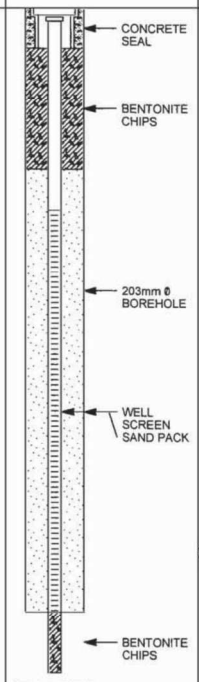
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: UST CLOSURE SERVICES
PROJECT NUMBER: 32985-01
CLIENT: KRAFT CANADA INC.
LOCATION: 2150 LAKESHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: MW2-04
DATE COMPLETED: January 21, 2004
DRILLING METHOD: 4 1/4" ID HSA
FIELD PERSONNEL: B. IOTZOV

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS
	ASPHALT	
0.5	SAND (FILL), dense, brown, moist	0.46
	- silt, with sand, laminated, mottled gray/green at 0.61m BGS	0.76
1.0	SILT, trace sand, trace gravel, firm, laminated, mottled gray/green, moist	
1.5		
2.0		
	- wet at 2.29m BGS	
2.5		
3.0		
	- moist at 3.35m BGS	
3.5		
4.0		
4.5	- with gravel at 4.57m BGS	
5.0	END OF BOREHOLE @ 4.97m BGS	4.97
5.5		
6.0		
6.5		



WELL DETAILS
Screened interval:
1.52 to 4.57m BGS
Length: 3.05m
Diameter: 51mm
Slot Size: 10
Material: SCH 40 PVC
Seal:
0.30 to 1.22m BGS
Material: BENTONITE CHIPS
Sand Pack:
1.22 to 4.57m BGS
Material: #1 SILICIA SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1	X	75	16	0
2	X	60	18	0
3	X	8	3	0
4	X	65	4	0
5	X	65	23	0
6 (CHEMICAL ANALYSIS)	X		12	0
7	X		>62	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯

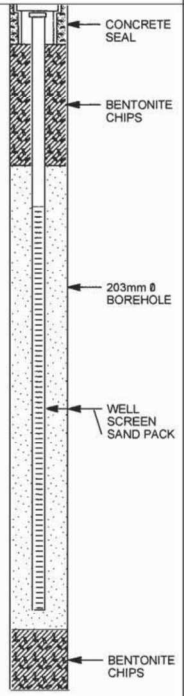
OVERBURDEN LOG 32985-01.GPJ CRA_CORP.GDT 1/31/05

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: UST CLOSURE SERVICES
PROJECT NUMBER: 32985-01
CLIENT: KRAFT CANADA INC.
LOCATION: 2150 LAKESHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: MW3-04
DATE COMPLETED: January 21, 2004
DRILLING METHOD: 4 1/4" ID HSA
FIELD PERSONNEL: B. IOTZOV

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS
	ASPHALT	
0.5	SAND and GRAVEL (FILL), dense, gray/brown, slight petroleum hydrocarbon odour	0.30
1.0	SAND and SILT (TILL), firm, gray	0.91
	- saturated at 1.22m BGS	
1.5		
2.0		
2.5		
3.0		
	- trace gravel, trace sand, trace clay at 3.66m BGS	
3.5		
4.0		
4.5	ML - SILT (TILL), trace sand, trace gravel, stiff, medium plasticity, laminated, gray/olive, moist to wet	4.27
	- with sand, with gravel at 4.88m BGS	
5.0	END OF BOREHOLE @ 5.18m BGS	5.18
5.5		
6.0		
6.5		



WELL DETAILS
Screened interval:
1.52 to 4.57m BGS
Length: 3.05m
Diameter: 51mm
Slot Size: 10
Material: SCH 40 PVC
Seal:
0.30 to 1.22m BGS
Material: BENTONITE CHIPS
Sand Pack:
1.22 to 4.72m BGS
Material: #1 SILICA SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1	X	56	41	0
2	X	0	13	--
3	X	50	2	0
4	X	38	4	0
5	X	100	4	0
6 (CHEMICAL ANALYSIS)	X	88	9	0
7	X	71	17	0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯

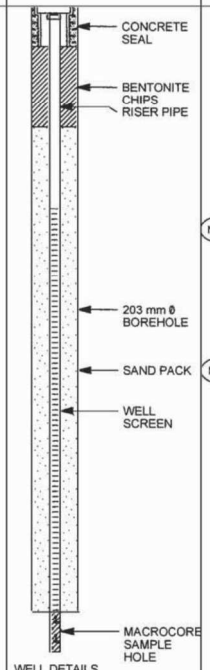
OVERBURDEN LOG 32985-01.GPJ CRA_CORP.GDT 1/31/05

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: UST CLOSURE SERVICES
PROJECT NUMBER: 32985-01
CLIENT: KRAFT CANADA INC.
LOCATION: 2150 LAKESHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: MW5-04
DATE COMPLETED: December 22, 2004
DRILLING METHOD: DIRECT-PUSH/ 4 1/4" ID HSA
FIELD PERSONNEL: N. REDWOOD/ J. O'NEIL

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS
	ASPHALT	
	GRAVEL (FILL), with sand, trace silt, loose, fine to coarse grained, well graded, brownish grey, moist	0.20
0.5	SAND (FILL), trace silt, compact, fine to medium grained, poorly graded, brown with oxidation, moist to wet, no odours	0.38
	- grey with dark grey mottling, wet, no odours at 0.76m BGS	
1.0	ML - SILT, with to trace clay, trace sand, firm to stiff, slightly to non-plastic, grey with green mottling, vegetative debris, moist	0.97
1.5	- with sand, fine grained, trace oxidation, no vegetative debris at 1.22m BGS	
	- trace sand, coarse grained, grey, oxidation mottling, moist to wet, sheen, strong petroleum hydrocarbon odour, black grease from 1.52 to 1.83m BGS	
2.0		
2.5	- with clay, green mottling at 2.44m BGS	
3.0	- black vegetative debris at 3.05m BGS	
	SM/ML - SANDY SILT, slightly cohesive, fine grained, non plastic, slightly dilatent, grey, moist to wet,	3.20
3.5	- not dilatent, moist at 3.51m BGS	
4.0	- sand seam for 102mm, with silt, fine grained, grey at 4.11m BGS	
4.5		4.57
	ML - SILT (TILL), with clay, trace gravel, trace sand, hard, well graded, fine to coarse grained, cohesive, plastic, grey, moist	
5.0	END OF BOREHOLE @ 4.57m BGS	4.88
5.5		
6.0		
6.5		



WELL DETAILS
Screened interval:
1.52 to 4.57m BGS
Length: 3.05m
Diameter: 51mm
Slot Size: 10
Material: SCH 40 PVC
Seal:
0.30 to 0.91m BGS
Material: BENTONITE CHIPS
Sand Pack:
0.91 to 4.57m BGS
Material: #2 SILICA SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1	P/S	75		0.6
NR-03 2	P/S	75		3.2 0.6
NR-04 3	P/S	75		1.4
4	P/S	75		1.0

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯

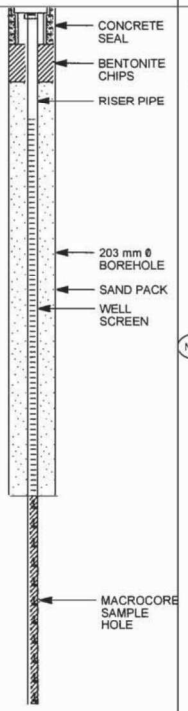
OVERBURDEN LOG 32985-01.GPJ CRA_CORP.GDT 1/31/05

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: UST CLOSURE SERVICES
PROJECT NUMBER: 32985-01
CLIENT: KRAFT CANADA INC.
LOCATION: 2150 LAKESHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: MW6-04
DATE COMPLETED: December 22, 2004
DRILLING METHOD: DIRECT-PUSH/ 4 1/4" ID HSA
FIELD PERSONNEL: N. REDWOOD/ J. O'NEIL

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS
	ASPHALT	
	GRAVEL (FILL), trace to with sand, trace silt, loose, well graded, small to coarse grained, grey, moist	0.15 0.20
0.5	SAND (FILL), with gravel, trace silt, fine to coarse grained, brown, moist	
	- no gravel, loose, fine grained, wet, oxidized at 0.61m BGS	
1.0	- grey, black mottling at 1.07m BGS	
1.5	- trace to with silt, dilatant at 1.37m BGS	
2.0		
	- dark grey, slight staining, slight odours at 2.13m BGS	2.29
2.5	ML - SILT, trace to with clay, trace sand, stiff, fine grained, slightly cohesive, brittle, grey with green mottling, moist, oxidized	
	- clayey, plastic, cohesive, sticky, moist to wet at 2.74m BGS	
3.0	- medium to coarse sand veneer, brown, wet at 3.25m BGS	
3.5	- trace fine sand veneers, grey at 3.51m BGS	
4.0	- grey, no mottling, moist at 3.96m BGS	
4.5	- trace gravel at 4.57m BGS	
	ML- SILT (TILL), with clay, trace to with sand, trace gravel, stiff, fine to coarse grained, cohesive, plastic grey, moist	4.72
5.0	- trace clay, sticky, plastic, very cohesive, moist to wet at 4.88m BGS	5.18
5.5	SHALE - bedrock, grey, brittle, moist	5.64
	END OF BOREHOLE @ 5.64m BGS	
6.0		
6.5		
7.0		



WELL DETAILS
Screened interval:
0.91 to 3.96m BGS
Length: 3.05m
Diameter: 76mm
Slot Size: 10
Material: SCH 40 PVC
Seal:
0.30 to 0.61m BGS
Material: BENTONITE CHIPS
Sand Pack:
0.61 to 3.96m BGS
Material: # SILICA SAND

SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
1	P/S	50		0.8
2	P/S	75		0.2
NR-02 3	P/S	75		0.2
4	P/S	75		1.3
5	P/S	75		1.1

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯

OVERBURDEN LOG 32985-01.GPJ CRA_CORP.GDT 1/31/05

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: UST CLOSURE SERVICES
PROJECT NUMBER: 32985-02
CLIENT: KRAFT CANADA INC.
LOCATION: 2150 LAKESHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH201-05
DATE COMPLETED: November 14, 2005
DRILLING METHOD: 2" PERCUSSION/BOSCH
FIELD PERSONNEL: K. PETER

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	Eagle (ppm)
	CONCRETE FLOOR SLAB	0.10					
	GRANULAR FILL, no odour or staining		SS-1		5		0
0.5							
1.0			SS-2		100		0
1.5	SM/ML - SILTY SAND, soft to firm, dark grey, saturated, faint petroleum hydrocarbon odour	1.37	S-BH201-4.5-6				0
2.0			SS-3				0
2.5	ML/CL - CLAYEY SILT, firm to stiff, dark grey, moist, no odour	2.51					
	END OF BOREHOLE @ 2.59m BGS	2.59					
3.0	Note: Borehole was backfilled with bentonite chips and a concrete surface.						
3.5							
4.0							
4.5							
5.0							
5.5							
6.0							
6.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯

OVERBURDEN LOG 32985-02.GPJ CRA_CORP.GDT 1/6/06

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: UST CLOSURE SERVICES
PROJECT NUMBER: 32985-02
CLIENT: KRAFT CANADA INC.
LOCATION: 2150 LAKESHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH202-05
DATE COMPLETED: November 14, 2005
DRILLING METHOD: 2" PERCUSSION/BOSCH
FIELD PERSONNEL: K. PETER

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	Eagle (ppm)
	CONCRETE FLOOR SLAB	0.15					
	GRANULAR FILL	0.38	S-BH202-0.5-2.5				10
0.5	ML/SM - SILTY SAND/SANDY SILT, compact/firm, fine grained, dark grey, moist, mild petroleum hydrocarbon odour - dark grey/black staining, stronger petroleum hydrocarbon odour from 0.61 to 0.76m BGS		SS-1		20		
1.0			SS-2				
			S-BH202-2.5-5		10		5
1.5	- strong petroleum hydrocarbon odour, some sheen on soil surface at 1.37m BGS - wet/saturated, dilatant, moderate petroleum hydrocarbon odour, fainter with depth at 1.52m BGS - seams of silty clay, grey, stiff, moist from 1.52 to 2.59m BGS						
2.0			SS-3		0		0
2.5	END OF BOREHOLE @ 2.59m BGS	2.59					
3.0	Note: Borehole was backfilled with bentonite chips and a concrete surface. Borehole was redrilled from 1.5 to 2.3 m bgs.						
3.5							
4.0							
4.5							
5.0							
5.5							
6.0							
6.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯

OVERBURDEN LOG 32985-02.GPJ CRA_CORP.GDT 1/6/06

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: UST CLOSURE SERVICES
PROJECT NUMBER: 32985-02
CLIENT: KRAFT CANADA INC.
LOCATION: 2150 LAKESHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH203-05
DATE COMPLETED: November 14, 2005
DRILLING METHOD: 2" PERCUSSION/BOSCH
FIELD PERSONNEL: K. PETER

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	Eagle (ppm)
	CONCRETE FLOOR SLAB						
	GRANULAR FILL, no staining or odour	0.15	S-BH203-0.5-2.5				0
0.5	SM - SAND with silt, compact, fine to medium grained, brown, moist, some black coal clasts	0.46	SS-1		15		
1.0	- silty, dark grey, wet/saturated, dilatant, faint petroleum hydrocarbon odour at 0.76m BGS		SS-2		100		0
1.5	END OF BOREHOLE @ 1.52m BGS	1.52					
2.0	Note: Borehole was backfilled with bentonite chips and a concrete surface.						
2.5							
3.0							
3.5							
4.0							
4.5							
5.0							
5.5							
6.0							
6.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯

OVERBURDEN LOG 32985-02.GPJ CRA_CORP.GDT 1/6/06

STRATIGRAPHIC LOG
(OVERBURDEN)

PROJECT NAME: UST CLOSURE SERVICES
PROJECT NUMBER: 32985-02
CLIENT: KRAFT CANADA INC.
LOCATION: 2150 LAKESHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH204-05
DATE COMPLETED: November 14, 2005
DRILLING METHOD: 2" PERCUSSION/BOSCH
FIELD PERSONNEL: K. PETER

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	Eagle (ppm)
	CONCRETE FLOOR SLAB						
	- no recovery, very soft, spoons appear saturated from 0.20 to 0.76m BGS	0.20					
0.5	ML/SM - SILTY SAND, soft, fine grained, brown, saturated, dilatant		SS-1		0		
1.0			SS-2	S-BH204-2.5-4.5	20		5
1.5	- dark grey, faint petroleum hydrocarbon odour, some staining/sheen on soil at 1.37m BGS						5
2.0	CL/ML - CLAYEY SILT, stiff, grey, moist, no odour or staining		SS-3		100		5
2.5	END OF BOREHOLE @ 2.29m BGS	2.29					
3.0	Note: Borehole was backfilled with bentonite chips and a concrete surface.						
3.5							
4.0							
4.5							
5.0							
5.5							
6.0							
6.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯

OVERBURDEN LOG 32985-02.GPJ CRA_CORP.GDT 1/6/06

STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: UST CLOSURE SERVICES
PROJECT NUMBER: 32985-02
CLIENT: KRAFT CANADA INC.
LOCATION: 2150 LAKESHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH205-05
DATE COMPLETED: November 14, 2005
DRILLING METHOD: 2" PERCUSSION/BOSCH
FIELD PERSONNEL: K. PETER

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	Eagle (ppm)
	CONCRETE FLOOR SLAB	0.15					
	SM/ML - SILTY SAND, compact to dense, fine grained, brown, moist, no odour or staining		SS-1		70		0
0.5							
1.0	- saturated, grey, trace clay at 1.07m BGS		SS-2 S-BH205-2.5-5		100		0
1.5	END OF BOREHOLE @ 1.52m BGS	1.52					
	Note: Borehole was backfilled with bentonite chips and a concrete surface.						
2.0							
2.5							
3.0							
3.5							
4.0							
4.5							
5.0							
5.5							
6.0							
6.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ◯

OVERBURDEN LOG 32985-02.GPJ CRA_CORP.GDT 1/6/06

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-1

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/06/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV (m) / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	'N' BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 175 mm of reinforced concrete											
0.2	**FILL** sand and silt, trace gravel, saturated		1A	U	N/D							
			1B	U	N/D							
0.9	**SILTY CLAY** grey, wet		2A	U	N/D							
			2B	U	N/D							
			3A	U	N/D							
			3B	U	N/D							
			4A	U	N/D							
			4B	U	N/D							
	trace gravel		5A	U	N/D							
5.2	**SHALE** weathered shale											
5.5	**END OF BOREHOLE** 1. Sample refusal at 5.5 m. 2. Borehole backfilled with bentonite upon completion.											

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 2.GPJ SPL.GDT 12/5/13

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-2

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/06/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) (50 100 150 200 250) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 230 mm of reinforced concrete											
0.2	**FILL** sand and silt, grey/brown, moist		1A	U	NDIST							
0.6	**CLAYEY SILT** trace sand, grey/brown, moist		1B	U	NDIST							
1.2	**SILTY CLAY** trace sand, trace gravel, grey, wet		2A	U	NDIST							
			2B	U	NDIST							
			3A	U	NDIST							
			3B	U	NDIST							
			4A	U	NDIST							
			4B	U	NDIST							
	trace grave, trace sand		5A	U	NDIST							
5.5	**END OF BOREHOLE** 1. Sample refusal at 5.5 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 2.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-3

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lke Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/05/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) (50 100 150 200 250) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 150 mm of reinfoced concrete											
0.2	**FILL** sand, trace gravel, trace silt, brown, moist		1A	U	NDIST							
0.9	**SILTY CLAY** trace sand, trace gravel, brown, moist		1B	U	NDIST							
1.2	**SILT** some clay, trace sand, trace gravel, brown, moist		2A	U	NDIST							
			2B	U	NDIST							
2.4	**SILTY CLAY** brown, moist		3A	U	NDIST							
			3B	U	NDIST							
			4A	U	NDIST							
			4B	U	NDIST							
4.9	**END OF BOREHOLE** 1. Sample refusal at 4.9 m. 2. Borehole backfilled with bentonite upon completion											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 1.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-4

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/06/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 230 mm of reinforced concrete											
0.2	**FILL** sand and silt, brown/grey,moist		1A	U	N	DIST						
			1B	U	N	DIST						
			2A	U	N	DIST						
1.8	**SILTY CLAY** grey, saturated		2B	U	N	DIST						
			3A	U	N	DIST						
			3B	U	N	DIST						
	wet		4A	U	N	DIST						
			4B	U	N	DIST						
	trace weathered shale		5A	U	N	DIST						
5.5	**END OF BOREHOLE** 1. Sample refusal at 5.5 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 2.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-5

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/07/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 150 mm of reinforced concrete											
0.2	**FILL** sand, trace silt, brown, moist		1A	U	N	DIST						
0.6	**SILTY CLAY** trace sand, brown, moist		1B	U	N	DIST						
			2A	U	N	DIST						
			2B	U	N	DIST						
	grey, wet saturated		3A	U	N	DIST						
	wet		3B	U	N	DIST						
			4A	U	N	DIST						
	trace gravel		4B	U	N	DIST						
			5A	U	N	DIST						
			5B	U	N	DIST						
6.1	**END OF BOREHOLE** 1. Sample refusal at 6.6 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-6

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/07/2013
REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE**											
0.2	150 mm of reinforced concrete											
	FILL sand, trace silt, gravel, brown, moist		1A	UNDIST								
			1B	UNDIST								
1.4	**SILT** trace clay, grey, moist		2A	UNDIST								
1.8	**CLAYEY SILT** grey, moist		2B	UNDIST								
			3A	UNDIST								
			3B	UNDIST								
3.7	**SILTY CLAY** grey, moist		4A	UNDIST								
			4B	UNDIST								
	wet		5A	UNDIST								
			5B	UNDIST								
			6A	UNDIST								
6.7	**END OF BOREHOLE** 1. Sample refusal at 6.7 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-7

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/06/2013
REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE**											
0.2	150 mm of reinforced concrete											
	FILL sand and clayey silt, brown/grey		1A	UNDIST								
			1B	UNDIST								
1.1	**SILT** some clay, brown, moist		2A	UNDIST								
			2B	UNDIST								
2.4	**SILTY CLAY** grey, wet		3A	UNDIST								
			3B	UNDIST			W. L. 3.4 mBGL Jun 11, 2013					
			4A	UNDIST								
	saturated		4B	UNDIST								
			5A	UNDIST								
			5B	UNDIST								
			6A	UNDIST								
6.2	**END OF BOREHOLE** 1. Sample refusal at 6.2 m. 2. Borehole backfilled with sand to 5.8 m. 3. 30mm-diameter monitoring well installed. 4. Water encountered at 3.4 mbg on Nov 6, 2013.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 2.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-8

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/06/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 250 mm of reinforced-concrete											
0.2	**FILL** silt, grey/brown, moist		1A	UNDIST								
0.6	**SILT** some clay, trace sand, grey, moist		1B	UNDIST								
	grey/brown		2A	UNDIST								
			2B	UNDIST								
2.4	**CLAYEY SILT** grey, wet		3A	UNDIST			W. L. 2.4 mBGL Jun 11, 2013					
			3B	UNDIST								
3.7	**SILTY CLAY** grey, wet		4A	UNDIST								
			4B	UNDIST								
			5A	UNDIST								
	trace sand, trace gravel		5B	UNDIST								
5.8	**END OF BOREHOLE** 1. Sample refusal at 5.8 m. 2. 30mm-diameter monitoring well installed. 3. Water encountered at 2.4 mbg Nov. 6, 2013											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 2.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-9A

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lke Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/05/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 150 mm of reinforced-concrete											
0.2	**FILL** sand, trace gracel, trace silt, brown, moist		1A	UNDIST								
			1B	UNDIST								
	wet		2A	UNDIST								
	grey		2B	UNDIST			W. L. 2.1 mBGL May 11, 2013					
2.4	**END OF BOREHOLE** 1. Sample refusal at 2.4 m. 2. 30mm-diameter monitoring well installed. 3. Water encountered at 2.1 mbg Nov. 5, 2013											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 1.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-10

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/06/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	BLOWS / 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 230 mm of reinforced concrete											
0.2	**FILL** sand and silt, brown, moist		1A	U	N/DIST							
0.6	**SILT** trace sand, trace gravel, trace clay, brown, oxidation, moist		1B	U	N/DIST							
	grey/brown		2A	U	N/DIST							
	grey, wet		2B	U	N/DIST							
2.4	**SILTY CLAY** trace sand, grey, wet		3A	U	N/DIST							
			3B	U	N/DIST		W. L. 3.6 mBGL Jun 11, 2013					
			4A	U	N/DIST							
			4B	U	N/DIST							
			5A	U	N/DIST							
5.5	**SHALE** shale, grey		5B	U	N/DIST							
5.8	**END OF BOREHOLE** 1. Sample refusal at 5.8 m. 2. 30mm-diameter monitoring well installed. 3.Water encountered at 3.6 mbg Nov. 6, 2013											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 2.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-11

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lke Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/05/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	BLOWS / 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 230 mm of reinforced concrete											
0.2	**FILL** sand, trace silt, trace gravel, brown		1A	U	N/DIST							
0.6	**SILT TILL** some sand, trace clay		1B	U	N/DIST							
1.2	**SILT** some clay, grey, moist		2A	U	N/DIST							
1.8	**CLAYEY SILT** trace sand, grey, wet		2B	U	N/DIST							
	brown, some organics		3A	U	N/DIST							
			3B	U	N/DIST							
	dry with fine sand layers		4A	U	N/DIST							
	moist to very moist		4B	U	N/DIST							
4.9	**SILTY CLAY** grey/brown, wet		5A	U	N/DIST							
			5B	U	N/DIST							
6.1	**CLAY TILL** grey, moist		6	U	N/DIST							
6.4	**END OF BOREHOLE** 1. Possible bedrock refusal at 6.4m. 2. Borehole backfilled with bentonite upon completion											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 1.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-12

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lke Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/06/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 200 mm of reinfoced concrete											
0.2	**FILL** silt, some clay, grey, moist		1A	U	N/DIST							
			1B	U	N/DIST							
	grey/brown		2A	U	N/DIST							
			2B	U	N/DIST							
			3A	U	N/DIST							
3.0	**SILTY CLAY** grey, wet		3B	U	N/DIST							
			4A	U	N/DIST							
			4B	U	N/DIST							
			5A	U	N/DIST							
	trace gravel		5B	U	N/DIST							
			6A	U	N/DIST							
6.2	**END OF BOREHOLE** 1. Sample refusal at 6.2 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 1.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BHI-13

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/07/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
0.0	**CONCRETE** 230 mm of reinforced concrete											
0.2	**FILL** sand, brown, moist		1A	U	N/DIST							
			1B	U	N/DIST							
			2A	U	N/DIST							
1.8	**SILT** trace clay, brown, wet		2B	U	N/DIST							
2.1	**SILTY CLAY** grey, wet		3A	U	N/DIST							
			3B	U	N/DIST							
			4A	U	N/DIST							
	saturated		4B	U	N/DIST							
			5A	U	N/DIST							
5.5	trace gravel		5B	U	N/DIST							
			6A	U	N/DIST							
	END OF BOREHOLE 1. Sample refusal at 6.7 m. 2. 50mm-diameter monitoring well installed.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH1

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/07/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV / DEPTH (m)	DESCRIPTION	NUMBER	TYPE	"N" BLOWS 0.3 m	ELEVATION
25.6 / 0.0	**ASPHALT** 180 mm of asphalt				
25.4 / 0.2	**GRANULAR**	1A	UNDIST		
0.4	**FILL** sand, brown, moist	1B	UNDIST		25
		2A	UNDIST		24
23.8 / 1.8	**SILT** some sand, trace gravel, strong PHC odour, brown, moist	2B	UNDIST		
		3A	UNDIST		23
22.6 / 3.0	**SAND & SILT** strong PHC odour, black, saturated	3B	UNDIST		
22.0 / 3.7	**END OF BOREHOLE** 1. Sample refusal at 3.7 m. 2. 50mm-diameter monitoring well installed. 3. Water at 3.1 mbg Nov. 7, 2013				22

SHEAR STRENGTH (kPa): ○ UNCONF NED, ● QUICK TRIAXIAL, + FIELD VANE & Sensitivity, × LAB VANE
WATER CONTENT (%): w_P — w — w_L

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH2

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV / DEPTH (m)	DESCRIPTION	NUMBER	TYPE	"N" BLOWS 0.3 m	ELEVATION
25.6 / 0.0	**ASPHALT** 75 mm of asphalt				
25.0 / 0.1	**FILL** sandy silt, brown, moist	1A	UNDIST		
24.9 / 0.8	**FILL** clayey silt, brown, moist	1B	UNDIST		25
24.1 / 1.5	**CLAYEY SILT** trace sand, brown, moist	2A	UNDIST		24
		2B	UNDIST		23
	strong PHC odour between 3-4.5 m trace gravel	3A	UNDIST		
22.1 / 3.5	**SANDY SILT** brown				22
21.8 / 3.8	**SILTY CLAY** brown/grey, moist	3B	UNDIST		
		4A	UNDIST		21
		4B	UNDIST		20
19.6 / 6.1	**SHALE** shale, grey	5A	UNDIST		
18.9 / 6.7	**END OF BOREHOLE** 1. Sample refusal at 6.7 m. 2. Borehole backfilled with bentonite upon completion.				19

SHEAR STRENGTH (kPa): ○ UNCONF NED, ● QUICK TRIAXIAL, + FIELD VANE & Sensitivity, × LAB VANE
WATER CONTENT (%): w_P — w — w_L

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 4.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH3

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV (m) / DEPTH	DESCRIPTION	SAMPLE NUMBER	TYPE	BLOWS 0.3 m
25.7 / 0.0	**ASPHALT** 100 mm of asphalt			
25.6 / 0.1	**FILL** sand, trace silt, brown, moist	1A	UNDIST	
		1B	UNDIST	
24.0 / 1.7	**CLAYEY SILT** clayey silt, trace sand, brown, moist	2A	UNDIST	
		2B	UNDIST	
22.6 / 3.0	**SILTY CLAY** silty clay, brown, moist	3A	UNDIST	
		3B	UNDIST	
21.1 / 4.6	**CLAYEY SILT** clayey silt, brown, moist	4A	UNDIST	
		4B	UNDIST	
19.6 / 6.1	**SHALE** shale, grey	5A	UNDIST	
19.0 / 6.7	**END OF BOREHOLE** 1. Sample refusal at 6.7 m. 2. Borehole backfilled with bentonite upon completion.			

Ground water conditions: Elevation 25, 24, 23, 22, 21, 20, 19

Dynamic cone penetration resistance plot (20 40 60 80 100); Shear strength (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250); + FIELD VANE & Sensitivity × LAB VANE; Plastic limit w_P — Natural moisture content w — Liquid limit w_L; Water content (%) (10 20 30); Pocket pen. (C_{u1} (kPa)); Natural unit wt (Mg/m³); Remarks and grain size distribution (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 4.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH4

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV (m) / DEPTH	DESCRIPTION	SAMPLE NUMBER	TYPE	BLOWS 0.3 m
25.6 / 0.0	**ASPHALT** 50 mm of asphalt			
25.2 / 0.4	**CONCRETE** 125 mm of concrete	1A	UNDIST	
	FILL silt, trace sand, grey, moist	1B	UNDIST	
24.4 / 1.2	trace clay **SILT** trace sand, trace clay, brown, moist	2A	UNDIST	
		2B	UNDIST	
		3A	UNDIST	
		3B	UNDIST	
	some clay, trace sand, wet	4A	UNDIST	
21.4 / 4.3	**SILTY CLAY** grey, wet	4B	UNDIST	
		5A	UNDIST	
	saturated	5B	UNDIST	
		6A	UNDIST	
18.9 / 6.7	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.			

Ground water conditions: Elevation 25, 24, 23, 22, 21, 20, 19

Dynamic cone penetration resistance plot (20 40 60 80 100); Shear strength (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250); + FIELD VANE & Sensitivity × LAB VANE; Plastic limit w_P — Natural moisture content w — Liquid limit w_L; Water content (%) (10 20 30); Pocket pen. (C_{u1} (kPa)); Natural unit wt (Mg/m³); Remarks and grain size distribution (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH5

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	"N" BLOWS / 0.3 m	GROUND WATER CONDITIONS	ELEVATION
25.7 / 0.0	**ASPHALT** 100 mm of asphalt						
25.6 / 0.1	**FILL** sand and gravel, brown, moist		1A	UNDIST			
			1B	UNDIST			25
	trace sand, some clay		2A	UNDIST			24
23.9 / 1.8	**CLAY** dark brown, moist		2B	UNDIST			
			3A	UNDIST			23
			3B	UNDIST			
			4A	UNDIST			22
	saturated						
21.1 / 4.6	**SILTY-CLAY** brown, wet		4B	UNDIST			21
			5A	UNDIST			
	saturated		5B	UNDIST			20
			6A	UNDIST			
19.0 / 6.7	**SHALE** shale, grey						19
18.7 / 7.0	**END OF BOREHOLE** 1. Sample refusal at 7.0 m. 2. Borehole backfilled with bentonite upon completion.						

DYNAMIC CONE PENETRATION RESISTANCE PLOT: 20 40 60 80 100
SHEAR STRENGTH (kPa): ○ UNCONF NED, ● QUICK TRIAXIAL, + FIELD VANE & Sensitivity, × LAB VANE; 50 100 150 200 250
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%): 10 20 30
POCKET PEN. (Cu) (kPa) | NATURAL UNIT WT (Mg/m³) | REMARKS AND GRAIN SIZE DISTRIBUTION (%): GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH6

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	"N" BLOWS / 0.3 m	GROUND WATER CONDITIONS	ELEVATION
25.6 / 0.0	**ASPHALT** 100 mm of asphalt						
25.3 / 0.3	**FILL** sand and gravel, brown, moist		1A	UNDIST			
	SAND & SILT brown, moist		1B	UNDIST			25
24.4 / 1.2	**SILT** trace sand, grey/brown, moist		2A	UNDIST			24
	grey		2B	UNDIST			
23.5 / 2.1	**CLAY** dark grey, moist						
23.2 / 2.4	**SILT** trace sand, brown, saturated		3A	UNDIST			23
	some clay		3B	UNDIST			
22.0 / 3.7	**CLAYEY SILT** clayey silt, brown, wet		4A	UNDIST			22
			4B	UNDIST			21
20.8 / 4.9	**SILTY CLAY** silty clay, grey, wet		5A	UNDIST			
			5B	UNDIST			20
			6A	UNDIST			19
18.6 / 7.0	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.						

DYNAMIC CONE PENETRATION RESISTANCE PLOT: 20 40 60 80 100
SHEAR STRENGTH (kPa): ○ UNCONF NED, ● QUICK TRIAXIAL, + FIELD VANE & Sensitivity, × LAB VANE; 50 100 150 200 250
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%): 10 20 30
POCKET PEN. (Cu) (kPa) | NATURAL UNIT WT (Mg/m³) | REMARKS AND GRAIN SIZE DISTRIBUTION (%): GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH7

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	SAMPLE NUMBER	TYPE	"N" BLOWS 0.3 m	ELEVATION
25.5 / 0.0	**ASPHALT** 75 mm of asphalt				
25.4 / 0.1	**FILL** sand and gravel, trace silt, brown	1A	UNDIST		25
24.9 / 0.6	**FILL** silt, some sand, grey/brown, moist; trace clay	1B	UNDIST		
		2A	UNDIST		24
		2B	UNDIST		
23.1 / 2.4	**SILT** some clay, brown, moist	3A	UNDIST		23
22.5 / 3.0	**SILTY CLAY** grey, wet; brown, moist	3B	UNDIST		
		4A	UNDIST		22
		4B	UNDIST		21
		5A	UNDIST		
		5B	UNDIST		20
		6A	UNDIST		19
18.8 / 6.7	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.				

Columns: SOIL PROFILE; STRATA PLOT; SAMPLES; GROUND WATER CONDITIONS; ELEVATION; DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100); SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250); PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L WATER CONTENT (%) (10 20 30); POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (Mg/m³); REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH8

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	SAMPLE NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION
25.6 / 0.0	**ASPHALT** 150 mm of asphalt					
25.4 / 0.2	**FILL** sand and gravel, brown, moist	1A	UNDIST			25
		1B	UNDIST			
		2A	UNDIST			24
23.3 / 2.3	**SILTY CLAY** brown, moist	2B	UNDIST			
		3A	UNDIST			23
22.1 / 3.5	**CLAYEY SILT** some sand, grey, moist	3B	UNDIST			
		4A	UNDIST			22
20.7 / 4.9	**SILTY CLAY** silty clay, grey/brown, moist	4B	UNDIST			21
19.5 / 6.1	**SHALE** shale, grey	5A	UNDIST			20
18.9 / 6.7	**END OF BOREHOLE** 1. Sample refusal at 6.7 m. 2. Borehole backfilled with bentonite upon completion.					19

Columns: SOIL PROFILE; STRATA PLOT; SAMPLES; GROUND WATER CONDITIONS; ELEVATION; DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100); SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250); PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L WATER CONTENT (%) (10 20 30); POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (Mg/m³); REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 4.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH9

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/11/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.2 / 0.0	**ASPHALT** 100 mm of asphalt						25					
0.1 / 24.4	**FILL** sand and gravel, brown, moist		1A	UNDIST								
0.8 / 23.6	**FILL** clayey silt, some sand, brown/grey, moist		1B	UNDIST			24					
1.5 / 22.1	**SILTY CLAY** trace sand, brown, moist; black/grey		2A	UNDIST			23					
			2B	UNDIST								
3.0 / 20.6	**SILT** some clay, trace sand, brown, moist		3A	UNDIST			22					
			3B	UNDIST			21					
4.6 / 19.8	**SILTY CLAY** trace sand, brown, wet		4A	UNDIST			20					
5.3 / 19.1	**CLAYEY SILT TILL** trace gravel, grey, shale fragments		4B	UNDIST								
6.1	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 4.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH10

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	SOIL PROFILE: DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
24.6 / 0.0	**ASPHALT** 75 mm of asphalt											
0.1 / 24.3	**FILL** sand and gravel		1A	UNDIST								
0.3 / 23.4	**FILL** sand & silt, grey/brown, moist		1B	UNDIST			24					
1.2 / 22.8	**FILL** silt, red and grey, wet		2A	UNDIST			23					
1.8 / 21.3	**SILT** trace clay, brown; organics; brown		2B	UNDIST								
			3A	UNDIST			22					
3.4 / 20.4	**SILTY CLAY** grey, wet		3B	UNDIST								
			4A	UNDIST			21					
4.3	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH11

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/11/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
24.5 / 0.0	**ASPHALT** 75 mm of asphalt							
0.1 / 23.8	**FILL** sand and gravel, brown, moist		1A	UNDIST			24	
0.8 / 23.0	**FILL** silty clay, trace sand, trace gravel, brown, moist		1B	UNDIST			23	
1.5 / 22.2	**SANDY SILT** trace clay, brown, moist		2A	UNDIST				
2.3 / 20.6	**SILTY CLAY** trace gravel, grey, very moist		2B	UNDIST			22	
			3A	UNDIST			21	
4.0 / 20.0	**SHALE** grey		3B	UNDIST			20	
4.6	**END OF BOREHOLE** 1. Sample refusal at 4.6 m. 2. 50mm-diameter monitoring well installed.							

DYNAMIC CONE PENETRATION RESISTANCE PLOT: 20 40 60 80 100
SHEAR STRENGTH (kPa): ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE; 50 100 150 200 250
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%): 10 20 30
POCKET PEN. (C_{UU} (kPa)) — NATURAL UNIT WT (Mg/m³)

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 4.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH12

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/11/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
24.7 / 0.0	**TOPSOIL** topsoil, dark brown, moist		1A	UNDIST				
0.6 / 24.1	**FILL** silt & sand, trace gravel, trace brick, brown, moist		1B	UNDIST			24	
1.2 / 23.5	**FILL** sand & silt, grey/brown, saturated		2A	UNDIST			23	
2.1 / 22.6	**CLAYEY SILT** grey/brown, moist		2B	UNDIST				
2.4 / 22.3	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.							

DYNAMIC CONE PENETRATION RESISTANCE PLOT: 20 40 60 80 100
SHEAR STRENGTH (kPa): ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE; 50 100 150 200 250
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%): 10 20 30
POCKET PEN. (C_{UU} (kPa)) — NATURAL UNIT WT (Mg/m³)

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 5.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH13

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/11/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
24.7 / 0.0	**ASPHALT** 75 mm of asphalt											
24.4 / 0.3	**FILL** sand and gravel, brown, moist		1A	UNDIST								
	SILT some clay, trace sand, gravel, brown, moist		1B	UNDIST			24					
			2A	UNDIST			23					
			2B	UNDIST								
			3A	UNDIST			22					
21.7 / 3.0	**CLAYEY SILT** grey, moist		3B	UNDIST								
			4A	UNDIST			21					
	trace shale fragments		4B	UNDIST			20					
19.8 / 4.9	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 5.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH14

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.6 / 0.0	**ASPHALT** 75 mm of asphalt											
25.5 / 0.1	**FILL** sand and gravel, brown, moist		1A	UNDIST			25					
			1B	UNDIST								
24.1 / 1.5	**SILTY CLAY** grey, wet		2A	UNDIST			24					
			2B	UNDIST			23					
	dark grey											
22.4 / 3.2	**SILT** trace clay, gravel, grey/brown, moist		3A	UNDIST			22					
			3B	UNDIST								
21.0 / 4.6	**SILTY CLAY** grey, moist		4A	UNDIST			21					
			4B	UNDIST			20					
19.7 / 5.9	**CLAY** grey, moist											
19.5 / 6.1	**SHALE** grey		5A	UNDIST			19					
18.9 / 6.7	**END OF BOREHOLE** 1. Sample refusal at 6.7 m. 2. 50mm-diameter monitoring well installed.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 4.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH15

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	BLOWS / 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION
25.6							
25.6 / 0.0	**ASPHALT** 100 mm of asphalt						
25.4 / 0.2	**FILL** sand and gravel, brown, moist		1A	U	N/DIST		25
	FILL sand & silt, grey/brown, moist		1B	U	N/DIST		
24.3 / 1.2	**FILL** silty clay, grey, wet		2A	U	N/DIST		24
23.7 / 1.8	**CLAYEY SILT** trace organics, brown, moist		2B	U	N/DIST		
	grey/brown		3A	U	N/DIST		23
22.5 / 3.0	**SILTY CLAY** grey, moist		3B	U	N/DIST		
			4A	U	N/DIST		22
	wet		4B	U	N/DIST		21
20.7 / 4.9	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.						20

DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100)
SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%) (10 20 30)
POCKET PEN. (C_{UU} (kPa)) — NATURAL UNIT WT (Mg/m³) — REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH16

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	BLOWS / 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION
24.7							
24.7 / 0.0	**TOPSOIL** Topsoil						
24.4 / 0.3	**FILL** sand, brown, moist		1A	U	N/DIST		
	SILT trace sand, some clay, brown, moist		1B	U	N/DIST		24
23.2 / 1.5	**SILTY CLAY** trace sand, organics, grey, wet		2A	U	N/DIST		
			2B	U	N/DIST		23
22.3 / 2.4	**CLAYEY SILT** clayey silt, brown, moist		3A	U	N/DIST		22
			3B	U	N/DIST		
	trace sand, trace shale, some gravel		4A	U	N/DIST		21
20.5 / 4.3	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.						

DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100)
SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%) (10 20 30)
POCKET PEN. (C_{UU} (kPa)) — NATURAL UNIT WT (Mg/m³) — REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH17

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/11/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
24.6 / 0.0	**ASPHALT** 100 mm of asphalt											
24.3 / 0.3	**FILL** sand and gravel		1A	UNDIST								
	FILL silt, some clay, grey, moist		1B	UNDIST			24					
	grey/brown		2A	UNDIST			23					
22.5 / 2.1	**CLAY** clay, brick and glass fragments wet		2B	UNDIST								
22.2 / 2.4	**END OF BOREHOLE** 1. Sample refusal at 2.4 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 5.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH18

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/11/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
24.8 / 0.0	**TOPSOIL** topsoil, dark brown, moist											
24.5 / 0.3	**FILL** silt, brown, moist		1A	UNDIST								
24.2 / 0.6	**SILT** some clay, trace sand, brown, moist		1B	UNDIST			24					
			2A	UNDIST								
	oxidation		2B	UNDIST			23					
	grey, wet		3A	UNDIST								
			3B	UNDIST			22					
			4A	UNDIST			21					
			4B	UNDIST								
20.0 / 4.9	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.						20					

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 5.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH19

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/11/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m	ELEVATION
25.3 / 0.0	**TOPSOIL** topsoil, dark brown				
25.0 / 0.3	**FILL** silt, trace clay, brown, damp	1A	UNDIST		25
		1B	UNDIST		24
23.8 / 1.5	**SILT** trace clay, brown, moist	2A	UNDIST		23
		2B	UNDIST		
22.4 / 2.9	**SILTY-CLAY** grey, very moist	3A	UNDIST		22
		3B	UNDIST		21
		4A	UNDIST		20
	wet	4B	UNDIST		
		5A	UNDIST		19
		5B	UNDIST		18
17.8	**SHALE**				
17.5 / 7.6	**END OF BOREHOLE** 1. Sample refusal at 7.6 m. 2. Borehole backfilled with bentonite upon completion.				

Columns: SOIL PROFILE; STRATA PLOT; SAMPLES; GROUND WATER CONDITIONS; ELEVATION; DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100); SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250); PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L WATER CONTENT (%) (10 20 30); POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (Mg/m³); REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES
+ 3, × 3: Numbers refer to Sensitivity
○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 4.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH20

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/11/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m	ELEVATION
25.4 / 0.0	**TOPSOIL** topsoil				
25.1 / 0.3	**FILL** silt, trace clay, trace sand, oxidized, brown	1A	UNDIST		25
		1B	UNDIST		24
23.9 / 1.5	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.				

Columns: SOIL PROFILE; STRATA PLOT; SAMPLES; GROUND WATER CONDITIONS; ELEVATION; DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100); SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250); PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L WATER CONTENT (%) (10 20 30); POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (Mg/m³); REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES
+ 3, × 3: Numbers refer to Sensitivity
○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 4.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH21

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/12/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV (m) / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m	ELEVATION
25.5 / 0.0	**TOPSOIL** topsoil, dark brown, moist				
25.3 / 0.2	**SILT** some clay, trace sand, brown, moist	1A	UNDIST		25
		1B	UNDIST		
24.0 / 1.5	**CLAYEY SILT** brown, wet				24
		2A	UNDIST		
		2B	UNDIST		23
		3A	UNDIST		22
	saturated				
21.2 / 4.3	**SILTY-CLAY** grey, saturated	3B	UNDIST		21
20.9 / 4.6	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.				

SOIL PROFILE | STRATA PLOT | SAMPLES | GROUND WATER CONDITIONS | DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) | SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250) | PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L | WATER CONTENT (%) (10 20 30) | POCKET PEN. (Cu) (kPa) | NATURAL UNIT WT (Mg/m³) | REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES
+3, ×3: Numbers refer to Sensitivity
○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 5.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH22

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/08/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV (m) / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m	ELEVATION
25.6 / 0.0	**ASPHALT** 150 mm of asphalt				
25.3 / 0.3	**FILL** sand and gravel, brown, moist	1A	UNDIST		
25.0 / 0.6	**FILL** sand, brown, moist				25
	SILT trace sand, some clay, brown, moist	1B	UNDIST		
24.1 / 1.5	**CLAYEY SILT** grey, moist	2A	UNDIST		24
		2B	UNDIST		
		3A	UNDIST		23
	grey/brown, wet	3B	UNDIST		22
		4A	UNDIST		
	moist	4B	UNDIST		21
20.7 / 4.9	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.				

SOIL PROFILE | STRATA PLOT | SAMPLES | GROUND WATER CONDITIONS | DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) | SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250) | PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L | WATER CONTENT (%) (10 20 30) | POCKET PEN. (Cu) (kPa) | NATURAL UNIT WT (Mg/m³) | REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES
+3, ×3: Numbers refer to Sensitivity
○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 3.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH23

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/12/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV / DEPTH (m)	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS / 0.3 m ("N")	GROUND WATER CONDITIONS	ELEVATION	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.6 / 0.0	**TOPSOIL** topsoil							
25.4 / 0.2	**SILT** some clay, trace sand, trace gravel, brown, moist		1A	U	NDIST		25	
	wet		1B	U	NDIST			
			2A	U	NDIST		24	
23.4 / 2.3	**SILTY CLAY** grey, moist		2B	U	NDIST		23	
			3A	U	NDIST		22	
			3B	U	NDIST			
21.1 / 4.6	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.							

DYNAMIC CONE PENETRATION RESISTANCE PLOT: 20 40 60 80 100
SHEAR STRENGTH (kPa): ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE; 50 100 150 200 250
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%): 10 20 30
POCKET PEN. (C_{u1} (kPa)) — NATURAL UNIT WT (Mg/m³)

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 5.GPJ SPL.GDT 12/5/13

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH24

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/12/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV / DEPTH (m)	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS / 0.3 m ("N")	GROUND WATER CONDITIONS	ELEVATION	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.7 / 0.0	**TOPSOIL** topsoil							
25.5 / 0.2	**SILT** some clay, trace sand, trace gravel, brown		1A	U	NDIST		25	
	grey		1B	U	NDIST			
24.3 / 1.4	**CLAY** dark grey, wet						24	
23.8 / 1.8	**SILT** brown, wet		2A	U	NDIST			
	saturated		2B	U	NDIST		23	
			3A	U	NDIST		22	
21.4 / 4.3	**SILTY CLAY** grey, wet		3B	U	NDIST			
21.1 / 4.6	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.							

DYNAMIC CONE PENETRATION RESISTANCE PLOT: 20 40 60 80 100
SHEAR STRENGTH (kPa): ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE; 50 100 150 200 250
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%): 10 20 30
POCKET PEN. (C_{u1} (kPa)) — NATURAL UNIT WT (Mg/m³)

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 5.GPJ SPL.GDT 12/5/13

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH25

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/11/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV / DEPTH (m)	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m	ELEVATION
25.6 / 0.0	**TOPSOIL** topsoil, dark brown				
0.2	**FILL** silt, trace clay, trace sand, brown, damp	1A	UNDIST		25
		1B	UNDIST		
24.1 / 1.5	**SILT** trace clay, trace sand, brown, damp	2A	UNDIST		24
	grey	2B	UNDIST		23
22.5 / 3.0	**CLAYEY SILT** grey, moist	3A	UNDIST		22
		3B	UNDIST		
		4A	UNDIST		21
		4B	UNDIST		20
19.5 / 6.1	**SILTY-CLAY** grey, wet	5A	UNDIST		19
		5B	UNDIST		
18.2 / 7.4	**SHALE** shale				18
18.0 / 7.6	**END OF BOREHOLE** 1. Sample refusal at 7.6 m. 2. 50mm-diameter monitoring well installed.				

GROUND WATER CONDITIONS

DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100)
SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)
POCKET PEN. (Cu) (kPa)
NATURAL UNIT WT (Mg/m³)
REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES
+3, ×3: Numbers refer to Sensitivity
○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 4.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH26

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

ELEV / DEPTH (m)	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m	ELEVATION
25.8 / 0.0	**TOPSOIL** brown, moist, loose	1A	UNDIST		
25.3 / 0.5	**FILL** silt, some clay, trace sand and gravel, greyish brown, moist	1B	UNDIST		25
	oxidation	2A	UNDIST		
	organics	2B	UNDIST		24
23.3 / 2.4	**SILTY CLAY** grey, wet	3A	UNDIST		23
		3B	UNDIST		
21.8 / 4.0	**CLAYEY SILT** brown, moist, hard	4A	UNDIST		22
		4B	UNDIST		
20.9 / 4.9	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.				21

GROUND WATER CONDITIONS

DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100)
SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)
POCKET PEN. (Cu) (kPa)
NATURAL UNIT WT (Mg/m³)
REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES
+3, ×3: Numbers refer to Sensitivity
○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH27

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.7												
25.6 / 0.1	**FILL** sand and gravel, brown, moist											
	FILL silt, brown, moist, loose		1A	UNDIST			25					
	occassional brick											
	grey, very moist		1B	UNDIST								
24.1												
1.5	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH28

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.7												
25.6 / 0.1	**ASPHALT** 90 mm											
25.5 / 0.2	**FILL** sand and gravel		1A	UNDIST			25					
	SILT trace sand, oxidation, brown, moist											
			1B	UNDIST								
24.2												
1.5	**END OF BOREHOLE** 1. Sample refusal at 1.5 m 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH29

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013
REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.8												
0.0	**TOPSOIL**											
25.5	300 mm											
0.3	**SILT** some clay, trace sand and gravel, brown, moist, compact		1A	U	DIST							
			1B	U	DIST		25					
	organic layer		2A	U	DIST							
							24					
			2B	U	DIST							
	oxidation zone		3A	U	DIST		23					
			3B	U	DIST							
			4A	U	DIST		22					
			4B	U	DIST							
20.9							21					
4.9	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH30

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/12/2013
REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.9												
0.0	**TOPSOIL**											
25.6	dark brown, moist											
0.2	**SAND** trace silt, brown, very moist, loose		1A	U	DIST							
24.9							25					
0.9	**SILT** some clay, greyish brown, moist, very stiff		1B	U	DIST							
	organic layers						24					
			2A	U	DIST							
	organics at 2 m (thickness 0.7 m)											
			2B	U	DIST		23					
			3A	U	DIST							
			3B	U	DIST		22					
			4A	U	DIST							
			4B	U	DIST		21					
19.8												
6.1	**CLAY** shale fragments											
19.3			5A	U	DIST							
6.6	**SHALE**											
19.0							20					
6.9	**END OF BOREHOLE** 1. Sample refusal at 6.8 m 2. 50 mm-diameter monitoring well installed						19					

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH31

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013
REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.8 / 0.0	**TOPSOIL** dark brown, moist											
25.7 / 0.1	**SILT** some clay, trace sand, trace gravel, brown, moist		1A									
	very moist		1B				25					
	organic layer at 1.4 m (thickness 200 mm)		2A									
							24					
			2B									
			3A				23					
			3B									
21.9 / 4.0	**CLAYEY SILT** clayey silt, grey, very moist		4A				22					
	wet		4B									
20.9 / 4.9	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.						21					

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH32

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/12/2013
REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.8 / 0.0	**TOPSOIL** 150 mm, dark brown, wet, loose											
25.6 / 0.2	**FILL** silt, some clay, trace sand and gravel, greyish brown, wet, loose			UNDIST								
							25					
24.3 / 1.5	**SILT** some clay, brown, moist, hard			UNDIST			24					
	occasional grey fissures			UNDIST			23					
				UNDIST								
21.9 / 4.0	**SILTY CLAY** grey, wet, soft			UNDIST			22					
				UNDIST			21					
20.3 / 5.5	shale											
	END OF BOREHOLE 1. 50 mm-diameter monitoring well installed 2. Water encountered at 0.9 mbg Nov. 12, 2013.											

W. L. 24.9 m
Nov 12, 2013

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH33

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/12/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.8 / 0.0	**ASPHALT** 90 mm											
25.2 / 0.6	**FILL** silt, some clay, trace sand and gravel, brown, moist		1A	U	N/D							
	SILTY CLAY zones of oxida ion, brown, moist		1B	U	N/D		25					
			2A	U	N/D		24					
			2B	U	N/D		23					
22.8 / 3.0	**SAND** trace silt, brownish grey, saturated		3A	U	N/D							
	clayey silt, grey		3B	U	N/D		22					
21.3 / 4.6	**SILTY CLAY** grey, wet, soft		4A	U	N/D		21					
	shale fragments		4B	U	N/D		20					
19.7 / 6.1	**END OF BOREHOLE** 1. Borheole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +³, ×³: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH34

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.8 / 0.0	**ASPHALT** 125 mm of asphalt											
25.1 / 0.8	**FILL** sand and gravel, brown, moist		1A	U	N/D							
	FILL silty clay, brown, moist		1B	U	N/D		25					
24.3 / 1.5	**CLAYEY SILT** clayey silt, trace sand, brown, damp		2A	U	N/D		24					
			2B	U	N/D		23					
	damp/moist		3A	U	N/D							
			3B	U	N/D		22					
21.3 / 4.6	**END OF BOREHOLE** 1. Sample refusal at 4.6 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +³, ×³: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH35

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.7 / 0.0	**ASHPHALT**											
25.0 / 0.1	**FILL** sand and gravel		1A	UNDIST								
24.4 / 0.6	**FILL** silt, some clay, trace sand and gravel, brown, moist, compact		1B	UNDIST			25					
20.8 / 4.9	**SILT** some clay, grey, moist, hard; clayey silt, occasional silt layers		2A	UNDIST			24					
			2B	UNDIST								
			3A	UNDIST			23					
			3B	UNDIST								
			4A	UNDIST			22					
			4B	UNDIST			21					
	END OF BOREHOLE 1. Borehole backfilled with bentonite upon completion											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH36

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.9 / 0.0	**TOPSOIL** 90 mm											
	FILL silt, trace clay and sand, brown, moist		1A	UNDIST			25					
	grey		1B	UNDIST								
24.3 / 1.5	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH37

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.8 / 0.0	**ASPHALT** 100 mm of asphalt											
0.1 / 25.0	**FILL** sand and gravel, brown, damp		1A	UNDIST								
0.8 / 24.3	**FILL** clayey silt, trace sand, trace gravel, brown, moist		1B	UNDIST			25					
1.5 / 23.7	**SILTY CLAY** silty clay, trace sand, grey, very moist		2A	UNDIST			24					
2.1	**CLAYEY SILT** clayey silt, trace sand, brown, moist		2B	UNDIST			23					
	brown/grey		3A	UNDIST								
21.2			3B	UNDIST			22					
4.6	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH38

PROJECT: Mr.Christie
CLIENT: [redacted]
[redacted] 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.7 / 0.0	**ASPHALT** 90 mm											
0.1 / 25.1	**FILL** sand and gravel, brown, moist		1A	UNDIST								
0.6 / 24.2	**FILL** silty clay, trace organics, grey, moist, soft		1B	UNDIST			25					
1.5	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH39

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS / 0.3 m	ELEVATION
25.7 / 0.0	**ASPHALT** 125 mm of asphalt				
0.1	**FILL** sand and gravel, brown, damp	1A	UNDIST		25
24.8 / 0.9	**FILL** clayey silt, some sand, trace gravel, brown/red, moist	1B	UNDIST		
24.2 / 1.5	**SILT** some sand, trace clay, brown, damp/moist	2A	UNDIST		24
		2B	UNDIST		23
22.6 / 3.0	**CLAYEY SILT** clayey silt, trace sand, grey, moist	3A	UNDIST		22
		3B	UNDIST		
		4A	UNDIST		21
19.9 / 5.8	**SILTY CLAY** silty clay, grey, very moist trace gravel, trace shale fragments	4B	UNDIST		20
		5A	UNDIST		19
18.7 / 7.0	**SHALE**	5B	UNDIST		
18.1 / 7.6	**END OF BOREHOLE** 1. Sample refusal at 7.1 m. 2. 50mm-diameter monitoring well installed at 7.6 m.				

Columns: STRATA PLOT; GROUND WATER CONDITIONS; DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100); SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250); PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L WATER CONTENT (%) (10 20 30); POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (Mg/m³); REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH40

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS / 0.3 m	ELEVATION
25.7 / 0.0	**ASPHALT** 125 mm of asphalt				
0.1	**FILL** sand and gravel, brown, damp	1A	UNDIST		25
24.9 / 0.8	**CLAYEY SILT** brick fragments, brown/red, moist	1B	UNDIST		
	trace sand, brown	2A	UNDIST		24
		2B	UNDIST		23
		3A	UNDIST		22
	grey	3B	UNDIST		
21.1 / 4.6	**END OF BOREHOLE** 1. Sample refusal at 4.6 m. 2. Borehole backfilled with bentonite upon completion.				

Columns: STRATA PLOT; GROUND WATER CONDITIONS; DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100); SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250); PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L WATER CONTENT (%) (10 20 30); POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (Mg/m³); REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH41

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.8 / 0.0	**ASPHALT** 75 mm of asphalt											
25.2 / 0.6	**FILL** sand and gravel, brown, damp		1A	UNDIST								
	brick fragments, asphalt fragments, grey		1B	UNDIST			25					
24.2 / 1.5	**FILL** clayey silt, some sand, trace organics, black/brown, moist		2A	UNDIST			24					
			2B	UNDIST			23					
22.7 / 3.0	**CLAYEY SILT** brown, moist/very moist		3A	UNDIST								
			3B	UNDIST			22					
21.2 / 4.6	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES: +³, ×³: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH42

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.8 / 0.0	**ASPHALT** 100 mm of asphalt											
25.2 / 0.6	**FILL** sand, trace gravel, brown, moist		1A	UNDIST								
	FILL silt, trace clay and sand, brown, moist		1B	UNDIST			25					
	grey		2A	UNDIST								
			2B	UNDIST			24					
23.3 / 2.4	**CLAYEY SILT** occasional sand layer, grey, moist		3A	UNDIST			23					
			3B	UNDIST								
			4A	UNDIST			22					
			4B	UNDIST								
20.9 / 4.9	**SHALE**		5A	UNDIST			21					
20.3 / 5.5	**END OF BOREHOLE** 1. Sample refusal at 5.5 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES: +³, ×³: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH43

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.5												
25.4	**ASPHALT**											
0.1	125 mm of asphalt											
	FILL sand and gravel, brown, moist		1A	UNDIST			25					
24.6												
0.9	**CLAYEY SILT** trace sand, brown, moist		1B	UNDIST								
			2A	UNDIST			24					
			2B	UNDIST			23					
			3A	UNDIST			22					
			3B	UNDIST								
21.0												
21.0	~~SHALE~~						21					
4.6	**END OF BOREHOLE** 1. Sample refusal at 4.6 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH44

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.7												
25.6	**ASHPHALT**											
0.1	90 mm											
	FILL sand and gravel, brown, moist, loose		1A	UNDIST			25					
24.9												
0.8	**FILL** silt, some clay, trace sand and gravel, brown, very moist		1B	UNDIST								
24.1												
1.5	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH45

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013
REF. NO.: 1889-220
ENCL NO.:

ELEV (m) / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m
25.5 / 0.0	**ASPHALT** 125 mm of asphalt			
0.1	**FILL** sand and gravel, brown, damp	1A	UNDIST	
24.8 / 0.8	**FILL** clayey silt, trace sand, trace organics, dark brown	1B	UNDIST	
	trace wood fragments	2A	UNDIST	
23.1 / 2.4	**CLAYEY SILT** clayey silt, trace sand, brown, moist	2B	UNDIST	
		3A	UNDIST	
	shale fragments, grey	3B	UNDIST	
21.0 / 4.6	**SHALE** shale, grey	4A	UNDIST	
20.8 / 4.7	**END OF BOREHOLE** 1. Sample refusal at 4.7 m. 2. 50mm-diameter monitoring well installed at 5.3 m.			

Columns: STRATA PLOT; GROUND WATER CONDITIONS; ELEVATION (25, 24, 23, 22, 21); DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100); SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE; PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%) (10 20 30); POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (Mg/m³); REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH46

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013
REF. NO.: 1889-220
ENCL NO.:

ELEV (m) / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m
25.6 / 0.0	**ASPHALT** 90 mm of asphalt			
0.1	**FILL** sand and gravel, brown, moist	1A	UNDIST	
24.9 / 0.8	**FILL** silt mixed with slag, brown, moist	1B	UNDIST	
24.1 / 1.5	**END OF BOREHOLE** 1. Sample refusal at 1.5 m. 2. Borehole backfilled with bentonite upon completion.			

Columns: STRATA PLOT; GROUND WATER CONDITIONS; ELEVATION (25); DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100); SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE; PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%) (10 20 30); POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (Mg/m³); REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH47

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.6												
28.9 / 0.1	**ASPHALT** 100 mm of asphalt											
	FILL sand and gravel, brown, damp		1A	UNDIST			25					
24.8 / 0.8	**FILL** clayey silt, some sand, brown, moist		1B	UNDIST								
24.2 / 1.4	**CLAYEY SILT** trace sand, brown, damp/moist		2A	UNDIST			24					
			2B	UNDIST			23					
22.5 / 3.0	**CLAYEY SILT TILL** shale fragments, trace gravel, brown, moist		3A	UNDIST			22					
	grey		3B	UNDIST								
21.0 / 4.6	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.						21					

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH48

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/13/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.6												
0.0	**FILL** sand and gravel, brown with black, moist		1A	UNDIST			25					
24.8 / 0.8	**FILL** silt, some clay, greyish brown, moist		1B	UNDIST								
24.1 / 1.5	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH49

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.6 / 0.1	**ASPHALT** 100 mm of asphalt											
0.1 / 24.8	**FILL** sand and gravel, brown, damp		1A	UNDIST			25					
0.8 / 24.0	**FILL** clayey silt, some sand, some gravel, brown, moist		1B	UNDIST								
1.5	**CLAYEY SILT** trace gravel, brown/grey, moist		2A	UNDIST			24					
			2B	UNDIST			23					
	grey		3A	UNDIST			22					
21.8 / 3.8	**SILTY CLAY** silty clay, trace gravel, grey, very moist		3B	UNDIST								
21.0 / 4.6	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.						21					

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH50

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.7 / 0.0	**FILL** gravel with some sand and silt, brown, moist		1A	UNDIST								
0.6 / 25.1	**FILL** silt with some clay, greyish brown, moist		1B	UNDIST			25					
1.2 / 24.5	**FILL** silty clay, trace sand, grey, moist		2A	UNDIST			24					
	wet		2B	UNDIST								
23.3 / 2.4	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH51

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
26.0 / 0.0	**FILL** sand with gravel, trace silt, brown, moist		1A	UNDIST				
25.9 / 0.1	**FILL** silt with some clay, trace sand, brown and grey, wet		1B	UNDIST			25	
24.5 / 1.5	**FILL** silty clay, grey, wet		2A	UNDIST				
			2B	UNDIST			24	
23.6 / 2.4	**END OF BOREHOLE** 1. Borehole backfilled with bentonite upon completion.							

DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100)
SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%) (10 20 30)
POCKET PEN. (C_{u1} (kPa)) — NATURAL UNIT WT (Mg/m³)

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH52

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
26.3 / 0.0	**TOPSOIL** topsoil							
26.1 / 0.2	**FILL** silt, some clay, some sand, some gravel, brown, moist		1A	UNDIST			26	
25.5 / 0.8	**FILL** clayey silt, trace sand, trace gravel, brown, moist		1B	UNDIST			25	
24.6 / 1.7	**CLAYEY SILT** brown/grey, moist		2A	UNDIST			24	
			2B	UNDIST				
	grey, moist		3A	UNDIST			23	
			3B	UNDIST			22	
			4A	UNDIST			21	
			4B	UNDIST				
			5A	UNDIST			20	
19.3 / 7.0	**END OF BOREHOLE** 1. Sample refusal at 7.0 m. 2. 50mm-diameter monitoring well installed at 7.6 m.						19	

DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100)
SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%) (10 20 30)
POCKET PEN. (C_{u1} (kPa)) — NATURAL UNIT WT (Mg/m³)

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH53

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.7 / 0.0	**ASPHALT** 75 mm of asphalt											
25.6 / 0.1	**FILL** sand, trace silt, brown, saturated		1A	UNDIST								
			1B	UNDIST			25					
24.2 / 1.5	**FILL** clayey silt, grey, wet		2A	UNDIST								
			2B	UNDIST			24					
23.3 / 2.4	**END OF BOREHOLE** 1. Sample refusal at 2.4 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH54

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
26.4 / 0.0	**TOPSOIL** 230 mm											
26.2 / 0.2	**FILL** silt with some clay, trace sand, brown, moist,		1A	UNDIST			26					
			1B	UNDIST								
	wet		2A	UNDIST			25					
24.4 / 2.0	**SILT CLAY** grey, wet		2B	UNDIST								
24.0 / 2.4	**END OF BOREHOLE** 1. Sample refusal at 2.4 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH55

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.7 / 0.0	**ASPHALT** 120 mm											
25.6 / 0.1	**FILL** sand, cinders brown, moist		1A	UNDIST								
			1B	UNDIST			25					
			2A	UNDIST			24					
			2B	UNDIST								
23.2 / 2.4	**END OF BOREHOLE** 1. Sample refusal at 2.4 m. 2. Borehole backfilled with bentonite upon completion											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH56

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
26.5 / 0.0	**GRAVEL** 130 mm											
26.4 / 0.1	**FILL** silt, trace sand and clay, brown, very moist		1A	UNDIST			26					
25.9 / 0.6	**SILT** some clay, trace sand, brown, moist, hard, iron staining		1B	UNDIST								
			2A	UNDIST			25					
	silty clay, grey, wet		2B	UNDIST								
24.1 / 2.4	**END OF BOREHOLE** 1. Sample refusal at 4.9 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 6.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH57

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS / 0.3 m	ELEVATION
26.7					
0.0 / 26.4	**TOPSOIL** topsoil				
0.3 / 25.1	**FILL** clayey silt, trace sand, trace gravel, brown, moist	1A	UNDIST		26
		1B	UNDIST		
1.5 / 22.1	**CLAYEY SILT** clayey silt, brown/grey, moist	2A	UNDIST		25
		2B	UNDIST		24
	grey	3A	UNDIST		
		3B	UNDIST		23
4.6 / 20.6	**SILT** silt, some clay, grey, moist	4A	UNDIST		22
		4B	UNDIST		21
6.1 / 19.0	**SILTY CLAY** silty clay, trace shale fragments, grey, very moist	5A	UNDIST		20
		5B	UNDIST		
7.6	**END OF BOREHOLE** 1. Sample refusal at 7.6 m. 2. 50mm-diameter monitoring well installed at 8.2 m.				19

SOIL PROFILE | STRATA PLOT | SAMPLES | GROUND WATER CONDITIONS | DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) | SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250) | PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30) | POCKET PEN. (Cu) (kPa) | NATURAL UNIT WT (Mg/m³) | REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +³, ×³: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH58

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS / 0.3 m	ELEVATION
25.6					
0.0 / 25.3	**TOPSOIL** trace sand, trace gravel, dark brown, moist				
0.3 / 23.8	**SILT** trace clay, trace sand, trace gravel, brown, moist	1A	UNDIST		25
	some clay, grey, wet	1B	UNDIST		
		2A	UNDIST		24
1.8 / 23.2	**SILTY CLAY**	2B	UNDIST		
2.4	**END OF BOREHOLE** 1. Sample refusal at 2.4 m. 2. Borehole backfilled with bentonite upon completion.				

SOIL PROFILE | STRATA PLOT | SAMPLES | GROUND WATER CONDITIONS | DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) | SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250) | PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30) | POCKET PEN. (Cu) (kPa) | NATURAL UNIT WT (Mg/m³) | REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +³, ×³: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH59

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.5												
25.9	**ASPHALT** 75 mm of asphalt											
25.2												
25.3	**SILT & GRAVEL** trace sand, brown, moist		1A	U	N/DIST							
0.5	**ORGANICS** black						25					
	SILT some clay, trace sand, brown, wet		1B	U	N/DIST							
			2A	U	N/DIST		24					
			2B	U	N/DIST							
			3A	U	N/DIST		23					
22.5												
3.0	**SILT CLAY** grey, wet		3B	U	N/DIST							
			4A	U	N/DIST		22					
			4B	U	N/DIST		21					
20.7												
4.9	**END OF BOREHOLE** 1. Sample refusal at 4.9 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH60

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/15/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
26.2												
0.0	**TOPSOIL** topsoil, dark brown, moist											
25.9							26					
0.3	**FILL** silt, some sand, trace gravel, trace clay, trace slag, brown, moist		1A	U	N/DIST							
			1B	U	N/DIST		25					
			2A	U	N/DIST							
24.1												
23.9	**SILT** organic silt						24					
2.3	**SILT** silt, some clay, trace sand, brown, moist		2B	U	N/DIST							
23.2												
3.0	**CLAYEY SILT** clayey silt, brown, moist		3A	U	N/DIST		23					
			3B	U	N/DIST		22					
21.6												
4.6	**SILT** silt, some sand, trace gravel, brown, saturated		4A	U	N/DIST							
			4B	U	N/DIST		21					
20.1												
6.1	**SILTY CLAY** silty clay, grey, saturated		5A	U	N/DIST		20					
			5B	U	N/DIST		19					
18.3			6A	U	N/DIST							
7.9							18					
	END OF BOREHOLE 1. Sample refusal at 7.9 m. 2. 50mm-diameter monitoring well installed at 8.4 m.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH61

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013
REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.8 / 0.0	**ASPHALT** 75 mm of asphalt											
25.2 / 0.6	**FILL** sand & gravel, brown, moist		1A	U	DIST							
	SILT some clay, trace sand, brown/grey, moist		1B	U	DIST		25					
	some clay, grey		2A	U	DIST							
			2B	U	DIST		24					
	wet											
	saturated		3A	U	DIST		23					
			3B	U	DIST							
			4A	U	DIST		22					
			4B	U	DIST							
20.9 / 4.9	**END OF BOREHOLE** 1. Sample refusal at 4.9 m. 2. Borehole backfilled with bentonite upon completion.						21					

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH62

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/15/2013
REF. NO.: 1889-220
ENCL NO.:

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL (50 100 150 200 250) + FIELD VANE & Sensitivity × LAB VANE	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (Mg/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.8 / 0.0	**ASPHALT** 75 mm of asphalt											
25.4 / 0.5	**FILL** sand and gravel, brown, moist		1A	U	DIST							
	SILT some clay, trace sand, trace gravel, brown, moist		1B	U	DIST		25					
24.0 / 1.8	**CLAYEY SILT** grey, moist		2A	U	DIST		24					
			2B	U	DIST							
			3A	U	DIST		23					
			3B	U	DIST							
	wet		4A	U	DIST		22					
			4B	U	DIST		21					
19.6 / 6.2			5A	U	DIST		20					
	END OF BOREHOLE 1. Sample refusal at 6.2 m. 2. 50 mm-diameter monitoring well installed at 6.7 m.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 8.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH63

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.5												
25.4 / 0.1	**ASPHALT** 125 mm of asphalt											
25.2 / 0.3	**FILL** sand & gravel		1A	UNDIST								
	SAND sand, trace silt, brown/grey, wet		1B	UNDIST			25					
24.3 / 1.2	**SILTY CLAY** grey, moist		2A	UNDIST			24					
23.0			2B	UNDIST								
2.4	**END OF BOREHOLE** 1. Sample refusal at 2.4 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH64

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLE NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (C_{u1} (kPa))	NATURAL UNIT WT (Mg/m^3)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
25.9												
25.7 / 0.0	**TOPSOIL** dark brown											
0.2	**FILL** silt, some clay, trace sand, brown, moist		1A	UNDIST								
24.8 / 1.1	**SILT** some clay		1B	UNDIST			25					
			2A	UNDIST			24					
	grey, wet		2B	UNDIST								
23.5												
2.4	**END OF BOREHOLE** 1. Sample refusal at 2.4 m. 2. Borehole backfilled with bentonite upon completion.											

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▽ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH65

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/14/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	"N" BLOWS 0.3 m	ELEVATION
25.6 / 0.0	**ASPHALT** 125 mm of asphalt				
25.5 / 0.1	**FILL** sand & gravel, brown, moist	1A	UNDIST		25
24.9 / 0.8	**FILL** clayey silt, trace sand, trace gravel, brown/red, moist	1B	UNDIST		
24.1 / 1.5	**CLAYEY SILT** clayey silt, trace sand, grey, very moist	2A	UNDIST		24
		2B	UNDIST		23
		3A	UNDIST		22
		3B	UNDIST		
	shale fragments, wet	4A	UNDIST		21
		4B	UNDIST		20
19.5 / 6.1	dry				19
	END OF BOREHOLE 1. Sample refusal at 6.1 m. 2. 50mm-diameter monitoring well installed at 6.7 m.				

SOIL PROFILE: STRATA PLOT
SAMPLES: NUMBER, TYPE, "N" BLOWS 0.3 m
GROUND WATER CONDITIONS
DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100)
SHEAR STRENGTH (kPa): ○ UNCONF NED, ● QUICK TRIAXIAL, + FIELD VANE & Sensitivity, × LAB VANE (50 100 150 200 250)
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%) (10 20 30)
POCKET PEN. (Cu) (kPa)
NATURAL UNIT WT (Mg/m³)
REMARKS AND GRAIN SIZE DISTRIBUTION (%): GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 7.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH66

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/15/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	"N" BLOWS 0.3 m	ELEVATION
25.6 / 0.0	**ASPHALT** 75 mm of asphalt				
25.2 / 0.4	**FILL** sand and gravel, trace silt, brown, moist	1A	UNDIST		25
	SILT some clay, brown, moist	1B	UNDIST		
24.1 / 1.5	**SILTY CLAY** grey, wet	2A	UNDIST		24
		2B	UNDIST		23
		3A	UNDIST		22
		3B	UNDIST		
		4A	UNDIST		21
		4B	UNDIST		20
19.4 / 6.2		5A	UNDIST		
	END OF BOREHOLE 1. Sample refusal at 6.2 m. 2. Borehole backfilled with bentonite upon completion.				

SOIL PROFILE: STRATA PLOT
SAMPLES: NUMBER, TYPE, "N" BLOWS 0.3 m
GROUND WATER CONDITIONS
DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100)
SHEAR STRENGTH (kPa): ○ UNCONF NED, ● QUICK TRIAXIAL, + FIELD VANE & Sensitivity, × LAB VANE (50 100 150 200 250)
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%) (10 20 30)
POCKET PEN. (Cu) (kPa)
NATURAL UNIT WT (Mg/m³)
REMARKS AND GRAIN SIZE DISTRIBUTION (%): GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES: +3, ×3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 8.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH67

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/15/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION
25.5 / 0.0	**ASPHALT** 75 mm of asphalt						
0.1 / 24.9	**FILL** sand and gravel, brown, moist		1A	UNDIST			25
0.6 / 22.5	**SILTY CLAY** organics, black, moist		1B	UNDIST			24
			2A	UNDIST			
			2B	UNDIST			23
3.0 / 20.9	**CLAYEY SILT** brown, grey, wet		3A	UNDIST			22
			3B	UNDIST			21
4.6	**END OF BOREHOLE** 1. Sample refusal at 2.4 m. 2. Borehole backfilled with bentonite upon completion.						

DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100); SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250); PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%) (10 20 30); POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (Mg/m³); REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 8.GPJ SPL.GDT 12/5/13

SPL Consultants Limited
Geotechnical Environmental Materials Hydrogeology

LOG OF BOREHOLE BH68

PROJECT: Mr.Christie
CLIENT: [redacted]
PROJECT LOCATION: 2150 Lake Shore Blvd, Toronto, ON
DATUM: Local
BH LOCATION:

DRILLING DATA
Method: Geo Probe
Diameter:
Date: Nov/15/2013

REF. NO.: 1889-220
ENCL NO.:

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION
25.6 / 0.0	**ASPHALT** 75 mm of asphalt						
0.1 / 23.8	**SILT** some clay, trace sand, trace gravel, grey/orange, moist		1A	UNDIST			25
			1B	UNDIST			24
1.8 / 20.2	**CLAYEY SILT** grey, moist, saturated		2A	UNDIST			
			2B	UNDIST			23
			3A	UNDIST			22
			3B	UNDIST			21
			4A	UNDIST			
5.5 / 19.5	**SILTY CLAY** grey, wet		4B	UNDIST			20
			5A	UNDIST			
6.2	**END OF BOREHOLE** 1. Sample refusal at 6.2 m. 2. Borehole backfilled with bentonite upon completion.						

DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100); SHEAR STRENGTH (kPa) ○ UNCONF NED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (50 100 150 200 250); PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%) (10 20 30); POCKET PEN. (Cu) (kPa); NATURAL UNIT WT (Mg/m³); REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL

GROUNDWATER ELEVATIONS
Shallow/ Single Installation ▽ ▼ Deep/Dual Installation ▼ ▼

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

SPL SOIL LOG 1889-220 BOREHOLE LOGS SET 8.GPJ SPL.GDT 12/5/13

GEO-CANADA

LOG OF BOREHOLE 1

CLIENT: Kraft Canada Inc.
PROJECT: Transformer Upgrades
LOCATION: Toronto
DATUM ELEVATION: Assumed Datum - See Drawing No. 1 for Location
BOREHOLE LOCATION: Refer to Drawing No. 1

DRILLING DATA
Method: Continuous flight solid-stem augers
Diameter: 110mm
Date: October 15, 2004

REF. NO.: G-04.0903
ENCL NO.: 1

ELEV (m) / DEPTH	SOIL PROFILE DESCRIPTION	SAMPLE NUMBER	TYPE	BLOWS 0.3 m "N"	Dynamic Cone Penetration Resistance	Shear Strength (kPa)	Plastic Limit W_P	Natural Moisture Content W	Liquid Limit W_L	Unit Weight γ (kN/m³)	Remarks and Grain Size Distribution (%) GR SA SI CL
101.5	Ground Surface										
0.0	TOPSOIL 25mm Silt, trace sand, trace gravel and clay, brown, stiff (Possible FILL)	1	SS	10							
100.9 / 0.6	**CLAYEY SILT** mottled brown-grey, stiff to very stiff occ. organic/ and topsoil/ pockets grey	2	SS	14							7 68 25
		3	SS	21							
		4	SS	18							
		5	SS	17							
96.9 / 4.6	**SILT** some clay, occ. fine sand/silt partings grey, hard	6	SS	32							8 73 19
95.4 / 6.1	**CLAY** some silt, very moist, interlayered with silt, some clay, trace gravel/shale fragments, grey, stiff	7	SS	12							
94.5 / 7.0	**BEDROCK** **SHALE** (Inferred) grey	8	SS	50/ 75mm							Split spoon wet.
92.4		9	GRAB	-							
9.1	END OF BOREHOLE Borehole dry upon completion. Water Level Readings: Date W.L. Depth (m) Oct. 22/04 3.25										

GRAPH NOTES: +³, ×³: Numbers refer to Sensitivity; O ε=3% Strain at Failure

GEO-CANADA SOIL LOG BOREHOLE LOGS G040903.GPJ GEO-CANADA TEMPLATE.GDT 2/11/04

GEO-CANADA

LOG OF BOREHOLE 2

CLIENT: Kraft Canada Inc.
PROJECT: Transformer Upgrades
LOCATION: Toronto
DATUM ELEVATION: Assumed Datum - See Drawing No. 1 for Location
BOREHOLE LOCATION: Refer to Drawing No. 1

DRILLING DATA
Method: Continuous flight solid-stem augers
Diameter: 110mm
Date: October 15, 2004

REF. NO.: G-04.0903
ENCL NO.: 2

ELEV (m) / DEPTH	SOIL PROFILE DESCRIPTION	SAMPLE NUMBER	TYPE	BLOWS 0.3 m "N"	Dynamic Cone Penetration Resistance	Shear Strength (kPa)	Plastic Limit W_P	Natural Moisture Content W	Liquid Limit W_L	Unit Weight γ (kN/m³)	Remarks and Grain Size Distribution (%) GR SA SI CL
101.7	Ground Surface										
0.0	TOPSOIL 50mm Silt, some clay, organic stained, rootlets, brown (Possible FILL)	1	SS	16							
101.1 / 0.6	**CLAYEY SILT** mottled brown grey, occ. fissures very stiff to hard	2	SS	18							
		3	SS	25							7 65 28
		4	SS	32							
98.7 / 3.0	**SILT** some clay, occ. very thin silt partings grey, very stiff clayey very moist	5	SS	22							
		6	SS	17							
95.6 / 6.1	**CLAY** some silt, interlayered with silt, some clay, stiff, very moist	7	SS	9							
94.4 / 7.3	**BEDROCK** **SHALE** (Inferred) grey	8	SS	50/ 75mm							
92.6		9	GRAB	-							
9.1	END OF BOREHOLE Borehole dry upon completion. Water Level Readings: Date W.L. Depth (m) Oct. 22/04 5.45										

GRAPH NOTES: +³, ×³: Numbers refer to Sensitivity; O ε=3% Strain at Failure

GEO-CANADA SOIL LOG BOREHOLE LOGS G040903.GPJ GEO-CANADA TEMPLATE.GDT 2/11/04

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH1-13
DATE COMPLETED: March 2, 2013
DRILLING METHOD: SPLIT-SPOON
FIELD PERSONNEL: K. Vander Meulen

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	CONCRETE FLOOR	0.3	CONCRETE SEAL					
0.5	SM-SILTY SAND (FILL), trace gravel, compact, fine grained, poorly graded, brown, moist	0.5		1		0.76		0.5
1.0	CL-SILTY CLAY, stiff, medium plasticity, brown, moist	1.1						
1.5	CL-SILTY CLAY (TILL), trace gravel, stiff, medium plasticity, brown, moist		BENTONITE SEAL	2		0.76		0.8
2.0				3		0.76		0.4
2.5	- low plasticity, grey	2.6						
	END OF BOREHOLE @ 2.59m BGS							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 3/3/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH2-13
DATE COMPLETED: March 2, 2013
DRILLING METHOD: SPLIT-SPOON
FIELD PERSONNEL: K. Vander Meulen

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	CONCRETE FLOOR	0.3	CONCRETE SEAL					
0.5	SM-SILTY SAND (FILL), trace gravel, compact, fine grained, poorly graded, brown, moist	0.5		1		0.61		5.1
1.0	CL-SILTY CLAY, stiff, medium plasticity, brown, very moist		BENTONITE SEAL					
1.5				2		0.61		2.4
2.0	END OF BOREHOLE @ 1.83m BGS	1.8						

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 3/3/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH3-13
DATE COMPLETED: March 2, 2013
DRILLING METHOD: SPLIT-SPOON
FIELD PERSONNEL: K. Vander Meulen

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	CONCRETE FLOOR	0.2	CONCRETE SEAL					
0.5	CL-SILTY CLAY, firm, medium plasticity, grey, moist			1		0.76		0.8
1.0	- very moist to wet		BENTONITE SEAL	2		0.61		0.8
1.5	END OF BOREHOLE @ 1.52m BGS	1.5						
2.0								
2.5								
3.0								
3.5								
4.0								
4.5								
5.0								
5.5								
6.0								
6.5								
7.0								
7.5								
8.0								
8.5								
9.0								
9.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 3/3/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH4-13
DATE COMPLETED: March 2, 2013
DRILLING METHOD: SPLIT-SPOON
FIELD PERSONNEL: K. Vander Meulen

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	CONCRETE FLOOR	0.2	CONCRETE SEAL					
0.5	SW-GW SAND & GRAVEL (FILL), fine to coarse grained, well graded, brown, moist		BENTONITE SEAL	1		0.76		0.4
1.0	- split-spoon refusal	0.9						
	END OF BOREHOLE @ 0.91m BGS							
1.5								
2.0								
2.5								
3.0								
3.5								
4.0								
4.5								
5.0								
5.5								
6.0								
6.5								
7.0								
7.5								
8.0								
8.5								
9.0								
9.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 3/3/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH5-13
DATE COMPLETED: March 2, 2013
DRILLING METHOD: SPLIT-SPOON
FIELD PERSONNEL: K. Vander Meulen

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE
	CONCRETE FLOOR	0.2	CONCRETE SEAL				
	SW-GW SAND & GRAVEL (FILL)	0.3					
0.5	END OF BOREHOLE @ 0.30m BGS						
1.0							
1.5							
2.0							
2.5							
3.0							
3.5							
4.0							
4.5							
5.0							
5.5							
6.0							
6.5							
7.0							
7.5							
8.0							
8.5							
9.0							
9.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 3/3/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH6-13
DATE COMPLETED: March 2, 2013
DRILLING METHOD: SPLIT-SPOON
FIELD PERSONNEL: K. Vander Meulen

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	CONCRETE FLOOR	0.2	CONCRETE SEAL					
0.5	SP-SAND (FILL), fine grained, poorly graded, brown, moist			1		0.76		0.1
1.0	CL-SILTY CLAY, firm, low plasticity, grey, moist	0.9						
1.5	- stiff, brown, moist		BENTONITE SEAL	2		0.76		0.2
2.0				3		0.61		0.1
2.5	END OF BOREHOLE @ 2.44m BGS	2.4						
3.0								
3.5								
4.0								
4.5								
5.0								
5.5								
6.0								
6.5								
7.0								
7.5								
8.0								
8.5								
9.0								
9.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 3/3/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH101-13
DATE COMPLETED: February 7, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	ASPHALT	0.2	BENTONITE SEAL	1	P/S	0.61		0.1
0.5	SW-GW SAND & GRAVEL (FILL), coarse to medium grained, well graded, brown, moist	0.9		2	P/S	0.61		0.9
1.0	CL-SILTY CLAY, low plasticity, grey, moist			3	P/S	0.61		3.3
1.5				4	P/S	0.61		9.3
2.0				5	P/S	0.61		1.3
2.5	- medium plasticity			6	P/S	0.61		159
3.0				7	P/S	0.61		0.6
3.5	- brown, moist to wet			8	P/S	0.61		0.1
4.0				9	P/S	0.61		0.0
4.5				10	P/S	0.61		0.0
5.0								
5.5								
6.0	END OF BOREHOLE @ 6.10m BGS	6.1						
6.5								
7.0								
7.5								
8.0								
8.5								
9.0								
9.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS ( )

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH102-13
DATE COMPLETED: February 7, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	ASPHALT	0.2	BENTONITE SEAL	1	P/S	0.61		1.5
0.5	SW-GW SAND & GRAVEL (FILL), well graded, grey, moist	0.6		2	P/S	0.61		1.6
1.0	SP-SAND (FILL), medium grained, poorly graded, brown, moist			3	P/S	0.61		5.2
1.5				4	P/S	0.61		0.3
2.0				5	P/S	0.61		10.3
2.5	- moist to wet, slight black staining, slight odour			6	P/S	0.61		283
3.0	- 152 mm section of coarse gravel , grey, slight odour	3.0		7	P/S	0.61		1.4
3.5	CL-SILTY CLAY, medium plasticity, grey, moist			8	P/S	0.61		21.9
4.0	SM-SILTY SAND, fine grained, poorly graded, brown, wet	4.0		9	P/S	0.61		1.2
4.5	CL-SILTY CLAY, medium plasticity, grey, moist	4.3		10	P/S	0.61		1.4
5.0	- less silt content, high plasticity, grey, moist to wet							
5.5								
6.0	END OF BOREHOLE @ 6.10m BGS	6.1						
6.5								
7.0								
7.5								
8.0								
8.5								
9.0								
9.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS ( )

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH103-13
DATE COMPLETED: February 7, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	ASPHALT	0.2	BENTONITE SEAL	1	P/S	0.61		0.7
0.5	SAND & GRAVEL (FILL), coarse to medium grained, well graded, light brown, moist	0.6		2	P/S	0.61		0.7
1.0	SP-SAND (FILL), fine grained, poorly graded, brown, moist - black staining, no odour			3	P/S	0.61		4.4
1.5	- dark brown, slightly oxidized	1.8		4	P/S	0.61		9.7
2.0	CL-SILTY CLAY, low plasticity, brown, moist			5	P/S	0.61		171
2.5	- medium plasticity, grey, slight odour			6	P/S	0.61		299
3.0	- 152 mm section of moist to wet, slight odour			7	P/S	0.61		114
3.5				8	P/S	0.61		3.1
4.0				9	P/S	0.61		0.1
4.5	- trace fine sand, brown, moist			10	P/S	0.61		4.4
5.0								
5.5								
6.0	END OF BOREHOLE @ 6.10m BGS	6.1						
6.5								
7.0								
7.5								
8.0								
8.5								
9.0								
9.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS ( )

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH104-13
DATE COMPLETED: February 7, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE
	ASPHALT	0.1	BENTONITE SEAL	1	P/S	0.61	
0.5	SW-GW SAND & GRAVEL (FILL), coarse to medium grained, well graded, grey, moist	0.3		2	P/S	0.61	
	CL-SILTY CLAY, low plasticity, brown, moist			3	P/S	0.61	
1.0				4	P/S	0.61	
1.5				5	P/S	0.61	
2.0				6	P/S	0.61	
2.5	- moist to wet, slight odour			7	P/S	0.61	
3.0				8	P/S	0.61	
3.5				9	P/S	0.61	
4.0				10	P/S	0.61	
	- slightly oxidized						
4.5	SM-SILTY SAND, fine grained, poorly graded, brown, moist to wet, slightly oxidized	4.4 4.6					
5.0	CL-SILTY CLAY, low plasticity, brown, moist - medium plasticity, grey, moist to wet						
5.5							
6.0	END OF BOREHOLE @ 6.10m BGS	6.1					
6.5							
7.0							
7.5							
8.0							
8.5							
9.0							
9.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS ( )

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH105-13
DATE COMPLETED: February 7, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE
	ASPHALT	0.2	BENTONITE SEAL	1	P/S	0.61	
	SW-GW SAND & GRAVEL (FILL), coarse to medium grained, well graded, grey, moist	0.3		2	P/S	0.61	
	SP-SAND (FILL), medium grained, poorly graded, brown, moist	0.6		3	P/S	0.61	
	SM-SILTY SAND (FILL), medium grained, poorly graded, moist, oxidized	0.8		4	P/S	0.61	
	CL-SILTY CLAY, low plasticity, brown, moist			5	P/S	0.61	
	- slight black staining, no odour			6	P/S	0.61	
	- brown / grey, slightly oxidized, slight odour			7	P/S	0.61	
	- moist to wet			8	P/S	0.61	
	- slightly oxidized			9	P/S	0.61	
	- slightly oxidized			10	P/S	0.61	
	- slightly oxidized						
	- medium plasticity, grey, moist to wet						
	END OF BOREHOLE @ 6.10m BGS	6.1					

0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH106-13
DATE COMPLETED: February 7, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	ASPHALT	0.1	BENTONITE SEAL	1	P/S	0.61		1.8
	SW-GW SAND & GRAVEL (FILL), medium to fine grained, well graded, brown, moist	0.3		2	P/S	0.61		0.9
	SP-SAND (FILL), fine grained, poorly graded, brown, moist	1.1		3	P/S	0.61		6.5
	CL-SILTY CLAY, low plasticity, grey, moist, slightly oxidized			4	P/S	0.61		105
	- slight odour, grey			5	P/S	0.61		82.3
	- strong odour, wet			6	P/S	0.61		203
	- strong odour, moist			7	P/S	0.61		0.8
	- slight odour, brown			8	P/S	0.61		1.4
	- grey			9	P/S	0.61		0.6
	- brown			10	P/S	0.61		0.2
	- 152 mm section of fine silty sand, brown, wet							
	- grey, moist							
	END OF BOREHOLE @ 6.10m BGS	6.1						

0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH107-13
DATE COMPLETED: February 7, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE
	ASPHALT	0.1	BENTONITE SEAL	1	P/S	0.61	
0.5	SW-GW SAND & GRAVEL (FILL), coarse to medium grained, well graded, grey, moist	0.6		2	P/S	0.61	
1.0	SP-SAND (FILL), fine grained, poorly graded, brown, moist	1.2		3	P/S	0.61	
1.5	CL-SILTY CLAY, low plasticity, brown, moist - strong odour, brown / grey			4	P/S	0.61	
2.0				5	P/S	0.61	
2.5	- slight odour, moist to wet			6	P/S	0.61	
3.0				7	P/S	0.61	
3.5				8	P/S	0.61	
4.0	- wet			9	P/S	0.61	
4.5	- medium plasticity, grey			10	P/S	0.61	
5.0	- moist to wet						
5.5							
6.0	END OF BOREHOLE @ 6.10m BGS	6.1					
6.5							
7.0							
7.5							
8.0							
8.5							
9.0							
9.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS ( )

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH108-13
DATE COMPLETED: February 7, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE
	CONCRETE	0.1	BENTONITE SEAL	1	P/S	0.61	
0.5	SW-GW SAND & GRAVEL (FILL), coarse to medium grained, well graded, brown, moist			2	P/S	0.61	
1.0	SP-SAND (FILL), fine grained, poorly graded, brown, moist	1.1		3	P/S	0.61	
1.5	CONCRETE (FILL)	1.5					
2.0	- Refusal END OF BOREHOLE @ 1.89m BGS	1.8					
2.5							
3.0							
3.5							
4.0							
4.5							
5.0							
5.5							
6.0							
6.5							
7.0							
7.5							
8.0							
8.5							
9.0							
9.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH109-13
DATE COMPLETED: February 7, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE
	CONCRETE	0.1	BENTONITE SEAL	1	P/S	0.61	
	SW-GW SAND & GRAVEL (FILL), coarse to medium grained, well graded, brown, moist	0.3		2	P/S	0.61	
	SM-SILTY SAND (FILL), little clay, fine grained, poorly graded, brown, moist - slightly oxidized	1.2		3	P/S	0.61	
	CL-SILTY CLAY, low plasticity, brown, moist			4	P/S	0.61	
	- strong odour			5	P/S	0.61	
	- medium plasticity, grey			(6)	P/S	0.61	
	- slightly oxidized, no odour			7	P/S	0.61	
	- moist to wet, grey			8	P/S	0.61	
				9	P/S	0.61	
	END OF BOREHOLE @ 6.10m BGS	6.1		10	P/S	0.61	

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS ( )

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH110-13
DATE COMPLETED: February 22, 2013
DRILLING METHOD: HAND DRILL
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	ASPHALT	0.1	BENTONITE SEAL	1		0.37		2.1
	GW-GRAVEL (FILL)	0.3		(2)		0.49		0.8
	CL-SILTY CLAY (FILL), firm, low plasticity, grey, very moist	0.5						
	SP-SAND (FILL), trace silt, compact, fine grained, poorly graded, brown, moist							
	- Refusal	1.4						
	END OF BOREHOLE @ 1.37m BGS							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS ( )

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH111-13
DATE COMPLETED: February 22, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	ASPHALT	0.1	BENTONITE SEAL	1	P/S	0.61		0.0
	SW-GW SAND & GRAVEL (FILL)	0.5		2	P/S	0.61		0.0
	CL-SILTY CLAY (FILL), stiff, low plasticity, grey, moist	0.8		3	P/S	0.61		0.0
	SM-SILTY SAND (FILL), compact, fine grained, poorly graded, brown, moist	0.9		4	P/S	0.61		0.0
	CL-SILTY CLAY, stiff, low plasticity, grey, moist - medium plasticity, very moist			5	P/S	0.61		0.0
				6	P/S	0.61		0.0
				7	P/S	0.61		0.0
				8	P/S	0.61		0.0
	CL-SILTY CLAY (TILL), trace sand, trace gravel, medium plasticity, grey, moist - Refusal (Shale fragments)	4.7 / 4.9						
	END OF BOREHOLE @ 4.88m BGS							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH112-13
DATE COMPLETED: February 22, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	ASPHALT	0.1	BENTONITE SEAL	1	P/S	0.61		0.0
	SW-GW SAND & GRAVEL (FILL)	0.6		2	P/S	0.61		0.0
	CL-SILTY CLAY, firm, low plasticity, grey, moist - medium plasticity, moist to very moist			3	P/S	0.61		0.0
				4	P/S	0.61		0.0
				5	P/S	0.61		0.0
				6	P/S	0.61		0.0
				7	P/S	0.61		0.0
	CL-SILTY CLAY (TILL), trace sand, trace gravel, medium plasticity, grey, moist to very moist	4.3		8	P/S	0.61		0.0
	- Refusal (Shale fragments)	4.9						
	END OF BOREHOLE @ 4.88m BGS							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH113-13
DATE COMPLETED: February 22, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	SW-GW SAND & GRAVEL (FILL)			1	P/S	0.61		0.0
0.5								
1.0	CL-SILTY CLAY, firm, low plasticity, grey, moist, slightly oxidized	0.9		2	P/S	0.61		0.0
1.5				3	P/S	0.61		0.0
2.0				4	P/S	0.61		0.0
2.5				5	P/S	0.61		0.0
3.0			BENTONITE SEAL	6	P/S	0.61		0.0
3.5	- medium plasticity							
4.0				7	P/S	0.61		0.0
4.5				8	P/S	0.61		0.0
5.0	- high plasticity, very moist			9	P/S	0.61		0.0
5.5								
6.0	- Refusal (Shale fragments)	6.1		10	P/S	0.61		0.0
	END OF BOREHOLE @ 6.10m BGS							
6.5								
7.0								
7.5								
8.0								
8.5								
9.0								
9.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS ( )

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Geotechnical Investigation and Phase Two ESA
PROJECT NUMBER: 081211
CLIENT: Mondelez Canada Inc.
LOCATION: 2150 Lake Shore Blvd. West, Toronto

HOLE DESIGNATION: BH114-13
DATE COMPLETED: February 22, 2013
DRILLING METHOD: GEOPROBE
FIELD PERSONNEL: L. Griffith

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (m)	'N' VALUE	PID (ppm)
	SW-GW SAND & GRAVEL (FILL)			1	P/S	0.61		0.0
0.5		0.6						
1.0	CL-SILTY CLAY, firm, low plasticity, grey, moist - slight black discolouration			2	P/S	0.61		0.0
1.5				3	P/S	0.61		0.0
2.0				4	P/S	0.61		0.0
2.5				5	P/S	0.61		0.0
3.0			BENTONITE SEAL	6	P/S	0.61		0.0
3.5								
4.0				7	P/S	0.61		0.0
4.5	- high plasticity			8	P/S	0.61		0.0
5.0				9	P/S	0.61		0.0
5.5								
6.0	CL-SILTY CLAY (TILL), firm, low plasticity, grey, moist - Refusal (Shale fragments)	5.8 / 6.1		10	P/S	0.61		0.0
	END OF BOREHOLE @ 6.10m BGS							
6.5								
7.0								
7.5								
8.0								
8.5								
9.0								
9.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

LABORATORY ANALYSIS ( )

OVERBURDEN LOG 081211.GPJ CRA_CORP.GDT 2/25/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH201-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	ASPHALT	0.15						
	SW/GW-SAND AND GRAVEL (FILL), coarse to medium grained, well graded, grey, moist	0.30		1				0.7
0.5	CL-SILTY CLAY, low plasticity, brown, moist - moist to wet, slight oxidation at 0.61m BGS							
1.0				2				0.7
1.5				3				0.7
2.0			BENTONITE	4				0.5
2.5				5				0.6
3.0								
	SM-SILTY SAND, fine grained, poorly graded, grey, moist - wet at 3.51m BGS	3.35		6				0.5
3.5								
4.0				7				0.4
	- Refusal, concrete at 4.27m BGS	4.27						
	END OF BOREHOLE @ 4.27m BGS							
4.5								
5.0								
5.5								
6.0								
6.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH202-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE
	ASPHALT - Refusal at 0.15m BGS	0.15					
	END OF BOREHOLE @ 0.15m BGS						
0.5							
1.0							
1.5							
2.0							
2.5							
3.0							
3.5							
4.0							
4.5							
5.0							
5.5							
6.0							
6.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH203-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE
	ASPHALT		[redacted]				
	- Refusal at 0.15m BGS	0.15					
	END OF BOREHOLE @ 0.15m BGS						
0.5							
1.0							
1.5							
2.0							
2.5							
3.0							
3.5							
4.0							
4.5							
5.0							
5.5							
6.0							
6.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 81211.GPJ CRA_CORP.GDT 11/6/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH204-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	ASPHALT							
	SW/GW-SAND AND GRAVEL (FILL), coarse to medium grained, well graded, brown, moist	0.15		1				0.8
0.5								
	SP-SAND (FILL), fine grained, poorly graded, brown, moist	0.61						
	SM-SILTY SAND, fine grained, poorly graded, brown, moist	0.91		2				0.9
1.0								
	ML-SILT, trace clay, low plasticity, brown, moist	1.22						
1.5				3				0.7
	- little sand, wet, slight oxidation at 1.83m BGS							
2.0				4				0.9
2.5				5				2.1
3.0			BENTONITE					
3.5				6				2.4
	SP-SAND, fine grained, poorly graded, brown, moist	3.66						
4.0	ML-SILT, trace clay, low plasticity, brown, moist, slight oxidation	3.96		7				0.7
	CL-SILTY CLAY, low plasticity, grey, moist to wet	4.11						
4.5	- trace sand at 4.27m BGS - low plasticity, moist at 4.57m BGS			8				1.0
	- medium plasticity, moist to wet at 4.88m BGS							
5.0				9				0.7
5.5								
6.0				10				0.6
	END OF BOREHOLE @ 6.10m BGS	6.10						
6.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

OVERBURDEN LOG 81211.GPJ CRA_CORP.GDT 11/6/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH205-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	ASPHALT	0.15						
	SW/GW-SAND AND GRAVEL (FILL), coarse to medium grained, well graded, brown, moist			1				0.8
0.5								
1.0	ML-SILT (TILL), trace clay, compact, grey, moist	0.91		2				0.7
	- wood fragments, slight odour at 1.22m BGS							
1.5	- black staining at 1.52m BGS			3				1.4
2.0				4				2.9
2.5								
	ML-SILT, trace clay, compact, brown, moist	2.74		5				1.5
3.0			BENTONITE					
3.5				6				0.9
	- trace sand, loose, moist to wet at 3.66m BGS							
4.0				7				0.5
4.5	CL-SILTY CLAY, medium plasticity, grey, moist	4.57		8				0.3
5.0				9				0.5
5.5								
6.0	END OF BOREHOLE @ 6.10m BGS	6.10		10				0.4
6.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH206-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	ASPHALT	0.23						
	SW/GW-SAND AND GRAVEL (FILL), coarse to medium grained, well graded, brown, moist	0.30		1				0.8
0.5	SP-SAND (FILL), fine grained, poorly grained, brown, moist	0.61						
	ML-SILT, loose, grey, moist	0.91		2				0.5
1.0	SM-SILTY SAND (TILL), fine grained, poorly graded, trace gravel, brown, some black staining, slight odour							
1.5				3				1.3
	ML-SILT (TILL), loose, brown, moist, slight black staining	1.83						
2.0				4				1.4
2.5	ML-SILT, compact, with clay, brown, moist	2.44		5				1.2
3.0			BENTONITE					
3.5	- trace sand at 3.35m BGS			6				0.7
	- brown streaks at 3.66m BGS							
4.0				7				0.8
4.5				8				0.8
5.0	CL-SILTY CLAY, medium plasticity, brown, moist to wet	4.88		9				0.8
	- grey at 5.33m BGS							
5.5								
6.0	END OF BOREHOLE @ 6.10m BGS	6.10		10				0.5
6.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH207-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	ASPHALT	0.15						
	SW/GW-SAND AND GRAVEL (FILL), coarse to medium grained, well graded, brown, moist	0.30		1				1.1
0.5	SP-SAND (FILL), medium grained, well graded, brown, moist	0.46						
	SM-SILTY SAND, fine grained, poorly graded, grey, moist	0.61		2				6.8
1.0	ML-SILT, trace sand, loose, grey, moist							
	- with sand, black staining at 1.22m BGS							
1.5				3				50.7
	SM-SILTY SAND, fine grained, poorly graded, moist, black staining, slight odour	1.68						
	ML-SILT, with clay, compact, grey, moist	1.83						
2.0				4				33.6
2.5	- slight odour at 2.44m BGS							
				5				23.6
3.0	- some black staining, strong odour at 3.05m BGS		BENTONITE					
				6				1686.0
3.5	- slight odour at 3.66m BGS							
4.0				7				23.6
	- moist to wet at 4.27m BGS							
4.5				8				29.1
	- slight odour at 4.88m BGS							
5.0				9				21.7
5.5	- grey and brown at 5.49m BGS							
				10				3.6
6.0	END OF BOREHOLE @ 6.10m BGS	6.10						
6.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 81211.GPJ CRA_CORP.GDT 11/6/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH208-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	ASPHALT	0.15						
	SW/GW-SAND AND GRAVEL (FILL), coarse to medium grained, well graded, brown, moist	0.30		1				20.8
0.5	SP-SAND (FILL), medium grained, poorly graded, brown, moist	0.46						
	ML-SILT, trace sand, loose, grey, moist			2				1.5
1.0		1.22						
	SM-SILTY SAND, fine grained, poorly graded, grey, some black staining, slight odour			3				7.1
1.5		1.83						
	ML-SILT, trace sand, loose, grey, moist, slight odour							
2.0				4				4.5
2.5				5				4.8
3.0		3.05	BENTONITE					
	CL-SILTY CLAY, medium plasticity, grey, moist to wet							
	- slight black staining at 3.35m BGS			6				1.4
3.5								
4.0	- brown and grey at 3.96m BGS			7				6.0
4.5				8				1.1
5.0								
	- trace sand, slight black staining at 5.18m BGS			9				2.9
5.5								
				10				0.9
6.0	END OF BOREHOLE @ 6.10m BGS	6.10						
6.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 81211.GPJ CRA_CORP.GDT 11/6/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH209-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	ASPHALT	0.09						
	SW/GW-SAND AND GRAVEL (FILL), coarse to medium grained, well graded, brown, moist	0.15		1				1.2
0.5	SP-SAND (FILL), medium grained, poorly graded, brown, moist, slight oxidation	0.61						
	SM-SILTY SAND, fine grained, poorly graded, brown, moist			2				0.7
1.0								
1.5	ML-SILT, little sand, loose, grey, moist	1.52		3				1.9
2.0	- trace sand at 1.98m BGS							
	- trace sand, wood chip fragments, slight odour at 2.13m BGS			4				0.7
2.5	- slight odour at 2.44m BGS							
	- trace sand, medium plasticity, brown, moist at 2.74m BGS			5				1.5
3.0			BENTONITE					
				6				0.8
3.5	- with sand, wet at 3.66m BGS							
4.0				7				1.3
	- trace sand at 4.27m BGS							
4.5				8				0.9
	- grey, wet at 4.88m BGS							
5.0	CL-SILTY CLAY, medium plasticity, grey, moist	5.18		9				1.0
5.5								
				10				0.3
6.0	END OF BOREHOLE @ 6.10m BGS	6.10						
6.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 81211.GPJ CRA_CORP.GDT 11/6/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH210-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	ASPHALT	0.23						
	SW/GW-SAND AND GRAVEL (FILL), coarse to medium grained, well graded, brown, moist	0.30		1				0.5
0.5	SP-SAND (FILL), medium grained, poorly graded, brown, moist							
	SM-SILTY SAND, fine grained, poorly graded, grey, moist	0.91		2				0.8
1.0	- black staining, slight odour at 1.22m BGS							
1.5				3				0.9
2.0								
	ML-SILT, trace clay, fine grained, poorly graded, grey, moist	2.13		4				1.2
2.5				5				1.0
3.0	- brown at 3.05m BGS		BENTONITE					
	- black staining, vegetative rootlets, slight odour at 3.35m BGS			6				1.4
3.5								
4.0	- with clay, slight odour at 3.96m BGS			7				3.0
4.5				8				5.2
5.0				9				1.5
5.5				10				0.9
6.0	END OF BOREHOLE @ 6.10m BGS	6.10						
6.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 81211.GPJ CRA_CORP.GDT 11/6/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH211-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	ASPHALT	0.15						
	SW/GW-SAND AND GRAVEL (FILL), coarse to medium grained, well graded, brown, moist	0.30		1				0.5
0.5	SP-SAND (FILL), medium grained, poorly graded, brown, moist							
1.0				2				0.5
	SM-SILTY SAND, fine grained, poorly graded, brown, moist	1.22						
1.5	ML-SILT, trace clay, fine grained, poorly graded, grey, moist	1.52		3				0.5
2.0				4				0.4
2.5				5				0.2
3.0	- trace vegetative matter, vegetative staining at 3.05m BGS		BENTONITE					
3.5				6				0.4
4.0				7				0.2
4.5				8				0.4
5.0	- with clay at 4.88m BGS			9				0.4
5.5				10				0.6
6.0	END OF BOREHOLE @ 6.10m BGS	6.10						
6.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 81211.GPJ CRA_CORP.GDT 11/6/13

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: MONDELEZ
PROJECT NUMBER: 081211
CLIENT:
LOCATION: 2150 LAKE SHORE BLVD. W., TORONTO, ONTARIO

HOLE DESIGNATION: BH212-13
DATE COMPLETED: 27 May 2013
DRILLING METHOD: 51mm O.D./DIRECT PUSH
FIELD PERSONNEL: L. GRIFFITH

DEPTH m BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH m BGS	BOREHOLE	SAMPLE NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	ASPHALT	0.15						
	SP-SAND (FILL), medium grained, poorly graded, brown, moist			1				1.3
0.5								
1.0	ML-SILT, trace sand	0.91		2				1.8
	- black staining at 1.07m BGS							
1.5	- black staining, slight odour, wood fragments at 1.52m BGS			3				1.2
2.0				4				3.4
2.5	- trace clay, slight odour at 2.44m BGS		BENTONITE					
	- trace clay, grey, moist to wet at 2.74m BGS			5				8.4
3.0								
3.5				6				1.9
	- trace clay, brown, moist at 3.66m BGS							
4.0				7				0.8
4.5				8				0.9
5.0	END OF BOREHOLE @ 4.88m BGS	4.88						
5.5								
6.0								
6.5								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS

OVERBURDEN LOG 81211.GPJ CRA_CORP.GDT 11/6/13

Appendix C

Hydrological Review Summary Form

August 2018

HYDROLOGICAL REVIEW SUMMARY

The form is to be completed by the Professional that prepared the Hydrological Review.
Use of the form by the City of Toronto is not to be construed as verification of engineering/hydrological content.

Refer to the Terms of Reference, Hydrological Review:
Link to Terms of Reference Hydrological Review

For City Staff Use Only:	
Name of ECS Case Manager (Please print)	
Date Review Summary provided to to TW, EM&P	

IF ANY OF THE REQUIREMENTS LISTED BELOW HAVE NOT BEEN INLCUDED IN THE HYDROLOGICAL REVIEW, THE REVIEW WILL BE CONSIDERED INCOMPLETE.
THE GREY SHADED BOXES WILL REQUIRE A CONSISTANCY CHECK BY THE ECS CASE MANAGER.

Summary of Key Information:

SITE INFORMATION		Page # & Section # of Review	Review Includes this Information City Staff (Check)
Site Address	2150-2194 Lake Shore Boulevard West and 23 Park Lawn Rd	Page 3 Section 1.1	
Postal Code	M8V 1A3	Page 5 Section 2	
Property Owner (on request for comments memo)	FCR (Park Lawn) LP and CPPIB Park Lawn Canada Inc	Page 3 Section 1.1	
Proposed description of the project (if applicable) (point towers, number of podiums)	Fifteen towers with basement, mid-rise and low-rise buildings, new Park Lawn GO Station, a public park	Page 3 Section 1.1	
Land Use (ex. commercial, residential, mixed, institutional, industrial)	Mixed (residential, offices, services/retail, institutional)	Page 3 Section 1.1	
Number of below grade levels for the proposed structure	3 to 5	Page 3 and 4 Section 1.1	
HYDROLOGICAL REVIEW INFORMATION			
Date Hydrological Review was prepared:	15 May 2020	Cover Page	
Who Performed the Hydrological Review (Consulting Firm)	Arup Canada Inc	Cover Page	
Name of Author of Hydrological Review	James Collins	Cover Page	

August 2018

HYDROLOGICAL REVIEW SUMMARY

SITE INFORMATION		Page # & Section # of Review	Review Includes this Information City Staff (Check)
Check the directories on the website for Professional Geoscientists and/or Professional Engineers of Ontario been checked to ensure that the Hydrological Report has been prepared by a qualified person who is a licensed Professional Geoscientist as set out in the Professional Geoscientist Act of Ontario or a Professional Engineer? PEO: Professional Engineers of Ontario APGO: Association of Professional Geoscientists of Ontario		N/A	
Has the Hydrological Review been prepared in accordance with all the following: • Ontario Water Resources Act • Ontario Regulation 387/04 • Toronto Municipal Code Chapter 681-Sewers	Yes	Page 4 Section 1.2	
		Page # & Section # of every occurrence in the Review	**Review Includes this Information City Staff (Check)**

August 2018

HYDROLOGICAL REVIEW SUMMARY

<table>
<tr><th colspan="2">SITE INFORMATION</th><th>Page # & Section # of Review</th><th>Review Includes this Information City Staff (Check)</th></tr>
<tr><td>Total Volume (L/day) Short Term Discharge of groundwater (construction dewatering) with safety factor included</td><td>What safety factor was used?
Factor of Safety of 1.5 was used

Values for each basement have been tabulated and are presented in the report. Report text includes values in L/d.
Table 7 - Anticipated Groundwater Discharge
<table>
<tr><th>Basement Phase</th><th>Minimum Anticipated Groundwater Discharge (m^3/d) (unfactored)</th><th>Maximum Anticipated Groundwater Discharge (m^3/d) (unfactored)</th><th>Maximum Anticipated Groundwater Discharge (m^3/d) (factored)</th></tr>
<tr><td>Phase 1</td><td>5</td><td>47</td><td>70</td></tr>
<tr><td>Phase 2</td><td>4</td><td>41</td><td>62</td></tr>
<tr><td>Phase 3</td><td>5</td><td>49</td><td>73</td></tr>
<tr><td>Phase 4</td><td>4</td><td>38</td><td>57</td></tr>
<tr><td>Phase 5</td><td>3</td><td>34</td><td>51</td></tr>
<tr><td>Phase 6</td><td>3</td><td>34</td><td>51</td></tr>
<tr><td>Phase 1-5</td><td>21</td><td>209</td><td>313</td></tr>
<tr><td colspan="4">Note: Factored groundwater discharge includes a Factor of Safety of 1.5</td></tr>
</table></td><td>Page 20
Section 5.2.3</td><td></td></tr>
<tr><td>Total Volume (L/day) Short Term Discharge of groundwater (construction dewatering) without safety factor included</td><td>Values for each basement have been tabulated and are presented in the report. Report text includes values in L/d.
Table 7 - Anticipated Groundwater Discharge
<table>
<tr><th>Basement Phase</th><th>Minimum Anticipated Groundwater Discharge (m^3/d) (unfactored)</th><th>Maximum Anticipated Groundwater Discharge (m^3/d) (unfactored)</th><th>Maximum Anticipated Groundwater Discharge (m^3/d) (factored)</th></tr>
<tr><td>Phase 1</td><td>5</td><td>47</td><td>70</td></tr>
<tr><td>Phase 2</td><td>4</td><td>41</td><td>62</td></tr>
<tr><td>Phase 3</td><td>5</td><td>49</td><td>73</td></tr>
<tr><td>Phase 4</td><td>4</td><td>38</td><td>57</td></tr>
<tr><td>Phase 5</td><td>3</td><td>34</td><td>51</td></tr>
<tr><td>Phase 6</td><td>3</td><td>34</td><td>51</td></tr>
<tr><td>Phase 1-5</td><td>21</td><td>209</td><td>313</td></tr>
<tr><td colspan="4">Note: Factored groundwater discharge includes a Factor of Safety of 1.5</td></tr>
</table></td><td>Page 20
Section 5.2.3</td><td></td></tr>
<tr><td>Total Volume (L/day) Long Term drainage of groundwater (from foundation drainage, weeping tiles, sub slab drainage) with safety factor included

If the development is part of a multiple tower complex, include total volume for each separate tower</td><td>What safety factor was used?
Factor of Safety of 1.5 was used

Values for each basement have been tabulated and are presented in the report. Report text includes values in L/d.
Table 8 – Anticipated Groundwater Discharge with Secant Pile Perimeter Wall
<table>
<tr><th>Basement Phase</th><th>Maximum Anticipated Groundwater Discharge (m^3/d) with Secant Pile Perimeter Wall (factored)</th></tr>
<tr><td>Phase 1</td><td>18</td></tr>
<tr><td>Phase 2</td><td>15</td></tr>
<tr><td>Phase 3</td><td>18</td></tr>
<tr><td>Phase 4</td><td>14</td></tr>
<tr><td>Phase 5</td><td>13</td></tr>
<tr><td>Phase 6</td><td>13</td></tr>
<tr><td>Phase 1-5</td><td>78</td></tr>
<tr><td colspan="2">Note:
Factored groundwater discharge includes a Factor of Safety of 1.5
Above groundwater discharge assumes 25% of factored analysis result due to benefit of secant pile wall.</td></tr>
</table></td><td>Page 21
Section 5.4</td><td></td></tr>
<tr><td>List the nearest surface water (river, creek, lake)</td><td>Mimico Creek, approximately 200 m to the southwest.
Lake Ontario is located approximately 250 m to 300 m to the southeast .</td><td>Page 5
Section 2.2</td><td></td></tr>
</table>

August 2018

HYDROLOGICAL REVIEW SUMMARY

SITE INFORMATION		Page # & Section # of Review	Review Includes this Information City Staff (Check)
Lowest basement elevation	+89 masl	Page 18 Section 5.2.2	
Foundation elevation	Anticipated to be within the shale bedrock which was encountered between 70.7 masl and 82.6 masl	Page 16 Section 5.1	
Ground elevation	The site is generally flat, with existing elevation across the site typically ranging from approximately +84 masl and +86 masl.	Page 5 Section 2.1	
STUDY AREA MAP		**Page # & Section # of every occurrence in the Review**	**Review Includes this Information City Staff (Check)**
Study area map(s) have been included in the report.	ⓧ **Yes** Site Location Plan - Page 3, Section 1.1 Borehole Location Plan - Appendix A	Page 3 Section 1.1 and Appendix A	N/A
Study area map(s) been prepared according to the Hydrological Review Terms of Reference.	ⓧ **Yes**		N/A
WATER LEVEL AND WELLS		**Page # & Section # of every occurrence**	**Review Includes this Information (City Staff Initial)**

August 2018

HYDROLOGICAL REVIEW SUMMARY

SITE INFORMATION		Page # & Section # of Review	Review Includes this Information City Staff (Check)
		in the Review	
The groundwater level has been monitored using all wells located on site (within property boundary).	Yes	Page 12 Section 4.2	
The static water level measurements have been monitored at all monitoring wells for a minimum of 3 months with samples taken every 2 weeks for a minimum of 6 samples. The intent is for the qualified professional to use professional judgement to estimate the seasonally high groundwater level.	No. Existing monitoring data is provided at various seasons but not consistently for 3 months. Based on the available data a conservative estimate of groundwater level has been made, and groundwater assumed to be 1 m below ground surface.	Page 16 Section 5.2	
All water levels in the wells have been measured with respect to masl.	Yes	Page 12 Section 4.2	
A table of geology/soil stratigraphy for the property has been included.	Yes	Page 10 Section 3.3 and Page 11 Section 4.1	
GEOLOGY AND PHYSICAL HYDROLOGY		**Page # & Section # of every occurrence in the Review**	**Review Includes this Information (City Staff Initial)**
The review has made reference to the soil materials including thickness, composition and texture, and bedrock environments.	Yes	Page 10 Section 3.3	
Key aquifers and the site's proximity to nearby surface water has been identified.	ⓧ **Yes**	Page 5 Section 2.2 and Page 11 Section 4.1	N/A

HYDROLOGICAL REVIEW SUMMARY

SITE INFORMATION		Page # & Section # of Review	Review Includes this Information City Staff (Check)
PUMP TEST/SLUG TEST/DRAWDOWN ANALYSIS		**Page # & Section # of every occurrence in the Review**	**Review Includes this Information City Staff (Check)**
A summary of the pumping test data and analysis is included in the review.	Pumping tests have not yet been carried out. In situ permeability testing is proposed for future design stages, which is discussed in Section 7 Summary and Further Work	Page 23 Section 7	
The pump test been carried out for at least 24 hours if possible. If not, has a slug test been conducted?	Slug tests have not been conducted. In situ permeability testing is proposed for future design stages, which is discussed in Section 7 Summary and Further Work	Page 23 Section 7	
Have the monitoring well(s) have been monitored using digital devices? If yes how frequently?	Not monitored using digital devices	N/A	
If a slug or pump test has been conducted has the static groundwater level been monitored at all monitoring well(s) multiple times to measure recovery? -prior to the slug or pumping test(s)? -post slug or pumping test(s)?	◯ **Yes** Pumping nor slug tests tests have not yet been carried out. In situ permeability testing is proposed for future design stages, which is discussed in Section 7 Summary and Further Work	N/A	N/A
The above noted slug or pump tests have been included in the report.	◯ **Yes** Pumping nor slug tests tests have not yet been carried out. In situ permeability testing is proposed for future design stages, which is discussed in Section 7 Summary and Further Work	N/A	
WATER QUALITY		**Page # & Section # of every occurrence in the Review**	**Review Includes this Information City Staff (Check)**

HYDROLOGICAL REVIEW SUMMARY

SITE INFORMATION		Page # & Section # of Review	Review Includes this Information City Staff (Check)
The report includes baseline water quality samples from a laboratory. The water quality must be analyzed for all parameters listed in Tables 1 and 2 of Chapter 681 Sewers of the Toronto Municipal Code (found in Appendix A) and the samples must have to be taken unfiltered within 9 months of the date of submission.	The report discusses known contamination at the site and the requirements of Tables 1 and Table 2 of The City of Toronto Sewers By-Law. Required tests are to be carried out during ground investigation for future design stages.	Page 15 Section 4.5	
The water quality data templates in Appendix A have been completed for each sample taken for both sanitary/combined and storm sewer limits.	For sanitary discharge- See the sanitary/combined sewer parameter limit template For storm discharge- See the storm sewer parameter limit template	N/A	
Qualified professional to list all sample parameters that have violated the Bylaw limits for each sample taken for the sanitary/combined Bylaw limits **If there are any sample parameter Exceedances the groundwater can't be discharged as is.**	The report discusses known contamination at the site and the requirements of Tables 1 and Table 2 of The City of Toronto Sewers By-Law. Required tests are to be carried out during ground investigation for future design stages.	Page 15 Section 4.5	
Qualified professional to list all sample parameters that have violated the Bylaw limits for each sample taken for the storm Bylaw limits. **If there are any sample parameter exceedances the groundwater can't be discharged as is.**	The report discusses known contamination at the site and the requirements of Tables 1 and Table 2 of The City of Toronto Sewers By-Law. Required tests are to be carried out during ground investigation for future design stages.	Page 15 Section 4.5	
The water quality samples have been analyzed by a Canadian laboratory accredited and licensed by Standards Council of Canada and/or Canadian Association for Laboratory Accreditation.	◯ **Yes** The report discusses known contamination at the site and the requirements of Tables 1 and Table 2 of The City of Toronto Sewers By-Law. Required tests are to be carried out during ground investigation for future design stages.	Page 15 Section 4.5	N/A

HYDROLOGICAL REVIEW SUMMARY

SITE INFORMATION		Page # & Section # of Review	Review Includes this Information City Staff (Check)
List of Canadian accredited laboratories: Standards Council of Canada	N/A	N/A	
A chain of custody record for the samples is included with the report.	N/A	N/A	
Has the chain of custody reference any filtered sample? If yes, the report has to be amended and re-submitted to include only non-filtered samples.	N/A	N/A	
List any of the sample parameters that exceed the Bylaw limits with the reporting detection limit (RDL) included.	N/A	N/A	
A true copy of the Certificate of Analysis report, is included with the report.	N/A	N/A	
EVALUATION OF IMPACT		**Page # & Section # of every occurrence in the Review**	**Review Includes this Information City Staff (Check)**
Does the report recommend a back-up system or relief safety valve(s)?	◯ **Yes** ⓧ **No**		
Does the associated Geotechnical report recommend a back-up system or relief safety valve(s)?	◯ **Yes** ⓧ **No**		
The taking and discharging of groundwater on site has been analyzed to ensure that no negative	◯ **Yes**		N/A

HYDROLOGICAL REVIEW SUMMARY

SITE INFORMATION		Page # & Section # of Review	Review Includes this Information City Staff (Check)
impacts will occur to: the City sewage works in terms of quality and quantity (including existing infrastructure), the natural environment, and settlement issues.	Review has been carried out in terms of groundwater quantity. Further review of groundwater quality and detailed settlement analysis will be carried out during ground investigation and future design stages.	Page 22 Section 5.6	
Has it been determined that there will be a negative impact to the natural environment, City sewage works, or surrounding properties has the study identified the following: the extent of the negative impact, the detail of the precondition state of all the infrastructure, City sewage works, and natural environment within the effected zone and the proposed remediation and monitoring plan?	◯ **Yes** **If yes, identify impact:** ⓧ **No**		N/A

Summary of Additional Information and Key Items (if applicable):

Appendix A:

SANITARY/COMBINED **Sample Location:**

Inorganics		**Sample Result**	**Sample Result with upper RDL included**	
Parameter	**mg/L**	-		**ug/L**
BOD	300			300,000
Fluoride	10			10,000
TKN	100			100,000
pH	6.0 - 11.5			6.0 - 11.5
Phenolics 4AAP	1			1,000
TSS	350			350,000
Total Cyanide	2			2,000
Metals				
Chromium Hexavalent	2			2,000
Mercury	0.01			10
Total Aluminum	50			50,000
Total Antimony	5			5,000
Total Arsenic	1			1,000
Total Cadmium	0.7			700
Total Chromium	4			4,000
Total Cobalt	5			5,000
Total Copper	2			2,000
Total Lead	1			1,000
Total Manganese	5			5,000
Total Molybdenum	5			5,000
Total Nickel	2			2,000
Total Phosphorus	10			10,000
Total Selenium	1			1,000
Total Silver	5			5,000
Total Tin	5			5,000
Total Titanium	5			5,000
Total Zinc	2			2,000
Petroleum Hydrocarbons				
Animal/Vegetable Oil & Grease	150			150,000
Mineral/Synthetic Oil & Grease	15			15,000

HYDROLOGICAL REVIEW SUMMARY

Volatile Organics		**Sample Result**	**Sample Result with upper RDL included**	
Parameter	**mg/L**	-		**ug/L**
Benzene	0.01			10
Chloroform	0.04			40
1,2-Dichlorobenzene	0.05			50
1,4-Dichlorobenzene	0.08			80
Cis-1,2-Dichloroethylene	4			4,000
Trans-1,3-Dichloropropylene	0.14			140
Ethyl Benzene	0.16			160
Methylene Chloride	2			2,000
1,1,2,2-Tetrachloroethane	1.4			1,400
Tetrachloroethylene	1			1,000
Toluene	0.016			16
Trichloroethylene	0.4			400
Total Xylenes	1.4			1,400
Semi-Volatile **Organics**				
Di-n-butyl Phthalate	0.08			80
Bis (2-ethylhexyl) Phthalate	0.012			12
3,3'-Dichlorobenzidine	0.002			2
Pentachlorophenol	0.005			5
Total PAHs	0.005			5
Misc **Parameters**				
Nonylphenols	0.02			20
Nonylphenol Ethoxylates	0.2			200

Sample Collected:
Temperature:

HYDROLOGICAL REVIEW SUMMARY

STORM **Sample Location:**

Inorganics		**Sample Result**	**Sample Result with upper RDL included**	
Parameter	**mg/L**			**ug/L**
pH	6.0 - 9.5			
BOD	15			15,000
Phenolics 4AAP	0.008			8
TSS	15			15,000
Total Cyanide	0.02			20
Metals				
Total Arsenic	0.02			20
Total Cadmium	0.008			8
Total Chromium	0.08			80
Chromium Hexavalent	0.04			40
Total Copper	0.04			40
Total Lead	0.12			120
Total Manganese	0.05			50
Total Mercury	0.0004			0.4
Total Nickel	0.08			80
Total Phosphorus	0.4			400
Total Selenium	0.02			20
Total Silver	0.12			120
Total Zinc	0.04			40
Microbiology				
E.coli	200			200,000
Volatile Organics				
Parameter	**mg/L**			**ug/L**
Benzene	0.002			2
Chloroform	0.002			2
1,2-Dichlorobenzene	0.0056			6
1,4-Dichlorobenzene	0.0068			7
Cis-1,2-Dichloroethylene	0.0056			6
Trans-1,3-Dichloropropylene	0.0056			6
Ethyl Benzene	0.002			2
Methylene Chloride	0.0052			5
1,1,2,2-Tetrachloroethane	0.017			17
Tetrachloroethylene	0.0044			4
Toluene	0.002			2
Trichloroethylene	0.0076			8
Total Xylenes	0.0044			4

HYDROLOGICAL REVIEW SUMMARY

Semi-Volatile Organics		Sample Result	Sample Result with upper RDL included	
Di-n-butyl Phthalate	0.015			5
Bis (2-ethylhexyl) Phthalate	0.0088			8.8
3,3'-Dichlorobenzidine	0.0008			0.8
Pentachlorophenol	0.002			2
Total PAHs	0.002			2
PCBs	0.0004			0.4
Misc Parameters				
Nonylphenols	0.001			1
Nonylphenol Ethoxylates	0.01			10

Sample Collected:
Temperature:

Consulting Firm that prepared Hydrological Report: Arup

Qualified Professional who completed the report summary: James Collins

Print Name

Qualified Professional who completed the report summary: See stamp

Signature

Date & Stamp