141.0 ft: bit chatter
-68.7	148.5	WOH	8	10						SS-28		FAT CLAY with sand (CH), light gray (2.5Y 7/2), very stiff, moist, little fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules, orange staining
-78.7	158.5	20	28	31						SS-29		POORLY GRADED SAND (SP), light gray (2.5Y 7/2), very dense, wet, fine to medium grained, trace fines, no HCl reaction

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



SHEET 4 OF 5

BECHTEL NO.: 25352		MACTEC NO.: 6468-07-1777		COUNTY: Victoria, TX		GEOLOGIST: J. Liles						
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS						GROUND WATER (ft)						
BORING NO.: B-3185A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND						
GROUND SURFACE ELEV.: 79.8 ft (NAVD88)		NORTHING: 13,411,833		US ft (NAD83)		EASTING: 2,599,722 US ft (NAD83)						
TOTAL DEPTH: 250.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)						
DATE STARTED: 3/5/09		COMPLETED: 3/7/09		CASING DEPTH: 5.0 ft		BITS USED: 3 7/8" Drag Bit						
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100		
-88.5					Continued from previous page							
-88.7	168.5	21	33	39						SS-30		POORLY GRADED SAND (SP), light gray (2.5Y 7/2), very dense, wet, fine to medium grained, trace fines, no HCl reaction (continued) 168.5 ft: weak HCl reaction

EXELON COL BORE VICTORIA PHASE III(GP) EXELON COL.GDT 8/10/09



SHEET 5 OF 5

BECHTEL NO.: 25352		MACTEC NO.: 6468-07-1777		COUNTY: Victoria, TX		GEOLOGIST: J. Liles						
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS							GROUND WATER (ft)					
BORING NO.: B-3185A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND						
GROUND SURFACE ELEV.: 79.8 ft (NAVD88)		NORTHING: 13,411,833		US ft (NAD83)		EASTING: 2,599,722 US ft (NAD83)						
TOTAL DEPTH: 250.0 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)						
DATE STARTED: 3/5/09		COMPLETED: 3/7/09		CASING DEPTH: 5.0 ft		BITS USED: 3 7/8" Drag Bit						
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80			
-144.6					Continued from previous page							
-148.7	228.5	11	11	18	● 29					SS-36		FAT CLAY (CH), light gray (2.5Y 7/2), hard, moist, few fine grained sand, strong HCl reaction, calcium carbonate nodules, orange staining (continued)
-156.7	238.5											228.5 ft: weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
-158.7	238.5	14	22	23	● 45					SS-37		POORLY GRADED SAND (SP), light gray (2.5Y 7/2), dense, wet, fine grained, few fines, weak HCl reaction, orange staining
-162.2												
-168.7	248.5	46	36	44	● 80					SS-38		FAT CLAY (CH), light gray (2.5Y 7/2) mottled yellowish brown (10YR 5/8), hard, moist, few fine grained sand, strong HCl reaction, caliche
-170.2												
												Boring Terminated at Elevation -170.2 ft

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



GEOTECHNICAL BORING LOG

Prepared By PAU Date 8/10/09Checked By KAW Date 8-10-09

SHEET 1 OF 4

BECHTEL NO.: 25352		MACTEC NO.: 6468-07-1777		COUNTY: Victoria, TX		GEOLOGIST: G. Pillappa								
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS							GROUND WATER (ft)							
BORING NO.: B-3186		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR. ND							
GROUND SURFACE ELEV.: 79.6 ft (NAVD88)		NORTHING: 13,411,693		US ft (NAD83)		EASTING: 2,599,689 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: 2/8/09		COMPLETED: 2/10/09		CASING DEPTH: 15.0 ft			BITS USED: 2 7/8" Drag Bit							
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT						SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100				
79.6					Ground Surface								79.6	0.0
79.6	0.0	2	2	3							SS-1		79.6	FAT CLAY (CH), black (N 2.5/), firm, moist to dry, little fine grained sand, weak HCl reaction, trace roots and organics
76.1	3.5	WOH	WOH	WOH							SS-2		3.5 ft: very soft, moist, few fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules	
73.6	6.0	1	2	3							SS-3		6.0 ft: light olive gray (5Y 6/2), firm, weak HCl reaction	
71.2	8.4	2	6	7							SS-4		8.4 ft: light yellowish brown (2.5Y 6/3), stiff, strong HCl reaction, trace black staining	
68.5	11.1	3	3	8							SS-5		11.1 ft: light brownish gray (2.5Y 6/2)	
66.1	13.5	3	6	7							SS-6		13.5 ft: light olive gray (5Y 6/2)	
61.1	18.5	3	6	7							SS-7		18.5 ft: mottled brownish yellow (10YR 6/6), weak HCl reaction	
56.1	23.5	3	5	7							SS-8			
51.1	28.5	5	8	10							SS-9		28.5 ft: light yellowish brown (2.5Y 6/3), very stiff	
46.1	33.5	6	8	12							SS-10		33.5 ft: brownish yellow (10YR 6/6) mottled pale olive (5Y 6/3)	
41.1	38.5	4	6	8							SS-11		38.5 ft: brownish yellow (10YR 6/6) mottled light olive gray (5Y 6/2), stiff, no HCl reaction, no calcium carbonate nodules observed	
36.1	43.5	5	7	10							SS-12		43.5 ft: very stiff	
31.1	48.5	4	6	8							SS-13		48.5 ft: light brownish gray (10YR 6/2), stiff, weak HCl reaction, trace calcium carbonate nodules	
26.1	53.5	5	6	10							SS-14		53.5 ft: very stiff	

EXELON COL BORE VICTORIA PHASE II LGP1 EXELON COL.GDT 8/10/09



SHEET 3 OF 4

BECHTEL NO.: 25352			MACTEC NO.: 6468-07-1777			COUNTY: Victoria, TX			GEOLOGIST: G. Pillappa			
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS									GROUND WATER (ft)			
BORING NO.: B-3186			DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT			0 HR. ND			
GROUND SURFACE ELEV.: 79.6 ft (NAVD88)			NORTHING: 13,411,693			US ft (NAD83)		EASTING: 2,599,689		US ft (NAD83)		
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: 2/8/09			COMPLETED: 2/10/09			CASING DEPTH: 15.0 ft			BITS USED: 2 7/8" Drag Bit			
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100		
-32.6					Continued from previous page							
-38.9	118.5	7	8	9								FAT CLAY (CH), light olive gray (5Y 6/2) mottled brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, weak HCl reaction (continued)
-48.9	128.5	16	26	33								118.5 ft: light brownish gray (2.5Y 6/2), trace calcium carbonate nodules
-58.9	138.5	25	23	21								POORLY GRADED SAND with clay (SP-SC), light brownish gray (2.5Y 6/2), very dense, wet, fine grained, few fines, no HCl reaction
-68.9	148.5	6	11	17								138.5 ft: pale yellow (2.5Y 7/3), dense
-78.9	158.5	23	31	34								148.5 ft: very firm
												158.5 ft: very dense, strong HCl reaction

EXELON COL BORE VICTORIA PHASE III(GP) EXELON COL.GDT 8/10/09

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



GEOTECHNICAL BORING LOG

Prepared By WBD Date 11-10-09Checked By RAH Date 11/10/09

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-3187		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND				
GROUND SURFACE ELEV.: 80.0 ft (NAVD88)		NORTHING: 13,412,014		US ft (NAD83)	EASTING: 2,599,728		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: 2/8/09		COMPLETED: 2/9/09		CASING DEPTH: N/A			BITS USED: 2 15/16" Roller Cone Bit					
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80			
80.0					Ground Surface							80.0
80.0	0.0	WOH	2	2						SS-1		FAT CLAY (CH), very dark gray (10YR 3/1), soft, moist, few fine grained sand, no HCl reaction on clay
77.5	2.5		2	3						SS-2		2.5 ft: dark gray (10YR 4/1), firm, trace calcium carbonate nodules
75.0	5.0		3	5						SS-3		5.0 ft: gray (10YR 5/1) and light brownish gray (2.5Y 6/2), stiff, few calcium carbonate nodules, strong HCl reaction
72.5	7.5		3	5						SS-4		7.5 ft: light gray (2.5Y 7/2), strong HCl reaction
70.0	10.0		3	6						SS-5		10.0 ft: weak HCl reaction, black staining
67.5	12.5		3	5						SS-6		12.5 ft: no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
60.5	19.5		5	5						SS-7		19.5 ft: light gray (2.5Y 7/2) and brownish yellow (10YR 6/8), few calcium carbonate nodules, strong HCl reaction
55.5	24.5		4	5						SS-8		24.5 ft: brownish yellow (10YR 6/6) and light gray (2.5Y 7/2), weak HCl reaction, no calcium carbonate nodules observed
50.5	29.5		5	7						SS-9		29.5 ft: very stiff, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
45.5	34.5		4	6						SS-10		34.5 ft: reddish yellow (7.5YR 6/8) and light gray (2.5Y 7/2), stiff
40.5	39.5		4	6						SS-11		39.5 ft: yellow (10YR 7/6), weak HCl reaction, no calcium carbonate nodules observed
35.5	44.5		5	6						SS-12		44.5 ft: light yellowish brown (10YR 6/4), no HCl reaction, trace calcium carbonate nodules
30.5	49.5		5	7						SS-13		49.5 ft: brownish yellow (10YR 6/6), very stiff, weak HCl reaction
25.5	54.5		5	8						SS-14		54.5 ft: light brownish gray (10YR 6/2), no HCl reaction

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



SHEET 2 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-3187			DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT			0 HR.	ND		
GROUND SURFACE ELEV.: 80.0 ft (NAVD88)			NORTHING: 13,412,014			US ft (NAD83)			EASTING: 2,599,728	US ft (NAD83)		
TOTAL DEPTH: 151.0 ft			DRILL MACHINE: CME 550 X			DRILLER: R. Landeros (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (MEC 22)			
DATE STARTED: 2/8/09			COMPLETED: 2/9/09			CASING DEPTH: N/A			BITS USED: 2 15/16" Roller Cone Bit			
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100		
23.8					Continued from previous page							
20.5	59.5	5	8	9							SS-15	FAT CLAY (CH), very dark gray (10YR 3/1), soft, moist, few fine grained sand, no HCl reaction on clay (continued)
15.5	64.5	5	5	9							SS-16	59.5 ft: light gray (2.5Y 7/2), very stiff, weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
10.5	69.5	6	11	12							SS-17	64.5 ft: light brownish gray (2.5Y 6/2), stiff, no HCl reaction on clay, trace calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules
5.5	74.5	8	11	11							SS-18	10.5 ft: CLAYEY SAND (SC), light gray (2.5Y 7/2), very firm, moist, fine grained, some fines, no HCl reaction
0.5	79.5	5	7	9							SS-19	74.5 ft: very pale brown (10YR 7/3), wet, little fines
-4.6	84.5	9	7	8							SS-20	79.5 ft: light gray (2.5Y 7/2), firm, some fines, few calcium carbonate nodules, strong HCl reaction
-9.8	89.8	10	17	17							SS-21	-4.6 ft: 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
-14.6	94.5	83/0.5									SS-22	-9.8 ft: POORLY GRADED SAND with silt (SP-SM), light gray (10YR 7/2), dense, wet, fine to medium grained, few fines, no HCl reaction
-19.6	99.5	52/0.4									SS-23	94.5 ft: very pale brown (10YR 7/3), very dense, medium grained, weak HCl reaction
-29.6	109.5	19	22	16							SS-24A/B	99.5 ft: medium to coarse grained, strong HCl reaction, caliche
												-29.6 ft: CLAYEY SAND (SC), very pale brown (10YR 7/3), dense, wet, fine to medium grained, some fines, strong HCl reaction

EXELON COL BORE VICTORIA PHASE III (GP) EXELON COL GDT 10/20/09



GEOTECHNICAL BORING LOG

Prepared By KAW Date 8/10/09Checked By KAW Date 8-10-09

SHEET 1 OF 4

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-3194		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR. ND						
GROUND SURFACE ELEV.: 79.5 ft (NAVD88)		NORTHING: 13,411,840		US ft (NAD83)		EASTING: 2,599,813 US ft (NAD83)		24 HR. ND					
TOTAL DEPTH: 173.7 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (CME-08)						
DATE STARTED: 2/9/09		COMPLETED: 2/10/09		CASING DEPTH: 5.0 ft			BITS USED: 2 15/16" Drag Bit						
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
79.5					Ground Surface								
79.5	0.0	4	6	7	●13					SS-1		79.5	FAT CLAY (CH), very dark gray (10YR 3/1), stiff, moist, few fine grained sand, no HCl reaction, organics, roots and grass
76.0	3.5	5	5	5	●10					SS-2			3.5 ft: gray (10YR 5/1), strong HCl reaction, calcium carbonate nodules, black staining
73.5	6.0	5	6	7	●13					SS-3			6.0 ft: light gray (10YR 7/2), weak HCl reaction, caliche
71.0	8.5	6	9	9	●18					SS-4			8.5 ft: very stiff, strong HCl reaction, orange staining
68.5	11.0	5	7	8	●15					SS-5			11.0 ft: stiff, no caliche observed
66.0	13.5	5	6	7	●13					SS-6			
61.0	18.5	5	6	9	●15					SS-7			18.5 ft: weak HCl reaction
56.0	23.5	5	4	8	●12					SS-8			23.5 ft: mottled reddish yellow (7.5YR 6/6), firm
51.0	28.5	6	8	12	●20					SS-9		51.0	CLAYEY SAND (SC), light gray (10YR 7/2) and reddish yellow (7.5YR 6/6), firm, moist, fine grained, some fines, strong HCl reaction, black staining
46.0	33.5	6	10	14	●24					SS-10			33.5 ft: very firm, calcium carbonate nodules
41.0	38.5	5	6	10	●16					SS-11		41.0	FAT CLAY (CH), light gray (10YR 7/2) mottled reddish yellow (7.5YR 6/6), very stiff, moist, weak HCl reaction, trace calcium carbonate, black staining
36.0	43.5	6	6	9	●15					SS-12			43.5 ft: reddish yellow (7.5YR 6/6), stiff
31.0	48.5	5	8	10	●18					SS-13			48.5 ft: light gray (10YR 7/2) and very stiff, some calcium carbonate nodules
26.0	53.5	7	25	19	●44					SS-14			53.5 ft: light gray (10YR 7/2), hard, strong HCl reaction, orange staining, caliche

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



SHEET 2 OF 4

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-3194		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND					
GROUND SURFACE ELEV.: 79.5 ft (NAVD88)		NORTHING: 13,411,840		US ft (NAD83)		EASTING: 2,599,813		US ft (NAD83)	24 HR.	ND			
TOTAL DEPTH: 173.7 ft		DRILL MACHINE: CME 550			DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)						
DATE STARTED: 2/9/09		COMPLETED: 2/10/09		CASING DEPTH: 5.0 ft			BITS USED: 2 15/16" Drag Bit						
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION	
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			NO.
23.4					Continued from previous page								
21.0	58.5	6	7	14							SS-15		FAT CLAY (CH), light gray (10YR 7/2) mottled reddish yellow (7.5YR 6/6), very stiff, moist, weak HCl reaction, trace calcium carbonate, black staining (continued) 58.5 ft: very stiff, weak HCl reaction, no caliche observed
16.0	63.5	7	6	13							SS-16		63.5 ft: strong HCl reaction, caliche
11.0	68.5	13	14	18							SS-17A/B		11.0 10.2 CLAYEY SAND (SC), very pale brown (10YR 7/3), dense, moist, fine grained, some fines, strong HCl reaction, caliche POORLY GRADED SAND (SP), very pale brown (10YR 7/3), dense, wet, fine grained, no HCl reaction
6.0	73.5	15	19	20							SS-18		73.5 ft: strong HCl reaction, caliche
1.0	78.5	11	20	21							SS-19		78.5 ft: few fines, no HCl reaction, no caliche observed
-4.0	83.5	7	10	17							SS-20		-4.0 FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, strong HCl reaction, caliche, black and orange staining
-9.0	88.5	13	14	15							SS-21		-9.0 CLAYEY SAND (SC), light gray (10YR 7/2), very firm, wet, fine grained, some fines, strong HCl reaction, trace calcium carbonate nodules, orange staining
-14.0	93.5	63	50/0.1								SS-22		-12.5 92.0 to 93.5 ft: hard drilling POORLY GRADED SAND (SP), light gray (10YR 7/2), very dense, moist, fine grained, strong HCl reaction, calcium carbonate nodules, caliche, clay nodules, orange staining
-19.0	98.5	67	50/0.4								SS-23		98.5 ft: very pale brown (10YR 7/3), wet, fine to medium grained, no caliche observed
-29.0	108.5	7	8	11							SS-24		-29.0 FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, strong HCl reaction, calcium carbonate nodules, orange staining

EXELON COL BORE VICTORIA PHASE III GPT EXELON COL GDT 8/10/09



SHEET 3 OF 4

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-3194		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND						
GROUND SURFACE ELEV.: 79.5 ft (NAVD88)		NORTHING: 13,411,840		US ft (NAD83)		EASTING: 2,599,813 US ft (NAD83)						
TOTAL DEPTH: 173.7 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)						
DATE STARTED: 2/9/09		COMPLETED: 2/10/09		CASING DEPTH: 5.0 ft		BITS USED: 2 15/16" Drag Bit						
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100		
-32.7					Continued from previous page							
-39.0	118.5	6	7	12	● 19					SS-25		FAT CLAY (CH), light gray (10YR 7/2), very stiff, moist, strong HCl reaction, calcium carbonate nodules, orange staining (continued) 118.5 ft: black staining
-49.0	128.5	16	19	18	● 37					SS-26		POORLY GRADED SAND (SP), very pale brown (10YR 7/3), dense, wet, fine to medium grained, no HCl reaction
-59.0	138.5	8	20	22	● 42					SS-27		138.5 ft: fine to coarse grained
-69.0	148.5	5	5	7	● 12					SS-28		FAT CLAY with sand (CH), very pale brown (10YR 7/3), stiff, moist, little fine grained sand, no HCl reaction
-79.0	158.5	19	23	51	● 74					SS-29		POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very dense, wet, fine to coarse grained, weak HCl reaction

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



SHEET 4 OF 4

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-3194		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR. ND						
GROUND SURFACE ELEV.: 79.5 ft (NAVD88)		NORTHING: 13,411,840		US ft (NAD83)		EASTING: 2,599,813 US ft (NAD83)							
TOTAL DEPTH: 173.7 ft		DRILL MACHINE: CME 550		DRILLER: L. Carter (MACTEC ATL)		HAMMER (ID): 140 lb. Auto (CME-08)							
DATE STARTED: 2/9/09		COMPLETED: 2/10/09		CASING DEPTH: 5.0 ft		BITS USED: 2 15/16" Drag Bit							
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				
-88.8					Continued from previous page								
-89.1	168.5	23	24	13						SS-30			POORLY GRADED SAND (SP), very pale brown (10YR 7/3), very dense, wet, fine to coarse grained, weak HCl reaction (continued) 168.5 ft: dense, strong HCl reaction, gravel-sized calcium carbonate pieces
-94.0	173.5	80/0.2								SS-31			173.5 ft: white (10YR 8/1), very dense, weak HCl reaction, cemented sand Boring Terminated at Elevation -94.2 ft

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



GEOTECHNICAL BORING LOG

Prepared By PAL Date 8/10/09Checked By KAW Date 8.10.09

SHEET 1 OF 6

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-3201		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND							
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)		NORTHING: 13,413,199		US ft (NAD83)		EASTING: 2,600,479 US ft (NAD83)							
TOTAL DEPTH: 301.5 ft		DRILL MACHINE: CME 55 LC Track		DRILLER: D. White (MACTEC RAL)		HAMMER (ID): 140 lb. Auto (MEC 02)							
DATE STARTED: 2/8/09		COMPLETED: 2/17/09		CASING DEPTH: 3.5 ft		BITS USED: 3 7/8" Drag Bit							
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT			SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION		
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
80.5					Ground Surface							80.5	0.0
No Standard Penetration Tests performed from 0.0-150.0 ft													

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

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



SHEET 3 OF 6

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-3201		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND								
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)		NORTHING: 13,413,199		US ft (NAD83)		EASTING: 2,600,479 US ft (NAD83)								
TOTAL DEPTH: 301.5 ft		DRILL MACHINE: CME 55 LC Track		DRILLER: D. White (MACTEC RAL)		HAMMER (ID): 140 lb. Auto (MEC 02)								
DATE STARTED: 2/8/09		COMPLETED: 2/17/09		CASING DEPTH: 3.5 ft		BITS USED: 3 7/8" Drag Bit								
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100				
-31.7					Continued from previous page									
														No Standard Penetration Tests performed from 0.0-150.0 ft (continued)
														116.0 to 118.0 ft: hard drilling
														124.0 ft: hard drilling
-69.5	150.0	21	26	36							SS-1			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR 7/4), yellow (10YR 7/8), very dense, moist, fine grained, few fines, weak HCl reaction, trace calcium carbonate nodules
-79.5	160.0	32	50/0.4								SS-2			160.0 ft: wet, fine to medium grained
														164.0 ft: hard drilling
-83.5														FAT CLAY (CH), very pale brown (10YR 8/2), yellow (10YR 7/8), hard, moist, trace fine grained sand, weak HCl reaction, trace calcium carbonate nodules

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



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-3201		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR. ND									
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)		NORTHING: 13,413,199		US ft (NAD83)		EASTING: 2,600,479		US ft (NAD83)								
24 HR. ND		TOTAL DEPTH: 301.5 ft		DRILL MACHINE: CME 55 LC Track		DRILLER: D. White (MACTEC RAL)		HAMMER (ID): 140 lb. Auto (MEC 02)								
DATE STARTED: 2/8/09		COMPLETED: 2/17/09		CASING DEPTH: 3.5 ft			BITS USED: 3 7/8" Drag Bit									
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION			
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100						
-87.8					Continued from previous page											
-89.5	170.0	100	0.1								100	0.1	SS-3A/B	-89.5	170.0	POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR 8/2), very dense, wet, fine to coarse grained, few fines, subrounded to subangular, calcium carbonate nodules, trace ferrous nodules, weak HCl reaction
-99.5	180.0	25	34	41							75		SS-4			180.0 ft: mottled with yellow (10YR 7/6), trace fines, few gravel, some calcium carbonate nodules
-109.5	190.0	45	50	0.4							95	0.4	SS-5A/B	-109.5	190.0	FAT CLAY (CH), very pale brown (10YR 8/2) mottled yellow (10YR 7/6), and white (10YR 8/1), hard, moist, some caliche, some black ferrous nodules, strong HCl reaction POORLY GRADED SAND (SP), very pale brown (10YR 8/3), very dense, wet, fine grained, trace fines, weak HCl reaction
-119.5	200.0	41	50	0.3							91	0.3	SS-6			200.0 ft: trace black ferrous nodules
-129.5	210.0	32	45	50	0.2						95	0.2	SS-7A/B	-129.5	210.0	FAT CLAY (CH), very pale brown (10YR 8/2), yellow (10YR 7/6), hard, moist, few fine grained sand, strong HCl reaction, trace calcium carbonate nodules, trace ferrous nodules POORLY GRADED SAND (SP), very pale brown (10YR 8/3), very dense, wet, fine to coarse grained, trace fines, weak HCl reaction
-139.5	220.0	36	47	50	0.4						97	0.4	SS-8	-139.5	220.0	POORLY GRADED SAND with silt (SP-SM), light gray (10YR 7/2), very dense, wet, fine grained, few fines, no HCl reaction

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



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-3201		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND					
GROUND SURFACE ELEV.: 80.5 ft (NAVD88)		NORTHING: 13,413,199		US ft (NAD83)		EASTING: 2,600,479	US ft (NAD83)	24 HR.	ND				
TOTAL DEPTH: 301.5 ft		DRILL MACHINE: CME 55 LC Track		DRILLER: D. White (MACTEC RAL)			HAMMER (ID): 140 lb. Auto (MEC 02)						
DATE STARTED: 2/8/09		COMPLETED: 2/17/09		CASING DEPTH: 3.5 ft			BITS USED: 3 7/8" Drag Bit						
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION	
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			NO.
-143.9					Continued from previous page								
-149.5	230.0												POORLY GRADED SAND with silt (SP-SM), light gray (10YR 7/2), very dense, wet, fine grained, few fines, no HCl reaction (continued)
		48	50/0.3							SS-9AB			SANDY FAT CLAY (CH), very pale brown (10YR 8/2) mottled yellow (10YR 7/6), hard, moist, little fine grained sand, weak HCl reaction
-159.5	240.0												POORLY GRADED SAND (SP), yellowish brown (10YR 5/8), very dense, wet, fine grained, trace fines, no HCl reaction
		43	50/0.4							SS-10			SANDY FAT CLAY (CH), very pale brown (10YR 8/2) mottled yellow (10YR 7/6), hard, moist, little fine grained sand, weak HCl reaction, trace calcium carbonate nodules, trace black nodules
-169.5	250.0												
		46	50/0.4							SS-11			POORLY GRADED SAND (SP), very pale brown (10YR 8/3), very dense, wet, fine grained, trace fines, weak HCl reaction
-179.5	260.0												
		33	50/0.4							SS-12			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR 8/2), very dense, wet, fine grained, few fines, weak HCl reaction
-189.5	270.0												
		21	28	34						SS-13			FAT CLAY with sand (CH), very pale brown (10YR 8/2), hard, moist, little fine grained sand, weak HCl reaction, caliche, trace yellow and pale green inclusions
-199.5	280.0												

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

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



GEOTECHNICAL BORING LOG

Prepared By RAE Date 8/10/09Checked By KAW Date 8.10.09

SHEET 1 OF 4

BECHTEL NO.: 25352		MACTEC NO.: 6468-07-1777		COUNTY: Victoria, TX		GEOLOGIST: G. Pillappa									
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS							GROUND WATER (ft)								
BORING NO.: B-3202		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND							
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)		NORTHING: 13,413,278		US ft (NAD83)		EASTING: 2,600,546 US ft (NAD83)	24 HR.	ND							
TOTAL DEPTH: 200.0 ft		DRILL MACHINE: CME 45 C Track		DRILLER: D. Rhodes (MACTEC RAL)		HAMMER (ID): 140 lb. Auto (MEC 12)									
DATE STARTED: 1/21/09		COMPLETED: 1/24/09		CASING DEPTH: 4.0 ft			BITS USED: 2 7/8" Drag Bit								
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION			
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			NO.		
80.1					Ground Surface							80.1	0.0		
80.1	0.0	3	3	5						SS-1		FAT CLAY (CH), black (N 2.5/), firm, moist, low fine grained sand, no HCl reaction, trace roots and organics			
76.6	3.5	3	4	5						SS-2		76.6	3.5	FAT CLAY with sand (CH), black (N 2.5/), stiff, moist, little fine grained sand, no HCl reaction on clay, trace calcium carbonate nodules	
74.3	5.8	3	6	4						SS-3				5.8 ft: gray (5Y 6/1)	
71.8	8.3	3	5	6						SS-4				8.3 ft: mottled yellowish brown (10YR 5/6), strong HCl reaction	
69.3	10.8	4	6	8						SS-5					
66.6	13.5	4	6	8						SS-6		66.6	13.5	FAT CLAY (CH), gray (5Y 6/1) mottled yellowish brown (10YR 5/6), stiff, moist, low fine grained sand, weak HCl reaction, black staining	
61.6	18.5	2	4	4						SS-7				18.5 ft: mottled brownish yellow (10YR 6/6), firm, no HCl reaction, trace carbonate nodules	
56.6	23.5	4	6	7						SS-8		56.6	23.5	FAT CLAY with sand (CH), light brownish gray (2.5Y 6/2), stiff, moist, little fine grained sand, weak HCl reaction, trace carbonate nodules and black staining	
51.6	28.5	14	21	25						SS-9		51.6	28.5	POORLY GRADED SAND with silt (SP-SM), light gray (10YR 7/2), dense, moist, fine grained, few fines, no HCl reaction	
46.6	33.5	7	12	11						SS-10				33.5 ft: light brownish gray (10YR 6/2), very firm	
41.6	38.5	3	5	8						SS-11		41.6	38.5	CLAYEY SAND (SC), light gray (2.5Y 7/2), firm, moist, fine grained, some fines, no HCl reaction	
36.6	43.5	8	9	9						SS-12				43.5 ft: little fines, trace shell fragments	
31.6	48.5	6	9	14						SS-13				48.5 ft: very firm, some fines, no HCl reaction to strong HCl reaction, trace calcium carbonate nodules	
26.6	53.5	8	9	11						SS-14				53.5 ft: firm, weak HCl reaction	

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



SHEET 2 OF 4

BECHTEL NO.: 25352		MACTEC NO.: 6468-07-1777		COUNTY: Victoria, TX		GEOLOGIST: G. Pillappa							
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS						GROUND WATER (ft)							
BORING NO.: B-3202		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND							
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)		NORTHING: 13,413,278		US ft (NAD83)		EASTING: 2,600,546 US ft (NAD83)							
TOTAL DEPTH: 200.0 ft		DRILL MACHINE: CME 45 C Track		DRILLER: D. Rhodes (MACTEC RAL)		HAMMER (ID): 140 lb. Auto (MEC 12)							
DATE STARTED: 1/21/09		COMPLETED: 1/24/09		CASING DEPTH: 4.0 ft		BITS USED: 2 7/8" Drag Bit							
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
23.9					Continued from previous page								
21.6	58.5												CLAYEY SAND (SC), light gray (2.5Y 7/2), firm, moist, fine grained, some fines, no HCl reaction (continued) 58.5 ft: very firm, wet
		9	12	13									
16.6	63.5												
		13	11	12									
11.6	68.5												
		4	6	7									
6.6	73.5												
		7	9	9									
1.6	78.5												
		4	6	9									
-3.5	83.5												
		9	13	18									
-8.5	88.5												
		9	13	18									
-13.5	93.5												
		15	25	41									
-18.5	98.5												
		14	21	26									
-28.5	108.5												
		24	34	36									

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



SHEET 3 OF 4

BECHTEL NO.: 25352			MACTEC NO.: 6468-07-1777			COUNTY: Victoria, TX			GEOLOGIST: G. Pillappa			
SITE DESCRIPTION: Exelon Texas COL Project - Supplemental Investigation, Including UHS									GROUND WATER (ft)			
BORING NO.: B-3202			DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT			0 HR. ND			
GROUND SURFACE ELEV.: 80.1 ft (NAVD88)			NORTHING: 13,413,278			US ft (NAD83)			EASTING: 2,600,546 US ft (NAD83)			24 HR. ND
TOTAL DEPTH: 200.0 ft			DRILL MACHINE: CME 45 C Track			DRILLER: D. Rhodes (MACTEC RAL)			HAMMER (ID): 140 lb. Auto (MEC 12)			
DATE STARTED: 1/21/09			COMPLETED: 1/24/09			CASING DEPTH: 4.0 ft			BITS USED: 2 7/8" Drag Bit			
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100	MOI	
-32.2					Continued from previous page							
-38.5	118.5	6	9	7						SS-25		POORLY GRADED SAND with silt (SP-SM), light gray (2.5Y 7/2) and yellow (2.5Y 7/6), very dense, wet, fine grained, few fines, strong HCl reaction, trace calcium carbonate nodules (continued)
-48.5	128.5	10	24	50/0.4						SS-26		FAT CLAY (CH), light brownish gray (2.5Y 6/2) mottled brownish yellow (10YR 6/6), very stiff, moist, few fine grained sand, no HCl reaction, trace calcium carbonate nodules, trace black staining
-58.5	138.5	18	25	20						SS-27		SANDY FAT CLAY (CH), pale yellow (2.5Y 7/3) mottled brownish yellow (10YR 6/6), hard, moist, some fine grained sand, strong HCl reaction
-68.5	148.5	6	8	17						SS-28		POORLY GRADED SAND with clay (SP-SC), light gray (10YR 7/2), dense, wet, fine grained, few fines, strong HCl reaction
-78.5	158.5	20	34	40						SS-29		FAT CLAY with sand (CH), pale yellow (2.5Y 7/3), very stiff, moist, little fine grained sand, weak HCl reaction, trace calcium carbonate nodules, 1-inch thick sand seam
												POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y 7/3), very dense, wet, fine grained, few fines, no HCl reaction

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



GEOTECHNICAL BORING LOG

Prepared By WBA Date 11-10-09Checked By PAA Date 11/10/09

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-3203		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT			0 HR.	ND					
GROUND SURFACE ELEV.: 80.8 ft (NAVD88)		NORTHING: 13,413,705		US ft (NAD83)		EASTING: 2,600,296 US ft (NAD83)		24 HR.	ND				
TOTAL DEPTH: 151.5 ft		DRILL MACHINE: CME 550 X		DRILLER: R. Landeros (MACTEC ATL)			HAMMER (ID): 140 lb. Auto (MEC 22)						
DATE STARTED: 1/26/09		COMPLETED: 1/28/09		CASING DEPTH: N/A			BITS USED: 2 15/16" Roller Cone Bit						
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION	
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			NO.
80.8					Ground Surface							80.8	0.0
80.8	0.0	2	4	5						SS-1		FAT CLAY (CH), dark gray (10YR 4/1), stiff, dry, few fine grained sand, no HCl reaction, trace organics	
78.3	2.5	7	9	9						SS-2		2.5 ft: grayish brown (10YR 5/2) and light gray (10YR 7/2), very stiff, weak HCl reaction on clay, few calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules	
75.8	5.0	5	6	8						SS-3		5.0 ft: light gray (2.5Y 7/2), stiff, moist	
73.3	7.5	4	8	10						SS-4		7.5 ft: very stiff, no HCl reaction on clay, brownish yellow staining	
70.8	10.0	7	9	13						SS-5		10.0 ft: mottled with yellow (2.5Y 7/6)	
69.3	11.5	7	13	16						SS-6		12.5 ft: mottled with pale yellow (2.5Y 8/2), trace calcium carbonate nodules	
61.3	19.5	2	5	6						SS-7		19.5 ft: brownish yellow (10YR 6/6), stiff, weak HCl reaction, no calcium carbonate nodules observed, trace black staining	
56.1	24.7	4	6	7						SS-8		24.7 ft: pale yellow (2.5Y 7/3), no HCl reaction on clay, few calcium carbonate nodules, HCl reaction strong on calcium carbonate nodules	
51.3	29.5	3	6	6						SS-9		29.5 ft: brownish yellow (10YR 6/6), moist, trace fine sand, trace calcium carbonate nodules	
46.3	34.5	4	5	8						SS-10		34.5 ft: and light gray (2.5Y 7/2), sand and calcium carbonate nodules not observed, no HCl reaction	
41.3	39.5	5	7	11						SS-11		39.5 ft: very stiff, few sand, no HCl reaction, calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules	
36.3	44.5	5	7	8						SS-12		44.5 ft: CLAYEY SAND (SC), light gray (2.5Y 7/2), firm, moist, fine grained, some fines, no HCl reaction on sand	
31.3	49.5	5	10	9						SS-13		49.5 ft: pale yellow (2.5Y 7/3), wet, no HCl reaction on sand, calcium carbonate nodules, strong HCl reaction on calcium carbonate nodules	
26.3	54.5	9	11	17						SS-14		54.5 ft: very firm, little fines, no HCl reaction, no calcium carbonate nodules observed	

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