



GEOTECHNICAL BORING LOG

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

SHEET 1 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST B. Taylor					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2159		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND					
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,412,477		US ft (NAD83)		EASTING 2,599,789		US ft (NAD83)					
TOTAL DEPTH 211.5 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson		HAMMER (ID) 140 lb. Auto (263048)							
DATE STARTED 12/1/07		COMPLETED 12/3/07		CASING DEPTH: N/A		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			
80.4					Ground Surface								
80.4	0.0	3	4	5	9						SS-1		FAT CLAY (CH), very dark gray (10YR3/1), stiff, moist, few sand, no HCl reaction, roots
76.9	3.5	3	4	5	9						SS-2		3.5ft: dark gray (10YR4/1)
74.4	6.0	4	6	6	12						SS-3		LEAN CLAY with sand (CH), gray (10YR6/1), stiff, moist, little sand, weak HCl reaction
71.9	8.5	4	4	4	8						SS-4		8.5ft: firm, strong HCl reaction, carbonate nodules
69.4	11.0	4	6	5	11						SS-5		11.0ft: light gray (10YR7/1), stiff, little sand
66.9	13.5	4	7	7	14						SS-6		13.5ft: gray (10YR6/1), black staining, few sand
60.4	20.0	4	5	5	10						SS-7		FAT CLAY (CH), light gray (10YR7/1), mottled brownish yellow (10YR6/6), stiff, moist, few sand, strong HCl reaction
55.4	25.0	4	4	6	10						SS-8		25.0ft: brownish yellow (10YR6/6)
50.4	30.0	4	5	7	12						SS-9		
45.4	35.0	5	7	7	14						SS-10		
40.4	40.0	4	5	6	11						SS-11		
35.4	45.0	5	7	9	16						SS-12		45.0ft: very stiff, yellow (10YR7/6), trace sand
30.4	50.0	7	7	14	21						SS-13		50.0ft: gray (10YR6/1), no HCl reaction
25.4	55.0	5	9	14	23						SS-14		55.0ft: little sand

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



SHEET 2 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST B. Taylor					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2159		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND			
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,412,477		US ft (NAD83)		EASTING 2,599,789		US ft (NAD83)		24 HR.		ND	
TOTAL DEPTH 211.5 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson				HAMMER (ID) 140 lb. Auto (263048)					
DATE STARTED 12/1/07		COMPLETED 12/3/07		CASING DEPTH: N/A				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.
24.3					Continued from previous page								
20.4	60.0										SS-15		FAT CLAY (CH), light gray (10YR7/1), mottled brownish yellow (10YR6/6), stiff, moist, few sand, strong HCl reaction (continued)
		5	5	8									60.0ft: stiff
15.4	65.0										SS-16		65.0ft: very stiff, few sand, weak HCl reaction
		5	10	11									
10.4	70.0										SS-17		10.4ft: Clayey SAND (SC), gray (10YR6/1), very firm, moist, little fines, no HCl reaction, carbonate nodules
		19	17	13									
5.4	75.0										SS-18		5.4ft: FAT CLAY (CH), light gray (10YR7/1), very stiff, moist, few sand, weak HCl reaction, carbonate nodules
		6	8	9									
0.4	80.0										SS-19		80.0ft: gray (10YR6/1), no HCl reaction, some sand
		6	7	10									
-4.6	85.0										SS-20		85.0ft: hard, little sand, strong HCl reaction, some carbonate nodules
		16	46	45									
-9.6	90.0										SS-21		90.0ft: brownish yellow (10YR6/6), mottled light gray (10YR7/1), stiff, few sand
		5	5	7									
-14.6	95.0										SS-22		-14.6ft: Clayey SAND (SC), light brownish gray (10YR6/2), dense, moist, little fines, no HCl reaction, trace carbonate nodules, increasing sand content with depth
		7	14	21									
-19.6	100.0										SS-23		100.0ft: brownish yellow (10YR6/6), very dense, ferrous staining, strong HCl reaction
		20	19	40									
-29.6	110.0										SS-24		-29.6ft: FAT CLAY (CH), light gray (10YR7/1), mottled yellow (10YR7/6), very stiff, moist, few sand, strong HCl reaction
		6	7	10									

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



SHEET 3 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST B. Taylor				
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)				
BORING NO. B-2159		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND		
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,412,477		US ft (NAD83)		EASTING 2,599,789		US ft (NAD83)				
TOTAL DEPTH 211.5 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson				HAMMER (ID) 140 lb. Auto (263048)				
DATE STARTED 12/1/07		COMPLETED 12/3/07		CASING DEPTH: N/A				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			
-31.8					Continued from previous page							
-39.6	120.0	7	8	10	●18					SS-25		FAT CLAY (CH), light gray (10YR7/1), mottled yellow (10YR7/6), very stiff, moist, few sand, strong HCl reaction (continued)
-49.6	130.0	17	19	22	●41					SS-26		120.0ft: no HCl reaction
-59.6	140.0	7	9	8	●17					SS-27		Clayey SAND (SC), light gray (10YR7/1), dense, moist, fine grained, little fines, strong HCl reaction
-69.6	150.0	6	9	17	●26					SS-28		FAT CLAY (CH), light gray (10YR7/1) very stiff, moist, few sand, strong HCl reaction
-79.6	160.0	16	21	22	●43					SS-29		Clayey SAND (SC), gray (10YR6/1), very firm, moist, fine grained, little clay, no HCl reaction
												FAT CLAY with sand (CH), gray (10YR6/1), hard, moist, little sand, strong HCl reaction, trace carbonate nodules

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



SHEET 4 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST B. Taylor							
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)							
BORING NO. B-2159		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND					
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,412,477		US ft (NAD83)		EASTING 2,599,789		US ft (NAD83)		24 HR.					
TOTAL DEPTH 211.5 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson				HAMMER (ID) 140 lb. Auto (263048)							
DATE STARTED 12/1/07		COMPLETED 12/3/07		CASING DEPTH: N/A				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					
-87.9					Continued from previous page										
-89.6	170.0	31	15	27	42						SS-30		-89.6	170.0	Clayey SAND (SC), light gray (10YR7/1), dense, moist, fine grained, little clay, no HCl reaction
-99.6	180.0	32	23	25	48						SS-31		-99.6	180.0	POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/1), dense, moist, fine to medium grained, few fines, strong HCl reaction
-109.6	190.0	46	50/0.3		96/0.8						SS-32		-109.6	190.0	Clayey SAND (SC), light gray (10YR7/1), very dense, moist, fine grained, little fines, no HCl reaction
-119.6	200.0	38	50/0.2		88/0.7						SS-33				200.0ft: strong HCl reaction
-129.6	210.0	35	50/0.2		85/0.7						SS-34		-131.1	211.5	Boring Terminated at Elevation -131.1 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 C. Gandy					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2160		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND			
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,412,181		US ft (NAD83)		EASTING 2,599,627		US ft (NAD83)					
TOTAL DEPTH 200.0 ft		DRILL MACHINE CME-55 LC		DRILLER: D. White/O. Smith				HAMMER (ID) 140 lb. Auto (MEC 02)					
DATE STARTED 11/11/07		COMPLETED 11/12/07		CASING DEPTH: N/A				BITS USED: 2 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			
80.4					Ground Surface							80.4	0.0
80.4	0.0	3	2	3	● 5					SS-1		Sandy FAT CLAY (CH), dark gray (7.5YR4/1), firm, moist, fine to medium grained sand, no HCl reaction, organics	
76.9	3.5	1	2	1	● 3					SS-2		FAT CLAY with sand (CH) gray (10YR6/1), soft, carbonate nodules, weak HCl reaction, thinly laminated, organics	3.5
74.4	6.0	3	4	6	● 18					SS-3		LEAN CLAY with sand (CL), very pale brown (10YR7/3), stiff, moist, fine to coarse grained sand, carbonate nodules, organics, strong HCl reaction	6.0
71.9	8.5	5	5	6	● 11					SS-4		8.5ft: light gray (10YR7/2), stiff, moist, little fine sand, organics	
69.4	11.0	7	9	12	● 21					SS-5		Sandy LEAN CLAY (CL), very pale brown (10YR8/3), very stiff, moist, fine to medium grained sand	11.0
66.9	13.5	6	5	7	● 12					SS-6		13.5ft: stiff, fine to coarse grained sand, organics	
61.9	18.5	4	5	7	● 12					SS-7		FAT CLAY (CH), mottled brownish yellow (10YR6/8), stiff, fine to medium grained sand, trace iron nodules	18.5
56.9	23.5	4	5	6	● 11					SS-8		23.5 ft: brownish yellow (10YR6/6), mottled with very pale brown (10YR8/2), organics	
51.9	28.5	4	6	9	● 15					SS-9		28.5 ft: mottled light gray (10YR7/2), trace carbonate nodules	
46.9	33.5	5	6	8	● 14					SS-10		33.5 ft: mottled light greenish gray (10Y7/1), organics	
41.9	38.5	4	5	7	● 12					SS-11		38.5 ft: yellow (10YR7/8), weak HCl reaction	
36.9	43.5	5	5	12	● 17					SS-12		43.5ft: brownish yellow (10YR6/6), trace mottling, very stiff, moist, organics	
31.9	48.5	5	7	10	● 17					SS-13		FAT CLAY with sand (CH), very pale brown (10YR7/4), very stiff, moist, fine to coarse grained sand, fine gravel	48.5
26.9	53.5	5	7	12	● 19					SS-14		53.5ft: fine to medium grained sand, organics	

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



SHEET 2 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST C. Gandy					
SITE DESCRIPTION Exelon COL Project (Victoria Site)						MACTEC PROJECT NO.: 6468-07-1777						GROUND WATER (ft)	
BORING NO. B-2160		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT						0 HR. ND	
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,412,181		US ft (NAD83)		EASTING 2,599,627		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 200.0 ft		DRILL MACHINE CME-55 LC				DRILLER: D. White/O. Smith				HAMMER (ID) 140 lb. Auto (MEC 02)			
DATE STARTED 11/11/07		COMPLETED 11/12/07		CASING DEPTH: N/A				BITS USED: 2 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
24.3					Continued from previous page								
21.9	58.5									SS-15		FAT CLAY with sand (CH), very pale brown (10YR7/4), very stiff, moist, fine to coarse grained sand, fine gravel (continued) 58.5ft: fine to coarse grained sand	
		9	11	18									
16.9	63.5									SS-16		63.5ft: organics	
		5	7	9									
11.9	68.5									SS-17		11.9 Silty SAND (SM), very pale brown (10YR8/3), very firm, wet, fine to medium grained sand, no HCl reaction	
		10	14	16									
6.9	73.5									SS-18		6.9 Sandy FAT CLAY (CH), very pale brown (10YR8/3), stiff, moist, fine to medium grained sand, no HCl reaction	
		4	4	8									
1.9	78.5									SS-19		1.9 Clayey SAND (SC), very pale brown (10YR8/3), very dense, moist, fine to coarse grained sand, no HCl reaction, carbonate nodules	
		6	9	50/0.3									
-3.1	83.5									SS-20		-3.1 LEAN CLAY with sand (CL), very pale brown (10YR7/3), hard, moist, fine to coarse grained sand, fine gravel, strong HCl reaction, carbonate nodules	
		12	19	18									
-8.1	88.5									SS-21		-8.1 LEAN CLAY with sand (CL), very pale brown (10YR7/3), mottled with brownish yellow (10YR6/6), hard, moist, fine to medium grained sand	
		12	35	50/0.3									
-13.1	93.5									SS-22		-13.1 POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3), dense, moist, fine to medium grained sand, no HCl reaction (visual)	
		14	18	21									
-18.1	98.5									SS-23		-18.1 Clayey SAND (SC), very pale brown (10YR8/2), very dense, moist, fine to medium grained sand, strong HCl reaction, carbonate nodules	
		39	50/0.4										
-28.1	108.5									SS-24		-28.1 FAT CLAY (CH), very pale brown (10YR8/3), mottled brownish yellow (10YR6/8), stiff, moist, fine to medium grained sand, strong HCl reaction, carbonate nodules, organics	
		6	6	9									

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



SHEET 3 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST C. Gandy					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2160		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND			
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,412,181		US ft (NAD83)		EASTING 2,599,627		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 200.0 ft		DRILL MACHINE CME-55 LC		DRILLER: D. White/O. Smith				HAMMER (ID) 140 lb. Auto (MEC 02)					
DATE STARTED 11/11/07		COMPLETED 11/12/07		CASING DEPTH: N/A				BITS USED: 2 7/8" Wing 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				
-31.8					Continued from previous page								
-38.1	118.5	4	6	7						SS-25			FAT CLAY (CH), very pale brown (10YR8/3), mottled brownish yellow (10YR6/8), stiff, moist, fine to medium grained sand, strong HCl reaction, carbonate nodules, organics (continued)
-48.1	128.5	14	19	32						SS-26			Sandy FAT CLAY (CH), very pale brown (10YR8/3), trace mottling, stiff, moist, fine to medium grained sand, weak HCl reaction, trace carbonate nodules
-58.1	138.5	18	25	25						SS-27			POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR8/2), very dense, moist, fine to coarse grained sand, no HCl reaction (visual)
-68.1	148.5	10	13	18						SS-28			138.5 ft: dense, wet, strong HCl reaction
-78.1	158.5	18	14	13						SS-29			Sandy LEAN CLAY (CL), very pale brown (10YR7/3), mottled with brownish yellow (10YR6/8), hard, moist, fine to medium grained sand, weak HCl reaction, carbonate nodules, organics
													FAT CLAY (CH), very pale brown (10YR7/3), mottled yellow (10YR7/8), very stiff, moist, fine to medium grained sand, 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 C. Gandy			
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)			
BORING NO. B-2160		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND	
GROUND SURFACE ELEV. 80.4 ft (NAVD88)		NORTHING 13,412,181		US ft (NAD83)		EASTING 2,599,627		US ft (NAD83)			
TOTAL DEPTH 200.0 ft		DRILL MACHINE CME-55 LC		DRILLER: D. White/O. Smith				HAMMER (ID) 140 lb. Auto (MEC 02)			
DATE STARTED 11/11/07		COMPLETED 11/12/07		CASING DEPTH: N/A				BITS USED: 2 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			
-87.9					Continued from previous page								
-88.1	168.5	25	27	26	53						SS-30		-88.1 POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3), very dense, wet, fine to coarse grained sand, fine gravel, strong HCl reaction, trace carbonate nodules (visual) 168.5
-98.1	178.5	47	50	39	89						SS-31		
-108.1	188.5	50/0.1			50/0.1						SS-32		188.5 ft: no recovery
-113.1	193.5	48	50/0.2		98/0.7						SS-33		-111.6 Silty SAND (SM), very pale brown (10YR8/3), very dense, wet, fine to coarse grained sand, fine gravel, strong HCl reaction 192.0
-118.1	198.5	17	8	11	19						SS-34		-118.1 Clayey SAND (SC), very pale brown (10YR8/3), firm, wet, fine to coarse grained sand, strong HCl reaction, 0.05'-thick clay seam (visual) 198.5 -119.6 Boring Terminated at Elevation -119.6 ft 200.0

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 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST C. Gandy					
SITE DESCRIPTION Exelon COL Project				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2161		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND					
GROUND SURFACE ELEV. 80.5 ft (NAVD88)		NORTHING 13,412,263		US ft (NAD83)		EASTING 2,599,698		US ft (NAD83)					
TOTAL DEPTH 150.0 ft		DRILL MACHINE CME-55 LC		DRILLER: D. White/O. Smith		HAMMER (ID) 140 lb. Auto (MEC 02)							
DATE STARTED 12/5/07		COMPLETED 12/6/07		CASING DEPTH: N/A		BITS USED: 2 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	MOI		
80.5	0.0	2	1	2	Ground Surface					SS-1		80.5	0.0
77.0	3.5	2	3	5						SS-2			
74.5	6.0	4	4	7						SS-3		74.5	6.0
72.0	8.5	5	7	8						SS-4			
69.5	11.0	5	5	7						SS-5			
67.0	13.5	5	6	7						SS-6			
62.0	18.5	5	5	7						SS-7			
57.0	23.5	6	6	7						SS-8		57.0	23.5
52.0	28.5	4	5	7						SS-9			
47.0	33.5	6	5	9						SS-10			
42.0	38.5	5	5	8						SS-11			
37.0	43.5	4	5	8						SS-12			
32.0	48.5	5	6	9						SS-13		32.0	48.5
27.0	53.5	9	8	11						SS-14		28.5	52.0

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



SHEET 2 OF 3

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST C. Gandy					
SITE DESCRIPTION Exelon COL Project					MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)					
BORING NO. B-2161		DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT					0 HR. ND					
GROUND SURFACE ELEV. 80.5 ft (NAVD88)		NORTHING 13,412,263			US ft (NAD83)		EASTING 2,599,698			US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 150.0 ft		DRILL MACHINE CME-55 LC			DRILLER: D. White/O. Smith					HAMMER (ID) 140 lb. Auto (MEC 02)					
DATE STARTED 12/5/07		COMPLETED 12/6/07			CASING DEPTH: N/A					BITS USED: 2 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		
24.4					Continued from previous page										
22.0	58.5											23.0	FAT CLAY with sand (CH), yellow (10YR7/8), very stiff, moist, little sand, strong HCl reaction, interbedded clayey sand layers, trace carbonate nodules	57.5	
		8	11	11						SS-15					
17.0	63.5												63.5ft: very pale brown (10YR7/3)		
		7	10	14						SS-16					
12.0	68.5												13.0	Silty SAND (SM) light gray (10YR7/2), firm, moist, fine grained, some fines, weak HCl reaction	67.5
		7	7	10						SS-17					
7.0	73.5												73.5ft: very pale brown (10YR7/3), little fines		
		8	11	11						SS-18			6.4	Sandy FAT CLAY (CH), very pale brown (10YR7/3), very stiff, moist, some sand, no HCl reaction	74.1
2.0	78.5												2.0	Clayey SAND (SC), light gray (10YR7/2), firm, moist to wet, little fines, no HCl reaction	78.5
		8	7	7						SS-19					
-3.0	83.5												83.5ft: pale yellow (5Y8/2), very firm, some fines, strong HCl reaction, little carbonate nodules		
		19	10	13						SS-20					
-8.0	88.5												88.5ft: pinkish white (7.5YR8/2), very dense, little to some fines		
		30	46	50/0.5						SS-21			-11.5	POORLY GRADED SAND (SP), very pale brown (10YR8/4), very dense, wet, medium to coarse grained, trace fines, strong HCl reaction, trace gravel	92.0
-13.0	93.5														
		27	37	45						SS-22					
-18.0	98.5												98.5ft: yellow (2.5Y7/6), fine to coarse grained, carbonate nodules, 0.1'-thick clay and gravel seam		
		50/0.4								SS-23					
													-24.5	Clayey SAND (SC), pinkish white (7.5YR8/2), firm, wet, fine to medium grained, some fines, strong HCl reaction, trace gravel, carbonate nodules	105.0
-28.0	108.5														
		11	8	7						SS-24			-28.5	FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), stiff, moist, strong HCl reaction, carbonate nodules, ferrous staining	109.0

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



SHEET 3 OF 3

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST C. Gandy				
SITE DESCRIPTION Exelon COL Project				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)				
BORING NO. B-2161		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND		
GROUND SURFACE ELEV. 80.5 ft (NAVD88)		NORTHING 13,412,263		US ft (NAD83)		EASTING 2,599,698		US ft (NAD83)		24 HR. ND		
TOTAL DEPTH 150.0 ft		DRILL MACHINE CME-55 LC		DRILLER: D. White/O. Smith				HAMMER (ID) 140 lb. Auto (MEC 02)				
DATE STARTED 12/5/07		COMPLETED 12/6/07		CASING DEPTH: N/A				BITS USED: 2 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	MOI	
-31.7					Continued from previous page							
-38.0	118.5	8	11	12	●23					SS-25		FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), stiff, moist, strong HCl reaction, carbonate nodules, ferrous staining (continued)
-48.0	128.5	12	15	15	●30					SS-26		Sandy FAT CLAY (CH), light gray (10YR7/2), very stiff, moist, little sand, weak HCl reaction, carbonate nodules, ferrous staining, organics
-58.0	138.5	17	24	37	●61					SS-27		Clayey SAND (SC), light gray (10YR7/2), very firm, wet, fine to medium grained, little fines, no HCl reaction
-68.0	148.5	31	26	18	●44					SS-28		POORLY GRADED SAND (SP) light gray (10YR7/2), to very pale brown (10YR7/3), very dense, wet, fine grained, trace fines, no HCl reaction
												Clayey SAND (SC) very pale brown (10YR8/2), dense, moist, fine grained, little to some fines, strong HCl reaction, ferrous staining
												Boring Terminated at Elevation -69.5 ft

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



GEOTECHNICAL BORING LOG

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

SHEET 1 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST B. Taylor					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2162A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND					
GROUND SURFACE ELEV. 80.2 ft (NAVD88)		NORTHING 13,412,386		US ft (NAD83)		EASTING 2,599,799		US ft (NAD83)					
TOTAL DEPTH 202.8 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson		HAMMER (ID) 140 lb. Auto (263048)							
DATE STARTED 11/24/07		COMPLETED 11/29/07		CASING DEPTH: N/A		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			
80.2					Ground Surface								
80.2	0.0	3	4	4	● 8					SS-1		FAT CLAY (CH), black (10YR2/1), firm, moist, few sand, roots, weak HCl reaction	0.0
76.7	3.5	3	5	6	● 11					SS-2		3.5ft: dark gray (10YR4/1), stiff	
74.2	6.0	3	6	7	● 13					SS-3		LEAN CLAY with sand (CL), light gray (10YR7/1), stiff, little sand, strong HCl reaction, ferrous nodules	6.0
71.7	8.5	5	8	10	● 18					SS-4		8.5ft: mottled yellow (10YR7/8), very stiff, few sand	
69.2	11.0	7	11	12	● 23					SS-5		11.0ft: gray (10YR6/1), little sand	
66.9	13.3	6	10	9	● 19					SS-6		FAT CLAY (CH) light gray (10YR7/1), stiff to very stiff, moist, few sand, weak HCl reaction, slickensides	13.3
58.9	21.3	6	8	9	● 17					SS-7			
53.9	26.3	5	6	7	● 13					SS-8			
48.9	31.3	5	7	9	● 16					SS-9		31.3ft: mottled brownish yellow (10YR6/6)	
43.9	36.3	5	7	8	● 15					SS-10		36.3ft: brownish yellow (10YR6/6), mottled light gray (10YR7/1)	
38.9	41.3	4	5	11	● 16					SS-11			
33.9	46.3	9	13	18	● 31					SS-12		46.3ft: hard, little sand, trace carbonate nodules	
28.9	51.3	11	14	12	● 26					SS-13		LEAN CLAY (CL), yellow brown (10YR5/4), very stiff, moist, some sand, strong HCl reaction, 0.5'-thick interbedded layer of clayey sand at 51.3' and 56.3'	51.3

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



SHEET 2 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST B. Taylor				
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)				
BORING NO. B-2162A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND		
GROUND SURFACE ELEV. 80.2 ft (NAVD88)		NORTHING 13,412,386		US ft (NAD83)		EASTING 2,599,799		US ft (NAD83)		24 HR. ND		
TOTAL DEPTH 202.8 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson				HAMMER (ID) 140 lb. Auto (263048)				
DATE STARTED 11/24/07		COMPLETED 11/29/07		CASING DEPTH: N/A				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			
24.1					Continued from previous page							
23.9	56.3	8	8	8						SS-14/AB		23.4 Silty SAND (SM), yellowish brown (10YR6/4), firm, moist, fine grained, trace fines, no HCl reaction 56.8
18.9	61.3	10	12	17						SS-15		18.9 Clayey SAND (SC), brown (10YR5/3), very firm, moist, little fines, strong HCl reaction 61.3
13.9	66.3	5	8	9						SS-16		13.9 FAT CLAY (CH), grayish brown (10YR5/2), very stiff, moist, few sand, strong HCl reaction 66.3
8.9	71.3	6	8	10						SS-17		8.9 Clayey SAND (SC), light gray (10YR7/2), firm, moist, some fines, no HCl reaction, two interbedded clay layers 71.3
3.9	76.3	10	15	16						SS-18		76.3ft: dense, little fines, weak HCl reaction
-1.1	81.3	7	8	12						SS-19		81.3ft: firm, carbonate nodules, no HCl reaction
-6.1	86.3	37	49	50/0.3						SS-20		86.3ft: very dense, little fines
-11.1	91.3	49	50/0.2							SS-21		-11.1 FAT CLAY (CH), brownish yellow (10YR6/6), hard, moist, little sand, strong HCl reaction, carbonate nodules 91.3
-16.1	96.3	50/0.2								SS-22		-16.1 96.3ft: no recovery 96.3
-21.1	101.3	50/0.2								SS-23		Clayey SAND (SC), very pale brown (10YR8/3), very dense, moist, fine grained, few fines, strong HCl reaction
-31.1	111.3	4	8	9						SS-24		-31.1 111.3

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



SHEET 3 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST B. Taylor						
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)						
BORING NO. B-2162A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR.		ND		24 HR.				
GROUND SURFACE ELEV. 80.2 ft (NAVD88)		NORTHING 13,412,386		US ft (NAD83)		EASTING 2,599,799		US ft (NAD83)		ND				
TOTAL DEPTH 202.8 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson		HAMMER (ID) 140 lb. Auto (263048)								
DATE STARTED 11/24/07		COMPLETED 11/29/07		CASING DEPTH: N/A		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
-32.0					Continued from previous page									
-41.1	121.3	7	8	12						SS-25			FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), very stiff, moist, few sand, strong HCl reaction (continued)	
-51.1	131.3	9	9	9						SS-26			Clayey SAND (SC), light gray (10YR7/1), firm, moist, some fines, no HCl reaction	
-61.1	141.3	6	5	8						SS-27			FAT CLAY (CH), light gray (10YR7/1), stiff, moist, few sand, strong HCl reaction	
-71.1	151.3	10	14	16						SS-28			Clayey SAND (SC), gray (10YR6/1), very firm, moist, little fines, no HCl reaction	
-81.1	161.3	11	13	21						SS-29			161.3ft: light brownish gray (10YR6/2), dense, strong HCl reaction 0.8'-thick interbedded layer of fat clay at 161.3ft	

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



SHEET 4 OF 4

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST B. Taylor								
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)								
BORING NO. B-2162A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND						
GROUND SURFACE ELEV. 80.2 ft (NAVD88)		NORTHING 13,412,386		US ft (NAD83)		EASTING 2,599,799		US ft (NAD83)								
TOTAL DEPTH 202.8 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson				HAMMER (ID) 140 lb. Auto (263048)								
DATE STARTED 11/24/07		COMPLETED 11/29/07		CASING DEPTH: N/A				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						
-88.1					Continued from previous page											
-91.1	171.3	11	4	18							SS-30		Clayey SAND (SC), gray (10YR6/1), very firm, moist, little fines, no HCl reaction (continued)			
-101.1	181.3	32	43	27							SS-31		171.3ft: very firm, fine to medium grained			
-111.1	191.3	50/0.2									SS-32		181.3ft: very dense, light gray (10YR7/2)			
-121.1	201.3	21	13	14							SS-33		201.3ft: very firm, yellowish brown (10YR5/6)			
														-122.6	202.8	Boring Terminated at Elevation -122.6 ft

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