APPENDIX B

TABLES

TABLE 1
MONITORING WELL AND DRIVE-POINT CONSTRUCTION DETAILS

Stantec Well ID	UTM Coordinates		Elevations		Well Stick-up	Well Depth	Well Depth	Well Base Elevation	Screened Interval				Screened Material Description [a]	Hydraulic Conductivity [b]
									Top Elevation		Bottom Elevation			
	Easting	Northing	Top of Casing (m AMSL)	Ground Surface (m AMSL)	(m)	(m BTOC)	(m BGS)	(m AMSL)	(m BGS)	(m AMSL)	(m BGS)	(m AMSL)		(m/s)
Monitoring Wells														
BH1 (MW)	610353	4871871	236.06	236.26	-0.20	6.96	7.16	229.10	5.64	230.62	7.16	229.10	SAND & GRAVEL / Clayey SILT	-
BH2 (MW)	610750	4872068	237.02	237.17	-0.15	4.50	4.65	232.52	3.12	234.05	4.65	232.52	Clayey SILT trace sand	1.8E-07
BH3 (MW)	611584	4872334	246.39	246.59	-0.20	7.95	8.15	238.44	6.63	239.96	8.15	238.44	Silty SAND trace gravel	3.1E-08
BH4A (MW)	614304	4873794	285.79	285.87	-0.08	8.79	8.87	277.00	7.34	278.53	8.87	277.00	Clayey SILT some sand	-
BH5A (MW)	614499	4876658	225.81	224.98	0.83	8.27	7.44	217.54	5.92	219.06	7.44	217.54	Clayey SILT	1.6E-06
BH6A (MW)	615377	4876980	233.40	233.59	-0.19	6.53	6.72	226.87	5.20	228.39	6.72	226.87	Silty SAND	-
BH7 (MW)	616382	4877290	249.47	248.82	0.65	8.09	7.44	241.38	5.92	242.90	7.44	241.38	SILT with clay trace sand	-
BH8A (MW)	617504	4878874	239.07	239.35	-0.29	5.09	5.38	233.98	3.85	235.50	5.38	233.98	SAND & GRAVEL	7.3E-07
BH9 (MW)	617066	4881186	221.06	220.11	0.95	6.80	5.85	214.26	4.33	215.78	5.85	214.26	Clayey SILT	-
BH10 (MW)	617255	4880141	223.40	222.53	0.87	5.28	4.41	218.12	2.89	219.64	4.41	218.12	SILT & SAND	-
Drive-Point Piezometers														
DP1-09	610365	4871869	235.72	234.67	1.05	2.22	1.17	233.50	0.75	233.92	1.17	233.50	-	-
DP2-09	610761	4872067	236.73	235.69	1.04	2.22	1.18	234.51	0.76	234.93	1.18	234.51	-	-
DP3-09	611595	4872332	245.22	244.13	1.09	2.22	1.13	243.00	0.71	243.42	1.13	243.00	-	-
DP4-09	614313	4873784	283.87	282.99	0.88	2.22	1.34	281.65	0.92	282.07	1.34	281.65	-	-
DP5-09	614477	4876648	224.20	223.03	1.17	2.22	1.05	221.98	0.63	222.40	1.05	221.98	-	-
DP6-09	615371	4876966	230.57	229.52	1.05	2.22	1.17	228.35	0.75	228.77	1.17	228.35	-	-
DP7-09	616393	4877299	247.54	246.93	0.61	1.28	0.67	246.26	0.25	246.68	0.67	246.26	-	-
DP8-09	617514	4878860	238.44	236.78	1.66	2.22	0.56	236.22	0.14	236.64	0.56	236.22	-	-
DP9-09	617073	4881191	219.60	218.76	0.84	2.22	1.38	217.38	0.96	217.80	1.38	217.38	-	-
DP10-09	617270	4880147	223.21	222.26	0.95	2.22	1.27	220.99	0.85	221.41	1.27	220.99	-	-

Notes:

(a) Refer to Appendix C for borehole and well construction logs

(b) Hydraulic conductivity estimates based on hydraulic response testing and analysis using the Bouwer and Rice solution (1976). Results of the hydraulic response testing are summarized in Appendix D

m AMSL = meters above mean sea level
m BGS = meters below ground surface
m BTOC = meters below top of well casing

UTM is UTM NAD83 Zone 17N

TABLE 2
GROUNDWATER LEVEL DATA - MONITORING WELLS

Monitoring Location	Date	Measured Well Depth (m BGS)	Top of Casing Elevation (m AMSL)	Ground Surface Elevation (m AMSL)	Pipe Stick-up (m)	Groundwater Level		
						(m BGS)	(m BTOC)	(m AMSL)
BH1 (MW)	7-Dec-09 10-Dec-09 15-Dec-09	7.16	236.06	236.26	-0.20	1.42 1.41 1.42	1.22 1.21 1.22	234.84 234.85 234.84
BH2 (MW)	7-Dec-09 10-Dec-09 15-Dec-09	4.65	237.02	237.17	-0.15	1.68 1.57 1.59	1.53 1.42 1.45	235.49 235.60 235.58
BH3 (MW)	7-Dec-09 10-Dec-09 15-Dec-09	8.15	246.39	246.59	-0.20	1.04 0.94 0.96	0.84 0.74 0.76	245.55 245.65 245.63
BH4A (MW)	7-Dec-09 10-Dec-09 15-Dec-09	8.79	285.79	285.87	-0.08	2.08 2.06 2.11	2.00 1.98 2.04	283.79 283.81 283.76
BH5A (MW)	7-Dec-09 10-Dec-09 15-Dec-09	7.44	225.81	224.98	0.83	1.12 1.08 1.09	1.95 1.91 1.92	223.87 223.91 223.89
BH6A (MW)	7-Dec-09 10-Dec-09 15-Dec-09	6.53	233.40	233.59	-0.19	3.21 3.20 3.22	3.02 3.01 3.03	230.38 230.39 230.37
BH7 (MW)	7-Dec-09 10-Dec-09 15-Dec-09	7.44	249.47	248.82	0.65	0.48 0.24 0.25	1.13 0.89 0.90	248.35 248.58 248.57
BH8A (MW)	7-Dec-09 10-Dec-09 15-Dec-09	5.38	239.07	239.35	-0.29	2.48 2.43 2.43	2.19 2.15 2.14	236.88 236.92 236.92
BH9 (MW)	7-Dec-09 10-Dec-09 15-Dec-09	5.85	221.06	220.11	0.95	0.95 0.91 0.74	1.90 1.86 1.69	219.17 219.20 219.38
BH10 (MW)	7-Dec-09 10-Dec-09 15-Dec-09	4.41	223.40	222.53	0.87	0.38 0.36 0.35	1.25 1.23 1.22	222.16 222.18 222.18

Notes:
mAMSL = meters above mean sea level
mBTOC = meters below top of casing
mBGS = meters below ground surface

TABLE 3
GROUNDWATER AND SURFACE WATER LEVEL DATA - DRIVE-POINT PIEZOMETERS

Piezometer ID	Total Depth		Screen Length	Screen Separation [1]	Pipe Stick-up	Ground Surface Elevation	Top of Casing Elevation	Date	Measured Groundwater Level		Measured Groundwater Elevation	Measured Surface Water Level	Measured Surface Water Elevation	Vertical Hydraulic Gradient [4] (+) = upward (-) = downward
	(m BTOC)	(m BGS)	(m)	(m)	(m)	(m AMSL)	(m AMSL)		(m BTOC)	(m BGS) [2]	(m AMSL)	(m BTOC) [3]	(m AMSL)	
DP1-09	2.22	1.17	0.42	0.96	1.05	234.67	235.72	07-Dec-09	0.90	-0.15	234.82	1.00	234.72	0.10
								10-Dec-09	frozen @ 0.89	-0.16	234.83	0.97	234.75	0.08
								15-Dec-09	0.86	-0.19	234.86	0.97	234.75	0.11
DP2-09	2.22	1.18	0.42	0.97	1.04	235.69	236.73	07-Dec-09	0.84	-0.20	235.89	0.93	235.80	0.09
								10-Dec-09	0.83	-0.21	235.90	0.92	235.81	0.09
								15-Dec-09	0.83	-0.21	235.90	0.91	235.83	0.08
DP3-09	2.22	1.13	0.42	0.92	1.09	244.13	245.22	07-Dec-09	0.94	-0.15	244.28	0.97	244.26	0.03
								10-Dec-09	0.95	-0.15	244.28	0.96	244.26	0.02
								15-Dec-09	0.92	-0.17	244.30	0.97	244.25	0.05
DP4-09	2.22	1.34	0.42	1.13	0.88	282.99	283.87	07-Dec-09	1.96	1.08	281.91	0.71	283.16	-1.00
								10-Dec-09	1.97	1.09	281.91	0.71	283.16	-1.00
								15-Dec-09	1.96	1.08	281.92	0.70	283.17	-1.00
DP5-09	2.22	1.05	0.42	0.84	1.17	223.03	224.20	07-Dec-09	1.13	-0.04	223.07	0.95	223.25	-0.21
								10-Dec-09	1.08	-0.09	223.12	0.94	223.26	-0.17
								15-Dec-09	1.00	-0.17	223.20	0.92	223.28	-0.09
DP6-09	2.22	1.17	0.42	0.96	1.05	229.52	230.57	07-Dec-09	0.51	-0.54	230.06	0.61	229.96	0.10
								10-Dec-09	0.49	-0.57	230.09	0.60	229.98	0.11
								15-Dec-09	0.50	-0.56	230.08	0.58	229.99	0.09
DP7-09	1.28	0.67	0.42	0.46	0.61	246.93	247.54	07-Dec-09	0.60	-0.01	246.94	0.53	247.01	-0.15
								10-Dec-09	0.58	-0.03	246.96	0.49	247.06	-0.21
								15-Dec-09	0.56	-0.05	246.98	0.51	247.03	-0.10
DP8-09	2.22	0.56	0.42	0.35	1.66	236.78	238.44	07-Dec-09	1.48	-0.18	236.96	1.50	236.94	0.06
								10-Dec-09	1.43	-0.24	237.02	1.48	236.97	0.14
								15-Dec-09	1.45	-0.21	236.99	1.49	236.95	0.11
DP9-09	2.22	1.38	0.42	1.17	0.84	218.76	219.60	07-Dec-09	0.71	-0.13	218.89	0.74	218.86	0.03
								10-Dec-09	0.73	-0.11	218.87	0.64	218.96	-0.08
								15-Dec-09	0.71	-0.14	218.90	0.66	218.94	-0.04
DP10-09	2.22	1.27	0.42	1.06	0.95	222.26	223.21	07-Dec-09	0.87	-0.08	222.34	0.86	222.35	-0.01
								10-Dec-09	0.88	-0.07	222.33	0.85	222.37	-0.03
								15-Dec-09	0.89	-0.06	222.32	0.83	222.38	-0.05

Notes:
(1) Distance between base of watercourse and mid-point of piezometer screen
(2) A negative value indicates that the water level measured within the pipe is located above ground surface
(3) A negative value indicates that the surface water level is above the top of the piezometer
(4) Vertical hydraulic gradient between creek and screened interval of specified piezometer. Negative and positive values indicate downward and upward gradients, respectively.

m AMSL = meters above mean sea level
m BGS = meters below ground surface
m BTOC = meters below top of casing

TABLE 4
ESTIMATED PUMPING RATES DURING TIE-IN PIT CONSTRUCTION

Water Crossing	Water Level (m BGS)[1]	Maximum Estimated Drawdown Required[2]	Lithologic Units Tie-In Pit Intersects	Literature Value[3] of Hydraulic Conductivity (m/s)	Pumping Rate (Based on Max. Drawdown Estimate and 30 m radius of influence) (L/day)	Pumping Rate (Based on Max. Drawdown Estimate and 10 m radius of influence) (L/day)
WC1	1.42 1.41 1.42	1.08 1.09 1.08	Silty Sand	1.0E-05	1,191	2,004
WC2	1.22 1.21 1.20	1.28 1.29 1.30	Silty Sand Silty Clay	1.0E-05 1.0E-09	1,694 <50	2,850 <50
WC3	1.04 0.94 0.96	1.46 1.56 1.54	Silty Sand	1.0E-05	2,439	4,104
WC4	2.08 2.06 2.11	0.42 0.44 0.39	Silty Sand Silt	1.0E-05 1.0E-06	194 <50	327 <50
WC5	1.12 1.08 1.09	1.39 1.43 1.41	Silty Sand Silt	1.0E-05 1.0E-06	2,050 205	3,449 345
WC6	3.21 3.20 3.22	-0.71 -0.70 -0.72	Sand & Gravel Clayey Silt	1.0E-02 1.0E-08	n/a n/a	n/a n/a
WC7	0.48 0.24 0.25	2.03 2.26 2.25	Silt Sand / Silty Sand	1.0E-06 1.0E-05	512 5,119	861 8,614
WC8	2.13 2.10 2.12	0.37 0.40 0.38	Silt Silty Sand	1.0E-06 1.0E-05	<50 160	<50 270
WC9	0.95 0.91 0.74	1.56 1.59 1.77	Silt Silty Sand	1.0E-06 1.0E-05	314 3,140	528 5,284
WTC1[4]	0.38 0.36 0.35	2.13 2.15 2.15	Sandy Silt	1.0E-05	4,633	7,796

Notes:

BGS: below ground surface

1: Based on a 2.5 m deep tie-in pit

2: Water level based on maximum required drawdown within the pit based on either stream elevations or measured water levels within the nearby monitoring wells

3: Literature values of hydraulic conductivity from Freeze and Cherry (1979)

4: WTC1 is associated with a wetland

APPENDIX C

BOREHOLE AND DRIVE-POINT LOGS

BOREHOLE RECORD

BH 1 (MW)

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 9, 2009 WATER LEVEL December 10, 2009 TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	DEPTH (ft)	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
0	236.3		0				
		ASPHALT: 100 mm					
		FILL: Brown, compact SAND and GRAVEL	1	SS	1	6	
1	234.9		2				
		TOPSOIL: silty SAND with light organic content and rootlets	3	SS	2	14	
2	233.7		4				
		Grey, dense SAND and GRAVEL (SW-GW) trace silt and clay	5	SS	3	2	50 mm ID Solid Schedule 40 PVC Pipe packed in bentonite
			6				
			7				
		- PHC odour between 3.8 and 4.4 m	8	SS	4	48	
3			9				
			10				
		- wet	11	SS	5	31	
4			12				
			13				
			14	SS	6	44	
			15				
5	230.8		16	SS	7	35	
		Grey, very stiff clayey SILT (ML) trace of sand	17				
			18	SS	8	NA	50 mm ID Machine Slotted Schedule 40 PVC Screen packed in well sand
			19				
6			20				
		- wet	21	SS	9	19	
			22				
		- silty clay pockets, below 7.0 m	23	SS	10	18	
7			24				
			25				
			26	SS	11	18	
8	228.0		27				
		END OF BOREHOLE at approximately 8.2 m	28				
			29				
9							

VAPOUR CONCENTRATIONS ● %LEL ▲ ppm

● 20 40 60 80

▲ 100 200 300 400

LABORATORY ANALYSES:

BOREHOLE RECORD

BH 1A

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 9, 2009 WATER LEVEL -- TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppm (● 20 40 60 80 / ▲ 100 200 300 400)	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
0		ASPHALT: 50 mm FILL: SAND and GRAVEL			0 1	●	SS	1	10	
1		FILL: Brown, silty SAND with gravel and silt - PHC staining and odours from 0.8 to 1.4 m			2 3 4	●	SS	2	6	
2		Dark brown, compact organic silty SAND (OL) - with wood and organic inclusions - PHC odours from 1.5 to 2.1 m			5 6 7	●	SS	3	16	
3		Grey, compact to dense SAND and GRAVEL (SW-GW), trace of silt and clay, moist to wet			8 9 10	▲	SS	4	20	
4		Grey, stiff to very stiff clayey SILT (ML), trace of sand - wet			11 12 13 14	▲	SS	5	31	Backfilled with Bentonite
5		- clay partings and seams			15 16 17	▲	SS	6	14	
6					18 19 20	▲	SS	7	20	
7		END OF BOREHOLE at approximately 6.7m			21 22 23	▲	SS	8	11	
8					24 25 26	▲	SS	9	15	

LABORATORY ANALYSES: Soil sample BH1A-3, BH1A-3 duplicate, and BH1A-5 submitted for BTEX and PHC F1-F4 analysis

Stantec

BOREHOLE RECORD

BH 2 (MW)

CLIENT Enbridge Gas Distribution Inc.

PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario

DATUM Geodetic

DATES: BORING November 10, 2009

WATER LEVEL December 10, 2009

TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppm	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
	237.2				0	● 20 40 60 80 ▲ 100 200 300 400				
0		FILL: Brown, compact SAND and GRAVEL	F		0		SS	1	10	50 mm ID Solid Schedule 40 PVC Pipe packed in bentonite
	236.6				1					
		FILL : Brown, silty SAND, with gravel and silt	F		2					
1					3		SS	2	4	
	235.8				4					
		Dark grey, loose organic silty SAND (OL) - wood and organic inclusions		▼	5		SS	3	4	
2					6					
	234.7				7					
		Grey, firm to stiff clayey SILT (ML), trace of sand, wet - clay partings and seams			8		SS	4	6	
					9					
3					10					
					11		SS	5	8	50 mm ID Machine Slotted Schedule 40 PVC Screen packed in well sand
					12					
4					13					
					14					
					15					
					16		SS	6	6	
5				▽	17					
					18					
					19					
6					20					
					21		SS	7	5	
	230.5				22					
		END OF BOREHOLE at approximately 6.7m			23					
7					24					
					25					
					26					
8					27					
					28					
					29					
9										

LABORATORY ANALYSES:

BOREHOLE RECORD

BH 2A

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 10, 2009 WATER LEVEL -- TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
0	237.7					
		FILL: Brown, loose silty SAND with topsoil inclusions, some gravel, damp to moist	SS	1	5	Backfilled with Bentonite and Auger Cuttings
1	236.4		SS	2	3	
		FILL: Brown, firm silty CLAY, trace gravel				
	235.8		SS	3	4	
2		Brown, soft to stiff clayey SILT (ML), trace sand, moist to wet ▽	SS	4	3	
3			SS	5	12	
		- grey at 3.7 m				
4						
5	232.5		SS	6	6	
		END OF BOREHOLE at approximately 5.2m				
6						

VAPOUR CONCENTRATIONS ● %LEL ▲ ppm

● 20 40 60 80

▲ 100 200 300 400

DEPTH (ft): 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

LABORATORY ANALYSES:

BOREHOLE RECORD

BH 3 (MW)

Stantec

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 10, 2009 WATER LEVEL December 10, 2009 TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE
0	246.6				
	246.0	FILL: Brown, compact SAND and GRAVEL	SS	1	10
1		FILL: Brown, loose silty SAND, trace gravel, moist to wet - containing gravel, roots and topsoil	SS	2	6
2			SS	3	3
			SS	4	3
3	243.1	- topsoil pocket at 3.2 m	SS	5	7
		Gery, compact silty SAND (SM), trace of gravel			
4					
5			SS	6	19
6					
			SS	7	26
7					
8	238.4		SS	8	24
		END OF BOREHOLE at approximately 8.2m			
9					
10					
11					

VAPOUR CONCENTRATIONS

● %LEL ▲ ppm

● 20 40 60 80

▲ 100 200 300 400

DEPTH (ft): 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

WELL CONSTRUCTION

50 mm ID Solid Schedule 40 PVC Pipe packed in bentonite

50 mm ID Machine Slotted Schedule 40 PVC Screen packed in well sand

LABORATORY ANALYSES:

BOREHOLE RECORD

BH 3A

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 10, 2009 WATER LEVEL -- TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	DEPTH (ft)	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
0	246.9		0				
		ASPHALT: 50mm					
		FILL: Brown, loose SAND and GRAVEL	1	SS	1	8	
	246.3		2				
		FILL: Brown, very loose to compact silty SAND, moist to wet - occasional topsoil inclusions	3	SS	2	20	
1			4				
			5				
			6	SS	3	2	
2			7				
			8	SS	4	WH	
			9				Backfilled with Auger Cuttings
3			10				
	243.6	- pulverized asphalt and fragments at 3.2 m	11	SS	5	15	
		Grey, compact silty SAND (SM), moist to wet	12				
4			13				
			14				
			15				
5			16	SS	6	22	
	241.7		17				
		END OF BOREHOLE at approximately 5.2m	18				
			19				
6			20				
			21				

VAPOUR CONCENTRATIONS ● %LEL ▲ ppm ● 20 40 60 80 ▲ 100 200 300 400

LABORATORY ANALYSES:

BOREHOLE RECORD

BH 4

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 11, 2009 WATER LEVEL -- TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	DEPTH (ft)	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
0	286.1		0				
	285.7	FILL: Brown, loose SAND and GRAVEL					
		FILL: Brown, loose silty SAND, trace clay and gravel, moist to wet	1	SS	1	9	
1			2				
			3	SS	2	5	
			4				
			5				
			6	SS	3	6	
2			7				
	283.8						
		Dark grey, very loose organic silty SAND (OL) - rootlets and shell fragments	8	SS	4	2	Backfilled with Bentonite and Auger Cuttings
			9				
3			10				
			11	SS	5	WH	
			12				
	282.1						
4		Grey, firm to very stiff clayey SILT (ML), trace sand, moist to wet - silty clay pockets	13	SS	6	6	
			14				
			15				
			16	SS	7	30	
5	280.9		17				
		END OF BOREHOLE at approximately 5.2m	18				
			19				
6			20				
			21				

VAPOUR CONCENTRATIONS ● %LEL ▲ ppm

● 20 40 60 80

▲ 100 200 300 400

LABORATORY ANALYSES:

Stantec

BOREHOLE RECORD

BH 4A (MW)

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 11, 2009 WATER LEVEL December 10, 2009 TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppm	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
	285.9					● 20 40 60 80 ▲ 100 200 300 400				
0	285.6	FILL: Brown, compact SAND and GRAVEL	F		0		SS	1	15	
1		FILL: Brown, compact, Brown, Silty SAND, wet	F		1 2 3 4 5 6		SS	2	12	
2	283.7		F	▼	7		SS	3	20	
		Dark grey, loose organic SILT (OL) - shell fragments - topsoil parting and seams, 3.0 m to 3.7 m			8 9 10		SS	4	5	
3	282.2				11		SS	5	4	50 mm ID Solid Schedule 40 PVC Pipe packed in bentonite
		Grey, hard clayey SILT (ML), some sand, moist to wet			12 13 14 15 16		SS	6	44	
4 5 6					17 18 19 20 21		SS	7	64	
7					22 23 24 25 26		SS	8	72	50 mm ID Machine Slotted Schedule 40 PVC Screen packed in well sand
8 9	276.1				27 28 29 30 31		SS	9	53	
10		END OF BOREHOLE at approximately 9.7m			32 33 34 35 36 37 38 39 40 41 42					
11 12 13										

LABORATORY ANALYSES:

Stantec

BOREHOLE RECORD

BH 5A (MW)

CLIENT Enbridge Gas Distribution Inc.

PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario

DATUM Geodetic

DATES: BORING November 12, 2009 WATER LEVEL December 10, 2009

TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppm	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
	225.0					● 20 40 60 80 ▲ 100 200 300 400				
0		TOPSOIL			0		SS	1	19	Stickup Pipe
		FILL: Brown, loose to compact silty SAND, with silt - organic inclusions - some gravel, trace clay		▼	1		SS	2	7	
1	223.5				2					
		Grey, firm to hard clayey SILT (ML)			3		SS	3	29	50 mm ID Solid Schedule 40 PVC Pipe packed in bentonite
2					4		SS	4	4	
					5					
3					6		SS	5	89	
					7					
4					8					
					9					
					10					
5					11					
					12					
					13					
6					14					
					15					
					16		SS	6	53	
7					17					
					18					50 mm ID Machine Slotted Schedule 40 PVC Screen packed in well sand
					19					
8					20					
					21		SS	7	31	
					22					
9					23					
					24					
					25					
10					26		SS	8	59	
	216.8				27					
		END OF BOREHOLE at approximately 8.2m			28					
					29					
					30					
					31					
					32					
					33					
					34					
					35					
11					36					

LABORATORY ANALYSES:

Stantec

BOREHOLE RECORD

BH 5C

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 30, 2009 WATER LEVEL -- TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppm ● 20 40 60 80 ▲ 100 200 300 400	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
0	228.1				0					
		ASPHALT: 125 mm			1		SS	1	19	
		FILL: Brown, SAND and GRAVEL			2					
	227.4				3		SS	2	29	
1		FILL: Brown, compact SILT with sand and gravel			4					
					5		SS	3	37	
2					6					
					7		SS	4	27	Backfilled with Bentonite
					8					
					9		SS	5	29	
3					10					
					11					
					12					
4					13					
	223.5				14					
		FILL: Brown, compact SAND and GRAVEL (SW-GW), wet			15		SS	6	10	
5					16					
					17					
					18					
					19					
6					20					
					21		SS	7	15	
					22					
7					23					
	220.5				24					
		Grey, compact silty CLAY (CL-ML), trace of gravel, wet			25					
					26		SS	8	16	
8					27					
					28		SS	9	63	
	219.1				29					
9		END OF BOREHOLE at approximately 9.0m			30					
					31					
					32					
10					33					
					34					
					35					
11					36					
					37					

LABORATORY ANALYSES:

BOREHOLE RECORD

BH 6A (MW)

CLIENT Enbridge Gas Distribution Inc.

PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario

DATUM Geodetic

DATES: BORING November 13, 2009

WATER LEVEL December 10, 2009

TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE
0	233.6				
	233.2	ASPHALT: 50 mm			
		FILL: SAND and GRAVEL			
1		FILL: Brown, compact to very dense silty SAND with asphalt inclusions	SS	1	41
			SS	2	96
2	231.3		SS	3	17
		Dark brown, loose organic SILT (OL), occasional rootlets	SS	4	6
3	229.9		SS	5	5
		Brown to grey, dense silty SAND (SM) with gravel till, moist - grey at 4.6 m - wet at 5.2 m			
4					
5			SS	6	32
6	227.5				
		Grey, stiff to very stiff clayey SILT (ML), trace sand, wet - occasional wet sand seams	SS	7	12
7					
8	225.4		SS	8	19
		END OF BOREHOLE at approximately 8.2m			
9					
10					
11					

VAPOUR CONCENTRATIONS

● %LEL ▲ ppm

● 20 40 60 80

▲ 100 200 300 400

DEPTH (ft): 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

WELL CONSTRUCTION

50 mm ID Solid Schedule 40 PVC Pipe packed in bentonite

50 mm ID Machine Slotted Schedule 40 PVC Screen packed in well sand

LABORATORY ANALYSES:

Stantec

BOREHOLE RECORD

BH 6C

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 30, 2009 WATER LEVEL -- TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppm	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
	234.0					● 20 40 60 80 ▲ 100 200 300 400				
0	233.9	ASPHALT: 125 mm			0					
		FILL: Brown, dense to very dense SAND and GRAVEL, wet			1		SS	1	50/130	
					2					
1					3		SS	2	30	
					4					
	232.4				5					
		Brown, loose to compact clayey SILT (ML), with sand and gravel, moist to wet			6		SS	3	6	
2					7					
					8		SS	4	14	Backfilled with Bentonite
					9					
3					10					
					11		SS	5	8	
	230.2				12					
		Brown, dense SAND and GRAVEL (SW-GW), very wet			13		SS	6	36	
4	229.6				14					
		END OF BOREHOLE at approximately 4.4m			15					
					16					
5					17					
					18					
					19					
6					20					
					21					

LABORATORY ANALYSES:

Stantec

BOREHOLE RECORD

BH 7 (MW)

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 13, 2009 WATER LEVEL December 10, 2009 TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppm	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
	248.8					● 20 40 60 80 ▲ 100 200 300 400				
0	248.5	TOPSOIL: 300 mm		▼	0		SS	1	3	Stickup Pipe
		Brown, very loose to compact SILT (MH) with clay, trace sand, wet - grey at 1.2 m - clay partings and seams below 3.0 m			1		SS	2	11	
1					2					
					3					
					4					
					5					
2					6		SS	3	6	50 mm ID Solid Schedule 40 PVC Pipe packed in bentonite
					7					
					8		SS	4	15	
					9					
3					10		SS	5	17	
				▽	11					
					12					
					13					
4					14					
					15					
					16		SS	6	10	
5					17					
					18					50 mm ID Machine Slotted Schedule 40 PVC Screen packed in well sand
					19					
6					20					
					21		SS	7	13	
					22					
					23					
7					24					
					25					
					26		SS	8	18	
8	240.6				27					
		END OF BOREHOLE at approximately 8.2m			28					
					29					
9					30					
					31					
					32					
10					33					
					34					
					35					
11					36					

LABORATORY ANALYSES:

BOREHOLE RECORD

BH 7B

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 13, 2009 WATER LEVEL -- TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	DEPTH (ft)	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
	251.8		0				
0		ASPHALT: 38 mm					
	251.3	FILL: SAND and GRAVEL, moist	1	SS	1	14	
		FILL: Brown SAND, moist	2				
1	250.5		3	SS	2	9	
		FILL: Grey, compact silty SAND (SP), trace gravel, moist	4				
	249.9		5				
		FILL: Grey, loose to compact silty SAND with gravel, moist	6	SS	3	8	
2			7				
			8	SS	4	6	Backfilled with Bentonite
			9				
3			10				
			11	SS	5	18	
		- trace clay	12				
4			13				
			14				
	246.9		15				
		Black, loose silty SAND (SP), trace rootlets	16	SS	6	6	
5			17				
			18				
			19				
6	245.5		20				
		Grey, loose sandy SILT (SP-ML), wet	21	SS	7	8	
	245.1		22				
		END OF BOREHOLE at approximately 6.7m	23				
7			24				
			25				
			26				
8							

VAPOUR CONCENTRATIONS

● %LEL ▲ ppm

● 20 40 60 80

▲ 100 200 300 400

LABORATORY ANALYSES:

Stantec

BOREHOLE RECORD

BH 8

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 11, 2009 WATER LEVEL -- TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppm ● 20 40 60 80 ▲ 100 200 300 400	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
0	239.6				0					
	239.3	FILL: Brown, SAND and GRAVEL			1		SS	1	10	
		FILL: Brown, compact silty SAND - organic pockets at 1.8 m			2					
1					3		SS	2	26	
					4					
					5					
					6		SS	3	15	
2	237.3				7					
		Dark brown, loose to compact organic SILT (OL) - topsoil inclusions			8		SS	4	3	Backfilled with Bentonite and Auger Cuttings
					9					
3					10					
	236.2				11		SS	5	10	
		Grey, compact SAND and GRAVEL (SW-GW), trace silt and clay, wet - silt parting at 4.9 m			12					
4					13					
					14					
					15					
					16		SS	6	18	
5	234.4				17					
		END OF BOREHOLE at approximately 5.2m			18					
					19					
6					20					
					21					

LABORATORY ANALYSES:

Stantec

BOREHOLE RECORD

BH 8A (MW)

CLIENT Enbridge Gas Distribution Inc.

PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario

DATUM Geodetic

DATES: BORING November 11, 2009 WATER LEVEL December 10, 2009

TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	DEPTH (ft)	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE
0	239.4		0			
	239.0	ASPHALT: 50 mm FILL: Brown, SAND and GRAVEL	1	SS	1	27
1		FILL: Brown, silty SAND with gravel and silt - grey at 1.7 m	3	SS	2	44
2			6	SS	3	76
	236.6		8	SS	4	4
3	235.8	Dark brown, organic SILT (OL) with peat inclusions	10	SS	5	18
4		Grey, compact SAND and GRAVEL (SW-GW), trace silt and clay, wet	13			
5			16	SS	6	17
6	233.3		19			
	232.6	Grey, dense silty SAND (SM), trace of gravel, wet	21	SS	7	50
7		END OF BOREHOLE at approximately 6.7m	22			
8			26			
9			29			

VAPOUR CONCENTRATIONS

● %LEL ▲ ppm

● 20 40 60 80

▲ 100 200 300 400

WELL CONSTRUCTION

50 mm ID Solid Schedule 40 PVC Pipe packed in bentonite

50 mm ID Machine Slotted Schedule 40 PVC Screen packed in well sand

LABORATORY ANALYSES:

Stantec

BOREHOLE RECORD

BH 9 (MW)

CLIENT Enbridge Gas Distribution Inc.

PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario

DATUM Geodetic

DATES: BORING November 10, 2009

WATER LEVEL December 10, 2009

TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppm (● 20 40 60 80 ▲ 100 200 300 400)	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
0	220.1				0					
		FILL: Brown, SAND and GRAVEL	F		1		SS	1	9	Stickup Pipe
	219.7		F		2					
		Dark brown to grey, very loose organic SILT (OH) with sand, wet - occasional peat inclusions with rootlets		▼	3		SS	2	3	
1					4					
					5					
					6		SS	3	WH	50 mm ID Solid Schedule 40 PVC Pipe packed in bentonite
2					7					
					8		SS	4	WH	
					9					
3					10					
					11		SS	5	WH	
				▽	12					
4					13					
	215.5				14					
		Grey, very soft to firm clayey SILT (ML), trace of sand, wet - clay partings and seams			15					
					16		SS	6	WH	50 mm ID Machine Slotted Schedule 40 PVC Screen packed in well sand
5					17					
					18					
					19					
6					20					
					21		SS	7	5	
	213.4				22					
		END OF BOREHOLE at approximately 6.7m			23					
7					24					
					25					
					26					
8					27					
					28					
					29					
9										

LABORATORY ANALYSES:

BOREHOLE RECORD

BH 9A

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 10, 2009 WATER LEVEL -- TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WATER LEVEL	DEPTH (ft)	VAPOUR CONCENTRATIONS ● %LEL ▲ ppm (● 20 40 60 80 ▲ 100 200 300 400)	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
0	220.5				0					
	220.0	FILL: Brown, SAND and GRAVEL	F		1		SS	1	8	
		FILL: Brown, silty SAND with gravel, moist to wet	F		2					
1			F		3		SS	2	65	
			F		4					
			F		5		SS	3	3	
2	218.3		F		6					
		Dark brown to grey, very loose organic SILT (OH) with sand - occasional rootlets			7					
					8		SS	4	WH	
					9					Backfilled with Auger Cuttings
3					10					
					11		SS	5	WH	
					12					
4					13					
					14					
					15					
5	215.3				16		SS	6	WH	
		END OF BOREHOLE at approximately 5.2m			17					
					18					
					19					
6					20					
					21					

LABORATORY ANALYSES:

BOREHOLE RECORD

BH 10 (MW)

CLIENT Enbridge Gas Distribution Inc. PROJECT No. 122300138

LOCATION Proposed Pipeline to Serve the York Energy Centre, Township of King, Ontario DATUM Geodetic

DATES: BORING November 10, 2009 WATER LEVEL December 10, 2009 TPC ELEV. --

DEPTH (m)	ELEVATION (m)	STRATA DESCRIPTION	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES N-VALUE	WELL CONSTRUCTION
0	222.5					
0		TOPSOIL: silty SAND with high organic content	SS	1	3	Stickup Pipe
	221.8					
1		Grey, loose to compact SAND and SILT (SM-MH), trace of clay, wet	SS	2	11	50 mm ID Solid Schedule 40 PVC Pipe packed in bentonite
2			SS	3	9	
3			SS	4	4	
			SS	5	6	50 mm ID Machine Slotted Schedule 40 PVC Screen packed in well sand
4						
5	217.3		SS	6	9	
		END OF BOREHOLE at approximately 5.2m				
6						
7						

STRATA PLOT / WATER LEVEL

DEPTH (ft): 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

VAPOUR CONCENTRATIONS

● %LEL ▲ ppm

● 20 40 60 80

▲ 100 200 300 400

LABORATORY ANALYSES:

Drive-Point: DP1-09

Project:	Pipeline to Serve the York Energy Centre	**Drilling method:**	Fence-post driver
Client:	Jacques Whitford Stantec Limited	**Date started/completed:**	Nov 19, 2009
Location:	North York, Ontario	**Ground surface elevation:**	n/a
Number:	122300138	**Top of casing elevation:**	235.72 m AMSL
Field investigator:	R.Dong	**Easting:**	610365
Contractor:	Stantec Consulting LTD	**Northing:**	4871869

SUBSURFACE PROFILE				WELL DETAILS	
Depth (ft) (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Well Diagram	Description
-2					1.07 m Stick-up
					25 mm diameter steel casing
0 0		Ground Surface No Lithological Description	0.00		Surface Water Level 1.00 m BTOC
2					
4					Top of screen 1.06 m BGS
					19 mm diameter Ingleton drive-point
		End of Hole	1.48		Bottom of screen 1.48 m BGS
6 2					
8					
10					

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m AGS - metres above ground surface
m BTOC - metres below top of casing
n/a - not available/applicable

Drawn By/Checked By: OR/KM

Stantec

Drive-Point: DP2-09

Project:	Pipeline to Serve the York Energy Centre	**Drilling method:**	Fence-post driver
Client:	Jacques Whitford Stantec Limited	**Date started/completed:**	Nov 19, 2009
Location:	North York, Ontario	**Ground surface elevation:**	n/a
Number:	122300138	**Top of casing elevation:**	236.73 m AMSL
Field investigator:	R.Dong	**Easting:**	610761
Contractor:	Stantec Consulting LTD	**Northing:**	4872067

SUBSURFACE PROFILE | WELL DETAILS

Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Well Diagram	Description
-2						1.02 m Stick-up
						25 mm diameter steel casing
					▽	Surface Water Level 0.90 m BTOC
0	0		Ground Surface No Lithological Description	0.00		
2						
4						Top of screen 1.11 m BGS
						19 mm diameter Ingleton drive-point
			End of Hole	1.53		Bottom of screen 1.53 m BGS
6	2					
8						
10						

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m AGS - metres above ground surface
m BTOC - metres below top of casing
n/a - not available/applicable

Drawn By/Checked By: OR/KM

Stantec

Drive-Point: DP3-09

Project:	Pipeline to Serve the York Energy Centre	**Drilling method:**	Fence-post driver
Client:	Jacques Whitford Stantec Limited	**Date started/completed:**	Nov 19, 2009
Location:	North York, Ontario	**Ground surface elevation:**	n/a
Number:	122300138	**Top of casing elevation:**	245.22 m AMSL
Field investigator:	R.Dong	**Easting:**	611595
Contractor:	Stantec Consulting LTD	**Northing:**	4872332

SUBSURFACE PROFILE				WELL DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Well Diagram	Description
-2						1.02 m Stick-up
						25 mm diameter steel casing
0	0		Ground Surface No Lithological Description	0.00		Surface Water Level 0.98 m BTOC
2						
4						Top of screen 1.11 m BGS
						19 mm diameter Ingleton drive-point
			End of Hole	1.53		Bottom of screen 1.53 m BGS
6	2					
8						
10						

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m AGS - metres above ground surface
m BTOC - metres below top of casing
n/a - not available/applicable

Drawn By/Checked By: OR/KM

Stantec

Drive-Point: DP4-09

Project:	Pipeline to Serve the York Energy Centre	**Drilling method:**	Fence-post driver
Client:	Jacques Whitford Stantec Limited	**Date started/completed:**	Nov 19, 2009
Location:	North York, Ontario	**Ground surface elevation:**	n/a
Number:	122300138	**Top of casing elevation:**	283.87 m AMSL
Field investigator:	R.Dong	**Easting:**	614313
Contractor:	Stantec Consulting LTD	**Northing:**	4873784

SUBSURFACE PROFILE				WELL DETAILS	
Depth (ft) (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Well Diagram	Description
-2					0.96 m Stick-up
					25 mm diameter steel casing
				▽	Surface Water Level 0.73 m BTOC
0 — 0		Ground Surface No Lithological Description	0.00		
2					
4					Top of screen 1.17 m BGS
					19 mm diameter Ingleton drive-point
		End of Hole	1.59		Bottom of screen 1.59 m BGS
6 — 2					
8					
10					

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m AGS - metres above ground surface
m BTOC - metres below top of casing
n/a - not available/applicable

Drawn By/Checked By: OR/KM

Stantec

Drive-Point: DP5-09

Project:	Pipeline to Serve the York Energy Centre	**Drilling method:**	Fence-post driver
Client:	Jacques Whitford Stantec Limited	**Date started/completed:**	Nov 19, 2009
Location:	North York, Ontario	**Ground surface elevation:**	n/a
Number:	122300138	**Top of casing elevation:**	224.20 m AMSL
Field investigator:	R.Dong	**Easting:**	614477
Contractor:	Stantec Consulting LTD	**Northing:**	4876648

SUBSURFACE PROFILE				WELL DETAILS	
Depth (ft) (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Well Diagram	Description
-2					1.14 m Stick-up
					25 mm diameter steel casing
				▽	Surface Water Level 1.00 m BTOC
0 — 0		Ground Surface No Lithological Description	0.00		
2					Top of screen 0.99 m BGS
4					19 mm diameter Ingleton drive-point
		End of Hole	1.41		Bottom of screen 1.41 m BGS
6 — 2					
8					
10					

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m AGS - metres above ground surface
m BTOC - metres below top of casing
n/a - not available/applicable

Drawn By/Checked By: OR/KM

Stantec

Drive-Point: DP6-09

Project:	Pipeline to Serve the York Energy Centre	**Drilling method:**	Fence-post driver
Client:	Jacques Whitford Stantec Limited	**Date started/completed:**	Nov 19, 2009
Location:	North York, Ontario	**Ground surface elevation:**	n/a
Number:	122300138	**Top of casing elevation:**	230.57 m AMSL
Field investigator:	R.Dong	**Easting:**	615371
Contractor:	Stantec Consulting LTD	**Northing:**	4876966

SUBSURFACE PROFILE				WELL DETAILS	
Depth (ft) (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Well Diagram	Description
-2					1.10 m Stick-up
					Surface Water Level 0.63 m BTOC
					25 mm diameter steel casing
0 — 0		Ground Surface No Lithological Description	0.00		
2					Top of screen 1.03 m BGS
4					19 mm diameter Ingleton drive-point
		End of Hole	1.45		Bottom of screen 1.45 m BGS
6 — 2					
8					
10					

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m AGS - metres above ground surface
m BTOC - metres below top of casing
n/a - not available/applicable

Drawn By/Checked By: OR/KM

Stantec

Drive-Point: DP7-09

Project:	Pipeline to Serve the York Energy Centre	**Drilling method:**	Fence-post driver
Client:	Jacques Whitford Stantec Limited	**Date started/completed:**	Nov 19, 2009
Location:	North York, Ontario	**Ground surface elevation:**	n/a
Number:	122300138	**Top of casing elevation:**	247.54 m AMSL
Field investigator:	R.Dong	**Easting:**	616393
Contractor:	Stantec Consulting LTD	**Northing:**	4877299

SUBSURFACE PROFILE				WELL DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Well Diagram	Description
-2						0.64 m Stick-up
						25 mm diameter steel casing
					▽	Surface Water Level 0.55 m BTOC
0	0		Ground Surface No Lithological Description	0.00		
2						Top of screen 0.58 m BGS
						19 mm diameter Ingleton drive-point
			End of Hole	1.00		Bottom of screen 1.00 m BGS
4						
6	2					
8						
10						
12						

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m AGS - metres above ground surface
m BTOC - metres below top of casing
n/a - not available/applicable

Drawn By/Checked By: OR/KM

Stantec

Drive-Point: DP8-09

Project:	Pipeline to Serve the York Energy Centre	**Drilling method:**	Fence-post driver
Client:	Jacques Whitford Stantec Limited	**Date started/completed:**	Nov 19, 2009
Location:	North York, Ontario	**Ground surface elevation:**	n/a
Number:	122300138	**Top of casing elevation:**	238.44 m AMSL
Field investigator:	R.Dong	**Easting:**	617514
Contractor:	Stantec Consulting LTD	**Northing:**	4878860

SUBSURFACE PROFILE				WELL DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Well Diagram	Description
						1.69 m Stick-up
-4						
						25 mm diameter steel casing
-2						
					▽	Surface Water Level at 1.59 m BGS
0	0		Ground Surface No Lithological Description	0.00		
						Top of screen 0.45 m BGS
2						19 mm diameter Ingleton drive-point
				0.87		Bottom of screen 0.87 m BGS
			End of Hole			
4						
6						
	2					
8						

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m AGS - metres above ground surface
m BTOC - metres below top of casing
n/a - not available/applicable

Drawn By/Checked By: OR/KM

Stantec

Drive-Point: DP9-09

Project:	Pipeline to Serve the York Energy Centre	**Drilling method:**	Fence-post driver
Client:	Jacques Whitford Stantec Limited	**Date started/completed:**	Nov 19, 2009
Location:	North York, Ontario	**Ground surface elevation:**	n/a
Number:	122300138	**Top of casing elevation:**	219.60 m AMSL
Field investigator:	R.Dong	**Easting:**	617073
Contractor:	Stantec Consulting LTD	**Northing:**	4881191

SUBSURFACE PROFILE				WELL DETAILS	
Depth (ft) (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Well Diagram	Description
-2					0.87 m Stick-up
					25 mm diameter steel casing
0 0		Ground Surface			Surface Water Level at 0.77 m BGS
		No Lithological Description	0.00		
2					
4					Top of screen 1.27 m BGS
					19 mm diameter Ingleton drive-point
			1.69		Bottom of screen 1.69 m BGS
		End of Hole			
6 2					
8					
10					
12					

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m AGS - metres above ground surface
m BTOC - metres below top of casing
n/a - not available/applicable

Drawn By/Checked By: OR/KM

Stantec

Drive-Point: DP10-09

Project:	Pipeline to Serve the York Energy Centre	**Drilling method:**	Fence-post driver
Client:	Jacques Whitford Stantec Limited	**Date started/completed:**	Nov 19, 2009
Location:	North York, Ontario	**Ground surface elevation:**	n/a
Number:	122300138	**Top of casing elevation:**	223.21 m AMSL
Field investigator:	R.Dong	**Easting:**	617270
Contractor:	Stantec Consulting LTD	**Northing:**	4880147

SUBSURFACE PROFILE				WELL DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Well Diagram	Description
-2						0.98 m Stick-up
						25 mm diameter steel casing
					▽	Surface Water Level at 0.88 m BGS
0	0		Ground Surface No Lithological Description	0.00		
2						
4						Top of screen 1.16 m BGS
						19 mm diameter Ingleton drive-point
				1.58		Bottom of screen 1.58 m BGS
			End of Hole			
6	2					
8						
10						

Screen Interval: n/a
Sand Pack Interval: n/a
Well Seal Interval: n/a

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m AGS - metres above ground surface
m BTOC - metres below top of casing
n/a - not available/applicable

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