



SHEET 3 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		24 HR. ND		
GROUND SURFACE ELEV. 79.2 ft (NAVD88)		NORTHING 13,412,396		US ft (NAD83)		EASTING 2,599,989		US ft (NAD83)				
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 MOI	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80			
-33.0					Continued from previous page							
-34.3	113.5	6	7	10						SS-25		-34.3 113.5 FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), very stiff, moist, fine to medium grained sand, weak HCl reaction, organics, trace carbonate nodules
-44.3	123.5	7	9	10						SS-26		-44.3 123.5 FAT CLAY with sand (CH), light gray (10YR7/2), very stiff, moist, fine to medium grained sand, carbonate nodules, weak HCl reaction, ferrous staining
-54.3	133.5	9	9	13						SS-27		-54.3 133.5 FAT CLAY (CH), very pale brown (10YR8/2), very stiff, moist, fine to medium grained sand, trace carbonate nodules, strong HCl reaction
-64.3	143.5	6	12	11						SS-28		
-74.3	153.5	7	21	40						SS-29		-74.3 153.5 POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3), very dense, wet, fine to medium grained, strong HCl reaction (visual)
-84.3	163.5	30	36	44						SS-30		163.5: light gray (2.5Y7/2) (visual)

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



SHEET 4 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		24 HR. ND			
GROUND SURFACE ELEV. 79.2 ft (NAVD88)		NORTHING 13,412,396		US ft (NAD83)		EASTING 2,599,989		US ft (NAD83)			
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			
-89.1					Continued from previous page								
-94.3	173.5	40	41	45							SS-31		POORLY GRADED SAND with clay (SP-SC), very pale brown (10YR7/3), very dense, wet, fine to medium grained, strong HCl reaction (visual) (continued)
-104.3	183.5	34	46	50/0.3							SS-32		183.5ft: carbonate nodules
-114.3	193.5	32	44	37							SS-33		193.5ft: fine to coarse grained
-123.8	203.0												FAT CLAY with sand (CH), light gray (10YR7/2), very stiff, moist, fine to medium grained sand, no HCl reaction, ferrous staining, trace organics
-129.3	208.5	15	17	10							SS-34		

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



SHEET 5 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		24 HR. ND				
GROUND SURFACE ELEV. 79.2 ft (NAVD88)		NORTHING 13,412,396		US ft (NAD83)		EASTING 2,599,989		US ft (NAD83)						
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.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80					100
-145.2					Continued from previous page									
-149.3	228.5	11	14	18	● 32					SS-35			FAT CLAY with sand (CH), light gray (10YR7/2), very stiff, moist, fine to medium grained sand, no HCl reaction, ferrous staining, trace organics (continued)	
-169.3	248.5	22	28	30	● 58					SS-36			228.5ft: hard, strong HCl reaction, trace carbonate nodules	
-189.3	268.5	14	40	50/0.3	● 90/0.8					SS-37			LEAN CLAY with sand (CL), light greenish gray (10Y8/1), hard, moist, fine to medium grained sand, trace carbonate nodules, strong HCl reaction, ferrous stains, organics	
-189.3	268.5	14	40	50/0.3									Sandy LEAN CLAY (CL), light gray (10YR7/2), hard, 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 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. (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									
-201.3					Continued from previous page														
-209.3	288.5												Sandy LEAN CLAY (CL), light gray (10YR7/2), hard, moist, fine to medium grained sand, ferrous staining, organics, no HCl reaction, 0.3'-thick sand lense (continued)						
		14	20	27									SS-38		-209.3	288.5	FAT CLAY (CH), very pale brown (10YR8/2), hard, moist, fine to medium grained sand, trace carbonate nodules, strong HCl reaction, ferrous staining		
-219.3	298.5												298.5ft: very pale brown (10YR7/3)						
		17	24	26									SS-39		-220.8	300.0	Boring Terminated at Elevation -220.8 ft		

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



GEOTECHNICAL BORING LOG

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

SHEET 1 OF 2

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-2171		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND			
GROUND SURFACE ELEV. 80.0 ft (NAVD88)		NORTHING 13,412,488		US ft (NAD83)		EASTING 2,600,093		US ft (NAD83)					
TOTAL DEPTH 81.5 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/B. Turner				HAMMER (ID) 140 lb. Auto (MEC 11)					
DATE STARTED 12/17/07		COMPLETED 12/18/07		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			
80.0					Ground Surface							80.0	0.0
80.0	0.0									SS-1		NOTE: Standard penetration tests performed for this boring not valid due to use of nonconforming drill rod. Boring redrilled at offset location as B-2171R. Strata depicted on this boring adapted from B-2171R. FAT CLAY (CH), black (2.5/N), moist, trace sand, carbonate nodules, no HCl reaction 3.5ft: greenish gray (10Y6/1 and 10Y5/1) 6.0ft: yellowish brown stains, strong HCl reaction 13.5ft: no HCl reaction 18.5ft: light greenish gray (10YR7/1), weak HCl reaction 23.5ft: yellowish brown (10YR5/6), mottled light greenish gray (10YR7/1), no HCl reaction 38.5ft: greenish gray (10YR6/1), mottled yellowish brown (10YR5/6), strong HCl reaction 43.5ft: Silty SAND (SM), greenish gray (10Y6/1), mottled light yellowish brown (10YR6/4), moist, little fines, strong HCl reaction FAT CLAY (CH), greenish gray (10Y6/1), mottled light yellowish brown (10YR6/4), moist, few sand, trace carbonate nodules, weak HCl reaction 49.2ft: POORLY GRADED SAND (SP), light yellowish brown (10YR6/4), mottled greenish gray (10Y6/1), moist, few fines, trace carbonate nodules, strong HCl reaction 54.0ft: FAT CLAY with sand (CH), greenish gray (10Y6/1), moist, little sand, carbonate nodules, yellow brown stains, no HCl reaction	
76.5	3.5									SS-2			
74.0	6.0									SS-3			
71.5	8.5									SS-4			
69.0	11.0									SS-5			
66.5	13.5									SS-6			
61.5	18.5									SS-7			
56.5	23.5									SS-8			
51.5	28.5									SS-9			
46.5	33.5									SS-10			
41.5	38.5									SS-11			
36.5	43.5									SS-12			
31.5	48.5									SS-13			
26.5	53.5									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 A. Osorio							
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)							
BORING NO. B-2171		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND							
GROUND SURFACE ELEV. 80.0 ft (NAVD88)		NORTHING 13,412,488 US ft (NAD83)		EASTING 2,600,093 US ft (NAD83)		24 HR. ND									
TOTAL DEPTH 81.5 ft		DRILL MACHINE CME-75		DRILLER: D. Nalls/B. Turner				HAMMER (ID) 140 lb. Auto (MEC 11)							
DATE STARTED 12/17/07		COMPLETED 12/18/07		CASING DEPTH: N/A				BITS USED: 4" Drag Bit							
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT						SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100					
23.9					Continued from previous page										
21.5	58.5										SS-15			FAT CLAY with sand (CH), greenish gray (10Y6/1), moist, little sand, carbonate nodules, yellow brown stains, no HCl reaction (continued)	
16.5	63.5										SS-16			63.5ft: brown (10YR5/3), mottled greenish gray (10Y6/1), trace sand	
11.5	68.5										SS-17			68.5ft: grayish brown (10YR5/2)	
6.0	74.0										SS-18				
3.0	77.0										SS-19			77.0ft: light gray (10YR7/1)	
0.0	80.0										SS-20			Clayey SAND (SC), greenish gray (10Y6/1), moist, little fines, trace yellowish brown nodules and carbonate nodules, no HCl reaction	
														1.5	78.5
														-1.5	81.5
														Boring Terminated at Elevation -1.5 ft	

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



GEOTECHNICAL BORING LOG

Prepared By JDZ Date 6.12.08Checked By LAW Date 7.10.08

SHEET 1 OF 6

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Osorio/J. Liles					
SITE DESCRIPTION Exelon COL Project (Victoria Site)						MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)			
BORING NO. B-2171R		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT				0 HR.	ND		
GROUND SURFACE ELEV. 80.0 ft (NAVD88)		NORTHING 13,412,480		US ft (NAD83)		EASTING 2,600,074		US ft (NAD83)		24 HR.	ND		
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-75				DRILLER: Nalls/Turner/Bray/Ellerson				HAMMER (ID) 140 lb. Auto (MEC 11)			
DATE STARTED 12/19/07		COMPLETED 1/4/08				CASING DEPTH: 7.7 ft				BITS USED: 4" Roller Cone			
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
80.0					Ground Surface							80.0	
80.0	0.0	2	3	3						SS-1		FAT CLAY (CH), black (2.5/N), firm, moist, few sand, no HCl reaction, grass and roots	0.0
76.5	3.5	2	6	8						SS-2		3.5ft: dark gray (4/N), stiff, trace carbonate nodules	
74.0	6.0	3	10	13						SS-3		6.0ft: greenish gray (10Y6/1), very stiff, yellowish brown staining	
71.5	8.5	12	20	30						SS-4		8.5ft: hard, weak HCl reaction	
69.0	11.0	10	13	16						SS-5		11.0ft: gray (10YR6/1), very stiff, strong HCl reaction, trace black nodules	
66.5	13.5	5	9	10						SS-6		13.5ft: greenish gray (10Y6/1), no HCl reaction, black and yellowish brown stains	
61.5	18.5	5	6	8						SS-7		18.5ft: stiff	
56.5	23.5	4	6	8						SS-8		23.5ft: yellowish brown (10YR5/6), mottled greenish gray (10Y6/1)	
51.5	28.5	6	5	9						SS-9		28.5ft: black stains	
46.5	33.5	5	8	11						SS-10		33.5ft: very stiff	
41.5	38.5	5	7	11						SS-11		38.5ft: greenish gray (10Y6/1), mottled light yellowish brown (10YR6/4), weak HCl reaction	
36.5	43.5	7	12	17						SS-12A/B		36.5ft: Silty SAND (SM), greenish gray (10Y6/1), mottled light yellowish brown (10YR6/4), very firm, moist, little fines, strong HCl reaction	43.5
31.5	48.5	9	13	21						SS-13A/B		FAT CLAY (CH), greenish gray (10Y6/1), mottled light yellowish brown (10YR6/4), very stiff, moist, few sand, trace carbonate nodules, weak HCl reaction	44.5
26.5	53.5	18	17	18						SS-14A/B		30.8ft: POORLY GRADED SAND (SP), light yellowish brown (10YR6/4), mottled greenish gray (10Y6/1), dense, moist, few fines, trace carbonate nodules, strong HCl reaction	49.2
												26.0ft: FAT CLAY (CH), light yellowish brown (10YR6/4), hard, moist, few sand, strong HCl reaction	54.0

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/J. Liles				
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)				
BORING NO. B-2171R		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR.		ND		
GROUND SURFACE ELEV. 80.0 ft (NAVD88)		NORTHING 13,412,480		US ft (NAD83)		EASTING 2,600,074		US ft (NAD83)		24 HR. ND		
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-75		DRILLER: Nalls/Turner/Bray/Ellerson				HAMMER (ID) 140 lb. Auto (MEC 11)				
DATE STARTED 12/19/07		COMPLETED 1/4/08		CASING DEPTH: 7.7 ft				BITS USED: 4" Roller Cone				
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100		
23.9					Continued from previous page							
21.5	58.5	8	13	19							SS-15	FAT CLAY (CH), light yellowish brown (10YR6/4), hard, moist, few sand, strong HCl reaction (continued) 58.5ft: gray (10YR6/1), trace carbonate nodules, black stains, no HCl reaction
16.5	63.5	8	10	13							SS-16	63.5ft: gray (10YR6/1), mottled light yellowish brown (10YR6/4), very stiff
11.5	68.5	5	9	13							SS-17	68.5ft: yellowish brown stains
6.5	73.5	7	9	14							SS-18	73.5ft: greenish gray (10Y6/1)
1.5	78.5	8	9	12							SS-19	1.5 Clayey SAND (SC), greenish gray (10Y6/1), very firm, moist, little fines, trace yellowish brown nodules and carbonate nodules, no HCl reaction
-3.5	83.5	16	21	22							SS-20	-3.5 POORLY GRADED SAND with clay (SP-SC), greenish gray (10Y6/1), dense, moist, few fines, strong HCl reaction
-8.5	88.5	11	27	30							SS-21	-8.5 POORLY GRADED SAND (SP), greenish gray (10Y6/1), very dense, moist, few fines, trace carbonate nodules, no HCl reaction, trace yellowish brown stains
-13.5	93.5	23	47	50/0.2							SS-22	93.5ft: gray (10YR6/1), strong HCl reaction
-18.5	98.5	200/0.5									SS-23	98.5ft: light gray (10YR7/1), coarse grained, SPT overdriven to collect sample
-28.5	108.5	19	48	34							SS-24	108.5ft: gray (10YR6/1), medium to coarse grained

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/J. Liles					
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)					
BORING NO. B-2171R		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND			
GROUND SURFACE ELEV. 80.0 ft (NAVD88)		NORTHING 13,412,480		US ft (NAD83)		EASTING 2,600,074		US ft (NAD83)					
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-75		DRILLER: Nalls/Turner/Bray/Ellerson				HAMMER (ID) 140 lb. Auto (MEC 11)					
DATE STARTED 12/19/07		COMPLETED 1/4/08		CASING DEPTH: 7.7 ft				BITS USED: 4" Roller Cone					
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT						SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			
-32.2					Continued from previous page								
-38.5	118.5	6	7	14	●21						SS-25		POORLY GRADED SAND (SP), greenish gray (10Y6/1), very dense, moist, few fines, trace carbonate nodules, no HCl reaction, trace yellowish brown stains (continued)
-48.5	128.5	7	11	14	●25						SS-26		128.5ft: gray (10YR6/1), mottled yellowish brown (10YR5/6), trace carbonate nodules, weak HCl reaction
-58.5	138.5	6	8	12	●20						SS-27		
-68.5	148.5	31	26	17	●43						SS-28A/B		POORLY GRADED SAND (SP), gray (10YR6/1), dense, moist, few fines, fine to medium grained, trace carbonate nodules, strong HCl reaction
-78.5	158.5	26	27	25	●52						SS-29		FAT CLAY (CH), gray (10YR6/1), slightly mottled yellowish brown (10YR5/6), hard, moist, few sand, trace carbonate nodules, weak HCl reaction
													158.5ft: greenish gray (10Y6/1), mottled yellowish brown (10YR5/8), black stains
													POORLY GRADED SAND (SP), light gray (10YR7/2), very dense, moist, medium grained, few fines, strong HCl reaction

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



SHEET 4 OF 6

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST A. Osorio/J. Liles				
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)				
BORING NO. B-2171R		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND				
GROUND SURFACE ELEV. 80.0 ft (NAVD88)		NORTHING 13,412,480		US ft (NAD83)		EASTING 2,600,074		US ft (NAD83)				
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-75		DRILLER: Nalls/Turner/Bray/Ellerson		HAMMER (ID) 140 lb. Auto (MEC 11)						
DATE STARTED 12/19/07		COMPLETED 1/4/08		CASING DEPTH: 7.7 ft		BITS USED: 4" 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			
-88.3					Continued from previous page							
-88.5	168.5	25	30	50						SS-30		POORLY GRADED SAND (SP), light gray (10YR7/2), very dense, moist, medium grained, few fines, strong HCl reaction (continued)
-98.5	178.5	32	40	37						SS-31		178.5ft: yellow (10YR7/6), wet, trace fines
-108.5	188.5	38	50/0.4							SS-32		188.5ft: no recovery
-114.2	194.2	37	40	41						SS-33		194.2ft: pale brown (10YR6/3), fine grained
-119.2	199.2	23	28	27						SS-34		199.2ft: light gray (2.5Y7/2), few fines, some carbonate nodules
-139.2	219.2	3	9	14						SS-35		FAT CLAY with sand (CH), light gray (2.5Y7/1), very stiff, moist, few sand, no HCl reaction

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

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



GEOTECHNICAL BORING LOG

Prepared By W3D Date 10-16-08Checked By KAW Date 1-10-08

SHEET 1 OF 2

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST J. Jarvis						
SITE DESCRIPTION Exelon COL Project (Victoria Site)					MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)						
BORING NO. B-2172		DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT					0 HR. ND						
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,096			US ft (NAD83)		EASTING 2,599,830			US ft (NAD83)		24 HR. ND				
TOTAL DEPTH 100.0 ft		DRILL MACHINE CME-45			DRILLER: J. Warren/J. Alexander					HAMMER (ID) 140 lb. Auto (MEC 12)						
DATE STARTED 11/15/07		COMPLETED 11/16/07			CASING DEPTH: N/A					BITS USED: 2 15/16" Roller Cone						
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	MOI	L O G	SOIL AND ROCK DESCRIPTION			
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100						
80.1					Ground Surface								80.1	0.0		
79.1	1.0	1	1	2	●3					SS-1			79.1		FAT CLAY (CH), dark gray (10YR4/1), soft, moist, few to little sand, no HCl reaction	
76.4	3.7	1	2	4	●6					SS-2			76.4	3.7	FAT CLAY with sand (CH), gray (5YR5/1), firm, moist, little sand, carbonate horizon at 4.9' to 5.4'	
74.5	5.6	2	3	4	●7					SS-3					5.6ft: gray (7.5YR5/1), mottled brown (7.5YR4/2), stiff, carbonate nodules, manganese stains	
71.2	8.9	5	9	11	●20					SS-4					8.9ft: light gray (10YR7/2), very stiff, ferrous nodules, black stains, strong HCl reaction	
69.0	11.1	7	9	12	●21					SS-5					11.1ft: light brownish gray (10YR6/2)	
66.5	13.6	7	10	12	●22					SS-6					13.6ft: light gray (10YR7/2), few sand	
60.2	19.9	3	6	9	●15					SS-7					19.4ft: stiff, little sand	
55.9	24.2	6	9	11	●20					SS-8				55.9	24.2	FAT CLAY (CH), light gray (10YR7/2), mottled brownish yellow (10YR6/6), very stiff, moist, few to little sand, strong HCl reaction, carbonate and manganese nodules, ferrous staining
50.3	29.8	4	6	8	●14					SS-9					29.8ft: light brown (7.5YR6/3), stiff	
46.4	33.7	7	10	11	●21					SS-10					33.7ft: light gray (10YR7/2), very stiff, few sand	
40.4	39.7	7	7	11	●18					SS-11				39.7ft: yellowish brown (10YR6/6), mottled light gray (10YR7/2)		
36.5	43.6	6	10	14	●24					SS-12				43.6ft: weak HCl reaction		
31.4	48.7	7	9	14	●23					SS-13			31.4	48.7	FAT CLAY with sand (CH), light brown (7.5YR6/3), mottled yellowish brown (10YR5/6), very stiff, moist, little sand, weak HCl reaction, manganese and ferrous staining	
25.2	54.9	9	11	11	●22					SS-14					54.9ft: light reddish brown (5YR6/3), mottled reddish	

EXELON COL BORE EXELON-2.GPJ EXELON COL.GDT 6/16/08



SHEET 2 OF 2

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST J. Jarvis				
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)				
BORING NO. B-2172		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND				
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,096		US ft (NAD83)		EASTING 2,599,830		US ft (NAD83)				
TOTAL DEPTH 100.0 ft		DRILL MACHINE CME-45		DRILLER: J. Warren/J. Alexander		HAMMER (ID) 140 lb. Auto (MEC 12)						
DATE STARTED 11/15/07		COMPLETED 11/16/07		CASING DEPTH: N/A		BITS USED: 2 15/16" Roller Cone						
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			
24.0					Continued from previous page							
21.5	58.6	7	8	13						SS-15		yellow (5YR6/6), few to little sand, no HCl reaction, carbonate nodules FAT CLAY with sand (CH), light brown (7.5YR6/3), mottled yellowish brown (10YR5/6), very stiff, moist, little sand, weak HCl reaction, manganese and ferrous staining (continued) 58.6ft: light brown (7.5YR6/3), mottled reddish yellow (5YR6/6), weak HCl reaction
16.5	63.6	7	10	10						SS-16		63.6ft: little sand, strong HCl reaction
11.4	68.7	7	10	10						SS-17		11.4ft: POORLY GRADED SAND (SP), gray (7.5YR6/1), firm, moist, trace fines, weak HCl reaction, carbonate horizon from 69.4-69.6ft
6.4	73.7	19	30	33						SS-18		73.7ft: pinkish gray (5YR6/2), very dense, wet, carbonate horizon from 74.6-74.8ft, strong HCl reaction
1.5	78.6	8	9	17						SS-19		78.6ft: light gray (10YR7/1), very firm, few fines, weak HCl reaction
-3.6	83.7	18	15	14						SS-20		Field reports do not indicate that SS-20 was split into separate jars
-7.6	87.7	18	36	50/0.3						SS-21A/B		-8.6ft: FAT CLAY with sand (CH), light gray (10YR7/1), very stiff, wet, little sand, ferrous staining, carbonate particles through out, strong HCl reaction
-13.6	93.7	50/0.2								SS-22		-8.6ft: POORLY GRADED SAND (SP), pinkish gray (7.5YR7/2), very dense, wet, trace fines, carbonate deposit at 89.5ft, strong HCl reaction
-18.6	98.7	50/0.5								SS-23		-13.6ft: FAT CLAY (CH), light gray (10YR7/1), hard, moist, few to little sand, ferrous staining, carbonate deposits through out
												-18.6ft: WELL-GRADED SAND (SW), light brown (7.5YR6/3), very dense, wet, trace fines, ferrous staining, strong HCl reaction Boring Terminated at Elevation -19.9 ft

EXELON COL BORE EXELON-2.GPJ EXELON COL.CDT 6/16/08



GEOTECHNICAL BORING LOG

Prepared By JPJ 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-2173		DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT					0 HR. ND					
GROUND SURFACE ELEV. 79.6 ft (NAVD88)		NORTHING 13,412,225			US ft (NAD83)		EASTING 2,599,945			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 12/11/07		COMPLETED 12/18/07			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					
79.6					Ground Surface							79.6	0.0		
79.6	0.0	3	4	5	● 9					SS-1			FAT CLAY with sand (CH), dark gray (2.5Y4/1), stiff, moist, little sand, no HCl reaction, organics, thinly laminated		
76.1	3.5	7	5	7	● 12					SS-2			3.5ft: grayish brown (10YR5/2), strong HCl reaction, carbonate nodules, ferrous stains		
73.6	6.0	6	7	9	● 16					SS-3		73.6	6.0		
71.1	8.5	5	5	5	● 10					SS-4			LEAN CLAY with sand (CL), very pale brown (10YR7/3), very stiff, moist, little sand, strong HCl reaction, carbonate nodules, organics, ferrous staining		
68.6	11.0	5	8	8	● 16					SS-5			8.5ft: light gray (10YR7/2), stiff		
66.1	13.5	6	7	9	● 16					SS-6			11.5ft: very pale brown (10YR7/3), very stiff, weak HCl reaction		
61.1	18.5	5	6	8	● 14					SS-7		61.1	18.5		
56.1	23.5	5	6	8	● 14					SS-8			FAT CLAY (CH), yellow (10YR7/8), mottled light greenish gray (10Y8/1), stiff, moist, few to little sand, strong HCl reaction, organics, trace carbonate nodules		
51.1	28.5	4	6	8	● 14					SS-9					
46.1	33.5	6	6	9	● 15					SS-10					
41.1	38.5	19	15	19	● 34					SS-11		41.1	38.5		
36.1	43.5	8	12	11	● 23					SS-12			Clayey SAND (SC), light gray (10YR7/2), dense to very firm, moist, fine grained, some fines, strong HCl reaction, ferrous staining, carbonate nodules		
31.1	48.5	14	19	22	● 41					SS-13			43.5ft: brownish yellow (10YR6/6), mottled very pale brown (10YR/3), wet		
26.1	53.5	12	12	20	● 32					SS-14			48.5ft: yellow (10YR7/8), interbedded clay-rich seams		
													53.5ft: very pale brown (10YR7/3), and brownish yellow (10YR6/8), no 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



SHEET 3 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-2173		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND						
GROUND SURFACE ELEV. 79.6 ft (NAVD88)		NORTHING 13,412,225		US ft (NAD83)		EASTING 2,599,945		US ft (NAD83)								
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-55 LC		DRILLER: D. White/O. Smith				HAMMER (ID) 140 lb. Auto (MEC 02)								
DATE STARTED 12/11/07		COMPLETED 12/18/07		CASING DEPTH: N/A				BITS USED: 3 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						
-32.6					Continued from previous page											
-38.9	118.5	4	9	12	●21						SS-25			FAT CLAY with sand (CH), brownish yellow (10YR6/6), mottled light greenish gray (10Y8/1), very stiff, moist, little sand, strong to weak HCl reaction, organics, carbonate nodules (continued)		
-48.9	128.5	16	17	20	●37						SS-26			118.5ft: light gray (10YR7/2), trace ferrous staining		
-58.9	138.5	16	16	14	●30						SS-27			-48.9	128.5	Sandy FAT CLAY (CH), very pale brown (10YR8/2), hard, moist, little to some sand, strong to weak HCl reaction, carbonate nodules, ferrous staining
-68.9	148.5	5	7	9	●16						SS-28			138.5ft: very stiff		
-78.9	158.5	12	21	27	●48						SS-29			148.5ft: light gray (10YR7/2), mottled brownish yellow (10YR6/8), interbedded clay seams		

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



SHEET 4 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-2173		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND					
GROUND SURFACE ELEV. 79.6 ft (NAVD88)		NORTHING 13,412,225		US ft (NAD83)		EASTING 2,599,945		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 12/11/07		COMPLETED 12/18/07		CASING DEPTH: N/A				BITS USED: 3 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				
-88.7					Continued from previous page								
-88.9	168.5	28	21	24						SS-30			Clayey SAND (SC), very pale brown (10YR7/3), mottled brownish gray (10YR6/6), dense, moist, fine grained, strong HCl reaction (continued) 168.5ft: medium to coarse grained, carbonate nodules
-98.9	178.5	44	50/0.3							SS-31			178.5ft: very dense, little fines, little gravel
-108.9	188.5	50/0.3								SS-32			183.5 POORLY GRADED SAND (SP), very pale brown (10YR7/3), very dense, wet, fine grained, few fines, strong HCl reaction
-118.9	198.5	20	18	16						SS-33			195.0 Clayey SAND (SC), brownish yellow (10YR6/6), dense, moist, fine grained, little to some fines, strong HCl reaction
-128.9	208.5	16	18	24						SS-34			208.5ft: light gray (10YR7/2), mottled brownish yellow (10YR6/8), trace organics, interbedded clay layers

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



SHEET 5 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-2173		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND					
GROUND SURFACE ELEV. 79.6 ft (NAVD88)		NORTHING 13,412,225 US ft (NAD83)		EASTING 2,599,945 US ft (NAD83)											
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-55 LC		DRILLER: D. White/O. Smith				HAMMER (ID) 140 lb. Auto (MEC 02)							
DATE STARTED 12/11/07		COMPLETED 12/18/07		CASING DEPTH: N/A				BITS USED: 3 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					
-144.8					Continued from previous page										
-148.9	228.5	12	15	21							SS-35			Clayey SAND (SC), brownish yellow (10YR6/6), dense, moist, fine grained, little to some fines, strong HCl reaction (continued)	
-168.9	248.5	11	17	27							SS-36			FAT CLAY (CH), very pale brown (10YR8/2), mottled yellow (10YR7/8), hard, moist, few sand, strong HCl reaction, carbonate nodules, organics	
-177.4	257.0	47	48	49							SS-37			248.5ft: light gray (10YR7/2), mottled brownish yellow (10YR6/8), trace sand	
-188.9	268.5													Clayey SAND (SC), light gray (10YR7/2), very dense, wet, fine grained, little fines, no HCl reaction, organics	

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



SHEET 6 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-2173		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT				0 HR. ND		24 HR. ND					
GROUND SURFACE ELEV. 79.6 ft (NAVD88)		NORTHING 13,412,225		US ft (NAD83)		EASTING 2,599,945		US ft (NAD83)							
TOTAL DEPTH 300.0 ft		DRILL MACHINE CME-55 LC		DRILLER: D. White/O. Smith				HAMMER (ID) 140 lb. Auto (MEC 02)							
DATE STARTED 12/11/07		COMPLETED 12/18/07		CASING DEPTH: N/A				BITS USED: 3 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					
-200.9					Continued from previous page										
-208.9	288.5	12	17	24							SS-38			Clayey SAND (SC), light gray (10YR7/2), very dense, wet, fine grained, little fines, no HCl reaction, organics (continued)	
-218.9	298.5	15	20	26							SS-39			287.0	FAT CLAY (CH), very pale brown (10YR8/2), mottled brownish yellow (10YR6/6), hard, moist, few sand, strong HCl reaction, organics, trace carbonate nodules
															298.5ft: weak HCl reaction, ferrous staining
															300.0
															Boring Terminated at Elevation -220.4 ft

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

GEOTECHNICAL BORING LOG

Prepared By JPZ Date 6.12.08

Checked By KAW Date 7.10.08

SHEET 1 OF 11

BECHTEL PROJECT NO.: 25352				COUNTY Victoria		GEOLOGIST H. Lyatuu			
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)	
BORING NO. B-2174A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR.		ND	
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,299 US ft (NAD83)		EASTING 2,600,001 US ft (NAD83)		24 HR.		ND	
TOTAL DEPTH 601.0 ft		DRILL MACHINE CME-75		DRILLER: T. Warren/N. Skoglund		HAMMER (ID) 140 lb. Auto (MEC 09)			
DATE STARTED 12/11/07		COMPLETED 1/6/08		CASING DEPTH: N/A		BITS USED: 3 7/8" Drag Bit			
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
		0.5ft	0.5ft	0.5ft					
80.1									
80.1	0.0	1	2	5	7	SS-1			FAT CLAY with sand (CH), dark gray (5YR4/1), firm, moist, little fine sand, no HCl reaction, trace organics
77.1	3.0	2	2	2	4	SS-2			3.0ft: dark gray (10YR4/1), soft
74.1	6.0	1	4	5	9	SS-3			6.0ft: pale brown (10YR6/3), stiff, trace carbonate nodules, strong HCl reaction
71.6	8.5	3	4	6	10	SS-4			Sandy LEAN CLAY (CL) pinkish gray (5YR6/2), stiff, moist, strong HCl reaction, trace carbonate nodules trace black and brown grains
69.1	11.0	7	8	9	17	SS-5			11.0ft: pinkish gray (7.5YR6/2), very stiff
66.6	13.5	6	10	11	21	SS-6			
61.4	18.7	5	7	10	17	SS-7			18.5ft: mottled yellowish brown (10YR5/6)
56.5	23.6	5	8	12	20	SS-8			23.6ft: light gray (10YR7/2), mottled light reddish brown (5YR6/4)
51.4	28.7	5	7	11	18	SS-9			FAT CLAY (CH), light yellowish brown (10YR6/4), mottled light gray (10YR7/2), very stiff, moist, strong HCl reaction, trace carbonate grains
46.4	33.7	6	7	10	17	SS-10			33.7ft: light gray (10YR7/2), mottled yellowish brown (10YR5/6), few sand, trace carbonate nodules
41.4	38.7	12	17	23	40	SS-11			38.7ft: brownish yellow (10YR6/6), to light gray (10YR7/2), hard, few to little sand
36.4	43.7	12	16	23	39	SS-12			Clayey SAND (SC), brownish yellow (10YR6/6), mottled light gray (7.5YR7/1), dense, moist, some fines, trace carbonate nodules, strong HCl reaction
31.4	48.7	17	16	16	32	SS-13			48.7ft: pinkish gray (7.5YR7/2), mottled brownish yellow (10YR6/6)
26.4	53.7	6	8	12	20	SS-14			POORLY GRADED SAND (SP), very pale brown (10YR7/3), firm, moist, traces fines, no HCl reaction, traces of yellowish red stains



SHEET 2 OF 11

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST H. Lyatuu					
SITE DESCRIPTION Exelon COL Project (Victoria Site)						MACTEC PROJECT NO.: 6468-07-1777						GROUND WATER (ft)	
BORING NO. B-2174A		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT				0 HR. ND			
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,299		US ft (NAD83)		EASTING 2,600,001		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 601.0 ft		DRILL MACHINE CME-75				DRILLER: T. Warren/N. Skoglund				HAMMER (ID) 140 lb. Auto (MEC 09)			
DATE STARTED 12/11/07		COMPLETED 1/6/08				CASING DEPTH: N/A				BITS USED: 3 7/8" Drag Bit			
ELEV.	DEPTH	BLOW COUNT			BLOWS PER FOOT					SAMP.	LOG	SOIL AND ROCK DESCRIPTION	
(ft)	(ft)	0.5ft	0.5ft	0.5ft	0	20	40	60	80	100			NO.
24.0					Continued from previous page								
21.4	58.7	13	13	14	27					SS-15	22.6	Sandy FAT CLAY (CH), light brownish gray (10YR6/2), very stiff, moist, some sand, trace carbonate grains and nodules, trace brown stains, strong HCl reaction 57.5	
16.4	63.7	7	8	17	25					SS-16A/B	15.4	63.7ft: pinkish gray (5YR7/2), mottled light brown (7.5YR6/4), few to little sand 64.7	
11.4	68.7	11	13	20	33					SS-17A/B	10.7	Clayey SAND (SC), very pale brown (10YR7/3), very firm, moist, some fines, fine grained, no HCl reaction 69.4	
6.4	73.7	9	9	14	23					SS-18		68.7ft: light brown (7.5YR6/3), dense	
1.4	78.7	11	13	16	29					SS-19		69.4ft: Sandy LEAN CLAY (CL), light brown (7.5YR6/4), hard, moist, trace to few sand, trace carbonate nodules, trace dark brown staining, strong HCl reaction	
-3.6	83.7	50/0.3			50/0.3					SS-20		73.7ft: pinkish gray (7.5YR6/2), very stiff	
-8.6	88.7	7	8	16	24					SS-21		78.7ft: light gray (10YR 7/2), some sand	
-13.6	93.7	5	17	18	35					SS-22	-13.6	83.7ft: hard, trace sand 93.7	
-18.6	98.7	50/0.3			50/0.3					SS-23	-18.6	POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/1), dense, moist, fine sand, trace fines, no HCl reaction 98.7	
											-22.4	Silty SAND (SM) very pale brown (10YR7/3), very dense, fine to medium grained, trace dark brown grains, strong HCl reaction 102.5	
-28.7	108.8	6	8	13	21					SS-24		FAT CLAY (CH), light gray (5Y7/1), mottled brownish yellow (10YR6/6), very stiff, moist, few sand, trace carbonate nodules, trace black and brown nodules and stains, strong HCl reaction	

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



SHEET 3 OF 11

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST H. Lyatuu				
SITE DESCRIPTION Exelon COL Project (Victoria Site)						MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)		
BORING NO. B-2174A		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT				0 HR.	ND	
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,299		US ft (NAD83)		EASTING 2,600,001		US ft (NAD83)		24 HR.	ND	
TOTAL DEPTH 601.0 ft		DRILL MACHINE CME-75				DRILLER: T. Warren/N. Skoglund				HAMMER (ID) 140 lb. Auto (MEC 09)		
DATE STARTED 12/11/07		COMPLETED 1/6/08				CASING DEPTH: N/A				BITS USED: 3 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			
-32.1					Continued from previous page							
-38.6	118.7	7	11	14	25					SS-25		FAT CLAY (CH), light gray (5Y7/1), mottled brownish yellow (10YR6/6), very stiff, moist, few sand, trace carbonate nodules, trace black and brown nodules and stains, strong HCl reaction (continued) 118.7ft: pinkish gray (7.5YR6/2), trace sand
-48.6	128.7	10	28	31	59					SS-26		128.7ft: light gray (10YR7/2), hard, some sand
-58.6	138.7	14	40	35	75					SS-27		-54.9 Silty SAND (SM), light gray (10YR7/1), very dense, moist, fine grained, trace fines, strong HCl reaction
-68.6	148.7	9	16	23	39					SS-28		148.7ft: very pale brown (10YR7/2), dense, no HCl reaction
-78.6	158.7	13	15	28	43					SS-29		-74.9 POORLY GRADED SAND with clay (SP-SC), light gray (10YR7/2), mottled strong brown (7.5YR5/8), dense, moist, fine grained, few fines, trace brownish grains, strong HCl reaction
												-84.9 Silty SAND (SM), light gray (10YR7/1), to very pale brown (10YR7/1), very dense, moist, fine to medium grained, trace fines, no HCl reaction
												135.0
												155.0
												165.0

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



SHEET 7 OF 11

BECHTEL PROJECT NO.: 25352					COUNTY Victoria					GEOLOGIST H. Lyatuu					
SITE DESCRIPTION Exelon COL Project (Victoria Site)					MACTEC PROJECT NO.: 6468-07-1777					GROUND WATER (ft)					
BORING NO. B-2174A		DRILL METHOD: Mud Rotary			SAMPLE METHODS: SPT					0 HR. ND					
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,299			US ft (NAD83)		EASTING 2,600,001		US ft (NAD83)		24 HR. ND				
TOTAL DEPTH 601.0 ft		DRILL MACHINE CME-75			DRILLER: T. Warren/N. Skoglund					HAMMER (ID) 140 lb. Auto (MEC 09)					
DATE STARTED 12/11/07		COMPLETED 1/6/08			CASING DEPTH: N/A					BITS USED: 3 7/8" Drag Bit					
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT						SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80	100					
-256.5					Continued from previous page										
-258.7	338.8	8	11	17							SS-40			FAT CLAY (CH) very pale brown (10YR7/3), mottled light brown (7.5YR6/4), very stiff, moist, trace sand, trace brownish stains (continued)	
-278.7	358.8	10	12	20							SS-41			358.8ft: pale brown (10YR6/3), hard	
-298.7	378.8	9	12	17							SS-42			378.8ft: very stiff, no sand, weak HCl reaction	

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



SHEET 8 OF 11

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST H. Lyatuu						
SITE DESCRIPTION Exelon COL Project (Victoria Site)				MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)						
BORING NO. B-2174A		DRILL METHOD: Mud Rotary		SAMPLE METHODS: SPT		0 HR. ND		24 HR. ND						
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,299		US ft (NAD83)		EASTING 2,600,001		US ft (NAD83)						
TOTAL DEPTH 601.0 ft		DRILL MACHINE CME-75		DRILLER: T. Warren/N. Skoglund		HAMMER (ID) 140 lb. Auto (MEC 09)								
DATE STARTED 12/11/07		COMPLETED 1/6/08		CASING DEPTH: N/A		BITS USED: 3 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				
-312.6					Continued from previous page									
-318.7	398.8	10	12	20	32						SS-43		FAT CLAY (CH) very pale brown (10YR7/3), mottled light brown (7.5YR6/4), very stiff, moist, trace sand, trace brownish stains (continued)	
-338.7	418.8	30	50/0.3		80/0.8						SS-44		398.8ft: very pale brown (10YR7/3), hard, trace sand, strong HCl reaction	
-358.7	438.8	15	20	26	46						SS-45		LEAN CLAY (CL), light gray (10YR7/1), mottled strong brown (7.5YR5/6), hard, moist, strong HCl reaction	
-358.7	438.8												FAT CLAY (CH), pale brown (10YR6/3), mottled light brown (7.5YR6/4), hard, moist, strong HCl reaction,	

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



SHEET 9 OF 11

BECHTEL PROJECT NO.: 25352				COUNTY Victoria				GEOLOGIST H. Lyatuu					
SITE DESCRIPTION Exelon COL Project (Victoria Site)								MACTEC PROJECT NO.: 6468-07-1777				GROUND WATER (ft)	
BORING NO. B-2174A		DRILL METHOD: Mud Rotary				SAMPLE METHODS: SPT				0 HR. ND			
GROUND SURFACE ELEV. 80.1 ft (NAVD88)		NORTHING 13,412,299		US ft (NAD83)		EASTING 2,600,001		US ft (NAD83)		24 HR. ND			
TOTAL DEPTH 601.0 ft		DRILL MACHINE CME-75				DRILLER: T. Warren/N. Skoglund				HAMMER (ID) 140 lb. Auto (MEC 09)			
DATE STARTED 12/11/07		COMPLETED 1/6/08				CASING DEPTH: N/A				BITS USED: 3 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			
-368.7					Continued from previous page								
-378.7	458.8	9	16	21	●37						SS-46		FAT CLAY (CH), pale brown (10YR6/3), mottled light brown (7.5YR6/4), hard, moist, strong HCl reaction, (continued) 458.8ft: light gray (10YR7/2)
-398.7	478.8	11	15	18	●33						SS-47		SILT with sand (ML), light gray (2.5YR7/1), hard, moist, little sand, trace dark brown grains, strong HCl reaction
-418.5	498.6	38	36	50	●86						SS-48		FAT CLAY (CH), light yellowish brown (10YR6/4), mottled light gray (2.5Y7/2), hard, moist, trace sand, strong HCl reaction

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