



SHEET 3 OF 3

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-2167		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND					
GROUND SURFACE ELEV. 80.2 ft (NAVD88)		NORTHING 13,412,192		US ft (NAD83)		EASTING 2,599,781		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 11/14/07		COMPLETED 11/15/07		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	100					
-32.0					Continued from previous page										
-38.3	118.5	7	7	10							SS-25		-38.3	118.5	FAT CLAY (CH), very pale brown (10YR7/4), to brownish yellow (10YR6/6), stiff, moist, few sand, weak HCl reaction, carbonate nodules, organics (continued)
-48.3	128.5	10	19	18							SS-26				128.5ft: hard, moist to wet, some fine to coarse grained sand, 0.25'-thick coarse sand seam
-58.3	138.5	15	16	15							SS-27A/B		-58.3	138.5	Clayey SAND (SC), light gray (10YR7/2), dense, moist, little fines, no HCl reaction
-68.3	148.5	10	13	16							SS-28		-59.3	139.5	Sandy FAT CLAY (CH), light gray (10YR7/2), hard, moist, some sand, no HCl reaction
															148.5ft: very stiff, little sand, trace carbonate nodules
															Boring Terminated at Elevation -69.8 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 B. Taylor					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2168		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR.		ND					
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,294		US ft (NAD83)		EASTING 2,599,891		US ft (NAD83)					
24 HR.		ND											
TOTAL DEPTH 201.5 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson		HAMMER (ID) 140 lb. Auto (263048)							
DATE STARTED 11/29/07		COMPLETED 12/1/07		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			
80.1					Ground Surface								
80.1	0.0	2	4	4	● 8					SS-1			FAT CLAY with sand (CH), very dark gray (10YR3/1), firm, moist, little sand, no HCl reaction
76.6	3.5	2	5	7	● 12					SS-2			3.5ft: stiff, dark gray (10YR4/1)
74.1	6.0	5	7	6	● 13					SS-3			6.0ft: gray (10YR6/1), few sand, strong HCl reaction, carbonate nodules
71.6	8.5	5	5	7	● 12					SS-4			8.5ft: little sand
69.1	11.0	5	7	8	● 15					SS-5			11.0ft: weak HCl reaction
66.6	13.5	6	7	8	● 15					SS-6			
60.1	20.0	6	6	9	● 15					SS-7			60.1
55.1	25.0	5	5	7	● 12					SS-8			FAT CLAY (CH), gray (10YR6/1), mottled brownish yellow (10YR6/6), stiff, moist, few sand, strong HCl reaction, ferrous nodules
50.1	30.0	6	6	7	● 13					SS-9			25.0ft: light gray (10YR7/1), mottled brownish yellow (10YR6/6), black staining
45.1	35.0	6	6	9	● 15					SS-10			30.0ft: brownish yellow (10YR6/6), trace sand
40.1	40.0	11	19	20	● 39					SS-11			35.0ft: light gray (10YR7/1), mottled yellowish brown (10YR6/6), few sand
35.1	45.0	9	8	11	● 19					SS-12			40.0ft: hard, some sand, weak HCl reaction
30.1	50.0	17	19	18	● 37					SS-13			45.0ft: very stiff, little sand
25.1	55.0	9	10	10	● 20					SS-14			50.0ft: hard, brownish yellow (10YR6/6), strong HCl reaction
													25.1
													55.0

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-2168		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND				
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,294		US ft (NAD83)		EASTING 2,599,891		US ft (NAD83)		24 HR. ND				
TOTAL DEPTH 201.5 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson				HAMMER (ID) 140 lb. Auto (263048)						
DATE STARTED 11/29/07		COMPLETED 12/1/07		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	MOI			
24.0					Continued from previous page									
20.1	60.0	6	16	11							SS-15A/B	19.5	Clayey SAND (SC), yellowish brown (10YR5/6), firm, moist, fine grained, some fines, no HCl reaction (continued) 60.0ft: strong HCl reaction	60.6
15.1	65.0	4	7	6							SS-16		FAT CLAY with sand (CH), light gray (10YR7/1), mottled brownish yellow (10YR6/6), very stiff, moist, little sand, strong HCl reaction	
10.1	70.0	4	5	7							SS-17		65.0ft: stiff, pale brown (10YR6/3), few sand, weak HCl reaction	
5.1	75.0	30	50/0.2								SS-18		70.0ft: grayish brown (10YR5/2) little sand, carbonate nodules, strong HCl reaction	
0.1	80.0	18	50/0.3								SS-19	0.1	Clayey SAND (SC), light brownish gray (10YR6/2), very dense, moist, little fines, no HCl reaction	80.0
-4.9	85.0	50/0.2									SS-20		85.0ft: strong HCl reaction, carbonate nodules	
-9.9	90.0	6	7	8							SS-21	-9.9	FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), stiff, moist, few sand, strong HCl reaction, carbonate nodules	90.0
-14.9	95.0	5	8	9							SS-22		95.0ft: gray (10YR6/1), very stiff, no HCl reaction	
-19.9	100.0	14	14	21							SS-23	-19.9	Clayey SAND (SC), gray (10YR6/1), dense, moist, fine grained, little fines, weak HCl reaction	100.0
-29.9	110.0	4	9	9							SS-24		110.0ft: firm, no HCl reaction	

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-2168		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND			
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,294		US ft (NAD83)		EASTING 2,599,891		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 201.5 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson				HAMMER (ID) 140 lb. Auto (263048)					
DATE STARTED 11/29/07		COMPLETED 12/1/07		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			
-32.1					Continued from previous page								
-39.9	120.0	5	4	7							SS-25		Clayey SAND (SC), gray (10YR6/1), dense, moist, fine grained, little fines, weak HCl reaction (continued)
-49.9	130.0	9	13	14							SS-26		130.0ft: very stiff, few sand
-59.9	140.0	20	40	49							SS-27		Clayey SAND (SC), light gray (10YR7/2), very dense, moist, fine grained, little fines, strong HCl reaction, carbonate nodules
-69.9	150.0	9	28	50							SS-28		150.0ft: light brownish gray (10YR6/2)
-79.9	160.0	50/0.2									SS-29		

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



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-2168		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND					
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,294		US ft (NAD83)		EASTING 2,599,891		US ft (NAD83)					
TOTAL DEPTH 201.5 ft		DRILL MACHINE CME-750		DRILLER: G. Bray/T. Ellerson		HAMMER (ID) 140 lb. Auto (263048)							
DATE STARTED 11/29/07		COMPLETED 12/1/07		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			
-88.2					Continued from previous page								
-89.9	170.0	10	11	11	●22					SS-30		Clayey SAND (SC), light gray (10YR7/2), very dense, moist, fine grained, little fines, strong HCl reaction, carbonate nodules (continued) 170.0ft: very firm, iron staining	
-99.9	180.0	9	8	11	●19					SS-31		FAT CLAY (CH), light brownish gray (10YR6/2), very stiff, moist, little sand, strong HCl reaction	
-109.9	190.0	12	13	19	●32					SS-32		Clayey SAND (SC), gray (10YR6/1), dense, moist, fine grained, little to some fines, strong HCl reaction	
-119.9	200.0	6	6	10	●16					SS-33		Sandy FAT CLAY (CH), light brownish gray (10YR6/2), very stiff, moist, some sand, strong HCl reaction Boring Terminated at Elevation -121.4 ft	

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



GEOTECHNICAL BORING LOG

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

SHEET 1 OF 8

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Taylor					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2169		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND					
GROUND SURFACE ELEV. 79.5 ft (NAVD88)		NORTHING 13,412,350		US ft (NAD83)		EASTING 2,599,938		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 400.0 ft		DRILL MACHINE CME-550-X		DRILLER: R. Landaros/F. Cierra				HAMMER (ID) 140 lb. Auto (MEC 05)					
DATE STARTED 12/12/07		COMPLETED 12/19/07		CASING DEPTH: N/A				BITS USED: 4 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		G
79.5					Ground Surface								
79.5	0.0	2	3	3						SS-1		79.5	FAT CLAY (CH), black (2.5/N), firm to stiff, moist, no sand, no HCl reaction
76.0	3.5	2	5	8						SS-2			
73.5	6.0	6	8	10						SS-3		73.5	FAT CLAY with sand (CH), greenish gray (10Y5/1), very stiff, moist, little sand, strong to weak HCl reaction
71.0	8.5	6	12	14						SS-4			8.5ft: light gray (5Y7/1), weak HCl reaction
68.5	11.0	7	11	14						SS-5			11.0ft: light gray (5Y7/1)
66.0	13.5	5	8	10						SS-6			
61.0	18.5	6	7	10						SS-7			18.5ft: light gray (5Y7/1), to brownish yellow (10YR6/6), few sand, black nodules
56.0	23.5	4	7	10						SS-8		56.0	FAT CLAY (CH), mottled light gray (5Y7/1), and brownish yellow (10YR6/6), very stiff, moist, weak HCl reaction
51.0	28.5	5	8	11						SS-9			
46.0	33.5	5	8	10						SS-10			
41.0	38.5	12	23	27						SS-11			38.5ft: white (2.5Y8/1), hard, little sand
36.0	43.5	11	16	19						SS-12		36.0	Sandy LEAN CLAY (CH), light yellowish brown (10YR6/4), hard, moist, some sand, weak HCl reaction
31.0	48.5	9	21	15						SS-13		31.0	Silty SAND (SM), yellow (10YR7/6), dense to firm, moist, fine grained, few fines, weak to no HCl reaction
26.0	53.5	5	9	10						SS-14			

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



SHEET 2 OF 8

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Taylor							
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)							
BORING NO. B-2169		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND					
GROUND SURFACE ELEV. 79.5 ft (NAVD88)		NORTHING 13,412,350		US ft (NAD83)		EASTING 2,599,938		US ft (NAD83)							
TOTAL DEPTH 400.0 ft		DRILL MACHINE CME-550-X		DRILLER: R. Landaros/F. Cierra				HAMMER (ID) 140 lb. Auto (MEC 05)							
DATE STARTED 12/12/07		COMPLETED 12/19/07		CASING DEPTH: N/A				BITS USED: 4 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				
23.4					Continued from previous page										
21.0	58.5	9	14	13								21.0	Silty SAND (SM), yellow (10YR7/6), dense to firm, moist, fine grained, few fines, weak to no HCl reaction (continued)	58.5	
16.0	63.5	4	12	15								16.0	POORLY GRADED SAND (SP), light gray (2.5Y7/2), very firm, moist, fine grained, no fines, weak HCl reaction	63.5	
11.0	68.5	9	13	15								11.0	Clayey SAND (SC), light gray (2.5Y7/2), very firm, moist, fine grained, some fines, weak HCl reaction	68.5	
6.0	73.5	7	10	12									Sandy FAT CLAY (CH), pale yellow (2.5Y7/30), very stiff, moist, fine to medium grained, some sand, weak to no HCl reaction		
1.0	78.5	5	8	10									78.5ft: light gray (2.5Y7/2)		
-4.0	83.5	23	15	21									83.5ft: hard, carbonate nodules, strong HCl reaction		
-9.0	88.5	13	28	45									88.5	Clayey SAND (SC), light gray (2.5Y7/2), very dense, moist, fine to coarse grained, few fines, strong HCl reaction	88.5
-14.0	93.5	10	50/0.4										93.5ft: very pale brown (10YR7/4), no HCl reaction		
-19.0	98.5	37	50/0.5												
-29.0	108.5	5	8	10									-29.0	FAT CLAY (CH), pale yellow (5Y8/2), and yellowish brown (10YR5/8), very stiff, moist, no sand, black staining, weak HCl reaction	108.5

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



SHEET 3 OF 8

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Taylor					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2169		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND					
GROUND SURFACE ELEV. 79.5 ft (NAVD88)		NORTHING 13,412,350		US ft (NAD83)		EASTING 2,599,938		US ft (NAD83)					
TOTAL DEPTH 400.0 ft		DRILL MACHINE CME-550-X		DRILLER: R. Landaros/F. Cierra		HAMMER (ID) 140 lb. Auto (MEC 05)							
DATE STARTED 12/12/07		COMPLETED 12/19/07		CASING DEPTH: N/A		BITS USED: 4 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			
-32.7					Continued from previous page								
-39.0	118.5	5	9	13	●22					SS-25		FAT CLAY (CH), pale yellow (5Y8/2), and yellowish brown (10YR5/8), very stiff, moist, no sand, black staining, weak HCl reaction (continued)	
-49.0	128.5	9	13	15	●28					SS-26		LEAN CLAY (CL), pale yellow (5Y8/2), very stiff, moist, no sand, black staining, no HCl reaction	
-59.0	138.5	5	11	14	●25					SS-27		FAT CLAY (CH), pale yellow (5Y8/2), very stiff, moist, no sand, black staining, carbonate nodules, strong HCl reaction	
-69.0	148.5	8	10	10	●20					SS-28A/B		138.5ft: mottled yellowish brown (10YR5/8), interbedded sand layer	
-79.0	158.5	8	12	16	●28					SS-29		148.6 to 150ft: interbedded layer of SAND (SP), light yellowish brown (2.5Y6/4), fine grained, no HCl reaction	

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



SHEET 4 OF 8

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Taylor				
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)				
BORING NO. B-2169		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND		
GROUND SURFACE ELEV. 79.5 ft (NAVD88)		NORTHING 13,412,350		US ft (NAD83)		EASTING 2,599,938		US ft (NAD83)				
TOTAL DEPTH 400.0 ft		DRILL MACHINE CME-550-X		DRILLER: R. Landaros/F. Cierra				HAMMER (ID) 140 lb. Auto (MEC 05)				
DATE STARTED 12/12/07		COMPLETED 12/19/07		CASING DEPTH: N/A				BITS USED: 4 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			
-88.8					Continued from previous page							
-89.0	168.5	16	21	19						SS-30		Clayey SAND (SC), white (5Y8/1), dense, moist, fine to coarse grained, little fines, weak to strong HCl reaction
-99.0	178.5	50/0.4			50/0.4					SS-31		178.5ft: very dense
-109.0	188.5	31	50/0.4		81/0.9					SS-32		POORLY GRADED SAND (SP), PALE YELLOW (2.5Y8/2), very dense, wet, weak HCl reaction
-119.0	198.5	9	40	50/0.4	90/0.9					SS-33		Clayey SAND (SC), very dense, moist, fine to medium grained sand, strong HCl reaction, carbonate nodules (visual)
-129.0	208.5	35	44	27	71					SS-34		208.5ft: no recovery
-134.0	213.5	9	15	26	41					SS-35		FAT CLAY with sand (CH), pale yellow (2.5Y8/2), hard, moist, fine to medium grained sand, weak HCl reaction, organics
-139.0	218.5	7	15	23	38					SS-36		218.5ft: carbonate nodules

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



SHEET 5 OF 8

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Taylor					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2169		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND			
GROUND SURFACE ELEV. 79.5 ft (NAVD88)		NORTHING 13,412,350		US ft (NAD83)		EASTING 2,599,938		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 400.0 ft		DRILL MACHINE CME-550-X		DRILLER: R. Landaros/F. Cierra				HAMMER (ID) 140 lb. Auto (MEC 05)					
DATE STARTED 12/12/07		COMPLETED 12/19/07		CASING DEPTH: N/A				BITS USED: 4 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		
-144.9					Continued from previous page								
-149.0	228.5	15	17	19	36					SS-37		FAT CLAY with sand (CH), pale yellow (2.5Y8/2), hard, moist, fine to medium grained sand, weak HCl reaction, organics (continued) 228.5ft: mottled yellow (2.5Y7/6), strong HCl reaction	
-159.0	238.5	22	38	36	74					SS-38	-159.0	238.5	LEAN CLAY with sand (CL), pale yellow (2.5Y8/2), hard, moist, fine to medium grained sand, carbonate nodules
-169.0	248.5	13	21	31	52					SS-39	-169.0	248.5	LEAN CLAY (CL), pale yellow (2.5Y8/2), hard, moist, fine to medium grained sand, organics
-179.0	258.5	28	50/0.4		78/0.9					SS-40	-173.5	253.0	POORLY GRADED SAND with clay (SP-SC), pale yellow (2.5Y8/3), very dense, moist, fine to medium grained, weak HCl reaction (visual)
-189.0	268.5	14	26	39	65					SS-41	-186.5	266.0	Clayey SAND (SC), pale yellow (2.5Y8/3), very dense, moist, fine to medium grained sand, carbonate nodules, no HCl reaction
-199.0	278.5	11	27	24	51					SS-42			278.5ft: white (5Y8/1) (visual)

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

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



SHEET 7 OF 8

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Taylor						
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)						
BORING NO. B-2169		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR.		ND						
GROUND SURFACE ELEV. 79.5 ft (NAVD88)		NORTHING 13,412,350		US ft (NAD83)		EASTING 2,599,938		US ft (NAD83)		24 HR. ND				
TOTAL DEPTH 400.0 ft		DRILL MACHINE CME-550-X		DRILLER: R. Landaros/F. Cierra		HAMMER (ID) 140 lb. Auto (MEC 05)								
DATE STARTED 12/12/07		COMPLETED 12/19/07		CASING DEPTH: N/A		BITS USED: 4 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				
-257.1					Continued from previous page									
-259.0	338.5	6	13	18							SS-48		FAT CLAY (CH), mottled light yellowish brown (10YR6/4), and pale yellow (5Y8/2), hard, moist, fine to medium grained sand, strong HCl reaction (continued)	
-269.0	348.5	10	17	22							SS-49		348.5ft: brownish yellow (10YR6/6)	
-279.0	358.5	50/0.4			50/0.4						SS-50		Clayey SAND (SC), pale yellow (2.5Y8/3), very dense, moist, fine to medium grained sand, strong HCl reaction (visual)	
-289.0	368.5	7	11	21							SS-51		FAT CLAY with sand (CH), mottled brownish yellow (10YR6/6), and pale yellow (2.5Y8/20), hard, moist, fine to medium grained sand, black staining, strong HCl reaction	
-299.0	378.5	10	18	21							SS-52		FAT CLAY (CH), very pale brown (10YR8/2), hard, moist, fine to medium grained sand	
-309.0	388.5	8	17	23							SS-53		388.5ft: light gray (5Y7/2)	

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



SHEET 8 OF 8

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST A. Taylor						
SITE DESCRIPTION Exelon COL Project (Victoria Site)										MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)	
BORING NO. B-2169			DRILL METHOD: Mud Rotary					SAMPLE METHODS: SPT					0 HR. ND			
GROUND SURFACE ELEV. 79.5 ft (NAVD88)			NORTHING 13,412,350		US ft (NAD83)		EASTING 2,599,938		US ft (NAD83)		24 HR. ND					
TOTAL DEPTH 400.0 ft			DRILL MACHINE CME-550-X					DRILLER: R. Landaros/F. Cierra			HAMMER (ID) 140 lb. Auto (MEC 05)					
DATE STARTED 12/12/07			COMPLETED 12/19/07			CASING DEPTH: N/A					BITS USED: 4 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						
-313.2					Continued from previous page											
-319.0	398.5										SS-54			FAT CLAY (CH), very pale brown (10YR8/2), hard, moist, fine to medium grained sand (continued)		
		11	22	28												
															400.0	
															Boring Terminated at Elevation -320.5 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 6

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-2170		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND					
GROUND SURFACE ELEV. 79.7 ft (NAVD88)		NORTHING 13,412,414 US ft (NAD83)		EASTING 2,599,990 US ft (NAD83)		24 HR. ND							
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/B. Turner				HAMMER (ID) 140 lb. Auto (MEC 11)					
DATE STARTED 12/12/07		COMPLETED 12/16/07		CASING DEPTH: N/A				BITS USED: 4" 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		
79.7					Ground Surface							79.7	0.0
79.7	0.0										SS-1		
76.2	3.5										SS-2		
73.7	6.0										SS-3		
71.2	8.5										SS-4		
68.7	11.0										SS-5		
66.2	13.5										SS-6		
61.2	18.5										SS-7		
56.2	23.5										SS-8		
51.2	28.5										SS-9		
46.2	33.5										SS-10		
41.2	38.5										SS-11		
36.2	43.5										SS-12		
31.2	48.5										SS-13		
26.2	53.5										SS-14		

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



SHEET 2 OF 6

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-2170			DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT						0 HR. ND			
GROUND SURFACE ELEV. 79.7 ft (NAVD88)			NORTHING 13,412,414			US ft (NAD83)		EASTING 2,599,990		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 300.0 ft			DRILL MACHINE CME-75			DRILLER: D. Nalls/B. Turner				HAMMER (ID) 140 lb. Auto (MEC 11)					
DATE STARTED 12/12/07			COMPLETED 12/16/07			CASING DEPTH: N/A				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
23.6					Continued from previous page										
21.2	58.5												21.2	Sandy silty CLAY (CL-ML), very pale brown (10YR7/3), fine to medium grained sand, no HCl reaction (continued)	58.5
											SS-15			FAT CLAY with sand (CH), pale brown (10YR6/3), moist, fine to medium grained sand, trace carbonate nodules, strong HCl reaction, organics, ferrous staining	
16.2	63.5												16.2	FAT CLAY (CH), pale brown (10YR6/3), moist, fine to medium grained sand, carbonate nodules, weak Hcl reaction, organics	63.5
											SS-16				
11.2	68.5												11.2	LEAN CLAY (CL), very pale brown (10YR7/3), moist, fine to medium grained sand, carbonate nodules, strong HCl reaction	68.5
											SS-17				
6.2	73.5												6.2	Sandy LEAN CLAY (CL), very pale brown (10YR7/3), moist, fine to medium grained sand, carbonate nodules, strong HCl reaction	73.5
											SS-18				
1.2	78.5												3.2	Silty clayey SAND (SC-SM), light gray (10YR7/2), moist, fine to coarse grained, no HCl reaction, trace carbonate nodules, no HCl reaction	78.5
											SS-19				
-3.8	83.5												-3.8	Sandy LEAN CLAY (CL), very pale brown (10YR8/2), moist, fine to medium grained sand, strong HCl reaction, carbonate nodules, ferrous staining	83.5
											SS-20				
-8.8	88.5														
											SS-21				
-13.8	93.5												-13.3	Clayey SAND (SC), very pale brown (10YR7/4), wet, fine to medium grained, strong HCl reaction (visual)	93.0
											SS-22				
-15.8	95.5														
											SS-23				
-18.8	98.5														
											SS-24				
-23.8	103.5												-23.8	Silty SAND (SM), very pale brown (10YR7/4), moist to wet, fine to coarse grained, fine gravel, strong HCl reaction	103.5
											SS-25				
-28.8	108.5														
											SS-26				

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



SHEET 3 OF 6

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-2170		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND			
GROUND SURFACE ELEV. 79.7 ft (NAVD88)		NORTHING 13,412,414		US ft (NAD83)		EASTING 2,599,990		US ft (NAD83)					
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/B. Turner				HAMMER (ID) 140 lb. Auto (MEC 11)					
DATE STARTED 12/12/07		COMPLETED 12/16/07		CASING DEPTH: N/A				BITS USED: 4" 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			
-32.5					Continued from previous page								
-38.8	118.5										SS-27		-33.8 FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), moist, fine to medium grained sand, weak HCl reaction, organics, trace carbonate nodules 113.5
-48.8	128.5										SS-28		-43.8 FAT CLAY with sand (CH), light gray (10YR7/2), moist, fine to medium grained sand, carbonate nodules, weak HCl reaction, ferrous staining 123.5
-58.8	138.5										SS-29		-53.8 FAT CLAY (CH), very pale brown (10YR8/2), moist, fine to medium grained sand, trace carbonate nodules, strong HCl reaction 133.5
-68.8	148.5										SS-30		
-78.8	158.5										SS-31		-73.8 LEAN CLAY (CL), greenish gray (10Y6/1), moist, fine grained sand, carbonate nodules, strong HCl reaction 153.5
													-83.8 POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3), and light gray (2.5Y7/2), wet, fine to medium grained, strong HCl reaction (visual) 163.5

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 5 OF 6

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-2170		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND						
GROUND SURFACE ELEV. 79.7 ft (NAVD88)		NORTHING 13,412,414		US ft (NAD83)		EASTING 2,599,990		US ft (NAD83)						
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/B. Turner		HAMMER (ID) 140 lb. Auto (MEC 11)								
DATE STARTED 12/12/07		COMPLETED 12/16/07		CASING DEPTH: N/A		BITS USED: 4" 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				
-144.7					Continued from previous page									
-158.8	238.5										SS-38		FAT CLAY with sand (CH), light gray (10YR7/2), fine to medium grained sand, no HCl reaction, ferrous staining, trace organics (continued) 228.5ft: hard, strong HCl reaction, trace carbonate nodules	
-178.8	258.5										SS-38		LEAN CLAY with sand (CL), light greenish gray (10Y8/1), moist, fine to medium grained sand, trace carbonate nodules, strong HCl reaction, ferrous stains, organics	
-188.8	268.5										SS-38		POORLY GRADED SAND with silt (SP-SM), light gray (10YR6/3), moist, fine to medium grained, weak HCl reaction (visual)	
-198.8	278.5										SS-40		Sandy LEAN CLAY (CL), light gray (10YR7/2), moist, fine to medium grained sand, ferrous staining, organics, no HCl reaction, 0.3'-thick sand lense	

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



SHEET 6 OF 6

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-2170		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND						
GROUND SURFACE ELEV. 79.7 ft (NAVD88)		NORTHING 13,412,414 US ft (NAD83)		EASTING 2,599,990 US ft (NAD83)										
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/B. Turner		HAMMER (ID) 140 lb. Auto (MEC 11)								
DATE STARTED 12/12/07		COMPLETED 12/16/07		CASING DEPTH: N/A		BITS USED: 4" 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				
-200.8					Continued from previous page									
-208.8	288.5										SS-41		Sandy LEAN CLAY (CL), light gray (10YR7/2), moist, fine to medium grained sand, ferrous staining, organics, no HCl reaction, 0.3'-thick sand lense (continued)	
-218.8	298.5										SS-42		FAT CLAY (CH), very pale brown (10YR8/2), moist, fine to medium grained sand, trace carbonate nodules, strong HCl reaction, ferrous staining	
													298.5ft: very pale brown (10YR7/3)	
													Boring Terminated at Elevation -220.3 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 6

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-2170R		DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT					0 HR.		ND							
GROUND SURFACE ELEV. 79.2 ft (NAVD88)		NORTHING 13,412,396			US ft (NAD83)		EASTING 2,599,989		US ft (NAD83)		24 HR.		ND						
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-55 LC			DRILLER: D. White/O. Smith					HAMMER (ID) 140 lb. Auto (MEC 02)									
DATE STARTED 1/3/08		COMPLETED 1/7/08			CASING DEPTH: N/A					BITS USED: 3 7/8" Wing 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							
79.2					Ground Surface									79.2	0.0				
79.2	0.0	6	4	5						SS-1				79.2	Sandy LEAN CLAY (CL), very dark gray (2.5Y3/1), stiff, moist, fine to medium grained sand, no HCl reaction, roots				
75.7	3.5	2	3	3						SS-2				75.7	FAT CLAY (CH), gray (10YR5/1), firm, moist, fine to medium grained sand, no HCl reaction, trace carbonate nodules				
73.2	6.0	6	7	8						SS-3				73.2	FAT CLAY with sand (CH), 6.0ft: light brownish gray (10YR6/2), mottled brown (7.5YR5/2), stiff, moist, fine to medium grained sand, carbonate nodules, organics				
70.7	8.5	7	8	9						SS-4				70.7	LEAN CLAY with sand (CL), very pale brown (10YR7/3), very stiff, moist, fine to medium grained sand, strong HCl reaction, ferrous staining				
68.2	11.0	8	7	8						SS-5				11.0ft: stiff					
65.7	13.5	6	7	8						SS-6				65.7	FAT CLAY with sand (CH), light gray (10YR7/2), mottled brownish yellow (10YR7/8), stiff, moist, fine to coarse grained sand, fine gravel, carbonate nodules, strong HCl reaction				
60.7	18.5	6	8	9						SS-7				18.5ft: very pale brown (10YR7/3), very stiff, weak HCl reaction					
55.7	23.5	5	6	7						SS-8				55.7	FAT CLAY (CH), very pale brown (10YR8/2), mottled yellow (10YR7/8), stiff, moist, fine to medium grained sand, strong HCl reaction, organics				
50.7	28.5	5	11	9						SS-9				28.5ft: yellow (10YR7/8), mottled light greenish gray (10Y8/1), very stiff, weak HCl reaction, trace carbonate nodules					
45.7	33.5	5	5	6						SS-10				33.5ft: stiff					
40.7	38.5	6	8	11						SS-11				40.7	FAT CLAY with sand (CH), yellow (10YR7/8), mottled light greenish gray (10Y8/1), very stiff, moist, fine to medium grained, sand, weak HCl reaction, organics				
35.7	43.5	28	32	28						SS-12				35.7	Clayey SAND (SC), brownish yellow (10YR6/6), very dense, moist, fine to medium grained, carbonate nodules, strong HCl reaction				
30.7	48.5	10	19	18						SS-13				30.7	Sandy LEAN CLAY (CL), yellow (10YR7/8), hard, moist, fine to medium grained sand, carbonate nodules, strong HCl reaction				
25.7	53.5	11	13	19						SS-14				25.7	Sandy silty CLAY (CL-ML), very pale brown (10YR7/3), hard, fine to medium grained sand, no HCl reaction				

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



SHEET 2 OF 6

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-2170R		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		ND			
GROUND SURFACE ELEV. 79.2 ft (NAVD88)		NORTHING 13,412,396		US ft (NAD83)		EASTING 2,599,989		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-55 LC		DRILLER: D. White/O. Smith				HAMMER (ID) 140 lb. Auto (MEC 02)					
DATE STARTED 1/3/08		COMPLETED 1/7/08		CASING DEPTH: N/A				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
23.1					Continued from previous page								
20.7	58.5	7	8	10	18					SS-15	20.7	Sandy silty CLAY (CL-ML), very pale brown (10YR7/3), hard, fine to medium grained sand, no HCl reaction (continued)	58.5
15.7	63.5	6	8	10	18					SS-16	15.7	FAT CLAY with sand (CH), pale brown (10YR6/3), very stiff, moist, fine to medium grained sand, trace carbonate nodules, strong HCl reaction, organics, ferrous staining	63.5
10.7	68.5	10	14	14	28					SS-17	10.7	FAT CLAY (CH), pale brown (10YR6/3), very stiff, moist, fine to medium grained sand, carbonate nodules, weak Hcl reaction, organics	68.5
5.7	73.5	9	14	12	26					SS-18	5.7	LEAN CLAY (CL), very pale brown (10YR7/3), very stiff, moist, fine to medium grained sand, carbonate nodules, strong HCl reaction	73.5
0.7	78.5	11	13	15	28					SS-19	0.7	Sandy LEAN CLAY (CL), very pale brown (10YR7/3), very stiff, moist, fine to medium grained sand, carbonate nodules, strong HCl reaction	78.5
-4.3	83.5	22	22	26	48					SS-20	-4.3	Silty clayey SAND (SC-SM), light gray (10YR7/2), very firm, moist, fine to coarse grained, no HCl reaction, trace carbonate nodules, no HCl reaction	83.5
-9.3	88.5	50/0.3			50/0.3					SS-21	-9.3	Sandy LEAN CLAY (CL), very pale brown (10YR8/2), hard, moist, fine to medium grained sand, strong HCl reaction, carbonate nodules, ferrous staining	88.5
-14.3	93.5	50/0.1			50/0.1					SS-22	-14.3	Clayey SAND (SC), very pale brown (10YR7/4), very dense, wet, fine to medium grained, strong HCl reaction (visual)	93.0
-19.3	98.5	50/0.5			50/0.5					SS-23	-19.3		
-24.3	103.5	30	41	37	78					SS-24	-24.3	Silty SAND (SM), very pale brown (10YR7/4), very dense, moist to wet, fine to coarse grained, fine gravel, strong HCl reaction	103.5

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