



SHEET 4 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Osorio				
SITE DESCRIPTION Exelon COL Project				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)				
BORING NO. B-2256		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND				
GROUND SURFACE ELEV. 80.3 ft (NAVD88)		NORTHING 13,413,314		US ft (NAD83)		EASTING 2,600,403		US ft (NAD83)				
TOTAL DEPTH 200.0 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/B. Turner		HAMMER (ID) 140 lb. Auto (MEC 11)						
DATE STARTED 12/1/07		COMPLETED 12/2/07		CASING DEPTH: 2.0 ft				BITS USED: 3" 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			
-88.0					Continued from previous page							
-88.2	168.5	23	40	48						SS-30		POORLY GRADED SAND (SP), light gray (10YR7/2), very dense, moist, fine to medium grained, strong HCl reaction (continued)
-98.2	178.5	26	33	38						SS-31		
-108.2	188.5	10	15	24						SS-32		
-118.2	198.5	58	39	30						SS-33		
												188.5ft: dense
												199.5ft: very dense, pockets of clay
												Boring Terminated at Elevation -119.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.CDT 6/12/08



GEOTECHNICAL BORING LOG

Prepared By 2774 Date 6-12-07Checked By KAW Date 7-10-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST L. Bisson							
SITE DESCRIPTION Exelon COL Project (Victoria Site)					MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)							
BORING NO. B-2257		DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT					0 HR. ND							
GROUND SURFACE ELEV. 80.8 ft (NAVD88)		NORTHING 13,413,389			US ft (NAD83)		EASTING 2,600,467		US ft (NAD83)		24 HR. ND						
TOTAL DEPTH 151.4 ft		DRILL MACHINE CME-550			DRILLER: L. Carter/J. Landeros					HAMMER (ID) 140 lb. Auto (MEC 03)							
DATE STARTED 12/1/07		COMPLETED 12/1/07			CASING DEPTH: N/A					BITS USED: 2 15/16" 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							
80.8					Ground Surface												
80.8	0.0	WOH	WOH	2						SS-1		80.8	FAT CLAY (CH), very dark gray (2.5Y3/1), soft, moist, trace sand, no HCl reaction, trace organics				
77.3	3.5	5	6	9						SS-2			3.5ft: light brownish gray (2.5Y6/2), stiff, little sand, trace carbonate nodules, black nodules				
74.8	6.0	2	7	10						SS-3			6.0ft: light gray (2.5Y7/1 and 2.5Y7/2), very stiff, few sand, strong HCl reaction				
72.3	8.5	9	12	14						SS-4			8.5ft: mottled olive yellow (2.5Y6/8), few sand				
69.8	11.0	9	13	18						SS-5			11.0ft: yellowish brown (10YR5/6), to light brownish gray (2.5Y6/2), hard, little sand				
67.3	13.5	6	9	10						SS-6			13.5ft: brownish yellow (10YR6/6), to light greenish gray (10Y7/1), stiff to very stiff, trace sand				
60.9	19.9	4	4	7						SS-7			19.9ft: yellowish brown (10YR5/6), stiff, trace black and orange nodules				
55.9	24.9	5	9	11						SS-8			24.9ft: gray (2.5Y6/1), very stiff, few sand, interbedded sand lenses, weak to strong HCl reaction				
50.9	29.9	7	10	12						SS-9		50.9	POORLY GRADED SAND (SP), light brownish gray (10YR6/2), very firm, moist to wet, fine grained, trace fines, no HCl reaction, trace black and orange staining				
45.9	34.9	5	9	11						SS-10		45.9	FAT CLAY with sand (CH), light gray (2.5Y7/1), to light brownish gray (2.5Y6/2), very stiff, moist, little sand, no HCl reaction, trace black staining				
40.9	39.9	9	11	14						SS-11			39.9ft: few sand, no to weak HCl reaction, trace carbonate nodules				
35.9	44.9	6	7	10						SS-12			44.9ft: some sand				
30.9	49.9	6	6	7						SS-13			49.9ft: stiff				
25.9	54.9	7	7	9						SS-14		25.9	54.9				

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

EXELON COL BORE EXELON~2.GPJ EXELON COL.GDT 6/12/08



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST L. Bisson												
SITE DESCRIPTION Exelon COL Project (Victoria Site)										MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)							
BORING NO. B-2257					DRILL METHOD: Mud Rotary					SAMPLE METHODS: SPT					0 HR. ND							
GROUND SURFACE ELEV. 80.8 ft (NAVD88)					NORTHING 13,413,389 US ft (NAD83)					EASTING 2,600,467 US ft (NAD83)					24 HR. ND							
TOTAL DEPTH 151.4 ft					DRILL MACHINE CME-550					DRILLER: L. Carter/J. Landeros					HAMMER (ID) 140 lb. Auto (MEC 03)							
DATE STARTED 12/1/07					COMPLETED 12/1/07					CASING DEPTH: N/A					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												
-31.4					Continued from previous page																	
-39.1	119.9	24	12	23	35					SS-25		-39.1	119.9	POORLY GRADED SAND (SP), pale brown (10YR6/3), very dense, wet, fine to coarse grained, trace fines, strong HCl reaction, trace carbonate and chert nodules (continued)								
												-43.2	124.0	FAT CLAY (CH), light gray (5Y7/2), hard, moist, no sand, weak HCl reaction, trace carbonate nodules								
-49.1	129.9	12	24	40	64					SS-26				POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y7/3), very dense, wet, fine grained, few fines, strong HCl reaction								
-59.1	139.9	56/0.5			56/0.5					SS-27				139.9ft: pale brown (10YR6/3)								
-69.1	149.9	6	9	9	18					SS-28		-62.2	143.0	FAT CLAY (CH), light olive gray (5Y6/2), very stiff, moist, trace sand, strong HCl reaction, trace carbonate nodules								
																-70.6	151.4	Boring Terminated at Elevation -70.6 ft				

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



GEOTECHNICAL BORING LOG

Prepared By J. J. J. Date 6-12-08Checked By KAW Date 7-10-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST J. Moore					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2258		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND					
GROUND SURFACE ELEV. 80.8 ft (NAVD88)		NORTHING 13,413,516		US ft (NAD83)		EASTING 2,600,571		US ft (NAD83)					
TOTAL DEPTH 100.0 ft		DRILL MACHINE CME-550-X		DRILLER: R. Landaros/J. Landaros		HAMMER (ID) 140 lb. Auto (MEC 05)							
DATE STARTED 11/7/07		COMPLETED 11/7/07		CASING DEPTH: N/A		BITS USED: 2 15/16" Roller cone							
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			
80.8					Ground Surface							80.8	0.0
80.8	0.0	6	4	6	● 10					SS-1		FAT CLAY (CH), dark gray (5Y4/1), stiff, moist, few sand, no HCl reaction, roots at surface	
78.1	2.7	2	4	6	● 10					SS-2		2.7ft: little sand, weak HCl reaction	
74.8	6.0	4	10	9	● 19					SS-3		6.0ft: gray (10YR5/1), very stiff	
72.3	8.5	4	6	8	● 14					SS-4		8.5ft: pale brown (10YR6/3), stiff, few sand, strong HCl reaction	
69.8	11.0	4	12	15	● 27					SS-5		11.0ft: very pale brown (10YR7/3), very stiff	
67.3	13.5	11	17	19	● 35					SS-6		13.5ft: light brownish gray (10YR6/2), hard, carbonate nodules	
62.3	18.5	3	6	8	● 14					SS-7		18.5ft: pale brown (10YR7/3), stiff, black manganese oxide	
57.3	23.5	5	10	13	● 23					SS-8		23.5ft: pale brown (10YR6/3), very stiff, few carbonate inclusions	
52.3	28.5	6	7	9	● 16					SS-9		28.5ft: light brownish gray (10YR6/2), no HCl reaction	
47.3	33.5	5	8	10	● 18					SS-10		33.5ft: very pale brown (10YR7/3), weak HCl reaction	
42.3	38.5	4	7	7	● 14					SS-11		38.5ft: mottled black, stiff, few carbonate inclusions	
37.3	43.5	7	7	8	● 15					SS-12		37.3	43.5
32.3	48.5	7	8	8	● 16					SS-13		Clayey SAND (SC), very pale brown (10YR7/3), firm, moist, fine grained, few fines, no HCl reaction	
27.3	53.5	5	7	9	● 16					SS-14			

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 2 OF 2

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST J. Moore				
SITE DESCRIPTION Exelon COL Project (Victoria Site)						MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)		
BORING NO. B-2258		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT				0 HR.	ND	
GROUND SURFACE ELEV. 80.8 ft (NAVD88)		NORTHING 13,413,516		US ft (NAD83)		EASTING 2,600,571		US ft (NAD83)		24 HR.	ND	
TOTAL DEPTH 100.0 ft		DRILL MACHINE CME-550-X				DRILLER: R. Landaros/J. Landaros				HAMMER (ID) 140 lb. Auto (MEC 05)		
DATE STARTED 11/7/07		COMPLETED 11/7/07				CASING DEPTH: N/A				BITS USED: 2 15/16" Roller cone		
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	
24.6					Continued from previous page							
22.3	58.5											Clayey SAND (SC), very pale brown (10YR7/3), firm, moist, fine grained, few fines, no HCl reaction (continued)
		10	20	15						SS-15		58.5ft: light gray (10YR7/2), dense, weak HCl reaction
17.3	63.5	4	10	9						SS-16	17.3	FAT CLAY (CH), light gray (10YR7/2), very stiff, moist, weak HCl reaction
12.3	68.5	3	6	7						SS-17		68.5ft: light brownish gray (10YR6/2), stiff, weak HCl reaction
7.3	73.5	5	6	9						SS-18		73.5ft: light gray (10YR7/2), trace carbonate inclusions
2.3	78.5	5	5	9						SS-19		78.5ft: black 1/8"-diameter nodules
-2.8	83.5	10	19	22						SS-20	-2.8	POORLY GRADED SAND (SP), light brownish gray (10YR6/2), dense, moist, fine grained, no HCl reaction
-7.8	88.5	14	26	27						SS-21		88.5ft: very pale brown (10YR7/3), very dense, trace fines, no HCl reaction
-12.8	93.5	13	11	10						SS-23	-12.8	FAT CLAY (CH), light brownish gray (10YR6/2), mottled strong brown (7.5YR4/6), very stiff, moist, few carbonate inclusions, strong HCl reaction
-17.8	98.5	14	20	24						SS-24	-17.8	POORLY GRADED SAND (SP), very pale brown (10YR7/3), dense, moist, fine grained, no HCl reaction
											-19.3	Boring Terminated at Elevation -19.3 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



GEOTECHNICAL BORING LOG

Prepared By JPH Date 6-12-08Checked By KAW Date 7-10-08

SHEET 1 OF 4

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST A. Ososio							
SITE DESCRIPTION Exelon COL Project (Victoria Site)					MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)							
BORING NO. B-2259		DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT					0 HR. ND							
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,413,243			US ft (NAD83)		EASTING 2,600,433		US ft (NAD83)		24 HR. ND						
TOTAL DEPTH 210.0 ft		DRILL MACHINE CME-75			DRILLER: D. Nalls/R. Turner					HAMMER (ID) 140 lb. Auto (MEC 11)							
DATE STARTED 11/29/07		COMPLETED 11/30/07			CASING DEPTH: N/A					BITS USED: 3" Tricone							
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							
80.4					Ground Surface							80.4	0.0				
80.4	0.0	3	6	6	12					SS-1			FAT CLAY (CH), black (2.5/N), stiff, moist, trace sand, organics, grass, no HCl reaction				
76.9	3.5	3	2	3	5					SS-2			3.5ft: light brownish gray (10YR6/2), firm, carbonate nodules				
74.4	6.0	2	3	3	6					SS-3			6.0ft: greenish gray (10Y6/1), yellow brown stains, strong HCl reaction				
71.9	8.5	3	6	8	14					SS-4		71.9	8.5				
69.4	11.0	6	7	7	14					SS-5			LEAN CLAY with sand (CL), greenish gray (10Y6/1), mottled yellowish brown (10YR5/8), stiff, moist, little sand, strong HCl reaction, carbonate nodules				
66.9	13.5	5	5	8	13					SS-6		66.9	13.5				
					7					SS-7			FAT CLAY (CH), yellowish brown (10YR5/6), mottled greenish gray (10Y6/1), stiff, moist, trace sand, strong HCl reaction, carbonate nodules				
61.9	18.5	3	3	4	9					SS-8			18.5ft: firm				
56.9	23.5	3	3	6	14					SS-9			23.5ft: light yellowish brown (10YR6/4), stiff, weak HCl reaction				
51.9	28.5	5	6	8	25					SS-10A/B			28.5ft: greenish gray (10Y6/1), little sand, strong HCl reaction				
46.9	33.5	8	13	12	16					SS-11			33.5-34.0: very stiff, with interbedded layer of poorly graded sand, pale brown (10YR6/3), moist, no HCl reaction				
41.9	38.5	5	6	10	17					SS-12			38.5ft: mottled yellowish brown (10YR5/6), trace sand				
36.9	43.5	6	8	9	15					SS-13		36.9	43.5				
31.9	48.5	6	7	8	24					SS-14A/B			Silty SAND (SM), pale brown (10YR6/3), moist, firm, little fines, no reaction to HCl				
26.9	53.5	8	10	14								28.4	52.0				
												26.4	54.0				
													FAT CLAY (CH), greenish gray (10YR6/1), very stiff, moist, little sand, carbonate nodules, yellowish brown stains, weak HCl reaction				
													Silty SAND (SM), greenish gray (10Y6/1), very firm, moist, no HCl reaction, clay present				

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 2 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Ososio				
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)				
BORING NO. B-2259		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND		
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,413,243		US ft (NAD83)		EASTING 2,600,433		US ft (NAD83)		24 HR. ND		
TOTAL DEPTH 210.0 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/R. Turner				HAMMER (ID) 140 lb. Auto (MEC 11)				
DATE STARTED 11/29/07		COMPLETED 11/30/07		CASING DEPTH: N/A				BITS USED: 3" Tricone				
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	
24.2					Continued from previous page							
21.9	58.5											Silty SAND (SM), greenish gray (10Y6/1), very firm, moist, no HCl reaction, clay present (continued)
		10	15	21						SS-15		58.5ft: dense, weak HCl reaction
16.9	63.5											
		9	6	8						SS-16		16.9 FAT CLAY (CH), greenish gray (10Y6/1 and 10Y5/1), mottled yellowish brown (10YR5/6), stiff, moist, trace sand, carbonate nodules, black stains, no HCl reaction in clay
11.9	68.5											
		5	5	10						SS-17		68.5ft: mottled dark yellowish brown (10YR4/6)
6.8	73.5											
		5	9	12						SS-18		73.5ft: very stiff
1.8	78.5											
		3	6	8						SS-19		78.5ft: stiff, little sand
-3.2	83.5											
		9	10	11						SS-20		-2.7 POORLY GRADED SAND (SP), greenish gray (10Y6/1), very firm, moist, trace fines, no HCl reaction, yellowish brown staining
-8.2	88.5											
		18	16	19						SS-21A/B		-9.0 FAT CLAY (CH), greenish gray (10Y6/1), hard, moist, trace sand, carbonate nodules, no HCl reaction in clay
-13.2	93.5											
		12	21	21						SS-22		93.5ft: few sand, yellowish brown stains
-18.2	98.5											
		25	35	50/0.4						SS-23		-18.2 POORLY GRADED SAND (SP), very pale brown (10YR7/4), very dense, moist, fine grained, trace fines, strong HCl reaction, pockets of clay and carbonate materials
-28.2	108.5											
		27	25	47						SS-24		

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 3 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Ososio						
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)						
BORING NO. B-2259		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND						
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,413,243		US ft (NAD83)		EASTING 2,600,433		US ft (NAD83)						
TOTAL DEPTH 210.0 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/R. Turner		HAMMER (ID) 140 lb. Auto (MEC 11)								
DATE STARTED 11/29/07		COMPLETED 11/30/07		CASING DEPTH: N/A		BITS USED: 3" Tricone								
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				
-31.9					Continued from previous page									
-38.2	118.5	9	9	12	21						SS-25		POORLY GRADED SAND (SP), very pale brown (10YR7/4), very dense, moist, fine grained, trace fines, strong HCl reaction, pockets of clay and carbonate materials (continued)	
-48.2	128.5	11	17	25	42						SS-26		FAT CLAY (CH), greenish gray (10Y6/1), very stiff, moist, trace sand, carbonate nodules, no HCl reaction	
-58.2	138.5	21	26	24	50						SS-27		128.5ft: hard, some sand	
-68.2	148.5	8	11	13	24						SS-28		POORLY GRADED SAND (SP), pale brown (10YR6/3), dense, moist, fine grained, trace fines, strong HCl reaction, yellowish brown stains	
-78.2	158.5	24	32	40	72						SS-29		Sandy FAT CLAY (CH), light yellowish brown (10YR6/4), very stiff, moist, some sand, strong HCl reaction, carbonate nodules, 0.15'-thick layer of silty sand near 149.0ft	
													POORLY GRADED SAND (SP), light brownish gray (10YR6/2), very dense, wet, fine grained, trace fines, strong HCl reaction	

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 4 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Ososio			
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)			
BORING NO. B-2259		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND			
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,413,243		US ft (NAD83)		EASTING 2,600,433		US ft (NAD83)			
TOTAL DEPTH 210.0 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/R. Turner		HAMMER (ID) 140 lb. Auto (MEC 11)					
DATE STARTED 11/29/07		COMPLETED 11/30/07		CASING DEPTH: N/A		BITS USED: 3" Tricone					

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			
-88.0					Continued from previous page							
-88.2	168.5	30	38	40						SS-30		POORLY GRADED SAND (SP), light brownish gray (10YR6/2), very dense, wet, fine grained, trace fines, strong HCl reaction (continued) 168.5ft: fine to medium grained
-98.2	178.5	34	40	50/0.5						SS-31		178.5ft: light yellowish brown (10YR6/4), carbonate nodules
-108.2	188.5	29	50	50/0.4						SS-32		188.5ft: light gray (10YR7/2)
-118.2	198.5	63	97/0.4							SS-33		
-128.2	208.5	25	27	24						SS-34		208.5ft: light brownish gray (10YR6/2), trace clay layers
												Boring Terminated at Elevation -129.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



GEOTECHNICAL BORING LOG

Prepared By JPZ Date 6-12-08Checked By KAW Date 7-10-08

SHEET 1 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST J. Moore						
SITE DESCRIPTION Exelon COL Project (Victoria Site)						MACTEC PROJECT NO.: 6468-07-1777						GROUND WATER (ft)		
BORING NO. B-2260		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT						0 HR.	ND	
GROUND SURFACE ELEV. 80.7 ft (NAVD88)		NORTHING 13,412,946		US ft (NAD83)		EASTING 2,600,270		US ft (NAD83)		24 HR.	ND			
TOTAL DEPTH 198.9 ft		DRILL MACHINE CME-550-X				DRILLER: R. Landaros/J. Landaros				HAMMER (ID) 140 lb. Auto (MEC 05)				
DATE STARTED 11/9/07		COMPLETED 11/10/07				CASING DEPTH: N/A				BITS USED: 2 15/16" Roller Cone				
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				
80.7					Ground Surface								80.7	0.0
80.7	0.0	2	3	3	6						SS-1		FAT CLAY (CH), dark gray (5Y4/1), firm, moist, fine grained, trace carbonate nodules, strong HCl reaction, roots	
77.7	3.0	2	3	5	8						SS-2		3.0ft: gray (10YR6/1)	
75.7	5.0	2	4	4	8						SS-3		5.0ft: black organic streaking	
72.7	8.0	2	5	12	17						SS-4		72.7	
70.7	10.0	6	8	10	18						SS-5		LEAN CLAY (CL), light gray (10YR7/1), mottled with black organic streaks, very stiff, moist, trace sand, trace carbonate nodules, strong HCl reaction	
67.7	13.0	4	5	8	13						SS-6		10.0ft: mottled brown and black	
62.7	18.0	3	4	4	8						SS-7		67.7	
57.7	23.0	2	4	6	10						SS-8		FAT CLAY (CH), light yellowish brown (10YR6/4), mottled gray (10YR6/1), trace black organic streaks, stiff, moist, trace sand, strong HCl reaction, trace carbonate nodules	
52.7	28.0	9	10	10	28						SS-9		18.0ft: firm	
47.7	33.0	12	23	21	44						SS-10		23.0ft: light brownish gray (10YR6/2), stiff, mottled brown (7.5YR5/4), with black organic streaks	
42.7	38.0	6	6	8	14						SS-11		28.0ft: very pale brown (10YR8/3), very stiff, some carbonate gravel, little sand	
37.7	43.0	4	7	7	14						SS-12		47.7	
32.7	48.0	7	7	8	15						SS-13		Clayey SAND (SC), pale brown (10YR6/3), dense, moist, fine grained, little fines, no HCl reaction	
27.7	53.0	4	7	7	14						SS-14		42.7	
													FAT CLAY (CH), light gray (10YR7/2), mottled brown (7.5YR5/4), stiff, moist, trace white carbonate inclusions, weak HCl reaction	
													43.0ft: very pale brown (10YR7/3), little sand, no HCl reaction	
													48.0ft: light gray (10YR7/2)	
													53.0ft: few sand	

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 2 OF 4

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST J. Moore									
SITE DESCRIPTION Exelon CL Project (Victoria Site)										MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)				
BORING NO. B-2260					DRILL METHOD: Mud Rotary					SAMPLE METHODS: SPT					0 HR. ND				
GROUND SURFACE ELEV. 80.7 ft (NAVD88)					NORTHING 13,412,946 US ft (NAD83)					EASTING 2,600,270 US ft (NAD83)					24 HR. ND				
TOTAL DEPTH 198.9 ft					DRILL MACHINE CME-550-X					DRILLER: R. Landaros/J. Landaros					HAMMER (ID) 140 lb. Auto (MEC 05)				
DATE STARTED 11/9/07					COMPLETED 11/10/07					CASING DEPTH: N/A					BITS USED: 2 15/16" Roller Cone				
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.								
24.6					Continued from previous page														
22.7	58.0	8	9	9	18					SS-15			FAT CLAY (CH), light gray (10YR7/2), mottled brown (7.5YR5/4), stiff, moist, trace white carbonate inclusions, weak HCl reaction (continued) 58.0ft: light brownish gray (10YR6/2), very stiff, little fine sand						
17.7	63.0	6	8	10	18					SS-16			63.0ft: light gray (10YR7/2), mottled brown (7.5YR5/3), one 1"-diameter chert nodule at 64.2ft, strong HCl reaction						
12.7	68.0	6	7	8	15					SS-17			68.0ft: light olive gray (5YR6/2), mottled brown (7.5YR5/3), stiff, trace white carbonate nodules						
7.7	73.0	6	9	9	18					SS-18			73.0ft: very pale brown (10YR7/3), mottled dark brown (10YR3/3), with black organic streaks, very stiff						
2.7	78.0	6	9	9	18					SS-19			78.0ft: light brownish gray (10YR6/2), mottled yellow brown (10YR5/6), with black organic streaks						
-2.3	83.0	8	9	9	18					SS-20			83.0ft: light gray (5Y7/2), mottled yellow brown (10YR5/6), no HCl reaction in clay						
-7.3	88.0	8	13	14	27					SS-21									
-12.3	93.0	11	18	21	39					SS-22			LEAN CLAY with sand (CL), light brownish gray (10YR6/2), mottled white (7.5YR8/1), hard, moist, little sand, strong HCl reaction						
-17.3	98.0	16	34	41	75					SS-23			POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR7/3), very dense, moist, trace cemented carbonate gravels up to 3/8"-diameter, few fines, strong HCl reaction						
-27.3	108.0	8	24	21	45					SS-24			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR8/2), dense, moist, few fines, strong HCl reaction, one 1"-diameter gravel clast						

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 3 OF 4

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST J. Moore												
SITE DESCRIPTION Exelon COL Project (Victoria Site)										MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)							
BORING NO. B-2260			DRILL METHOD: Mud Rotary					SAMPLE METHODS: SPT					0 HR. ND									
GROUND SURFACE ELEV. 80.7 ft (NAVD88)			NORTHING 13,412,946		US ft (NAD83)		EASTING 2,600,270		US ft (NAD83)		24 HR. ND											
TOTAL DEPTH 198.9 ft			DRILL MACHINE CME-550-X					DRILLER: R. Landaros/J. Landaros					HAMMER (ID) 140 lb. Auto (MEC 05)									
DATE STARTED 11/9/07			COMPLETED 11/10/07					CASING DEPTH: N/A					BITS USED: 2 15/16" Roller Cone									
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												
-31.5					Continued from previous page																	
-37.3	118.0	6	10	11							SS-25		-37.3		118.0	POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR8/2), dense, moist, few fines, strong HCl reaction, one 1"-diameter gravel clast (continued)						
-47.3	128.0	30	50	50/0.0							SS-26		-47.3		128.0	FAT CLAY (CH), light gray (5Y7/2), mottled yellowish brown (10YR5/6), very stiff, moist, few carbonate nodules, strong HCl reaction, trace black organic streaks						
-57.3	138.0	21	35	29							SS-27		-57.3		138.0	POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, moist to wet, fine grained, trace fines, strong HCl reaction						
-67.3	148.0	50	50/0.3								SS-28											
-77.3	158.0	40	49	21							SS-29A/B		-78.5		158.0ft	light gray (10YR7/2), few fines						
-87.3	168.0												-87.3		168.0	FAT CLAY (CH), light gray (10YR7/2), hard, moist, trace carbonate nodules, strong HCl reaction						

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

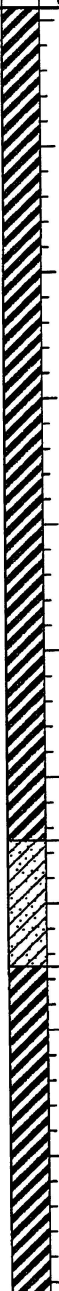
EXELON COL BORE EXELON~2.GPJ EXELON COL.GDT 6/12/08



GEOTECHNICAL BORING LOG

Prepared By ADD Date 6-12-08Checked By KAW Date 7-10-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST J. Moore							
SITE DESCRIPTION Exelon COL Project (Victoria Site)					MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)							
BORING NO. B-2261		DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT					0 HR. ND							
GROUND SURFACE ELEV. 80.5 ft (NAVD88)		NORTHING 13,413,030			US ft (NAD83)		EASTING 2,600,341		US ft (NAD83)		24 HR. ND						
TOTAL DEPTH 151.5 ft		DRILL MACHINE CME-550-X			DRILLER: R. Landaros/J. Landaros					HAMMER (ID) 140 lb. Auto (MEC 05)							
DATE STARTED 11/14/07		COMPLETED 11/14/07			CASING DEPTH: N/A					BITS USED: 2 15/16" Roller Cone							
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		
80.5	0.0	3	3	3	●6						SS-1			FAT CLAY (CH), black (5Y2.5/1), firm, moist, no HCl reaction, organics			
77.5	3.0	2	2	3	●5						SS-2			3.5ft: gray (5Y6/1), trace carbonate nodules, strong HCl reaction, trace roots			
75.5	5.0	2	3	4	●7						SS-3			6.0ft: light gray (5Y7/1), trace black organic streaks			
72.5	8.0	3	6	7	●13						SS-4			8.5ft: light gray (5Y7/2), mottled yellowish brown (10YR6/6), stiff			
70.5	10.0	4	6	9	●15						SS-5						
67.5	13.0	4	6	7	●13						SS-6			13.5ft: reddish yellow (7.5YR6/6), mottled light gray (10YR7/1), trace black organic streaks			
62.5	18.0	2	4	5	●9						SS-7			18.0ft: brownish yellow (10YR6/6), mottled light gray (10YR7/2)			
57.5	23.0	3	5	5	●10						SS-8			23.0ft: very pale brown (10YR7/4)			
52.5	28.0	4	9	7	●16						SS-9			28.0ft: light gray (10YR7/2), mottled reddish brown (5YR5/4), very stiff, some sand, weak HCl reaction			
47.5	33.0	9	10	11	●21						SS-10			47.5	33.0	Clayey SAND (SC), light gray (10YR7/2), very firm, moist, little fines, no HCl reaction	
42.5	38.0	5	6	9	●15						SS-11			42.5	38.0	FAT CLAY (CH), light gray (5Y7/2), mottled brownish yellow (10YR6/6), stiff, moist, trace carbonate inclusions, strong HCl reaction	
37.5	43.0	6	9	10	●19						SS-12			43.0ft: brownish yellow (10YR 6/6), mottled very pale brown (10YR7/3), very stiff, trace sand, trace black organic streaks			
32.5	48.0	6	8	9	●17						SS-13			48.0ft: mottled light gray (10YR7/2)			
27.5	53.0	10	17	17	●34						SS-14			29.5	51.0	Clayey SAND (SC), very pale brown (10YR8/2), mottled yellow brown (10YR5/6), dense, moist, strong HCl reaction, trace carbonate nodules	

EXELON COL BORE EXELON-2.GPJ EXELON COL.CDT 6/12/08



SHEET 2 OF 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST J. Moore						
SITE DESCRIPTION Exelon COL Project (Victoria Site)						MACTEC PROJECT NO.: 6468-07-1777						GROUND WATER (ft)		
BORING NO. B-2261		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT				0 HR. ND				
GROUND SURFACE ELEV. 80.5 ft (NAVD88)		NORTHING 13,413,030		US ft (NAD83)		EASTING 2,600,341		US ft (NAD83)		24 HR. ND				
TOTAL DEPTH 151.5 ft		DRILL MACHINE CME-550-X				DRILLER: R. Landaros/J. Landaros				HAMMER (ID) 140 lb. Auto (MEC 05)				
DATE STARTED 11/14/07		COMPLETED 11/14/07				CASING DEPTH: N/A				BITS USED: 2 15/16" Roller Cone				
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			
24.4					Continued from previous page									
22.5	58.0	9	18	29							SS-15	22.5	POORLY GRADED SAND (SP), very pale brown (10YR7/3), dense, wet, trace fines, no HCl reaction	58.0
														60.0
17.5	63.0	5	7	7							SS-16		FAT CLAY (CH), light gray (10YR7/2), mottled light yellowish brown (10YR6/4), stiff, moist, strong HCl reaction, trace manganese nodules, trace black organic streaks	
12.5	68.0	4	6	7							SS-17		68.0ft: light olive gray (5Y6/2), trace carbonate inclusions, strong HCl reaction, trace iron nodules	
7.5	73.0	5	7	11							SS-18		73.0ft: light gray (5Y7/2), mottled yellowish brown (10YR5/6), very stiff	
2.5	78.0	6	8	13							SS-19		78.0ft: light gray (10YR7/2), very stiff, little sand, no HCl reaction	
-2.5	83.0	8	11	11							SS-20	-2.5	POORLY GRADED SAND with silt (SP-SM), very pale brown (10YR7/4), very firm, wet, fine grained, few fines, no HCl reaction	83.0
												-4.0	Clayey SAND (SC), very pale brown (10YR7/3)	84.5
-7.5	88.0	11	14	13							SS-21	-7.5	FAT CLAY with sand (CH), light gray (5Y7/2), mottled very pale brown (10YR7/4), very stiff, moist, little fine sand, strong HCl reaction, thin zones of carbonate	88.0
-12.5	93.0	20	25	34							SS-22	-12.5	POORLY GRADED SAND with silt (SP-SM), yellow brown, (10YR5/6), very dense, wet, fine grained, few fines, strong HCl reaction, 0.2"-thick carbonate layers	93.0
												-14.5	POORLY GRADED SAND (SP), yellow (10YR7/6), very dense, moist, trace fines, strong HCl reaction	95.0
-17.5	98.0	50/0.4									SS-23			
-27.5	108.0	27	50	45							SS-24		108.0ft: very pale brown (10YR8/2), trace gravel	
												-30.5		111.0

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



GEOTECHNICAL BORING LOG

Prepared By J P74 Date 6-12-08Checked By KAW Date 7-10-08

SHEET 1 OF 4

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST A. Osorio														
SITE DESCRIPTION Exelon COL Project (Victoria Site)										MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)									
BORING NO. B-2262A					DRILL METHOD: Mud Rotary					SAMPLE METHODS: SPT					0 HR. ND									
GROUND SURFACE ELEV. 80.4 ft (NAVD88)					NORTHING 13,413,147					US ft (NAD83)					EASTING 2,600,442 US ft (NAD83)					24 HR. ND				
TOTAL DEPTH 200.0 ft					DRILL MACHINE CME-75					DRILLER: D. Nalls/B. Turner					HAMMER (ID) 140 lb. Auto (MEC 11)									
DATE STARTED 11/27/07					COMPLETED 11/28/07					CASING DEPTH: N/A					BITS USED: 3" Tricone									
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														
80.4					Ground Surface							80.4	0.0											
80.4	0.0	2	2	2	●4					SS-1		FAT CLAY (CH), very dark gray (N/3), soft, moist, trace sand, grass, no HCl reaction												
76.9	3.5	1	2	2	●4					SS-2		3.5ft: greenish gray (10Y6/1), trace carbonate nodules, strong HCl reaction												
74.4	6.0	2	2	4	●6					SS-3		6.0ft: firm, weak HCl reaction, trace yellowish brown stains												
71.9	8.5	4	5	7	●12					SS-4		8.5ft: mottled light yellowish brown (10YR6/4), stiff, strong HCl reaction												
69.4	11.0	3	5	7	●12					SS-5		11.0ft: brownish yellow (10YR6/6), mottled greenish gray (10YR6/1)												
66.9	13.5	4	7	7	●14					SS-6														
61.9	18.5	3	3	5	●8					SS-7		18.5ft: yellowish brown (10YR5/4), mottled greenish gray (10Y6/1), firm												
56.9	23.5	2	3	4	●7					SS-8														
51.9	28.5	8	12	11	●23					SS-9		51.9	28.5											
												Sandy LEAN CLAY (CL) greenish gray (10Y6/1), very stiff, moist, some sand, no HCl reaction												
46.9	33.5	7	9	12	●21					SS-10		33.5ft: few sand, strong HCl reaction												
41.9	38.5	6	9	10	●19					SS-11		38.5ft: yellowish brown (10YR5/8), little sand, weak HCl reaction												
36.9	43.5	4	5	8	●13					SS-12		36.9	43.5											
												FAT CLAY (CH), yellowish brown (10YR5/8), mottled greenish gray (10Y6/1), stiff, moist, few sand, strong HCl reaction, carbonate nodules												
31.9	48.5	4	5	7	●12					SS-13														
26.9	53.5	4	5	7	●12					SS-14														

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 2 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Osorio					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2262A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND			
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,413,147		US ft (NAD83)		EASTING 2,600,442		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 200.0 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/B. Turner				HAMMER (ID) 140 lb. Auto (MEC 11)					
DATE STARTED 11/27/07		COMPLETED 11/28/07		CASING DEPTH: N/A				BITS USED: 3" Tricone					
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		
24.3					Continued from previous page								
21.9	58.5												FAT CLAY (CH), yellowish brown (10YR5/8), mottled greenish gray (10Y6/1), stiff, moist, few sand, strong HCl reaction, carbonate nodules (continued)
		3	3	5							SS-15		58.5ft: greenish gray (10Y6/1), mottled yellowish brown (10YR5/6), firm, little sand, weak HCl reaction
16.9	63.5												
		5	6	9							SS-16		63.5ft: stiff
11.9	68.5										SS-17		68.5ft: no HCl reaction
		5	7	8									
6.9	73.5										SS-18		73.5ft: few sand, strong HCl reaction
		4	6	8									
1.9	78.5										SS-19		
		3	5	8									
-3.1	83.5										SS-20		83.5ft: stiff to very stiff, some sand
		4	5	5									
-8.1	88.5										SS-21		88.5ft: very stiff
		9	11	13									
-13.1	93.5										SS-22		93.5ft: hard
		17	28	27									
-18.1	98.5										SS-23		98.5ft: yellowish brown (10YR5/8), mottled greenish gray (5GY6/1), few sand
		17	16	21									
													</

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08

EXELON COL BORE EXELON~2.GPJ EXELON COL.GDT 6/12/08

EXELON COL BORE EXELON~2.GPJ EXELON COL.GDT 6/12/08



GEOTECHNICAL BORING LOG

Prepared By 272 Date 6-12-08Checked By KAW Date 7-10-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST L. Bisson					
SITE DESCRIPTION Exelon COL Project (Victoria Site)						MACTEC PROJECT NO.: 6468-07-1777						GROUND WATER (ft)	
BORING NO. B-2263		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT				0 HR. ND			
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,413,227		US ft (NAD83)		EASTING 2,600,507		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 151.1 ft		DRILL MACHINE CME-550				DRILLER: L. Carter/J. Landeros				HAMMER (ID) 140 lb. Auto (MEC 03)			
DATE STARTED 12/2/07		COMPLETED 12/3/07				CASING DEPTH: N/A				BITS USED: 2 15/16" 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		
80.4					Ground Surface							80.4	0.0
80.4	0.0	WOH	2	3	5								FAT CLAY (CH), black (10YR2/1), firm, moist, few sand, no HCl reaction, trace roots
76.9	3.5	11	11	9	20								3.5ft: gray (2.5Y5/1), very stiff, carbonate nodules
74.4	6.0	4	6	6	12								6.0ft: stiff, weak HCl reaction, black nodules
71.9	8.5	6	7	10	17								8.5ft: light gray (2.5Y7/1), mottled brownish yellow (10YR6/8), very stiff, strong HCl reaction
69.4	11.0	5	7	8	15								11.0ft: brownish yellow (10YR6/8), to light yellowish gray (10Y7/1), stiff, trace sand
66.9	13.5	6	6	7	13								13.5ft: brownish yellow (10YR6/8), to light greenish gray (10Y7/1), few sand, strong HCl reaction
60.8	19.6	3	4	6	10								19.6ft: yellowish brown (10YR5/8), trace sand, trace black veins
55.8	24.6	4	5	8	13								24.6ft: light olive gray (5Y6/2), few sand, weak HCl reaction
50.8	29.6	12	18	17	35								29.6ft: POORLY GRADED SAND with clay (SP-SC), light brownish gray (10YR6/2), dense, wet, fine grained, few fines, no HCl reaction
45.8	34.6	9	12	11	23								34.6ft: light gray (2.5Y7/2), very firm
40.8	39.6	5	7	10	17								39.6ft: FAT CLAY with sand (CH), greenish gray (10Y6/1), very stiff, moist, little sand, weak HCl reaction, trace carbonate nodules
35.8	44.6	6	6	8	14								44.6ft: light brownish gray (2.5Y6/2), stiff, some sand
30.8	49.6	6	8	8	16								49.6ft: Clayey SAND (SC), light yellowish brown (2.5Y6/3), firm to very firm, moist, fine grained, some fines, no HCl reaction
25.8	54.6	5	9	14	23								54.6ft: 0.8'-thick layer of fat clay, light olive gray (5Y6/2), few sand

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 2 OF 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST L. Bisson						
SITE DESCRIPTION Exelon COL Project (Victoria Site)						MACTEC PROJECT NO.: 6468-07-1777						GROUND WATER (ft)		
BORING NO. B-2263		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT				0 HR. ND				
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,413,227		US ft (NAD83)		EASTING 2,600,507		US ft (NAD83)		24 HR. ND				
TOTAL DEPTH 151.1 ft		DRILL MACHINE CME-550				DRILLER: L. Carter/J. Landeros				HAMMER (ID) 140 lb. Auto (MEC 03)				
DATE STARTED 12/2/07		COMPLETED 12/3/07				CASING DEPTH: N/A				BITS USED: 2 15/16" 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				
24.3					Continued from previous page									
20.8	59.6													55.4ft: light gray (10YR7/2), strong HCl reaction, trace carbonate nodules Clayey SAND (SC), light yellowish brown (2.5Y6/3), firm to very firm, moist, fine grained, some fines, no HCl reaction (continued)
		9	10	8							SS-15			
15.8	64.6													
		4	6	8							SS-16		15.8	64.6
														FAT CLAY (CH), greenish gray (10Y6/1 and 10YR5/1), to yellowish brown (10YR5/6), stiff, moist, trace sand, trace carbonate nodules, strong HCl reaction
10.8	69.6													
		5	5	7							SS-17			69.6ft: veined light greenish gray (10Y7/1), weak to no HCl reaction
5.8	74.6										SS-18			74.6ft: light brownish gray (2.5Y6/2), very stiff, few sand
		5	6	11										
0.8	79.6										SS-19			79.6ft: stiff
		4	6	7										
-4.2	84.6													
		5	12	16							SS-20		-4.2	84.6
														POORLY GRADED SAND with clay (SP-SC), gray (10YR6/1), very firm, wet, fine grained, few fines, no HCl reaction
-9.2	89.6													
		15	20	43							SS-21		-9.2	89.6
														FAT CLAY with sand (CH), light gray (5Y7/1), to white (5Y8/1), hard, moist, little sand, strong HCl reaction, little massive carbonate and carbonate nodules
-14.2	94.6													
		23	42	50/0.3							SS-22		-14.2	94.6
														POORLY GRADED SAND with clay (SP-SC), light brownish gray (2.5Y6/2), very dense, wet, fine grained, few fines, strong HCl reaction, trace carbonate nodules
-19.2	99.6													
		48	50/0.3								SS-23		-19.2	99.6
														POORLY GRADED SAND (SP), light brownish gray (10YR6/2), very dense, wet, fine grained, trace fines, strong HCl reaction, trace carbonate nodules
-29.2	109.6													
		16	18	15							SS-24			brownish yellow (10YR6/6), dense, fine to coarse grained, trace chert nodules

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST L. Bisson					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2263		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND					
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,413,227		US ft (NAD83)		EASTING 2,600,507		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 151.1 ft		DRILL MACHINE CME-550		DRILLER: L. Carter/J. Landeros		HAMMER (ID) 140 lb. Auto (MEC 03)							
DATE STARTED 12/2/07		COMPLETED 12/3/07		CASING DEPTH: N/A		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			
-31.8					Continued from previous page								
-39.2	119.6	9	14	17							SS-25		POORLY GRADED SAND (SP), light brownish gray (10YR6/2), very dense, wet, fine grained, trace fines, strong HCl reaction, trace carbonate nodules (continued)
-49.2	129.6	16	24	32							SS-26		FAT CLAY (CH), light gray (5Y7/2), hard, moist, trace sand, no HCl reaction, trace carbonate nodules
-59.2	139.6	23	23	22							SS-27		129.6ft: some sand, strong HCl reaction
-69.2	149.6	7	10	12							SS-28		POORLY GRADED SAND (SP-SC), pale brown (10YR6/3), dense, wet, fine grained, few fines, strong HCl reaction
-70.7													FAT CLAY (CH), greenish gray (10Y6/1), very stiff, moist, trace sand, no HCl reaction, trace carbonate nodules, trace organic staining
													Boring Terminated at Elevation -70.7 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



GEOTECHNICAL BORING LOG

Prepared By 2221 Date 6-12-08Checked By KAW Date 7-10-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST L. Bisson					
SITE DESCRIPTION Exelon COL Project						MACTEC PROJECT NO.: 6468-07-1777						GROUND WATER (ft)	
BORING NO. B-2264		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT				0 HR. ND			
GROUND SURFACE ELEV. 80.5 ft (NAVD88)		NORTHING 13,413,303		US ft (NAD83)		EASTING 2,600,569		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 151.0 ft		DRILL MACHINE CME-550				DRILLER: L. Carter/J. Landeros				HAMMER (ID) 140 lb. Auto (MEC 03)			
DATE STARTED 12/3/07		COMPLETED 12/4/07		CASING DEPTH: N/A				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			
80.5					Ground Surface								80.5
80.5	0.0	3	3	6							SS-1		
77.0	3.5	12	10	10							SS-2		3.5ft: very stiff
74.5	6.0	3	3	3							SS-3		6.0ft: light gray (2.5Y7/2), to black (2.5Y2.5/1), firm, few sand, strong to no HCl reaction, trace carbonate nodules
72.0	8.5	3	4	5							SS-4		8.5ft: gray (2.5Y6/1), stiff, strong HCl reaction
69.5	11.0	5	5	8							SS-5		11.0ft: light yellowish brown (2.5Y6/3), mottled olive yellow (2.5Y6/8)
67.0	13.5	4	5	7							SS-6		13.5ft: light greenish gray (10Y7/1), mottled strong brown (7.5YR5/6)
61.0	19.5	4	6	6							SS-7		19.5ft: trace sand
56.0	24.5	5	8	15							SS-8		24.5ft: CLAYEY SAND (SC), light gray (2.5Y7/2), very firm, wet, fine grained, some fines, no HCl reaction
51.0	29.5	4	4	10							SS-9		30.5ft: POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/2), firm, moist, fine grained, few fines, no HCl reaction
46.0	34.5	5	7	8							SS-10		34.5ft: light yellowish brown (2.5Y6/3)
41.0	39.5	6	9	10							SS-11		39.5ft: Sandy FAT CLAY (CH), light brownish gray (2.5Y6/2), very stiff, moist, some sand, no HCl reaction, trace carbonate nodules
36.0	44.5	5	8	7							SS-12		44.5ft: Clayey SAND (SC), light brownish gray (2.5Y6/2), firm, moist, fine grained, some fines, no HCl reaction, trace carbonate nodules
31.0	49.5	8	19	15							SS-13		46.0ft: Sandy FAT CLAY (CH), light olive gray (5Y6/2), hard, moist, some sand, strong HCl reaction, little carbonate nodules
26.0	54.5	4	7	8							SS-14		54.5ft: (no description)

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 2 OF 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST L. Bisson					
SITE DESCRIPTION Exelon COL Project				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2264		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND					
GROUND SURFACE ELEV. 80.5 ft (NAVD88)		NORTHING 13,413,303		US ft (NAD83)		EASTING 2,600,569		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 151.0 ft		DRILL MACHINE CME-550		DRILLER: L. Carter/J. Landeros				HAMMER (ID) 140 lb. Auto (MEC 03)					
DATE STARTED 12/3/07		COMPLETED 12/4/07		CASING DEPTH: N/A				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			
24.4					Continued from previous page								
													Clayey SAND (SC), light yellowish brown (2.5Y6/3), firm, wet, fine grained, some fines, weak HCl reaction, trace carbonate nodules (continued) 58.5
21.0	59.5	15	15	19							SS-15		POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/2), dense, wet, fine grained, few fines, no HCl reaction
16.0	64.5	5	6	8							SS-16		FAT CLAY (CH), mottled greenish gray (10Y6/1 and 10YR5/1), mottled, stiff, moist, trace sand, weak to strong HCl reaction, trace carbonate nodules 64.5
11.0	69.5	5	9	10							SS-17		69.5ft: very stiff
6.0	74.5	5	7	9							SS-18		74.5ft: light brownish gray (10YR6/2)
1.0	79.5	5	9	9							SS-19		79.5ft: light olive gray (5Y6/2), no HCl reaction, trace orange and black staining
-4.0	84.5	4	4	6							SS-20		84.5ft: light greenish gray (10Y7/1), stiff, some sand
-9.0	89.5	8	10	18							SS-21		89.5ft: very stiff, little sand, weak HCl reaction
-14.0	94.5	22	46	26							SS-22		Clayey SAND (SC), light gray (2.5Y7/2), very dense, moist, fine grained, some fines, strong HCl reaction, trace carbonate nodules and massive carbonate 93.0
-19.0	99.5	37	38	50							SS-23		POORLY GRADED SAND (SP-SC), light brownish gray (2.5Y6/2), very dense, wet, fine to coarse grained, few fines, strong HCl reaction 99.5
-29.0	109.5	25	30	39							SS-24		109.5ft: pale brown (10YR6/3), weak to strong HCl reaction

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST L. Bisson			
SITE DESCRIPTION Exelon COL Project				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)			
BORING NO. B-2264		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND			
GROUND SURFACE ELEV. 80.5 ft (NAVD88)		NORTHING 13,413,303		US ft (NAD83)		EASTING 2,600,569		US ft (NAD83)			
TOTAL DEPTH 151.0 ft		DRILL MACHINE CME-550		DRILLER: L. Carter/J. Landeros		HAMMER (ID) 140 lb. Auto (MEC 03)					
DATE STARTED 12/3/07		COMPLETED 12/4/07		CASING DEPTH: N/A		BITS USED: 2 15/16" 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			
-31.7					Continued from previous page								
-39.0	119.5	6	7	9							SS-25		POORLY GRADED SAND (SP-SC), light brownish gray (2.5Y6/2), very dense, wet, fine to coarse grained, few fines, strong HCl reaction (continued)
-49.0	129.5	9	16	18							SS-26		FAT CLAY (CH), light greenish gray (10Y7/1), very stiff, moist, trace sand, no HCl reaction, trace carbonate nodules
-59.0	139.5	26	25	26							SS-27		129.5ft: light gray (2.5Y7/1), hard, little sand, strong HCl reaction, trace orange staining
-69.0	149.5	5	6	9							SS-28		POORLY GRADED SAND with clay (SP-SC), light gray (2.5Y7/2), very dense, wet, fine grained, few fines, strong HCl reaction
													FAT CLAY (CH), light brownish gray (2.5Y6/2), stiff, moist, trace sand, strong HCl reaction, trace carbonate nodules
													Boring Terminated at Elevation -70.5 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



GEOTECHNICAL BORING LOG

Prepared By DPH Date 6-12-08Checked By KAW Date 7-10-08

SHEET 1 OF 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Osorio					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2265		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND			
GROUND SURFACE ELEV. 80.6 ft (NAVD88)		NORTHING 13,413,424		US ft (NAD83)		EASTING 2,600,677		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 154.0 ft		DRILL MACHINE CME-750		DRILLER: D. Nalls/B. Turner				HAMMER (ID) 140 lb. Auto (MEC 11)					
DATE STARTED 11/9/07		COMPLETED 11/11/07		CASING DEPTH: 4.0 ft				BITS USED: 3" 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		
80.6					Ground Surface							80.6	0.0
80.6	0.0	4	2	4						SS-1		LEAN CLAY (CL), black (2.5/N), firm, moist, fine to medium grained sand, no HCl reaction	
77.1	3.5	2	3	2						SS-2		77.1	3.5
74.6	6.0	1	3	5						SS-3		74.6	6.0
72.1	8.5	1	4	6						SS-4		72.1	8.5
69.6	11.0	1	2	6						SS-5		69.6	11.0
67.1	13.5	3	5	5						SS-6		67.1	13.5
62.1	18.5	2	3	3						SS-7		62.1	18.5
57.1	23.5	6	8	12						SS-8		57.1	23.5
52.1	28.5	8	8	10						SS-9		52.1	28.5
47.1	33.5	6	9	10						SS-10		47.1	33.5
42.1	38.5	4	6	9						SS-11		42.1	38.5
37.1	43.5	6	9	10						SS-12		37.1	43.5
32.1	48.5	4	5	6						SS-13		32.1	48.5
27.1	53.5	6	9	10						SS-14		27.1	53.5
												18.5ft: light yellowish brown (10YR6/4), mottled light greenish gray (10Y7/1), firm, weak reaction to HCl	
												LEAN CLAY with sand (CL), greenish gray (5GY6/1), very stiff, moist, fine to medium grained sand, no HCl reaction	
												Sandy LEAN CLAY (CL), greenish gray (5GY6/1), mottled yellowish brown (10YR5/8), very stiff, moist, fine to medium grained sand, not HCl reaction	
												33.5ft: mottled light yellowish brown (10YR6/4), carbonate nodules, strong HCl reaction	
												FAT CLAY (CH), greenish gray (5GY6/1), stiff, moist, fine to medium sand, carbonate nodules, strong HCl reaction	
												Clayey SAND (SC), gray (10YR6/1), mottled brownish yellow (10YR6/6), firm, moist, fine to coarse grained sand, fine gravel, no HCl reaction	
												53.5ft: mottled brownish yellow (10YR6/4), carbonate nodules, strong HCl reaction	

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Osorio					
SITE DESCRIPTION Exelon COL Project (Victoria Site)								MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)	
BORING NO. B-2265		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT				0 HR. ND			
GROUND SURFACE ELEV. 80.6 ft (NAVD88)		NORTHING 13,413,424		US ft (NAD83)		EASTING 2,600,677		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 154.0 ft		DRILL MACHINE CME-750				DRILLER: D. Nalls/B. Turner				HAMMER (ID) 140 lb. Auto (MEC 11)			
DATE STARTED 11/9/07		COMPLETED 11/11/07		CASING DEPTH: 4.0 ft				BITS USED: 3" 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			
-31.6					Continued from previous page								
-37.9	118.5	5	9	17	●26					SS-25		-37.9 FAT CLAY (CH), light greenish gray (10Y7/1), mottled yellowish brown (10YR5/4), very stiff, moist, fine to medium grained sand, trace carbonate and magnesium nodules, strong HCl reaction 118.5	
-47.9	128.5	13	15	20	●35					SS-26		-47.9 LEAN CLAY (CL), light greenish gray (10Y7/1), mottled yellowish brown (10YR5/4), hard, moist, fine to medium grained sand, carbonate nodules, strong HCl reaction 128.5	
-57.9	138.5	13	19	43	●62					SS-27		-57.9 Clayey SAND (SC), light gray (10YR7/2), very dense, moist, fine to medium sand, clay layers 139.0-139.8ft, strong HCl reaction (visual) 138.5	
-67.9	148.5	5	7	8	●15					SS-28		-67.9 Silty SAND (SM), light gray (10YR7/2), firm to dense, moist, fine to medium sand (visual) 148.5	
-71.9	152.5	12	16	23	●39					SS-29		-73.4 Boring Terminated at Elevation -73.4 ft 154.0	

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/12/08