

Log of Borehole 148A

Project No. BRM-00038305-B0

Drawing No. 178

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: May 30, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

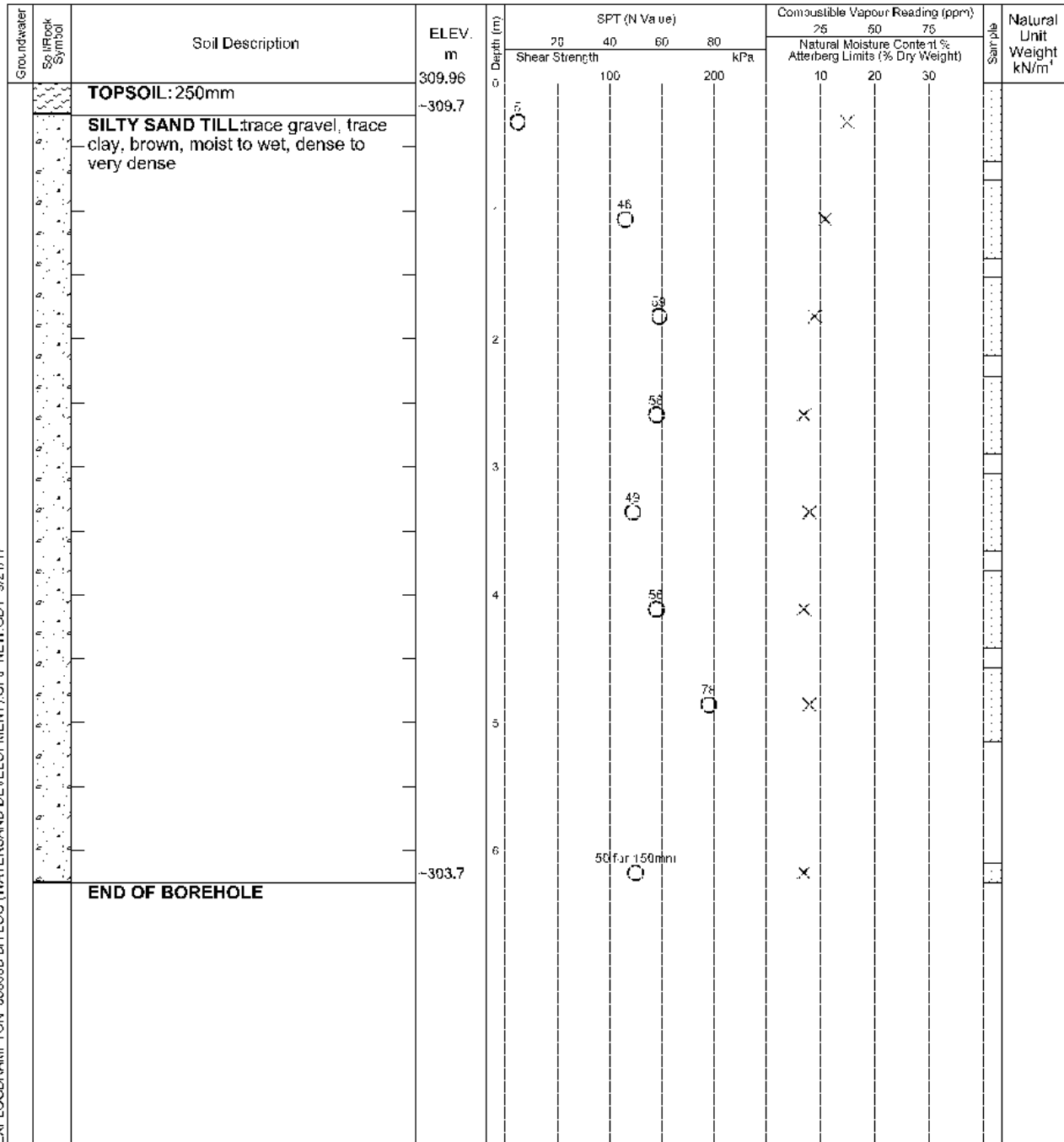
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25

Log of Borehole 148B

Project No. BRM-00038305-B0

Drawing No. 179

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: May 30, 2016

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

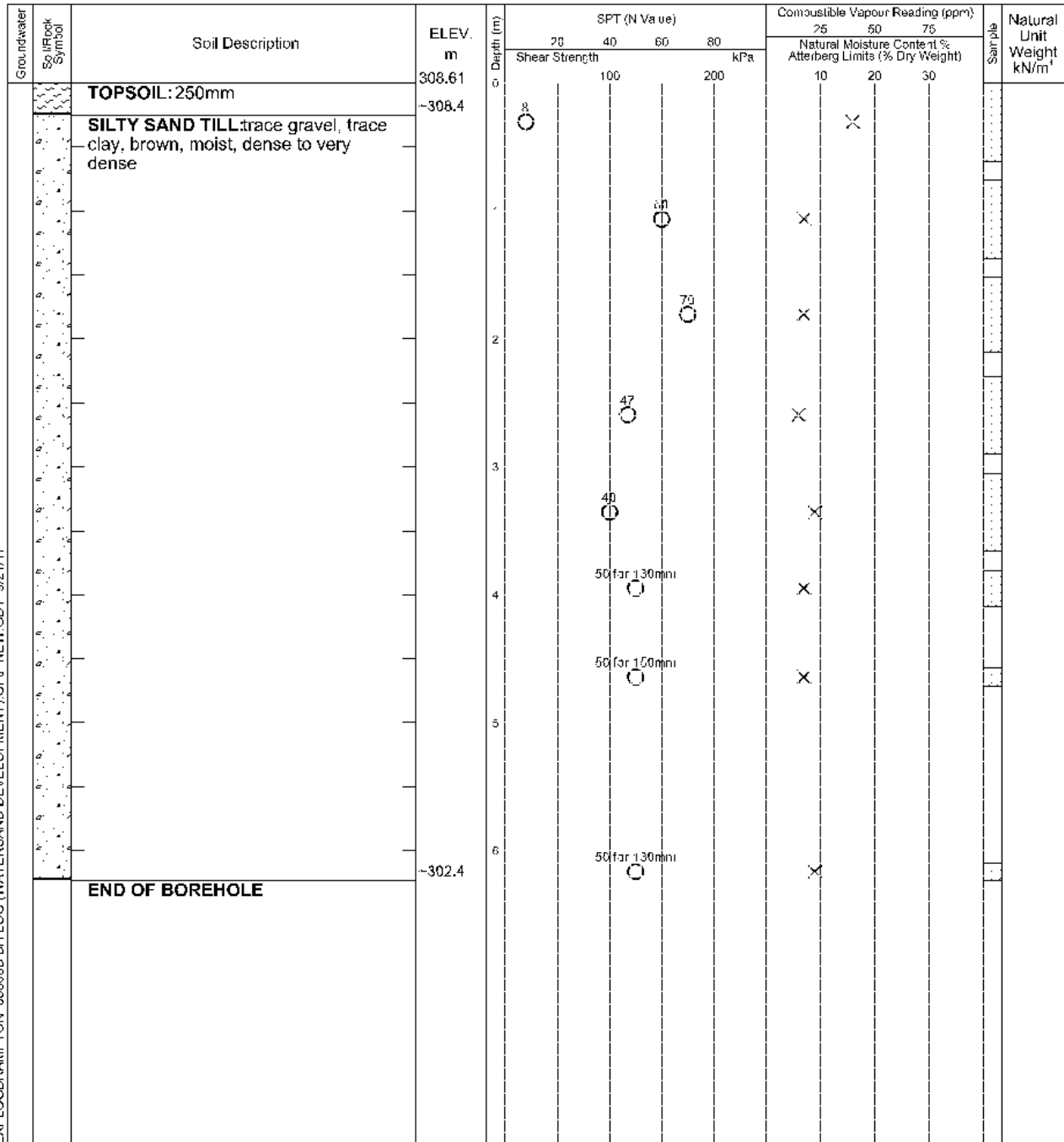
Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.23

Log of Borehole 148C

Project No. BRM-00038305-B0

Drawing No. 180

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 2

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 1, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

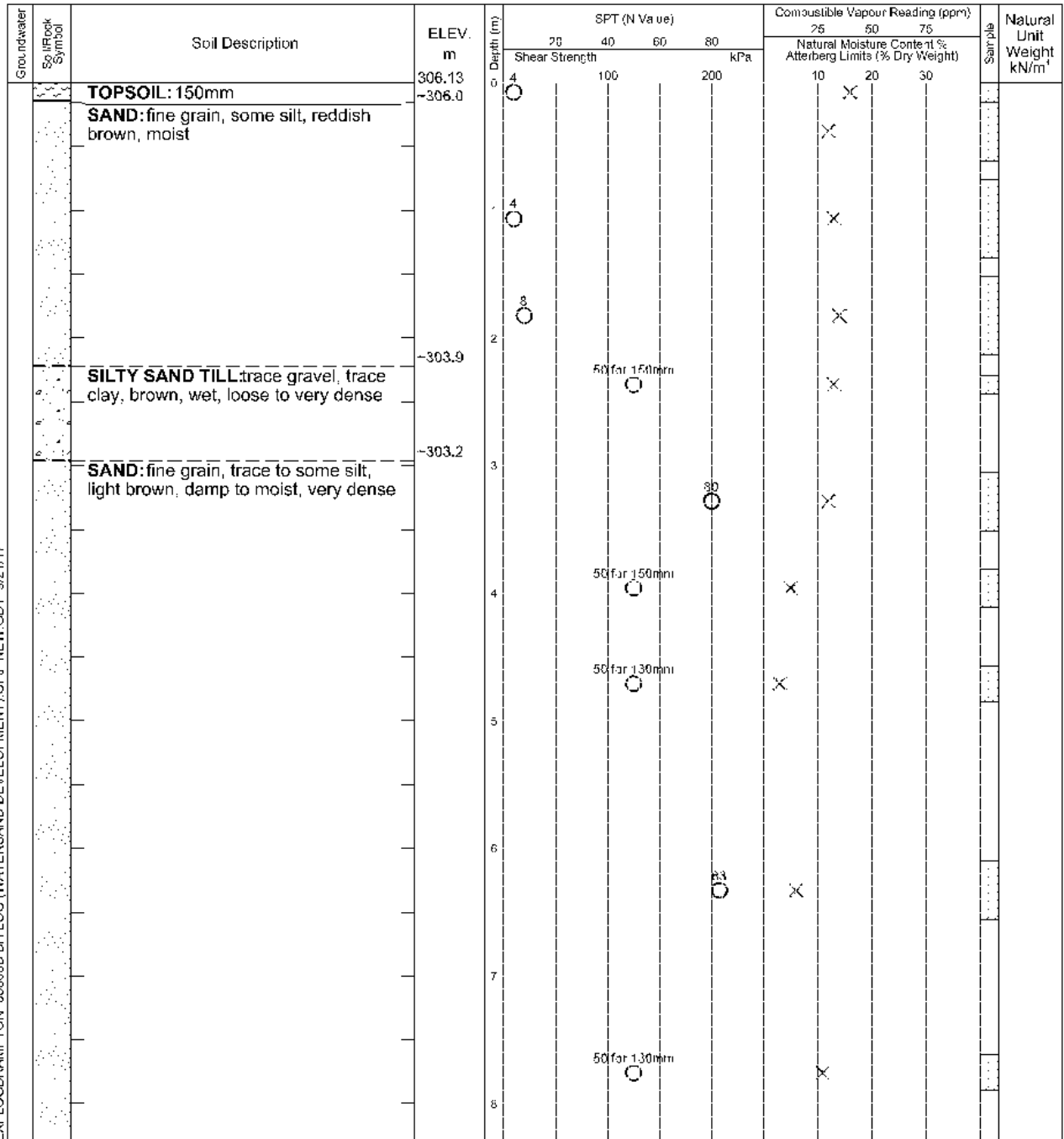
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	9.80



Log of Borehole 148C

Project No. BRM-00038305-B0

Drawing No. 180

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 2 of 2

Groundwater	Soil/Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Comminuted Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m ³
					20	40	60	80	25	50	75		
					Shear Strength kPa				Natural Moisture Content % Atterberg Limits (% Dry Weight)				
					100			200	10	20	30		
		light grey	297.83	9									
		END OF BOREHOLE	~296.5										

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	9.60

Log of Borehole 149B

Project No. BRM-00038305-B0

Drawing No. 181

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: May 30, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)		Combustible Vapour Reading (ppm)			Natural Unit Weight kN/m ³
					20	40	25	50	75	
		TOPSOIL: 230mm	308.48	0						
		SAND: fine grain, some silt, trace rootlets, dark brown, moist	~308.3	0.5						
		SAND: fine to medium grain, trace gravel, trace silt, brown, moist, dense to very dense	~307.8	1.0						
				1.5						
				2.0						
		SILTY SAND TILL: trace gravel, trace clay, brown, moist, dense to very dense	~306.3	2.5						
				3.0						
				3.5						
				4.0						
				4.5						
				5.0						
				5.5						
				6.0						
		END OF BOREHOLE	~302.2	6.33						

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.33

Log of Borehole 149C

Project No. BRM-00038305-B0

Drawing No. 182

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: May 31, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

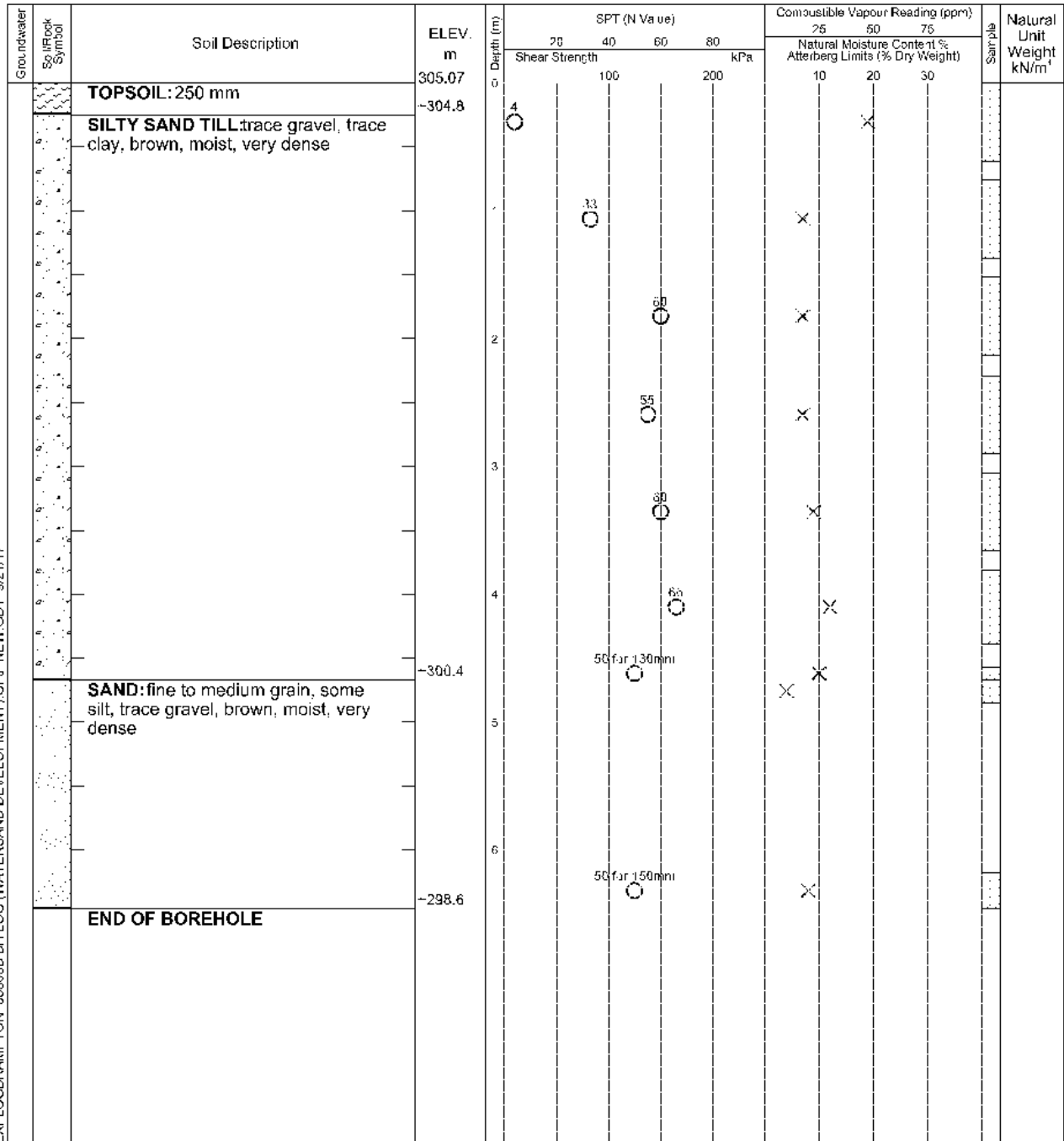
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

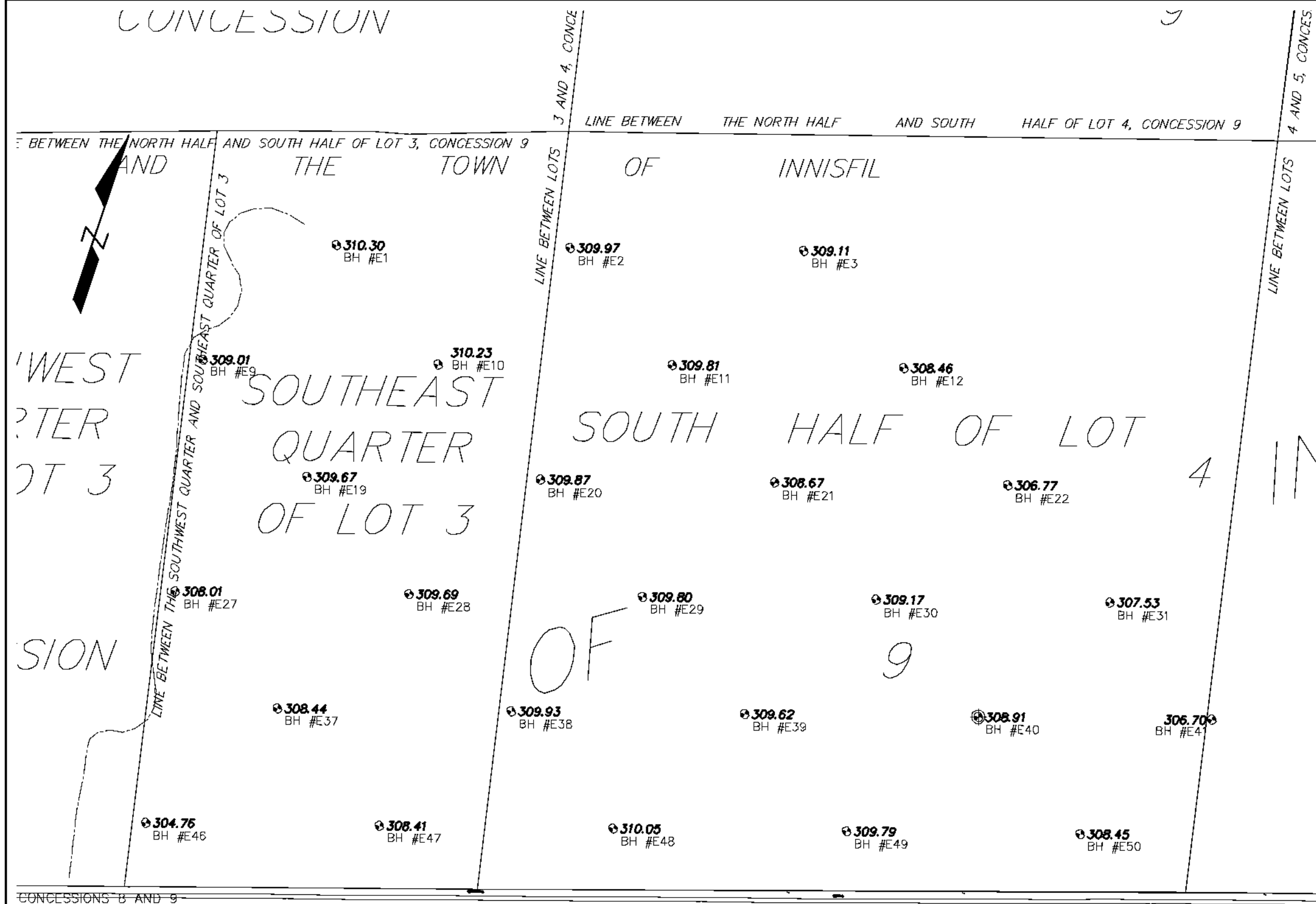
Datum: Geodetic

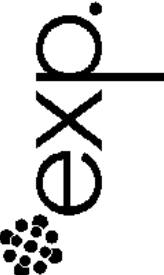


EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.46



 exp Services Inc. t: +1.705.719.1100 f: +1.705.719.1109 14 Cedar Pointe Dr., Unit: 1510 Barrie, ON L4M 5R7 Canada www.exp.com		• BUILDINGS • EARTH & ENVIRONMENT • ENERGY • • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •	
CLIENT: WATERSAND DEVELOPMENT	PROJECT: PROPOSED WATERSAND RESIDENTIAL DEVELOPMENT	TITLE: SECTION 4 - BOREHOLE LOCATION PLAN	
scale: 1:3500			
date: 9/12/2017			
drawn by: M.B.			
project no: BRM-00038305-BO			
DRAWING 183			

SECTION 4

BH E1	184	310.30
BH E2	185	309.97
BH E3	186	309.11
BH E9	187	309.01
BH E10	188	310.23
BH E11	189	309.81
BH E12	190	308.46
BH E19	191	309.67
BH E20	192	309.87
BH E21	193	308.67
BH E22	194	306.77
BH E27	195	308.01
BH E28	196	309.69
BH E29	197	309.80
BH E30	198	309.17
BH E31	199	307.53
BH E37	200	308.44
BH E38	201	309.93
BH E39	202	309.62
BH E40	203	308.91
BH E41	204	306.70
BH E46	205	304.76
BH E47	206	308.41
BH E48	207	310.05
BH E49	208	309.79
BH E50	209	308.45

Log of Borehole E1

Project No. BRM-00038305-B0

Drawing No. 184

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 14, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

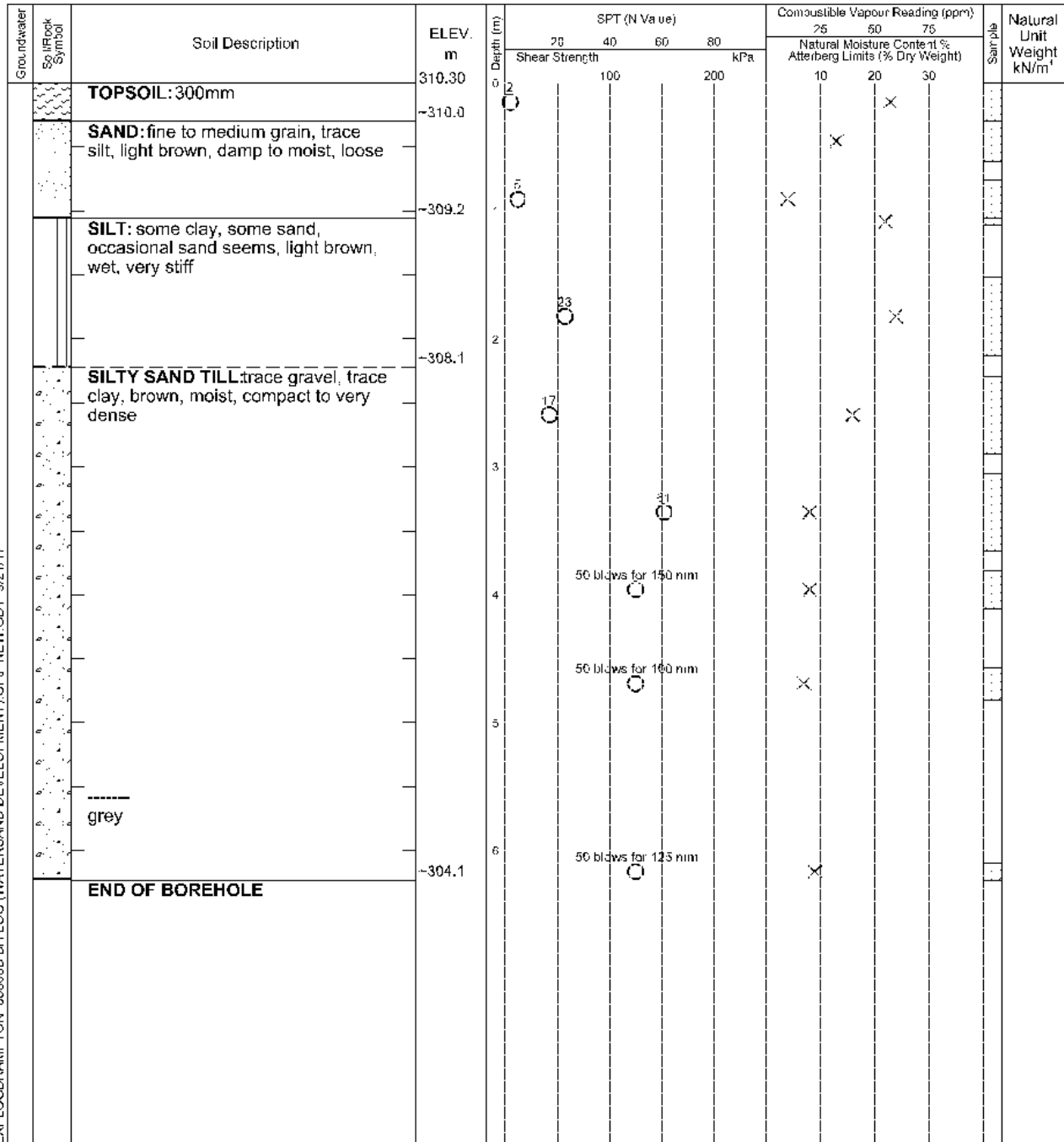
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.10

Log of Borehole E2

Project No. BRM-00038305-B0

Drawing No. 185

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 14, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Combustible Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m ³
					Shear Strength				Natural Moisture Content % Atterberg Limits (% Dry Weight)				
		TOPSOIL: 280mm	309.97	0	4								
		SILTY SAND TILL trace gravel, trace clay, light grey, moist, loose to very dense	~309.7	0									
				1	5								
				2	8								
				3									
				3.3									
				3.5									
				4									
				4.5									
				5									
				6									
		END OF BOREHOLE	~303.7										

Log of Borehole E3

Project No. BRM-00038305-B0

Drawing No. 186

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 8, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

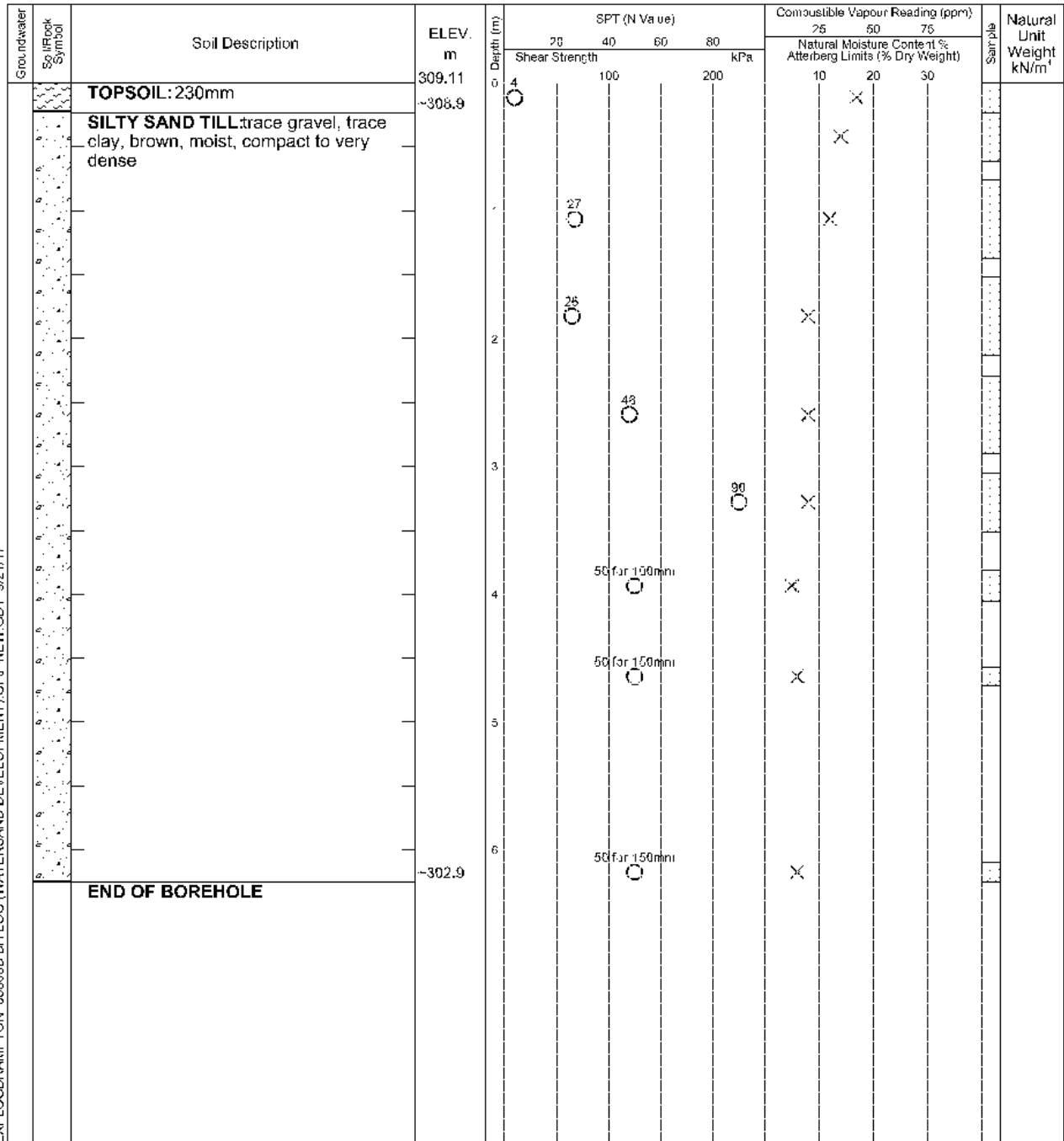
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25

Log of Borehole E9

Project No. BRM-00038305-B0

Drawing No. 187

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 14, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Combustible Vapour Reading (ppm)			Natural Unit Weight kN/m ³
					Shear Strength kPa				Natural Moisture Content % Atterberg Limits (% Dry Weight)			
		TOPSOIL: 250mm	309.01	0	4							
		SAND: fine to medium grain, trace silt, trace gravel, light brown, damp to moist, dense to very dense	~308.8	0.2								
				1.2	52							
				2.2	43							
				2.8	54							
				3.5	50							
				4.2	56							
				5.2	67							
				6.2	55							
		SILTY SAND TILL: trace gravel, trace clay, light grey, moist, dense	~302.5	6.5								
		END OF BOREHOLE	~302.3	6.7								

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.70

Log of Borehole E10

Project No. BRM-00038305-B0

Drawing No. 188

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 14, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

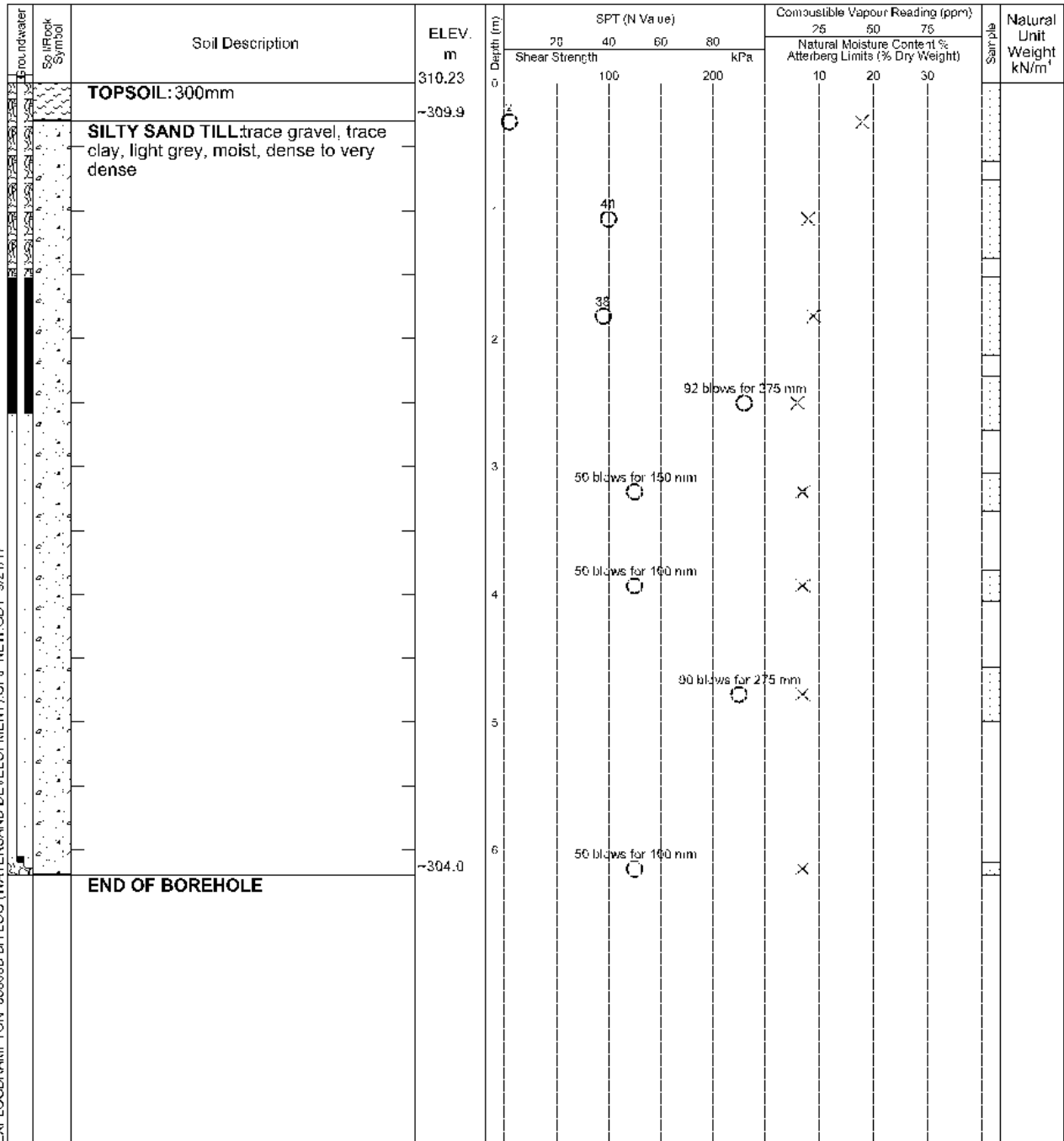
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	-
June 22, 2017	Dry	-
July 24, 2017	Dry	-
August 17, 2017	Dry	-

Log of Borehole E11

Project No. BRM-00038305-B0

Drawing No. 189

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 9, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

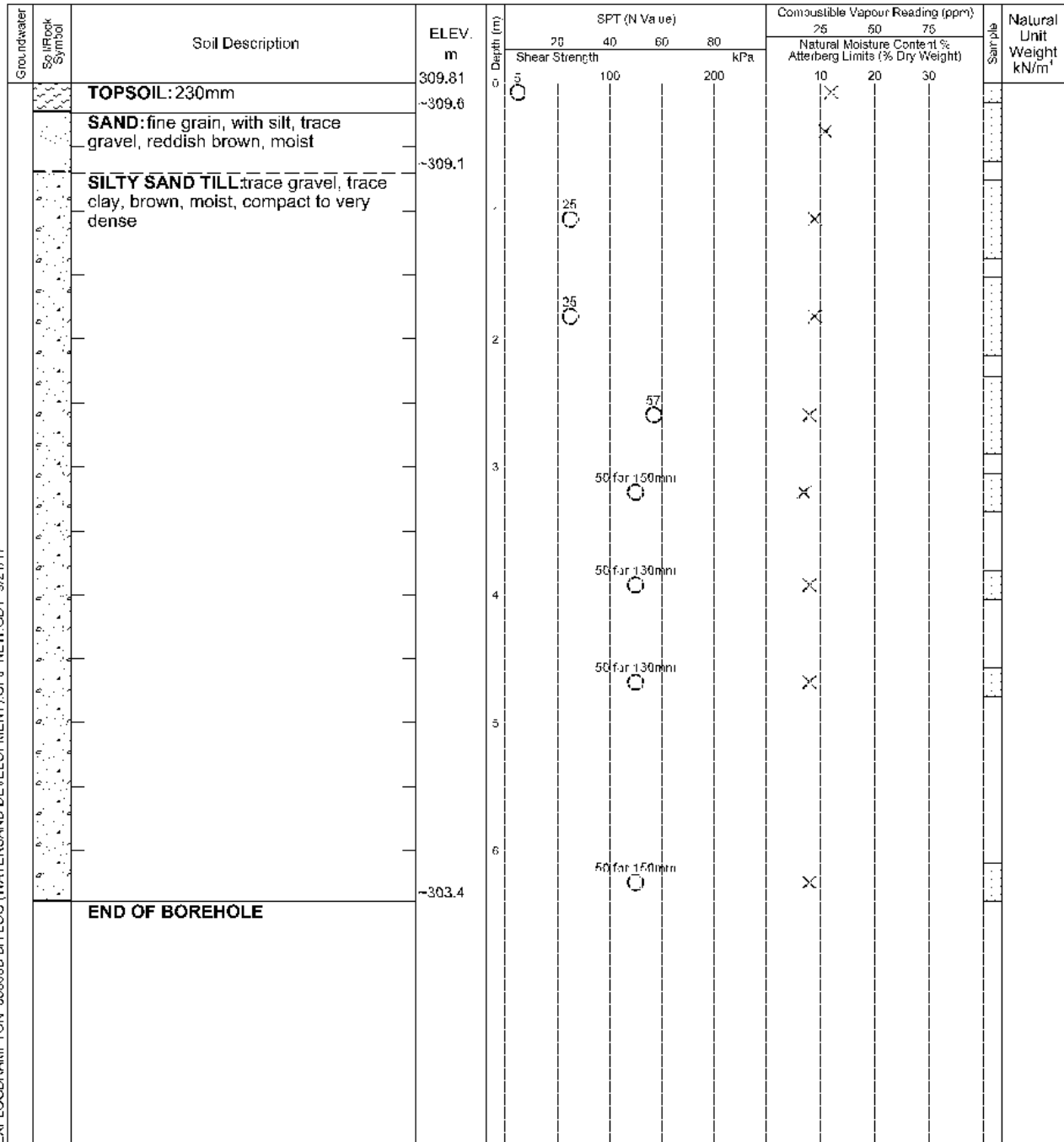
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.40



Log of Borehole E12

Project No. BRM-00038305-B0

Drawing No. 190

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 8, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

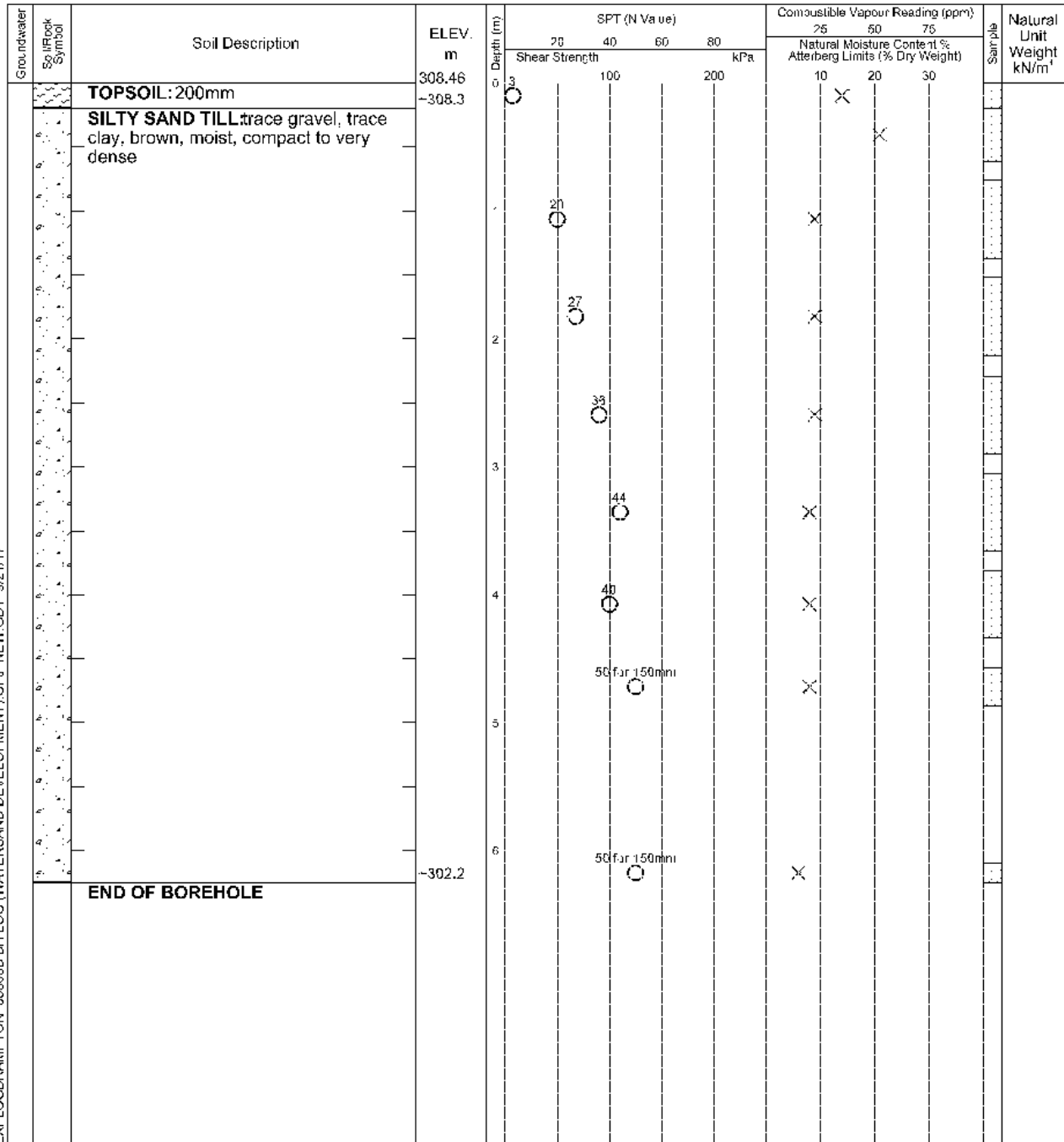
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25

Log of Borehole E19

Project No. BRM-00038305-B0

Drawing No. 191

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 14, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

☐

☒

☐

☒

☐

☒

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Comoustible Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m ³	
					Shear Strength	20	40	60	80	Natural Moisture Content % Atterberg Limits (% Dry Weight)				
										25	50			75
		TOPSOIL: 250mm	309.67	0										
		SAND: fine to medium grain, trace silt, trace gravel, light brown, damp, dense to very dense	~309.4	0	16									
				1		33								
				2		32								
				3		31								
				4		35								
				5										
				6										
				7										
				8										
				9										
				10										
				11										
				12										
				13										
				14										
				15										
				16										
				17										
				18										
				19										
				20										
				21										
				22										
				23										
				24										
				25										
				26										
				27										
				28										
				29										
				30										
				31										
				32										
				33										
				34										
				35										
				36										
				37										
				38										
				39										
				40										
				41										
				42										
				43										
				44										
				45										
				46										
				47										
				48										
				49										
				50										
				51										
				52										
				53										
				54										
				55										
				56										
				57										
				58										
				59										
				60										
				61										
				62										
				63										
				64										
				65										
				66										
				67										
				68										
				69										
				70										
				71										
				72										
				73										
				74										
				75										
				76										
				77										
				78										
				79										
				80										
				81										
				82										
				83										
				84										
				85										
				86										
				87										
				88										
				89										
				90										
				91										
				92										
				93										
				94										
				95										
				96										
				97										
				98										
				99										
				100										
				101										
				102										
				103										
				104										
				105										
				106										
				107										
				108										
				109										
				110										
				111										
				112										
				113										
				114										
				115										
				116										
				117										
				118										
				119										
				120										
				121										
				122										
				123										
				124										
				125										
				126										
				127										
				128										
				129										
				130										
				131										
				132										
				133										
				134										
				135										
				136										
				137										
				138										
				139										
				140										
				141										
				142										
				143										
				144										
				145										
				146										
				147										
				148										
				149										
				150										
				151										
				152										
				153										
				154										
				155										
				156										
				157										
				158										
				159										
				160										
				161										
				162										
				163										
				164										
				165										
				166										
				167										
				168										
				169										
				170										
				171										
				172										
				173										
				174										
				175										
				176										
				177										
				178										
				179										

Log of Borehole E20

Project No. BRM-00038305-B0

Drawing No. 192

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 14, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)			Combustible Vapour Reading (ppm)			Natural Unit Weight kN/m ³
					20	40	60	25	50	75	
		TOPSOIL: 280mm	309.87	0							
		SAND: fine to medium grain, with gravel, trace silt, light brown, damp to moist, dense	~309.6	0.5							
				1							
				2							
		SILTY SAND TILL: trace gravel, trace clay, light brown, moist, compact to very dense	~308.5	2.5							
				3							
				4							
				5							
				6							
		END OF BOREHOLE	~303.6	6							

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.10

Log of Borehole E22

Project No. BRM-00038305-B0

Drawing No. 194

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 8, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer

□

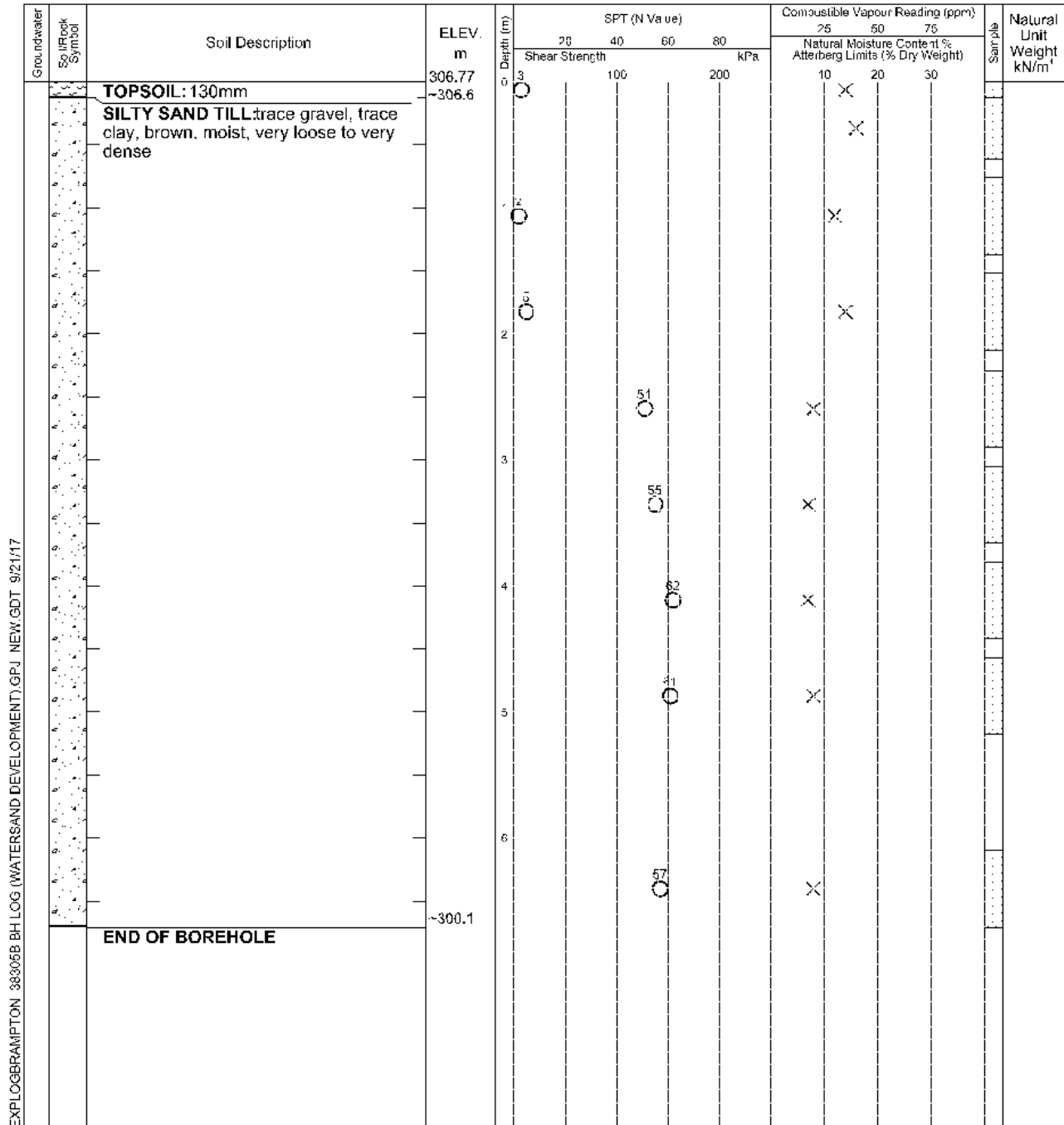
×

—○

⊕

▲

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.71

Log of Borehole E27

Project No. BRM-00038305-B0

Drawing No. 195

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 13, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

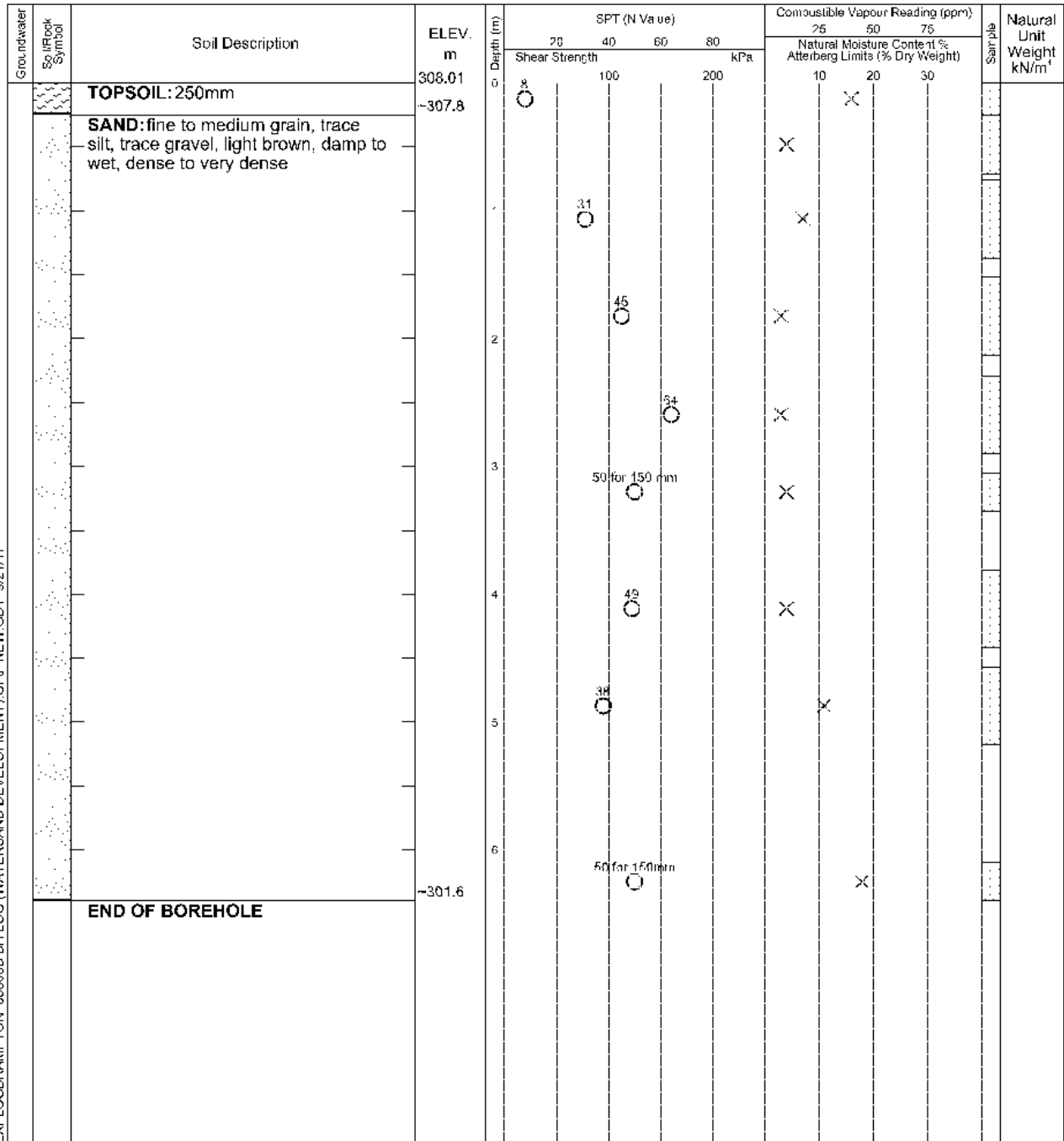
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	5.49

Log of Borehole E28

Project No. BRM-00038305-B0

Drawing No. 196

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 14, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

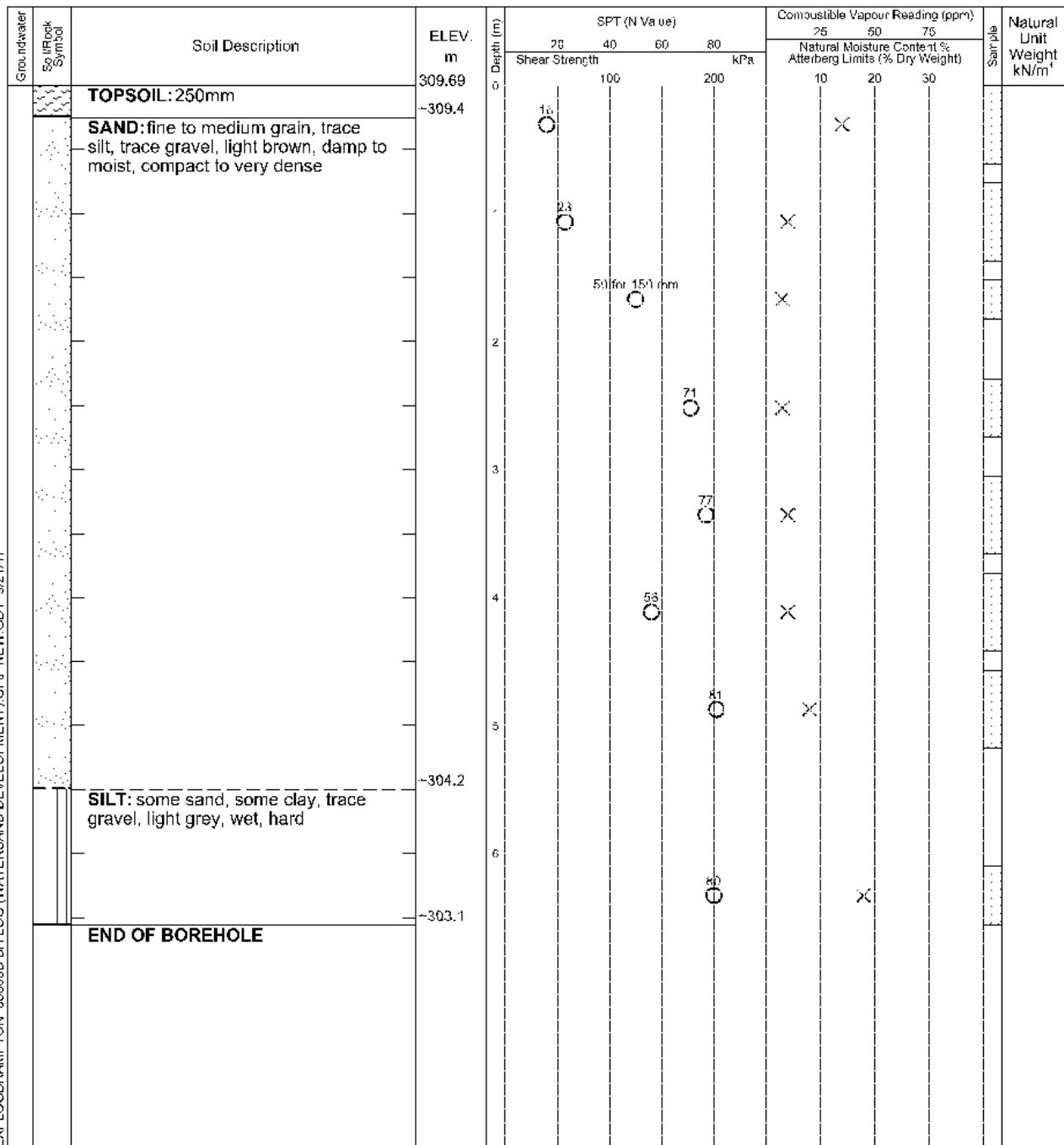
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.80

Log of Borehole E29

Project No. BRM-00038305-B0

Drawing No. 197

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 14, 2017

Auger Sample

SPT (N) Value

Drill Type: CME55 - Track Mount

Dynamic Cone Test

Shelby Tube

Datum: Geodetic

Field Vane Test

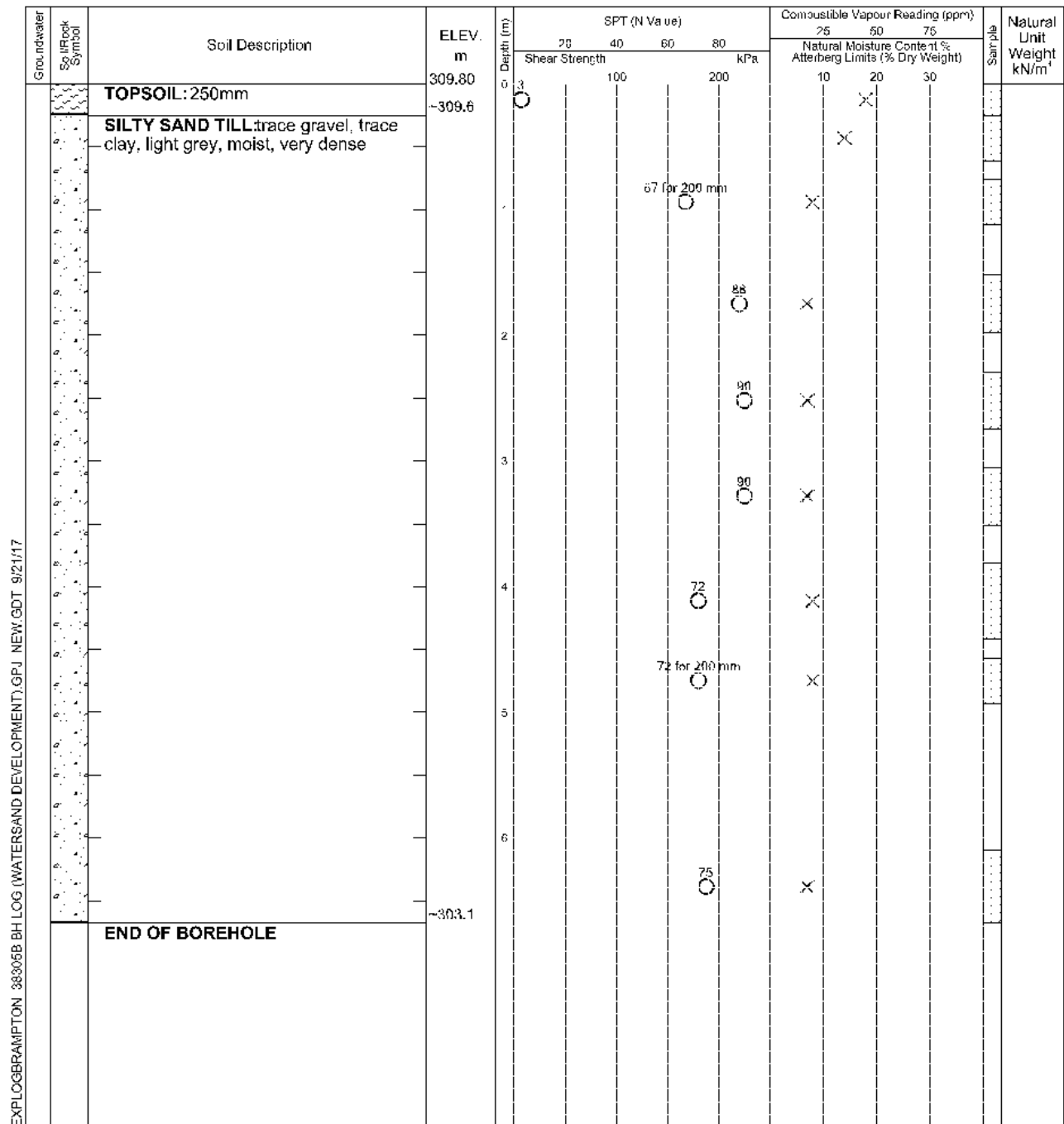
Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
7% Strain at Failure

Penetrometer



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.70



Log of Borehole E30

Project No. BRM-00038305-B0

Drawing No. 198

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 14, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

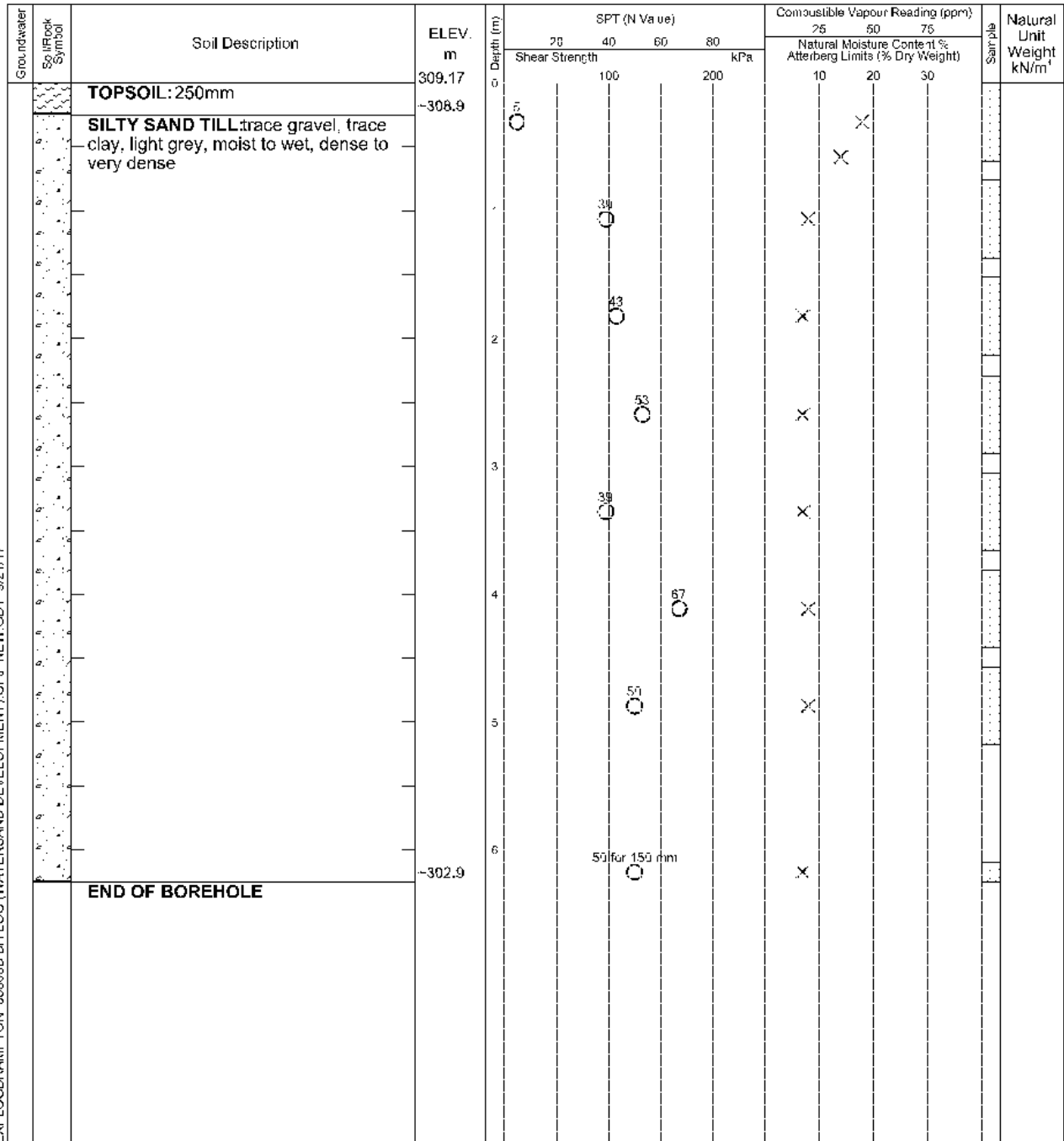
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.10



Log of Borehole E31

Project No. BRM-00038305-B0

Drawing No. 199

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 12, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

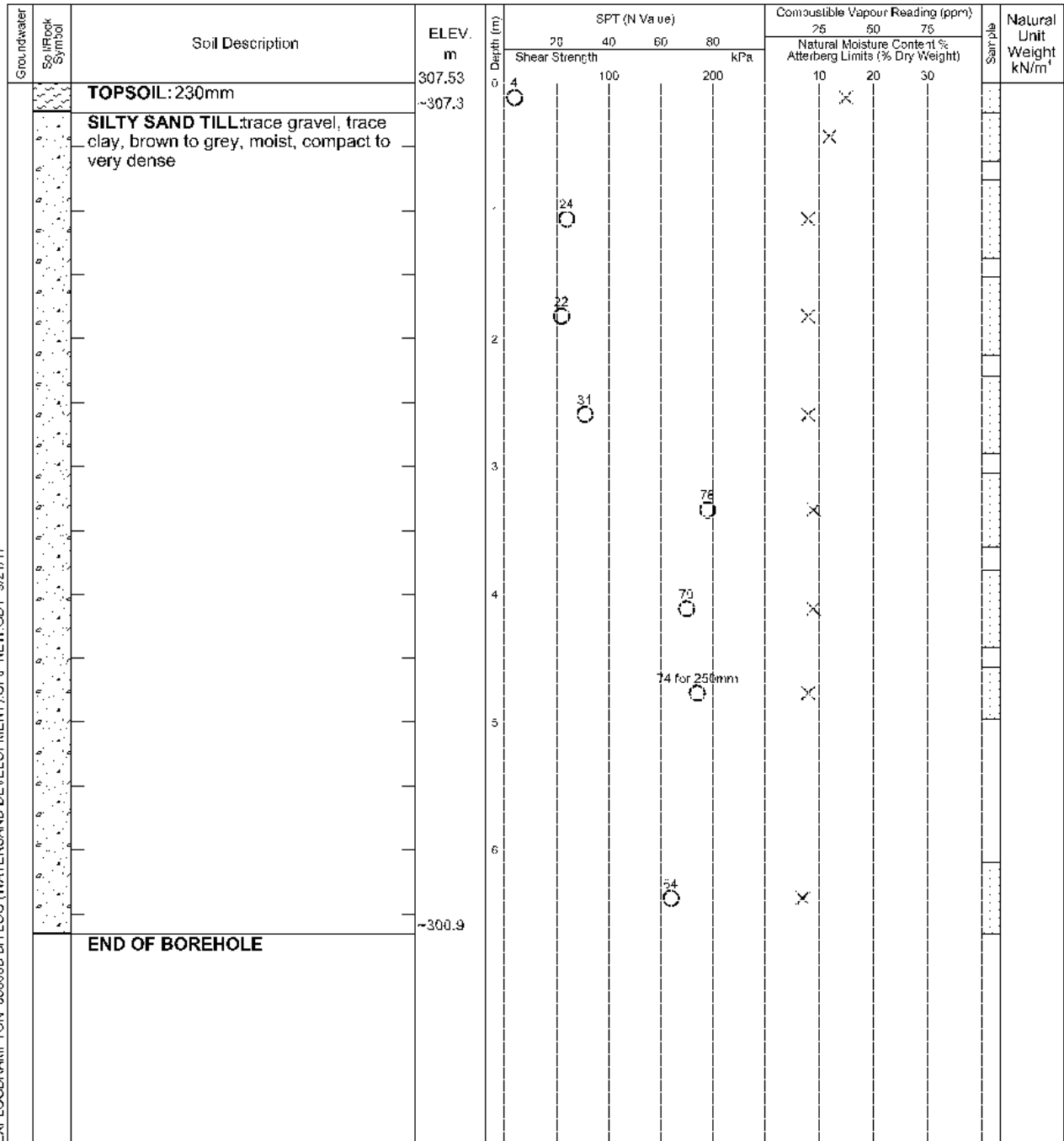
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Log of Borehole E37

Project No. BRM-00038305-B0

Drawing No. 200

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 12, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

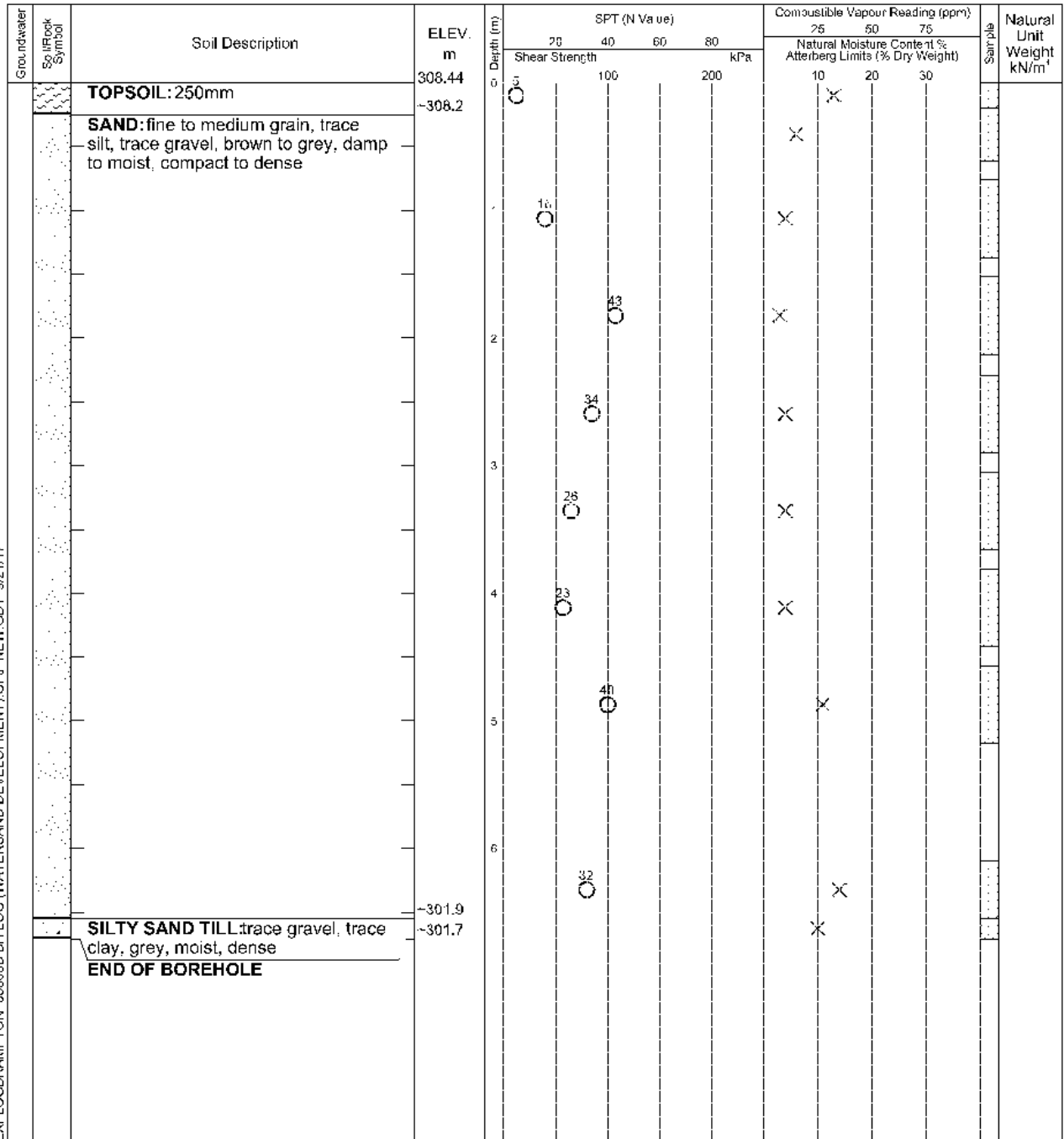
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.71



Log of Borehole E38

Project No. BRM-00038305-B0

Drawing No. 201

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 12, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

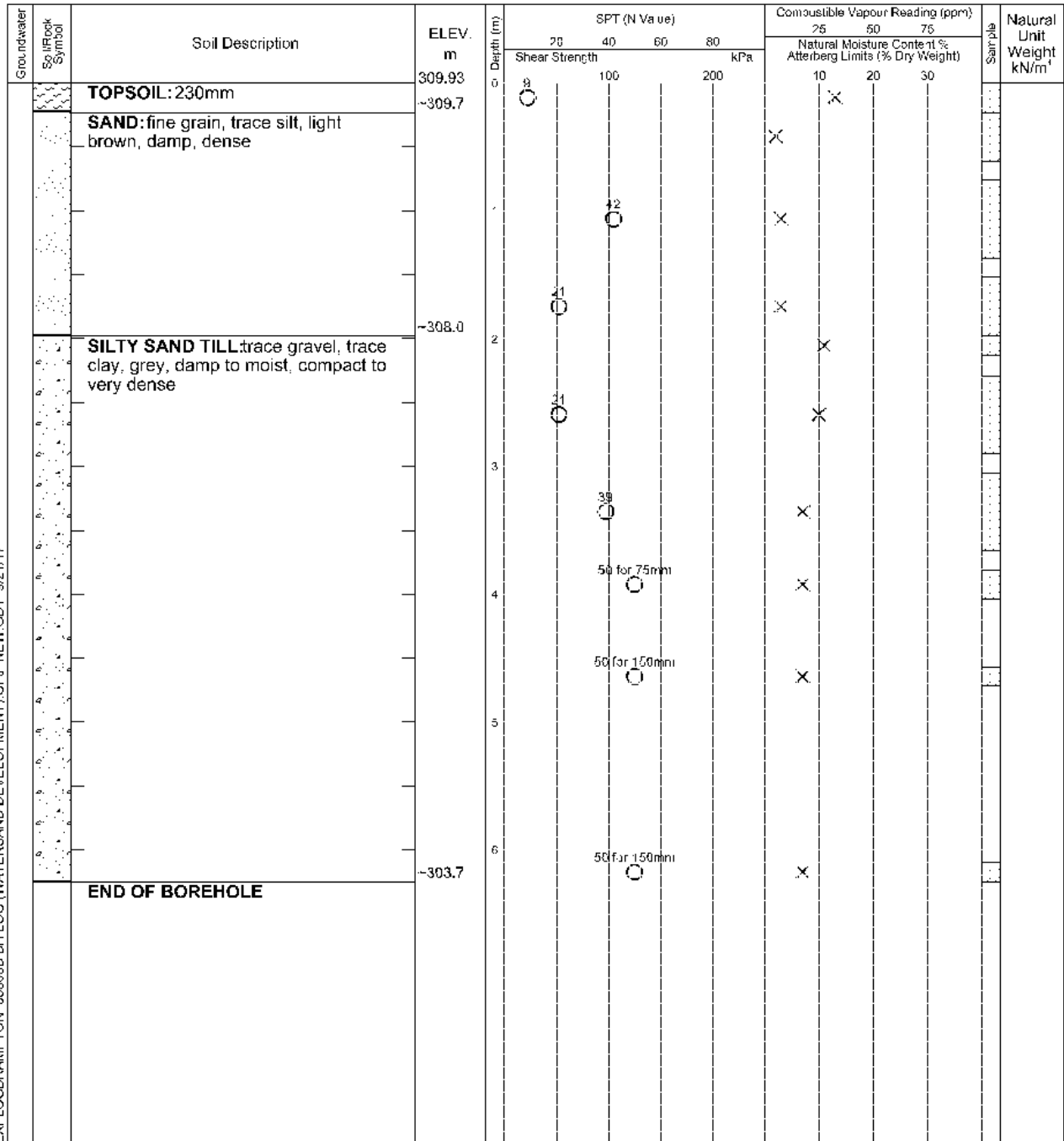
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25



Log of Borehole E39

Project No. BRM-00038305-B0

Drawing No. 202

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 12, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Combustible Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m ³
					Shear Strength kPa				Natural Moisture Content % Atterberg Limits (% Dry Weight)				
		TOPSOIL: 250mm	309.62	0	4				10	20	30		
		SILTY SAND TILL trace gravel, trace clay, brown to grey, moist, compact to very dense	~309.4	0.25	26								
				2			72						
				2.5		50 for 150mm							
				3		50 for 150mm							
				4			85						
				5			84						
				6			85						
		END OF BOREHOLE	~303.1										

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.56

Log of Borehole E40

Project No. BRM-00038305-B0

Drawing No. 203

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 9, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

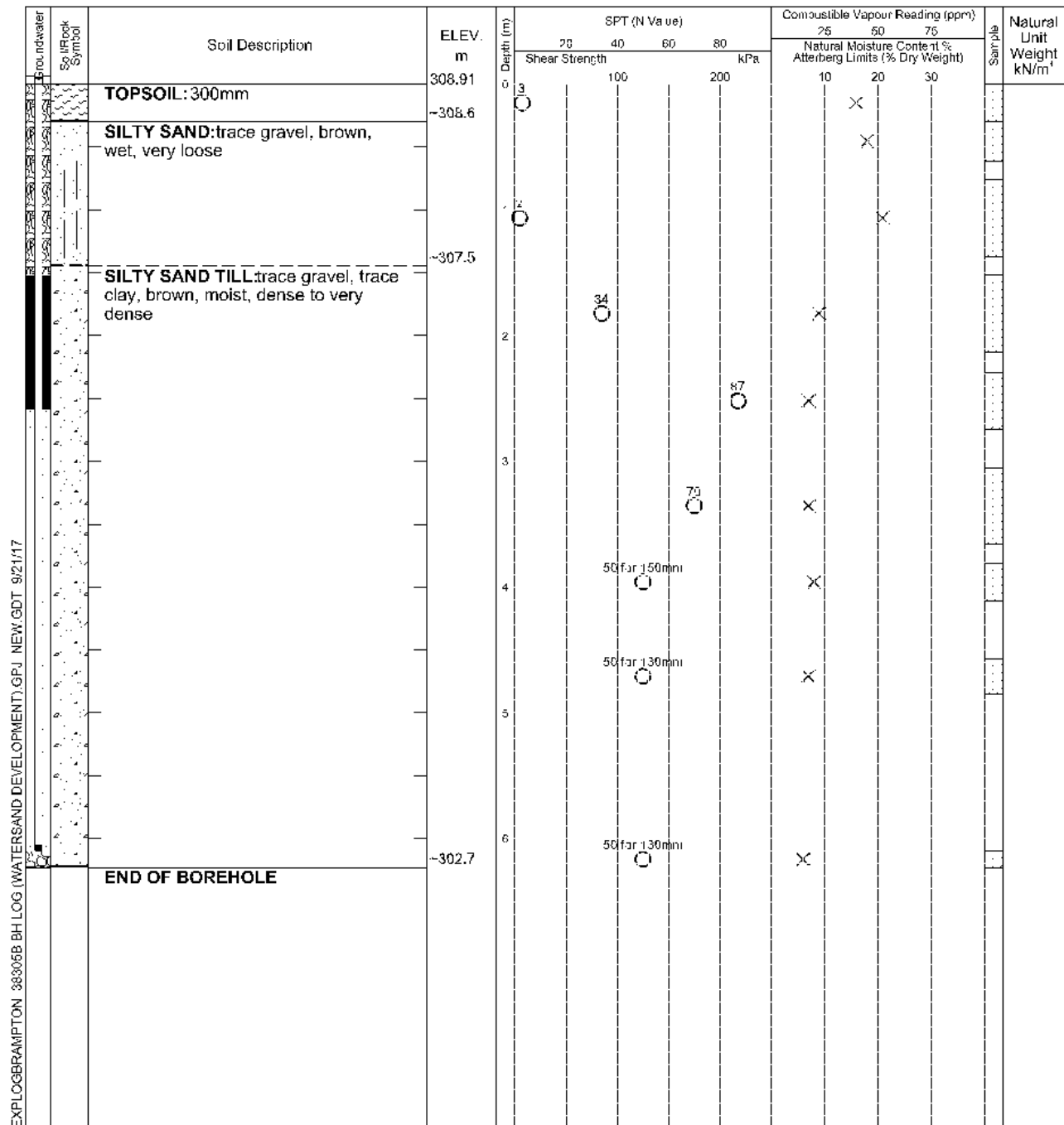
Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	-
June 22, 2017	Dry	-
August 18, 2017	Dry	-

Log of Borehole E41

Project No. BRM-00038305-B0

Drawing No. 204

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 12, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

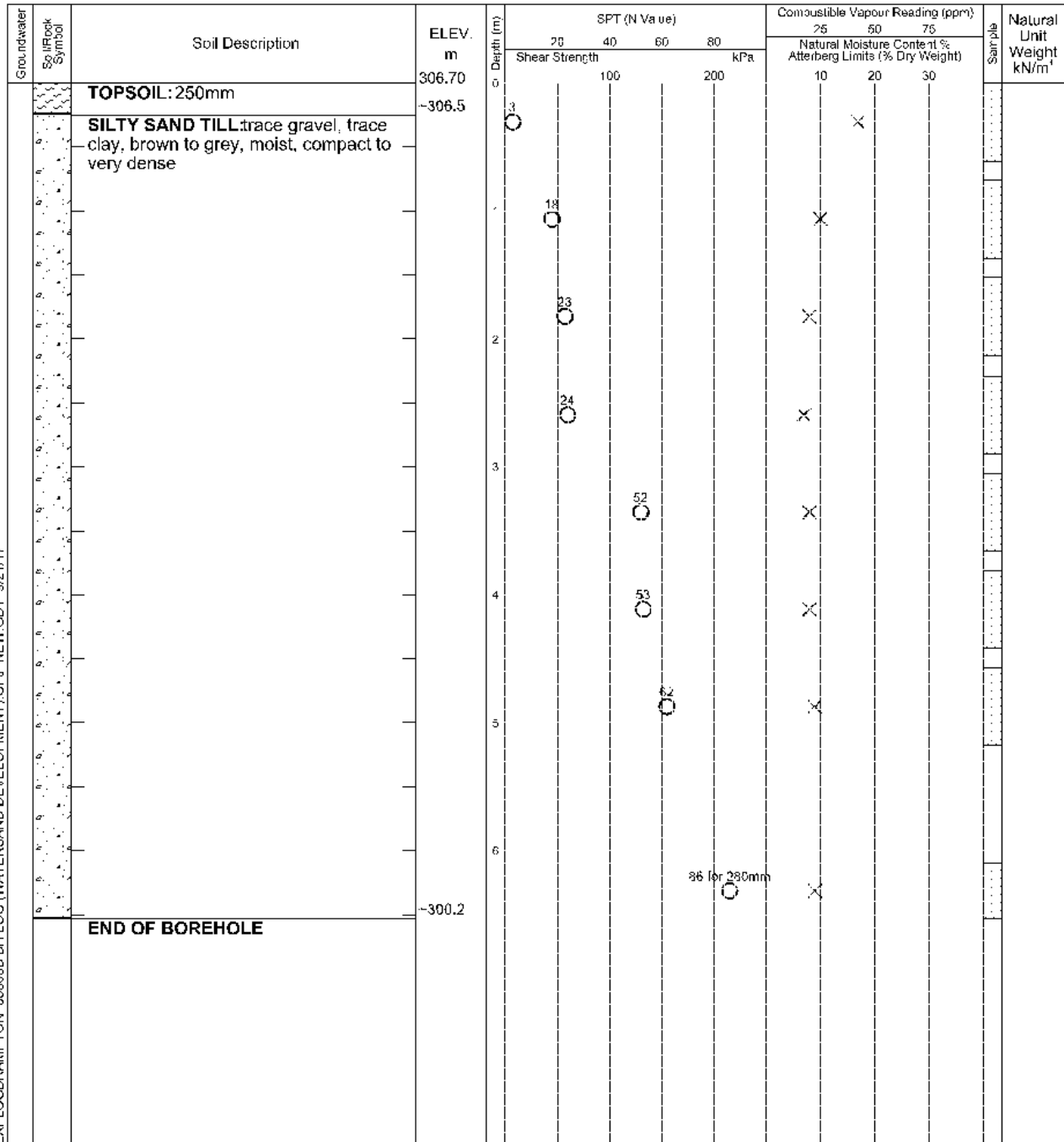
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.53



Log of Borehole E46

Project No. BRM-00038305-B0

Drawing No. 205

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 12, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

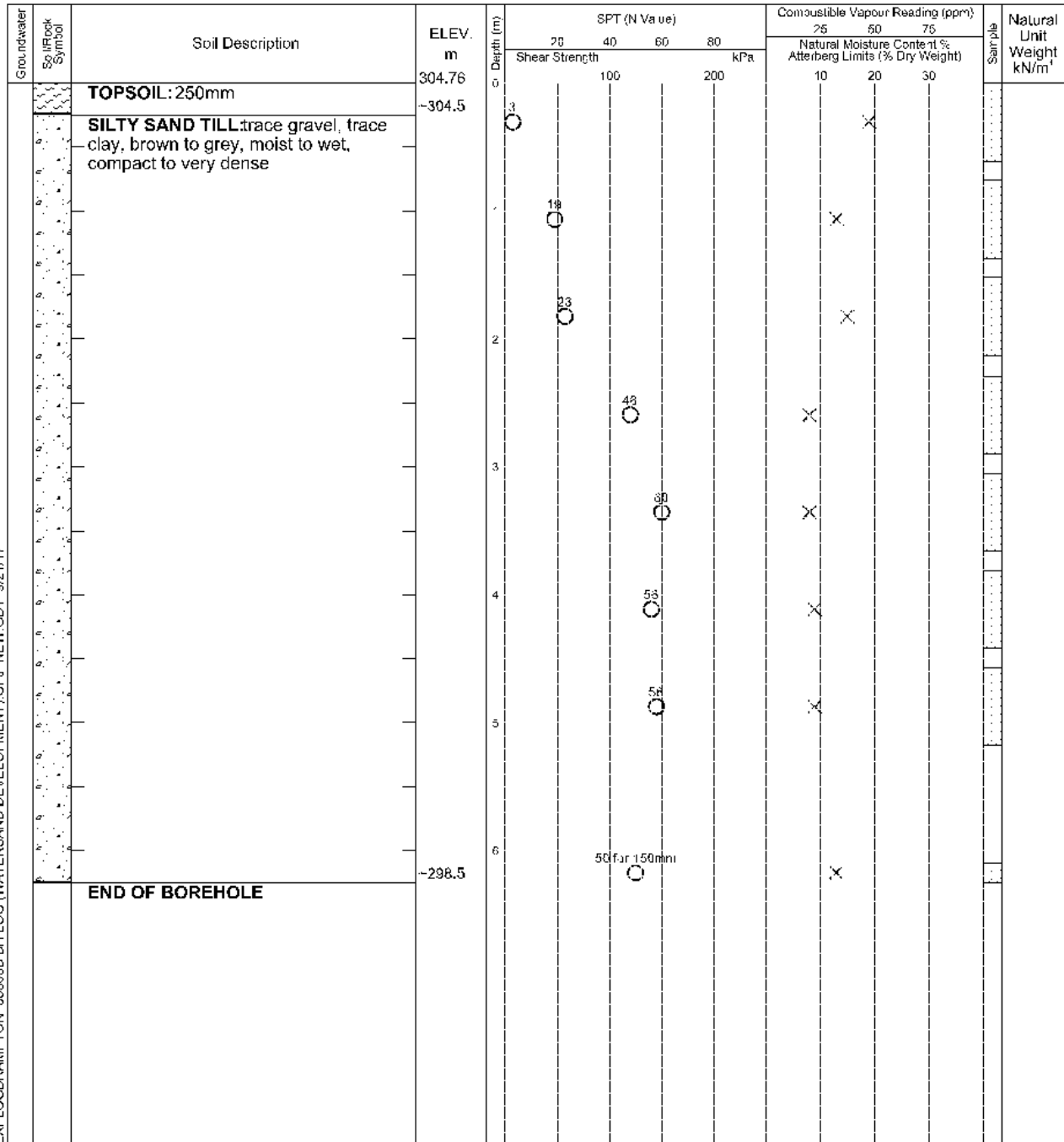
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25



Log of Borehole E47

Project No. BRM-00038305-B0

Drawing No. 206

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 12, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

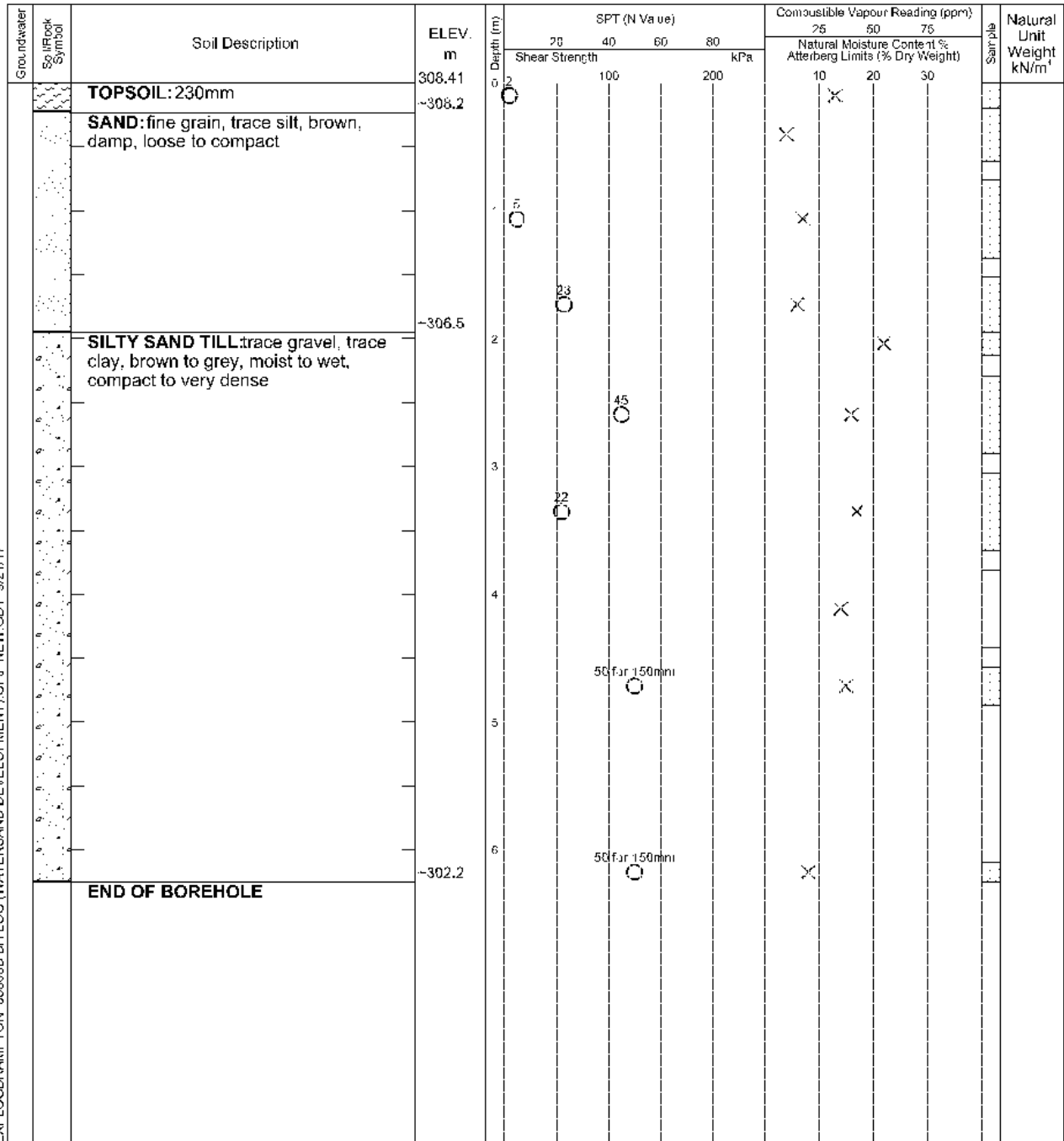
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25



Log of Borehole E48

Project No. BRM-00038305-B0

Drawing No. 207

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 12, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

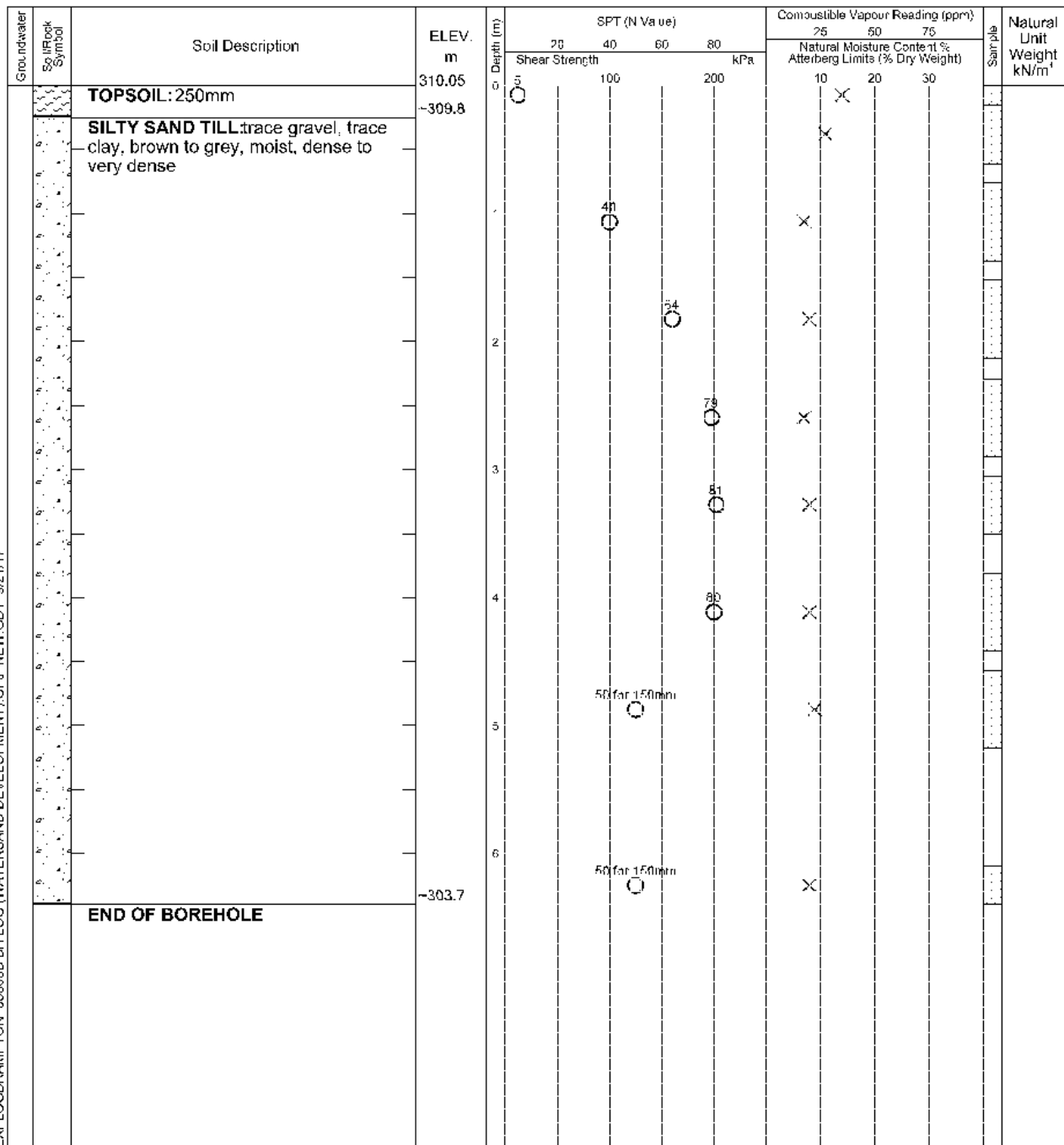
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.40

Log of Borehole E49

Project No. BRM-00038305-B0

Drawing No. 208

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 12, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

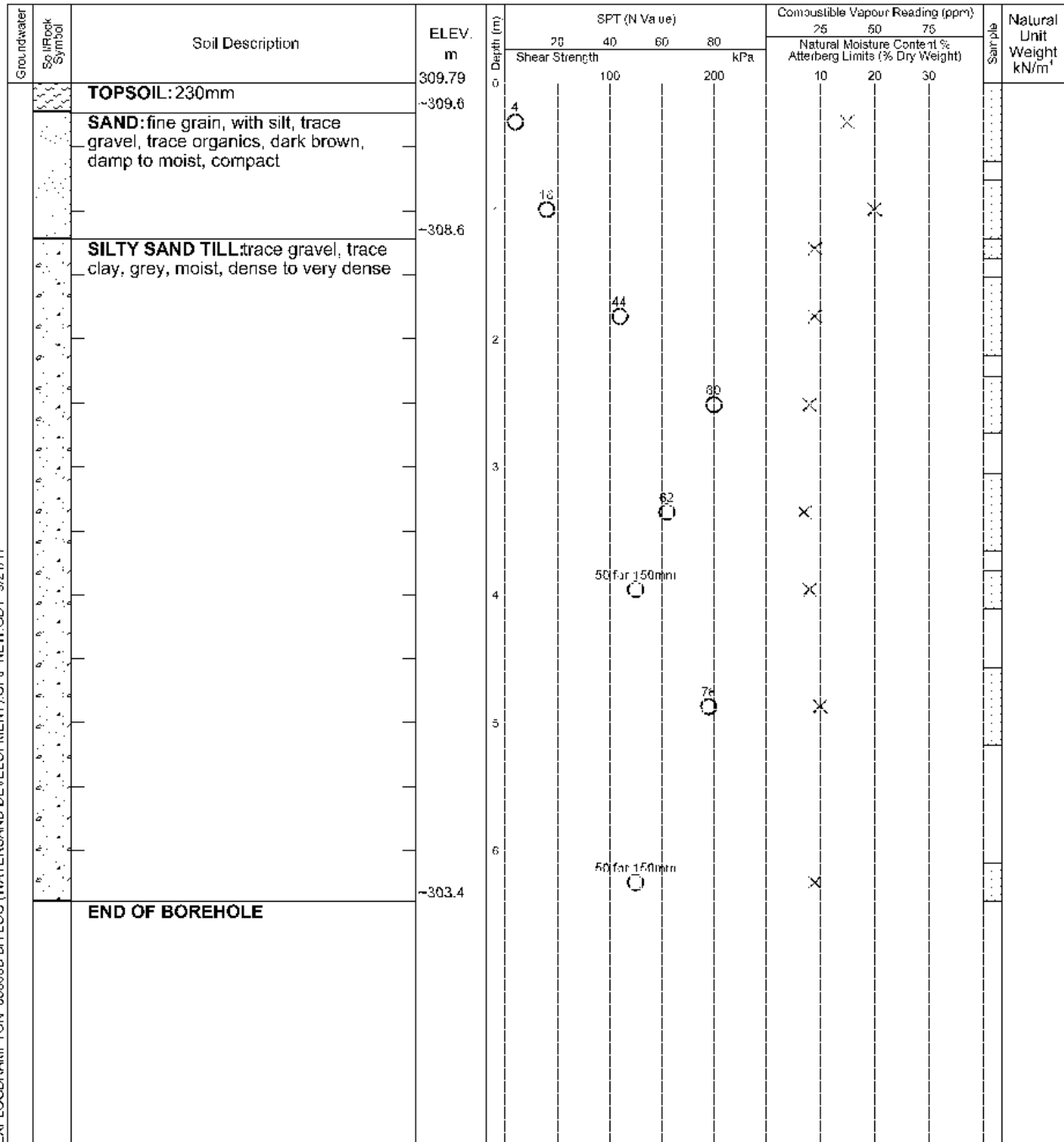
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.40

Log of Borehole E50

Project No. BRM-00038305-B0

Drawing No. 209

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 9, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

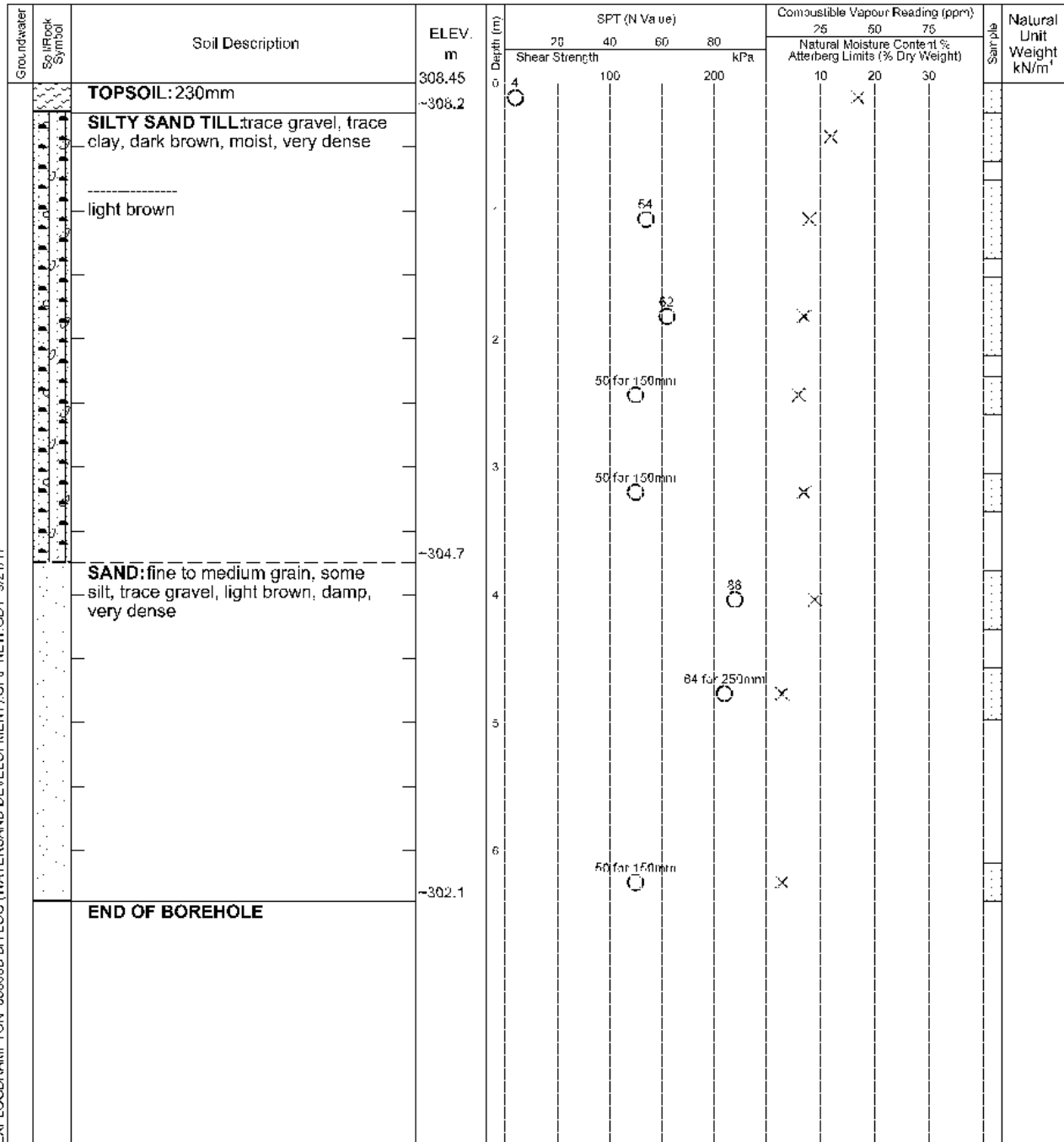
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

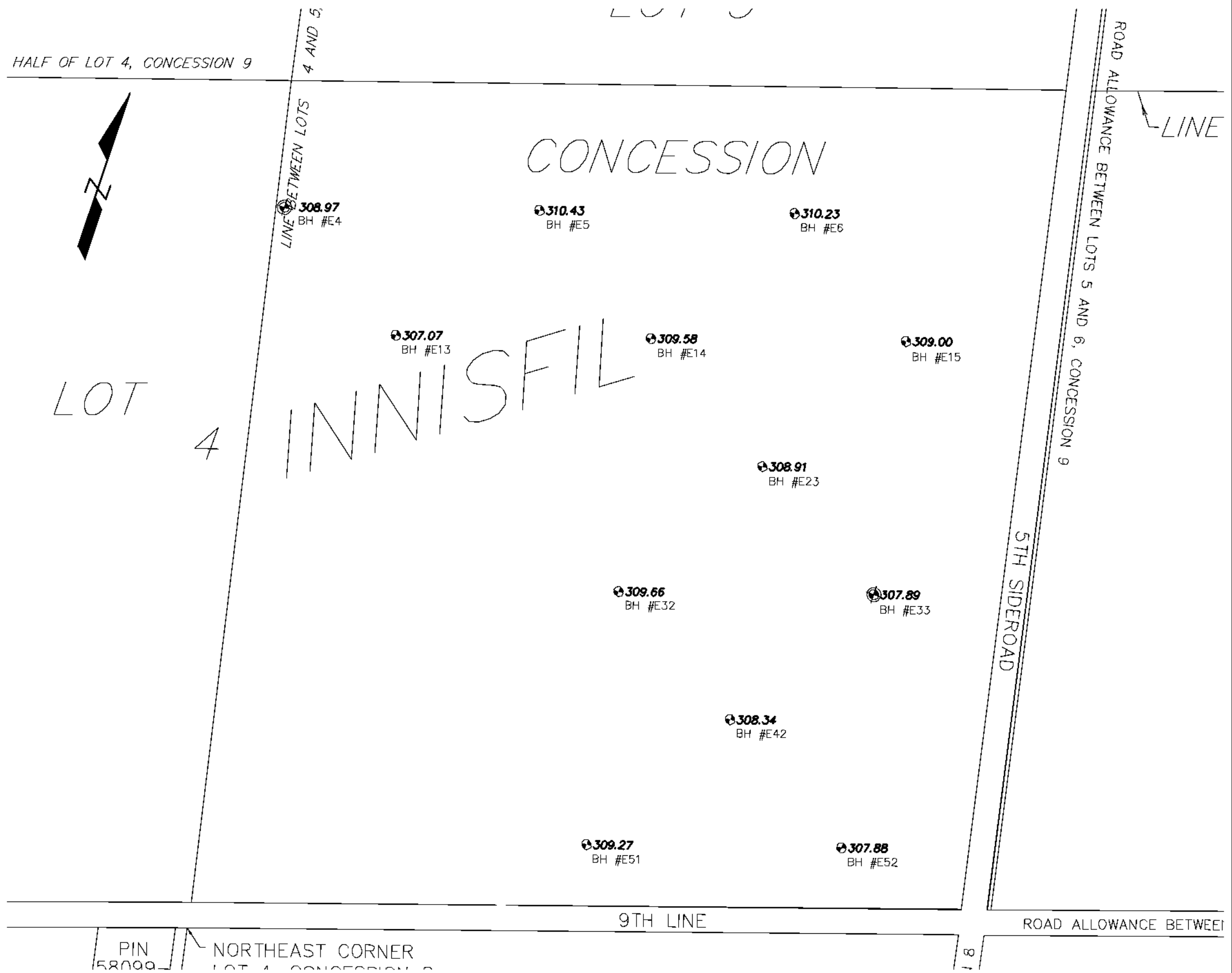
Datum: Geodetic



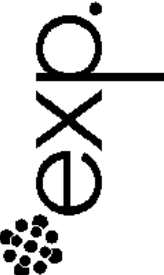
EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.40





PIN 580099
NORTHEAST CORNER
LOT 4, CONCESSION 9



exp Services Inc.
t: +1.705.719.1100 f: +1.705.719.1109
14 Cedar Pointe Dr., Unit: 1510
Barrie, ON L4M 5R7
Canada
www.exp.com

• BUILDINGS • EARTH & ENVIRONMENT • ENERGY •
• INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

CLIENT:	WATERSAND DEVELOPMENT
PROJECT:	PROPOSED WATERSAND RESIDENTIAL DEVELOPMENT
TITLE:	SECTION 5 – BOREHOLE LOCATION PLAN
scale:	1:3000
date:	9/12/2017
drawn by:	M.B.
project no:	BRM-00038305-BO
DRAWING 210	

SECTION 5

BH#	Figure #	Elevation
BH E4	211	308.97
BH E5	212	310.43
BH E6	213	310.23
BH E13	214	307.07
BH E14	215	309.58
BH E15	216	309.00
BH E23	217	308.91
BH E32	218	309.66
BH E33	219	307.89
BH E42	220	308.34
BH E51	221	309.27
BH E52	222	307.88

Log of Borehole E4

Project No. BRM-00038305-B0

Drawing No. 211

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 8, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

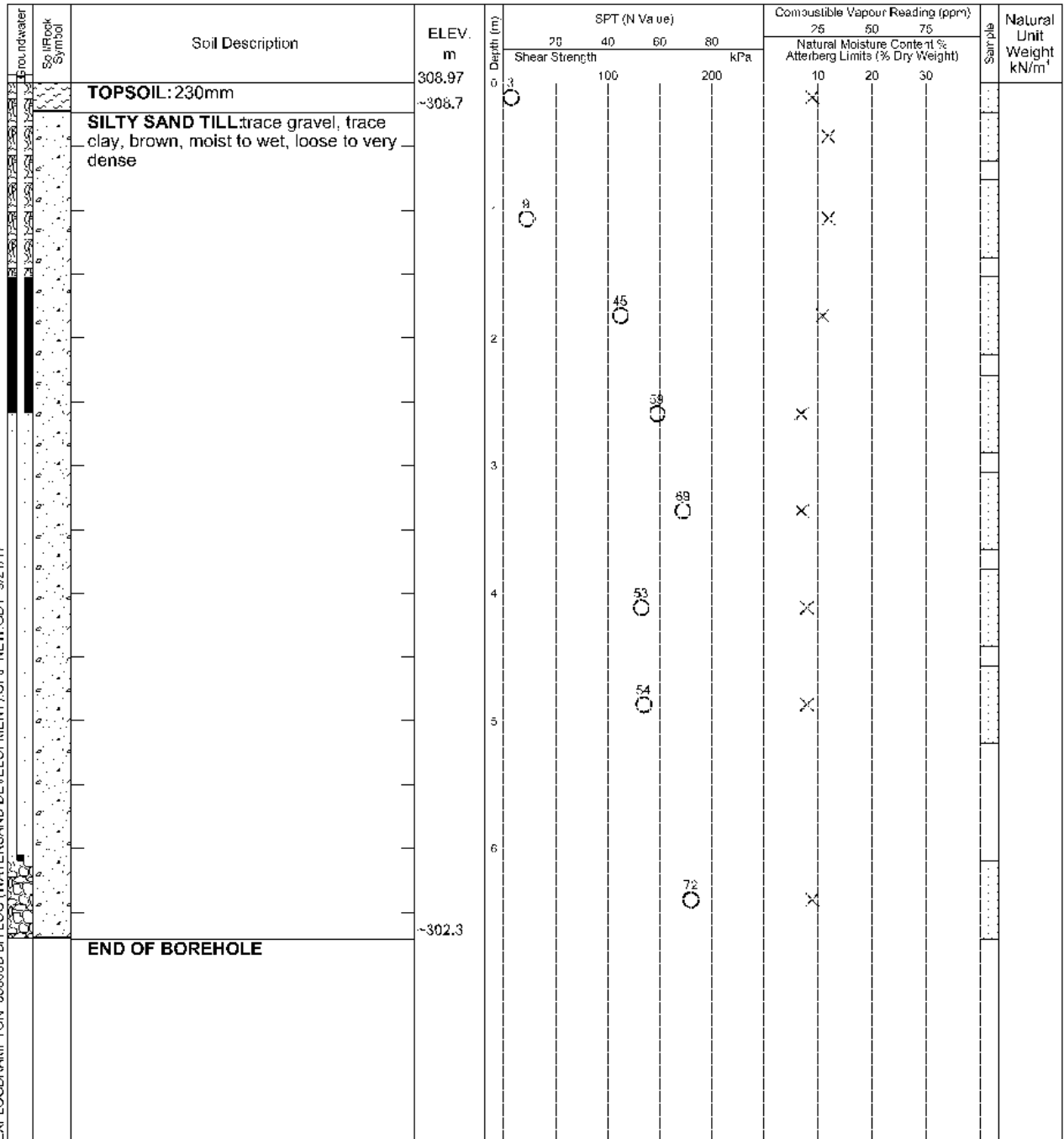
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	-
June 22, 2017	4.58	-
August 18, 2017	Dry	-

Log of Borehole E5

Project No. BRM-00038305-B0

Drawing No. 212

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 8, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

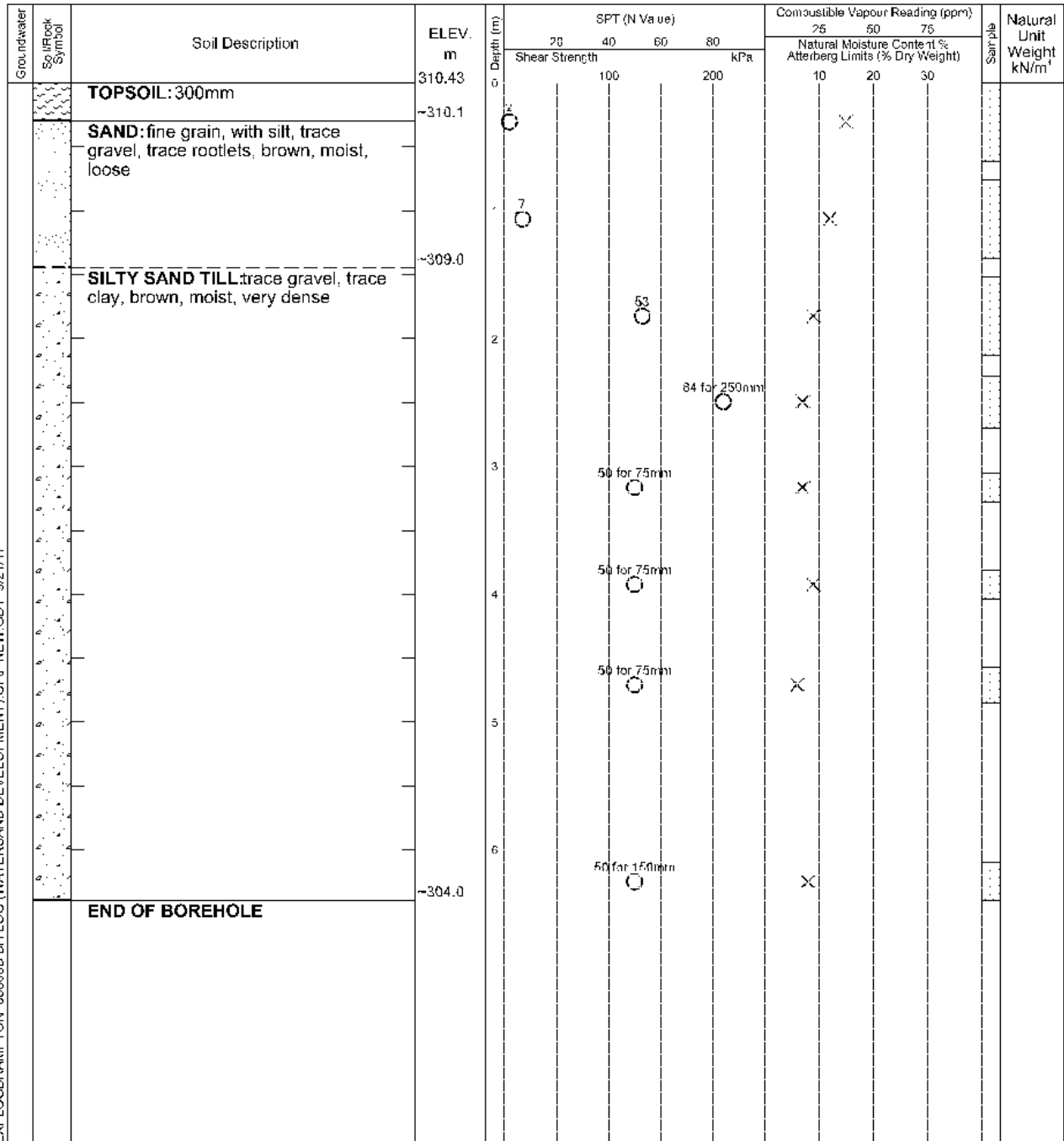
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.40



Log of Borehole E6

Project No. BRM-00038305-B0

Drawing No. 213

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 8, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

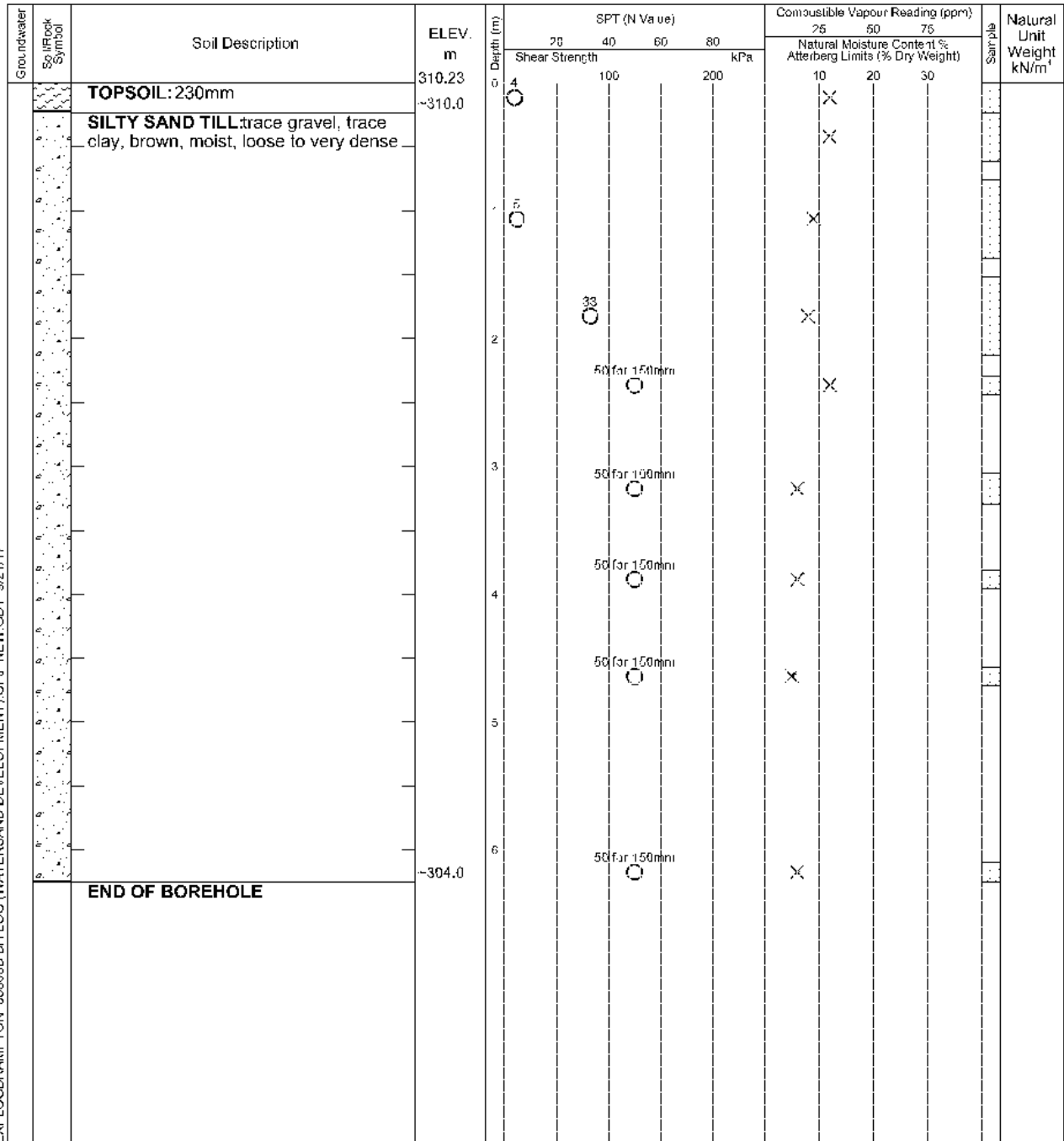
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25

Log of Borehole E13

Project No. BRM-00038305-B0

Drawing No. 214

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 8, 2017

Auger Sample

SPT (N) Value

Drill Type: CME55 - Track Mount

Dynamic Cone Test

Datum: Geodetic

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer

□

×

—○

⊕

▲

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)		Combustible Vapour Reading (ppm)			Natural Unit Weight kN/m ³
					20	40	25	50	75	
		TOPSOIL: 230mm	307.07	0						
		SILTY SAND TILL: trace gravel, trace clay, brown, moist, compact to very dense	~308.8	0.23						
				0.33						
				0.54						
				0.45						
				0.48						
				0.25						
				0.46						
		END OF BOREHOLE	~300.4	6						

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.71



Log of Borehole E14

Project No. BRM-00038305-B0

Drawing No. 215

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 7, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

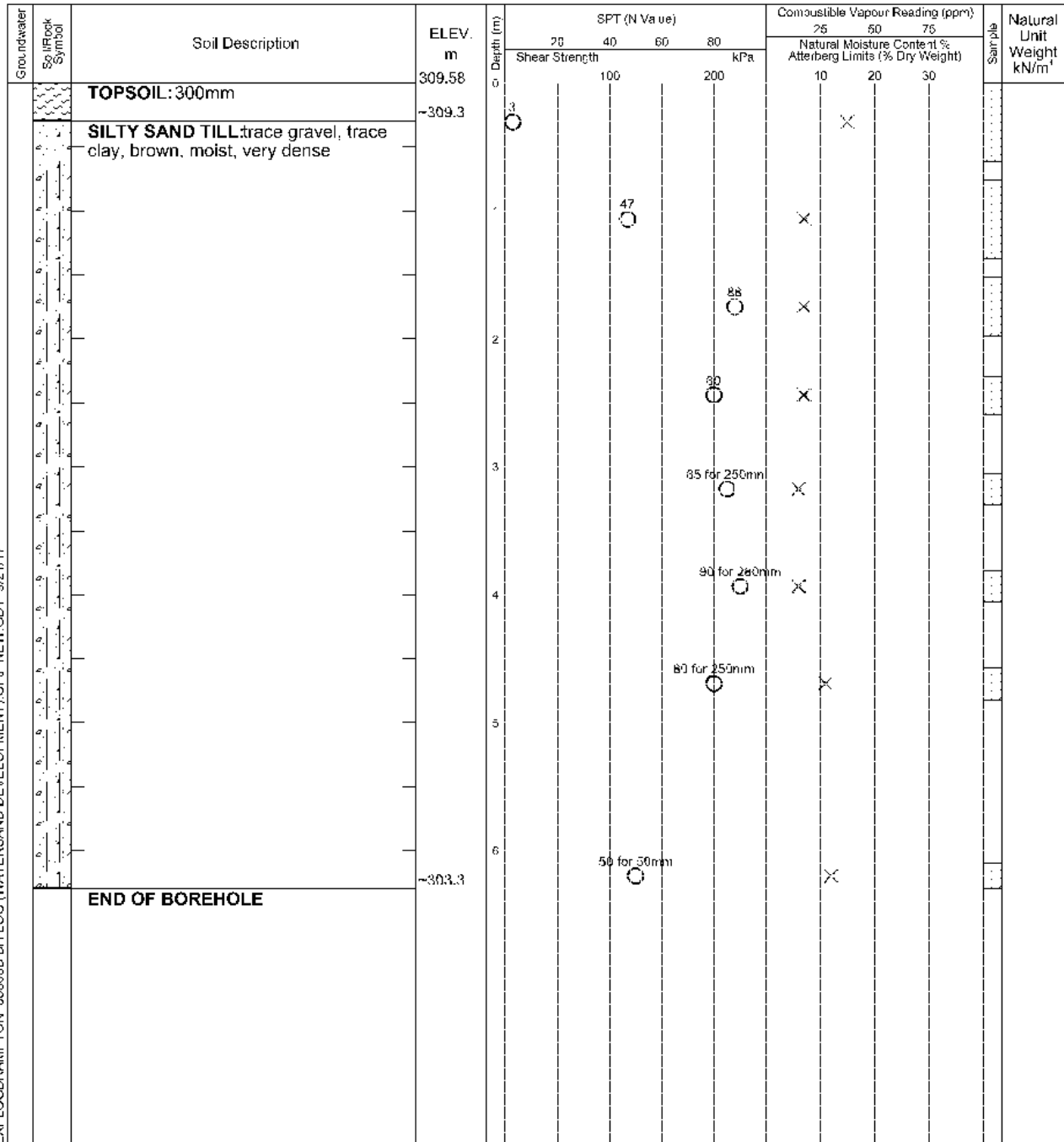
Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	5.64	5.64

Log of Borehole E15

Project No. BRM-00038305-B0

Drawing No. 216

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 7, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

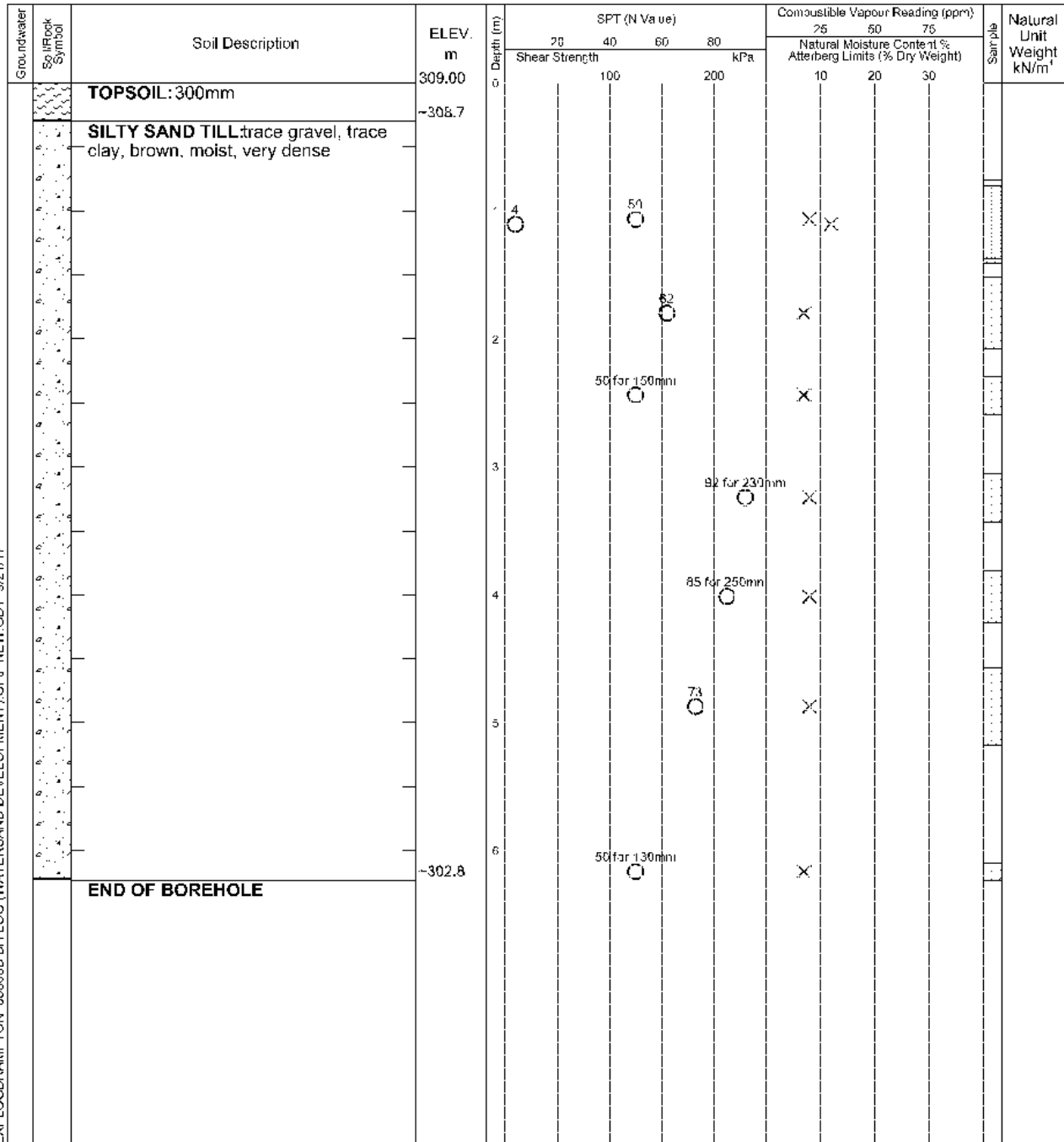
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.38

Log of Borehole E23

Project No. BRM-00038305-B0

Drawing No. 217

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 7, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Combustible Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m ³
					Shear Strength kPa				Natural Moisture Content % Atterberg Limits (% Dry Weight)				
		TOPSOIL: 250mm	308.91	0					25	50	75		
		SILTY SAND TILL trace gravel, trace clay, brown, moist, very dense	~308.7	0.3									
				1									
				2									
				3									
				4									
				5									
				6									
		END OF BOREHOLE	~302.7	6.2									

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25

Log of Borehole E32

Project No. BRM-00038305-B0

Drawing No. 218

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 7, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Combustible Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m ³	
					Shear Strength				Natural Moisture Content % Atterberg Limits (% Dry Weight)					
					20	40	60	80	25	50	75			
		TOPSOIL: 230mm	309.66	0	4					10	20	30		
		SAND: fine grain, with silt, trace gravel, reddish brown, moist	~309.4							X				
		SILTY SAND TILL: trace gravel, trace clay, brown, moist, dense to very dense	~309.0							X				
				1		43				X				
				2			71			X				
						50 for 130mm				X				
				3		50 for 150mm				X				
				4				92		X				
				5		50 for 150mm				X				
				6		50 for 130mm				X				
		END OF BOREHOLE:	~303.3											

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.35

Log of Borehole E33

Project No. BRM-00038305-B0

Drawing No. 219

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 7, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

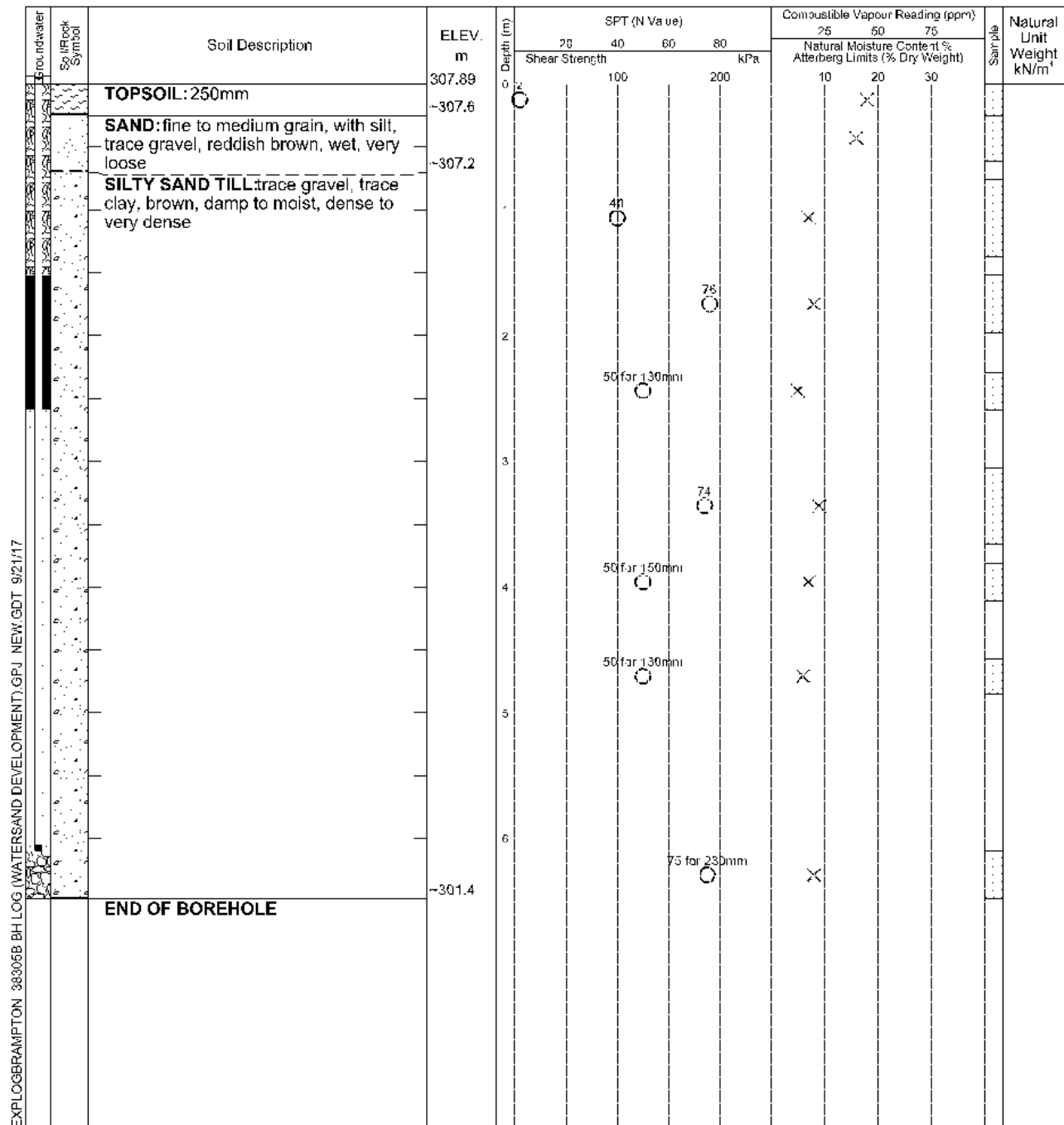
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Log of Borehole E42

Project No. BRM-00038305-B0

Drawing No. 220

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 7, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

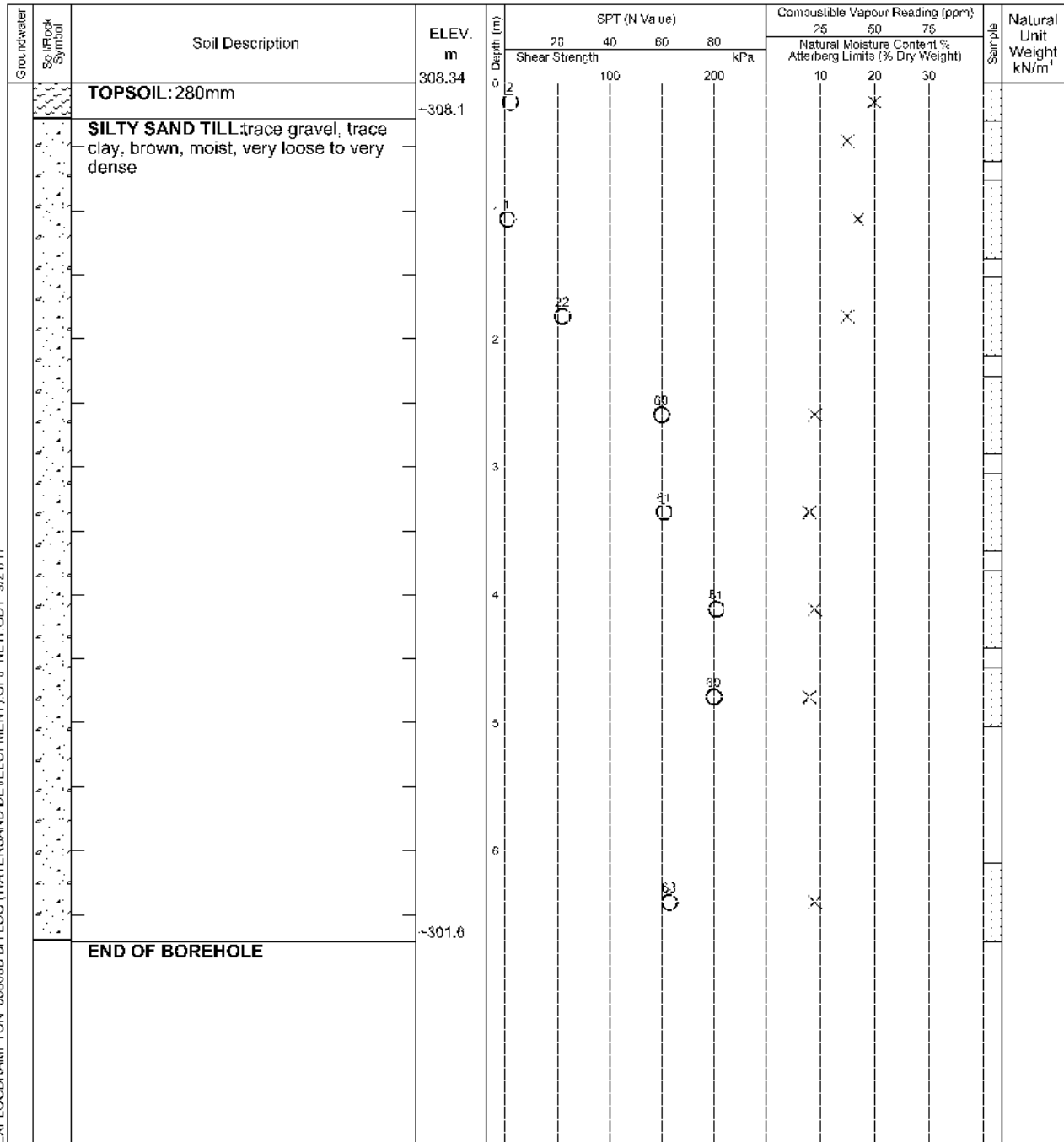
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.71

Log of Borehole E51

Project No. BRM-00038305-B0

Drawing No. 221

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 7, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

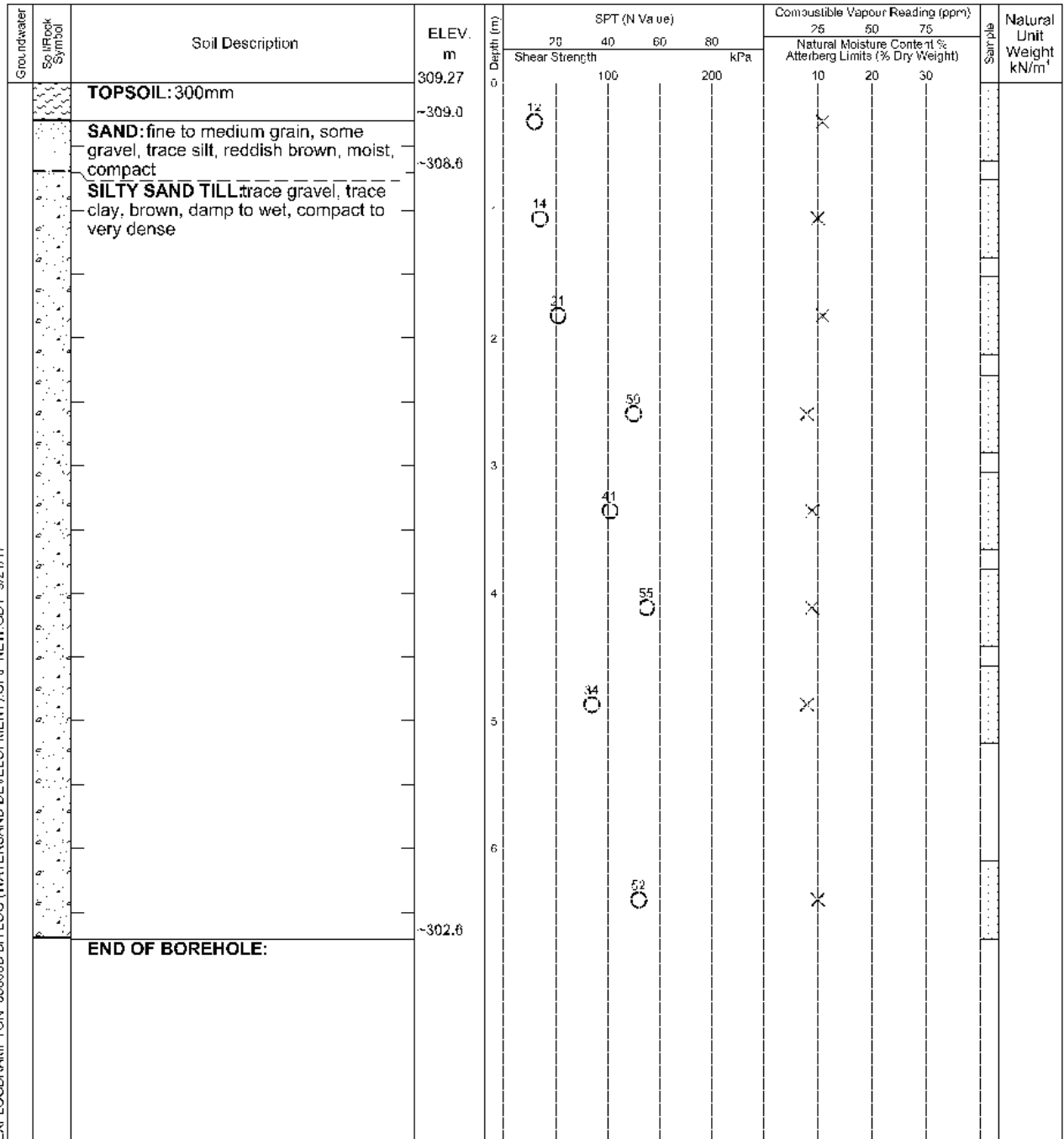
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	5.49	5.49



Log of Borehole E52

Project No. BRM-00038305-B0

Drawing No. 222

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 7, 2017

Auger Sample

SPT (N) Value

Drill Type: CME55 - Track Mount

Dynamic Cone Test

Shelby Tube

Datum: Geodetic

Field Vane Test

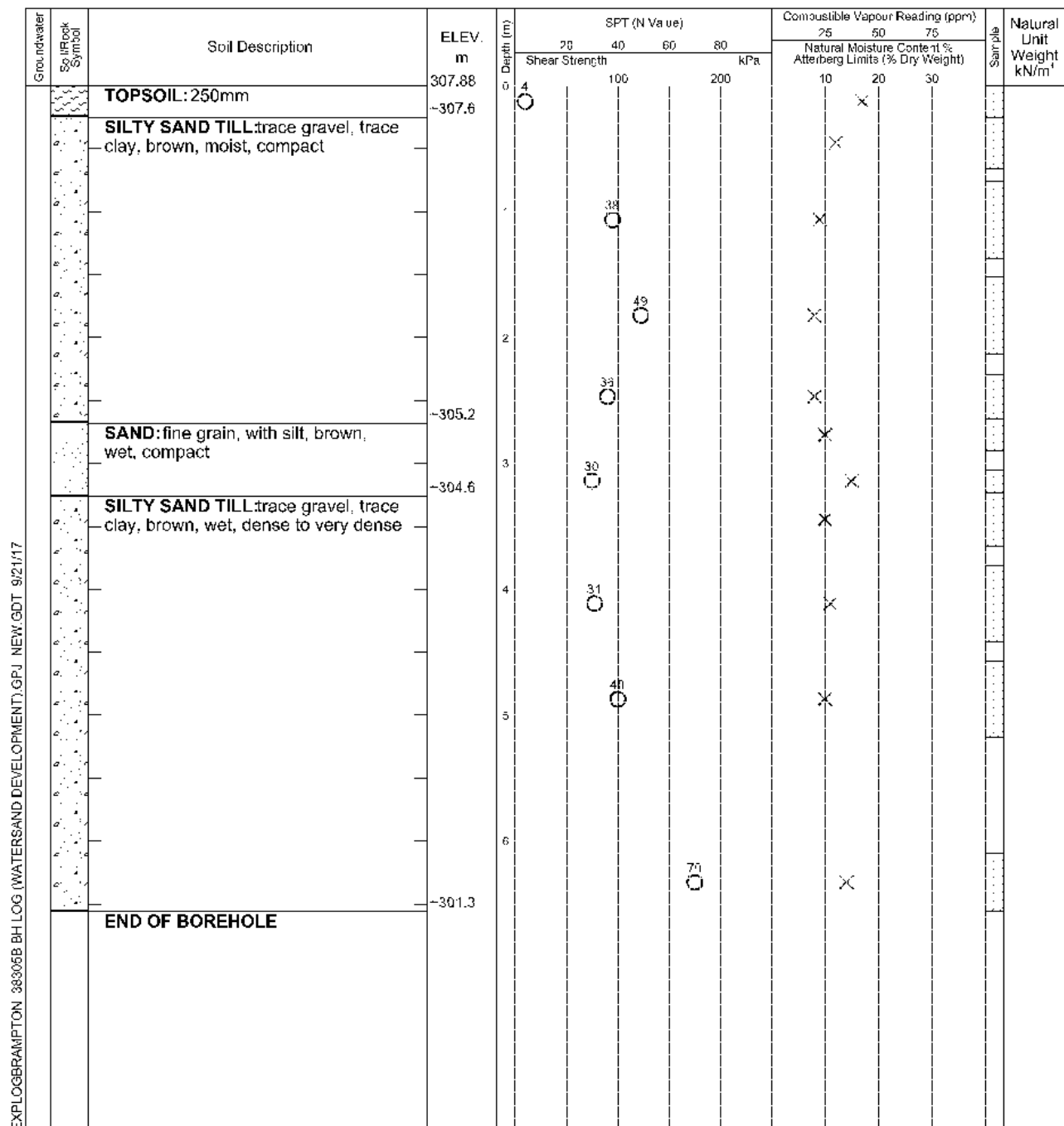
Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
3% Strain at Failure

Penetrometer



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	3.04	3.04



ION



AD ALLOWANCE BETWEEN LOTS 5 AND 6, CONCESSION 9

LINE BETWEEN THE CITY OF BARRIE

9

308.47
BH #E16

307.66
BH #E17

303.37
BH #E8

304.81
BH #E18

307.23
BH #E25

306.76
BH #E26

307.25
BH #E34

307.57
BH #E35

305.66
BH #E36

307.07
BH #E44

306.67
BH #E45

305.64
BH #E53

307.74
BH #E54

305.35
BH #E55

5TH SIDEROAD

ROAD ALLOWANCE BETWEEN CONCESSIONS 8 AND 9

SION 8

BLOC

LOT

LOT 5

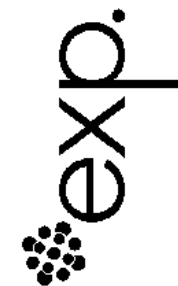
LOT 4

LOT 3

LOT 2

LOT 1

REGISTERED



exp Services Inc.
t: +1.705.719.1100 f: +1.705.719.1109
14 Cedar Pointe Dr., Unit: 1510
Barrie, ON L4M 5R7
Canada
www.exp.com

• BUILDINGS • EARTH & ENVIRONMENT • ENERGY •
• INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

CLIENT:	WATERSAND DEVELOPMENT	PROJECT:	PROPOSED WATERSAND RESIDENTIAL DEVELOPMENT	TITLE:	SECTION 6 – BOREHOLE LOCATION PLAN
scale	1: 3000				
date	9/12/2017				
drawn by	M.B.				
project no	BRM– 00038305–BO				
DRAWING 223					

SECTION 6

BH E8	224	303.37
BH E16	225	308.47
BH E17	226	307.66
BH E18	227	304.81
BH E25	228	307.23
BH E26	229	306.76
BH E34	230	307.25
BH E35	231	307.57
BH E36	232	305.66
BH E44	233	307.07
BH E45	234	306.67
BH E53	235	305.64
BH E54	236	307.74
BH E55	237	305.35

Log of Borehole E8

Project No. BRM-00038305-B0

Drawing No. 224

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 6, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

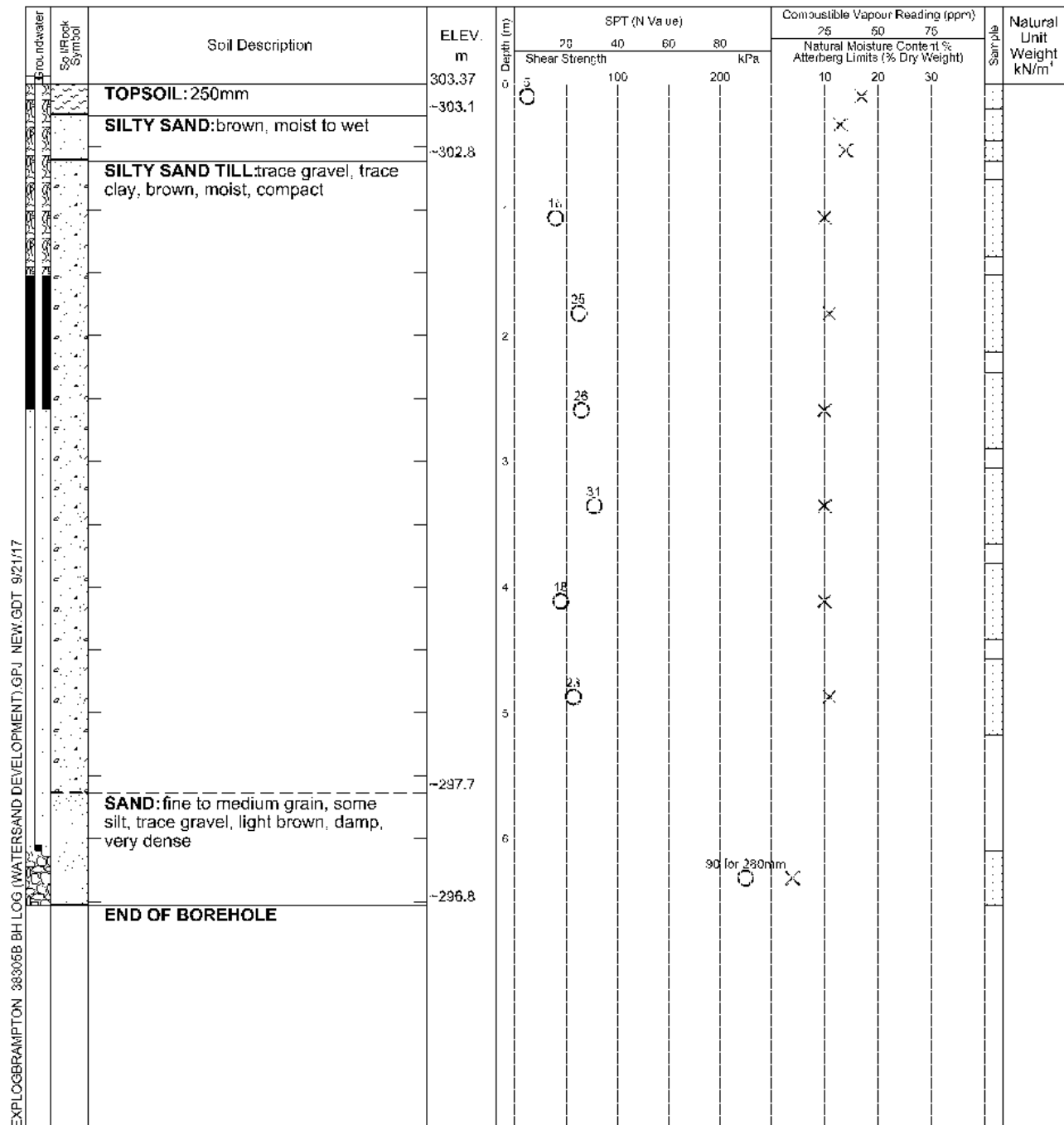
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	-
June 22, 2017	Dry	-
August 18, 2017	Dry	-

Log of Borehole E16

Project No. BRM-00038305-B0

Drawing No. 225

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 5, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

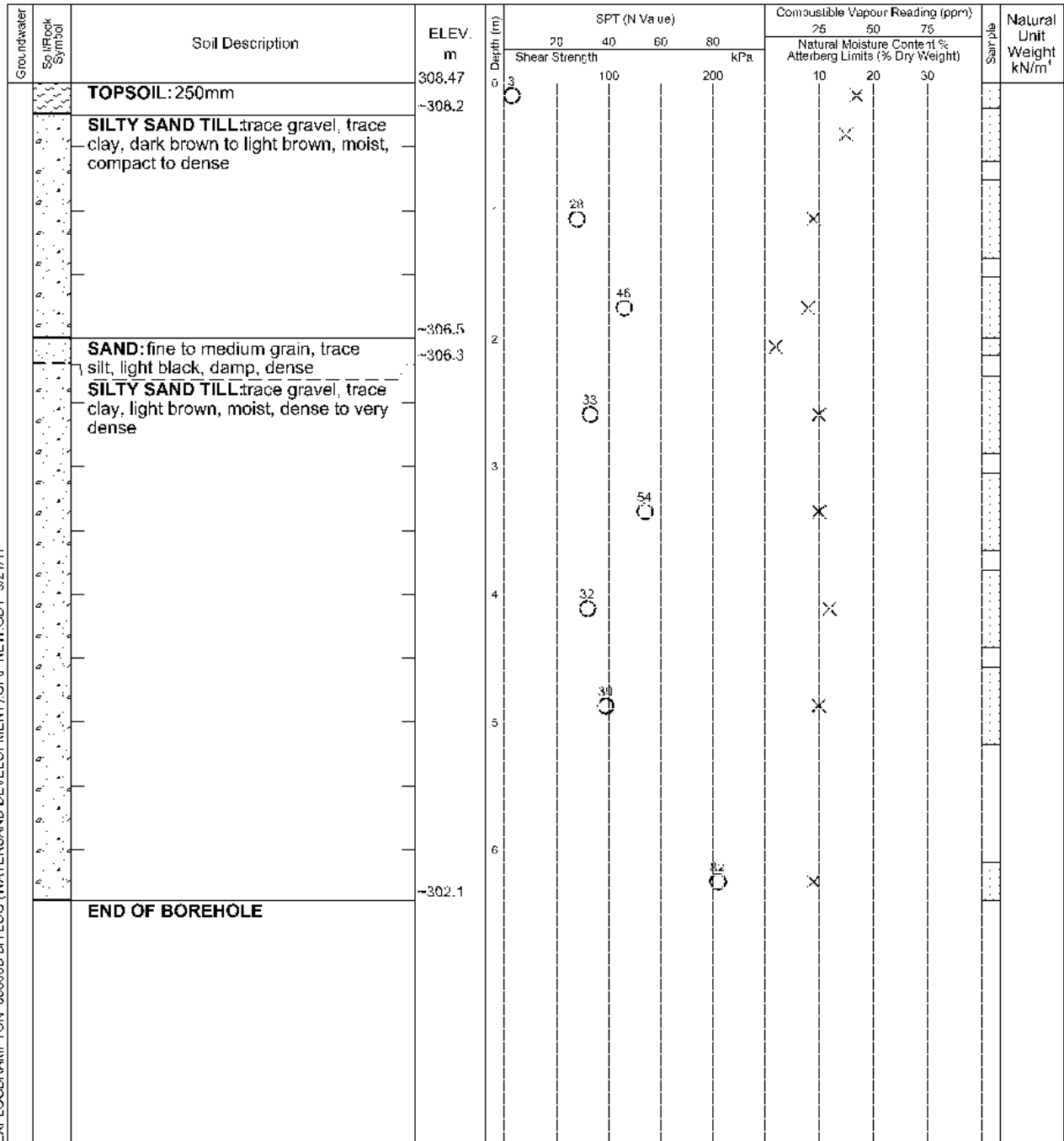
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.40

Log of Borehole E17

Project No. BRM-00038305-B0

Drawing No. 226

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 2, 2017

Auger Sample

Combustible Vapour Reading

Drill Type: CME55 - Track Mount

SPT (N) Value

Natural Moisture

Datum: Geodetic

Dynamic Cone Test

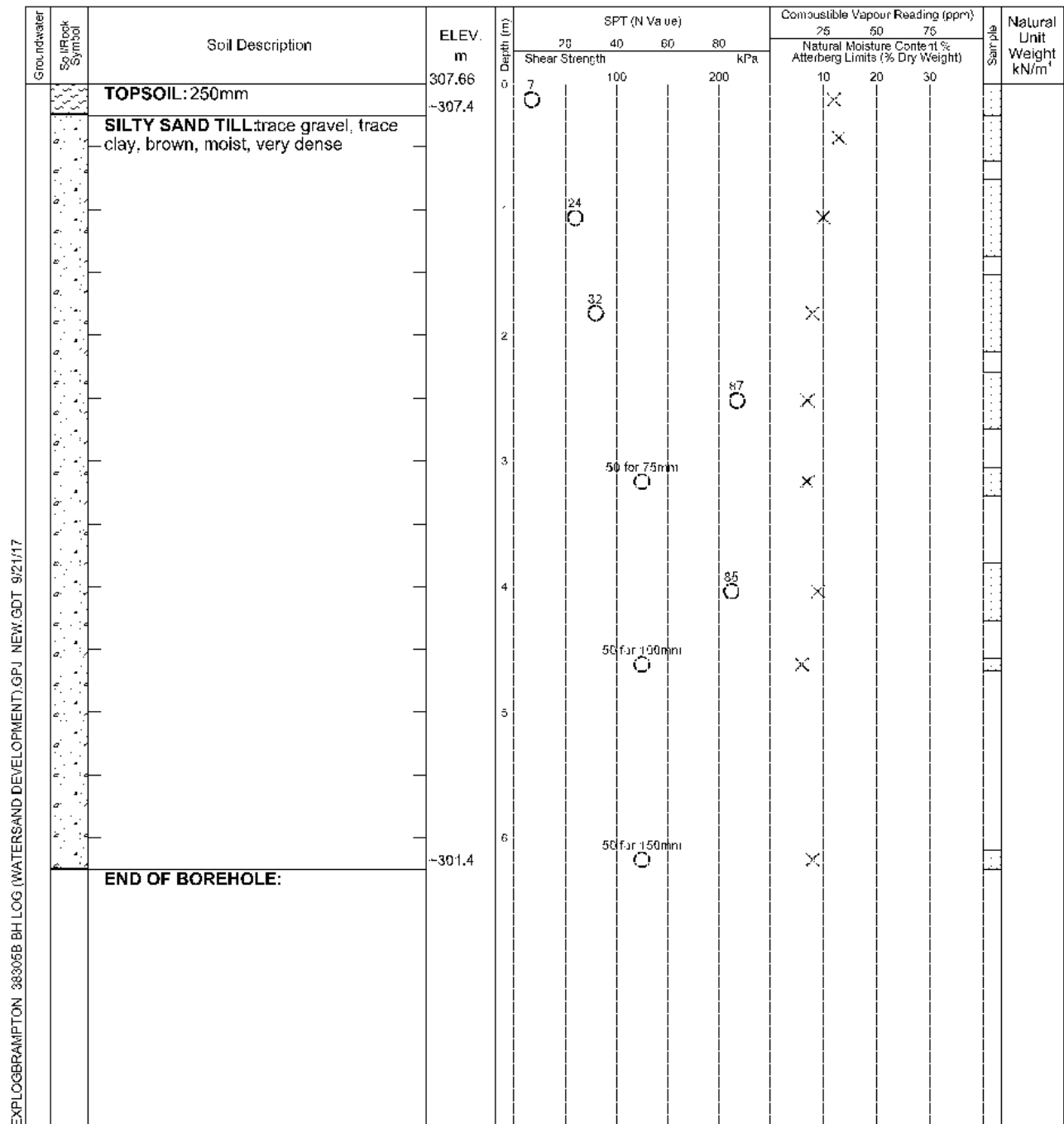
Plastic and Liquid Limit

Shelby Tube

Undrained Triaxial at
3% Strain at Failure

Field Vane Test

Penetrometer



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25



Log of Borehole E18

Project No. BRM-00038305-B0

Drawing No. 227

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 5, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

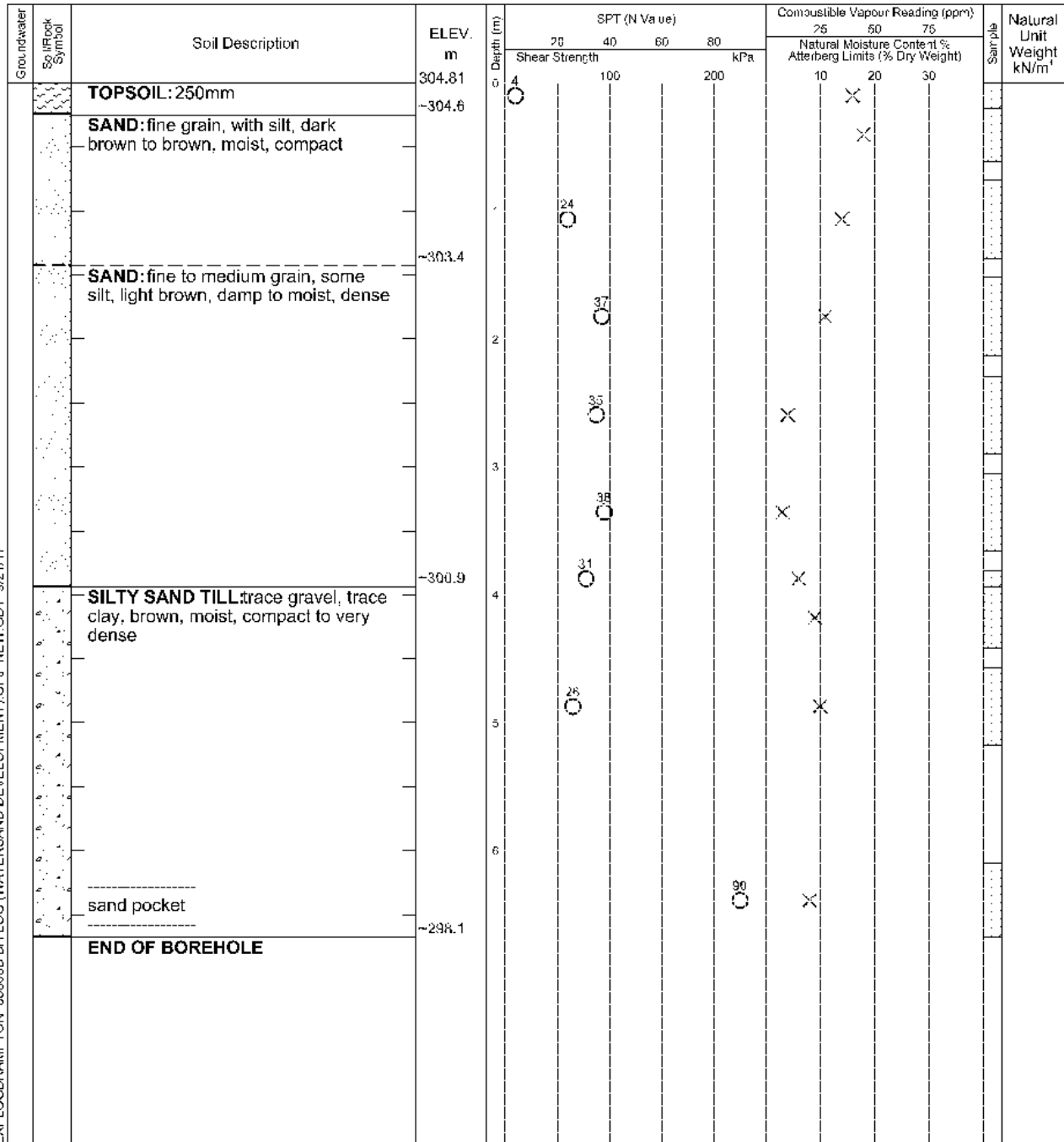
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.68



Log of Borehole E25

Project No. BRM-00038305-B0

Drawing No. 228

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 5, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Combustible Vapour Reading (ppm)			Natural Unit Weight kN/m ³
					20	40	60	80	25	50	75	
		TOPSOIL: 250mm	307.23	0								
		SAND: fine grain, some silt, reddish brown, wet	~307.0	0.25	5							
				0.5								
		SAND: fine grain, trace silt, light brown, wet	~306.3	1.0	22							
				1.5								
				2.0	29							
		SILTY SAND TILL: trace gravel, trace clay, brown, moist to wet, dense to very dense	~305.3	2.5								
				3.0	30							
				3.5	29							
				4.0								
				4.5	50							
				5.0								
				5.5	52							
				6.0								
		SAND: fine grain, with silt, light brown, moist, very dense	~301.0	6.5								
			~300.5	7.0								
		END OF BOREHOLE										

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.71

Log of Borehole E26

Project No. BRM-00038305-B0

Drawing No. 229

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 5, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

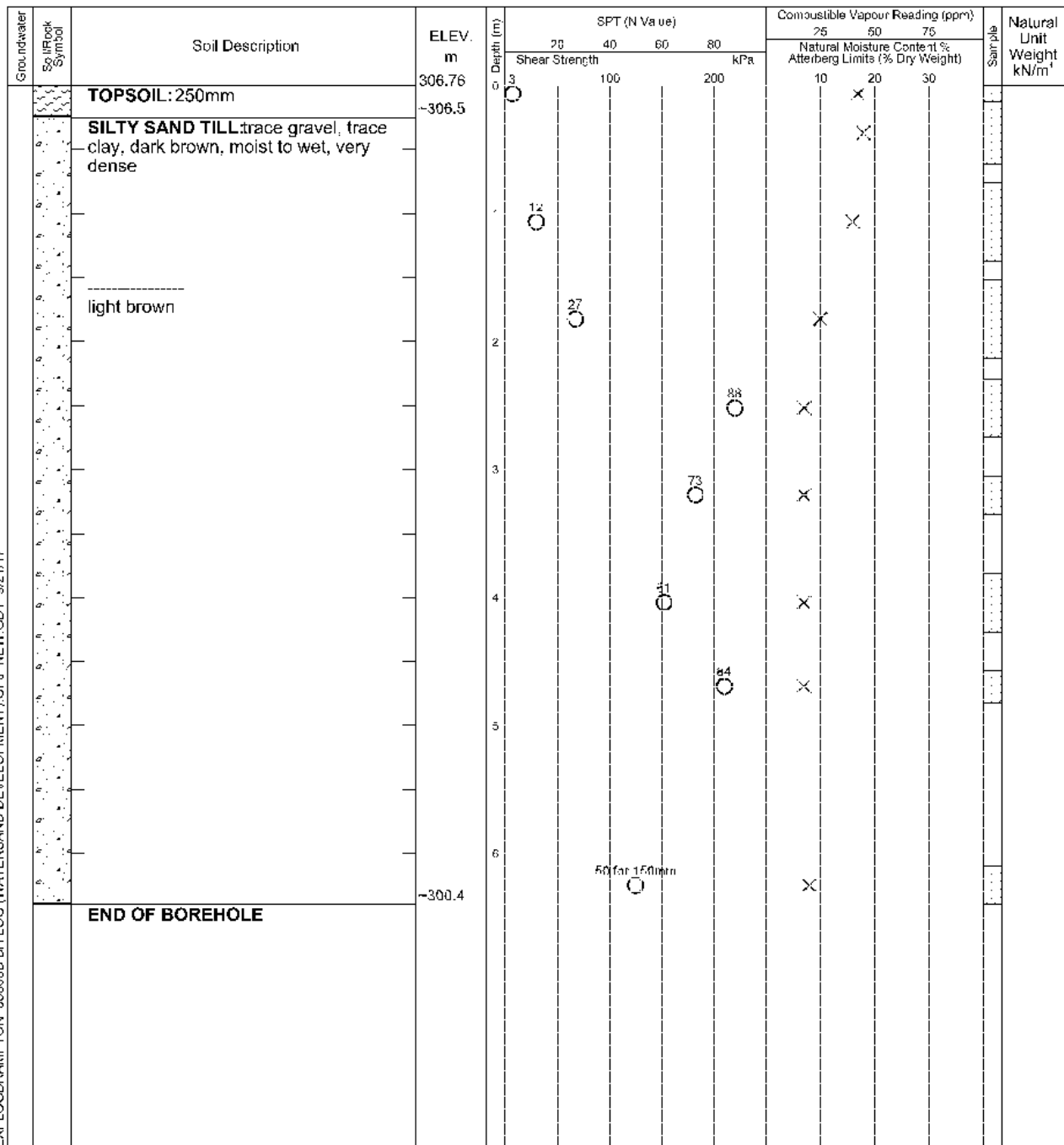
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.40

Log of Borehole E34

Project No. BRM-00038305-B0

Drawing No. 230

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 6, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

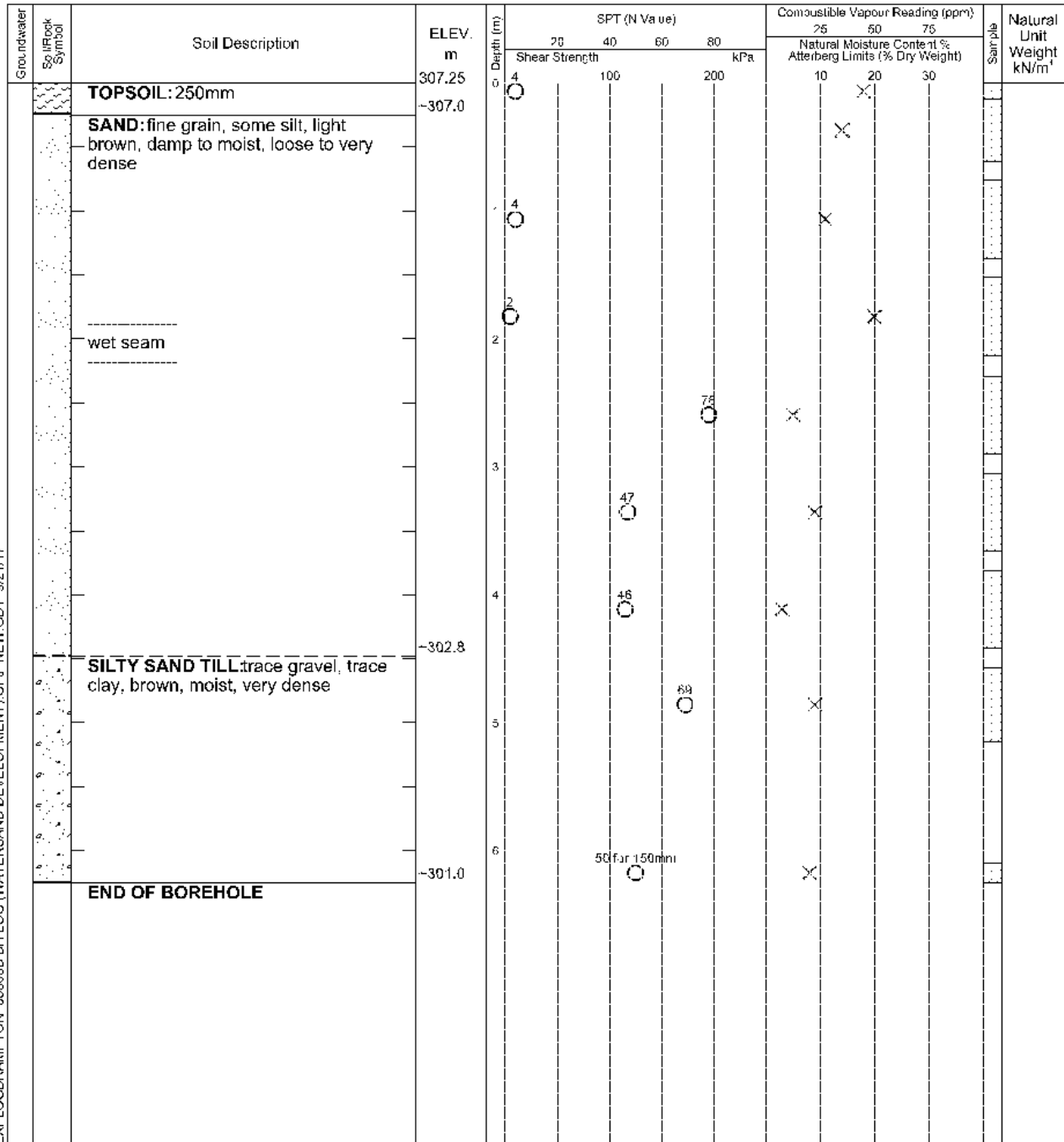
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25

Log of Borehole E35

Project No. BRM-00038305-B0

Drawing No. 231

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 5, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

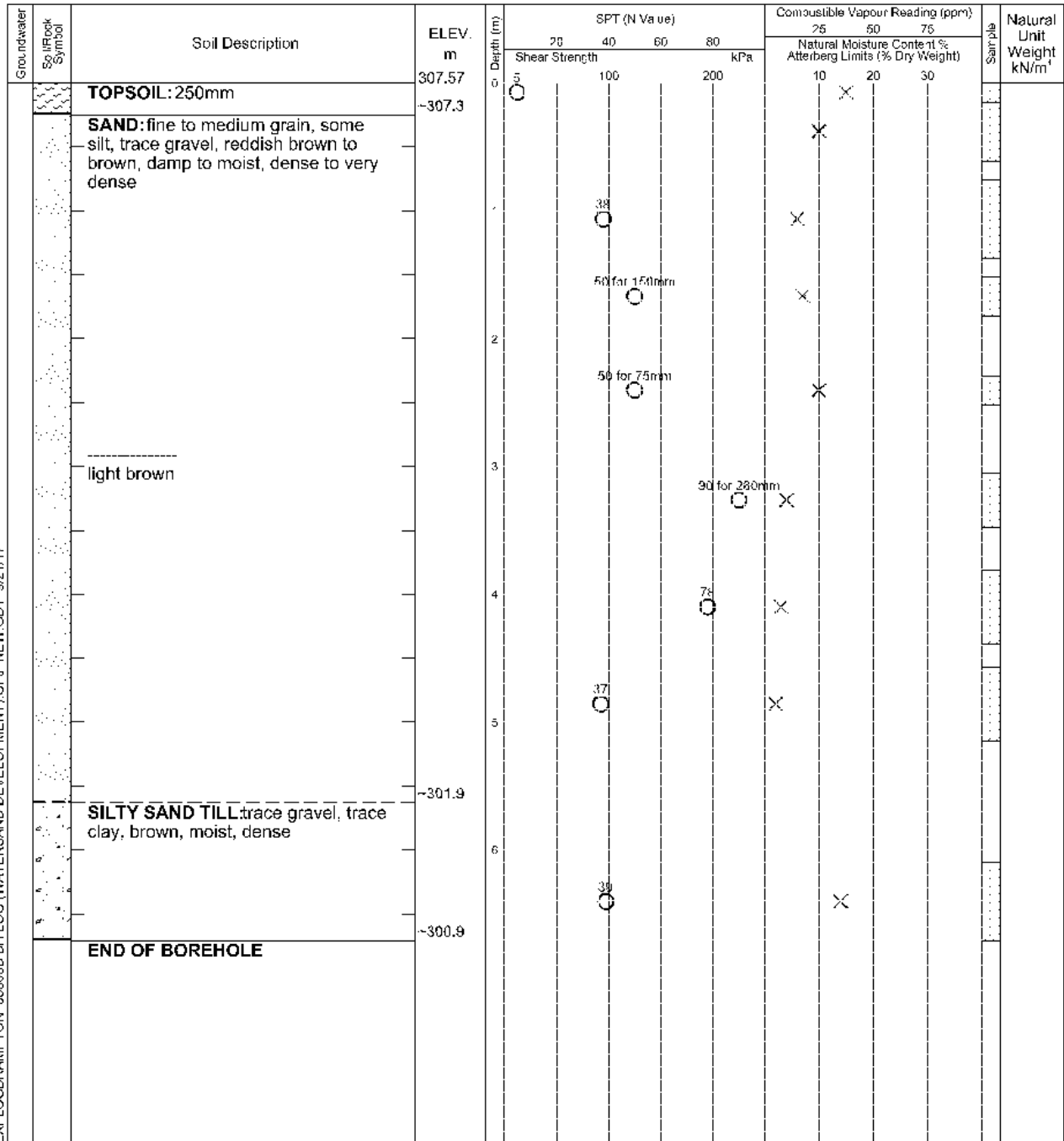
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.71

Log of Borehole E36

Project No. BRM-00038305-B0

Drawing No. 232

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 6, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Combustible Vapour Reading (ppm)			Natural Unit Weight kN/m ³
					20	40	60	80	25	50	75	
		TOPSOIL: 250mm	305.66	0								
		SAND: fine grain, some silt, reddish brown, damp to moist, loose to very dense	~305.4	0								
				1								
				2								
		light brown		3								
				4								
				5								
		SILTY SAND TILL trace gravel, trace clay, brown, wet, very dense	~300.8	5								
				6								
		END OF BOREHOLE	~299.4	6								

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25

Log of Borehole E44

Project No. BRM-00038305-B0

Drawing No. 233

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 6, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

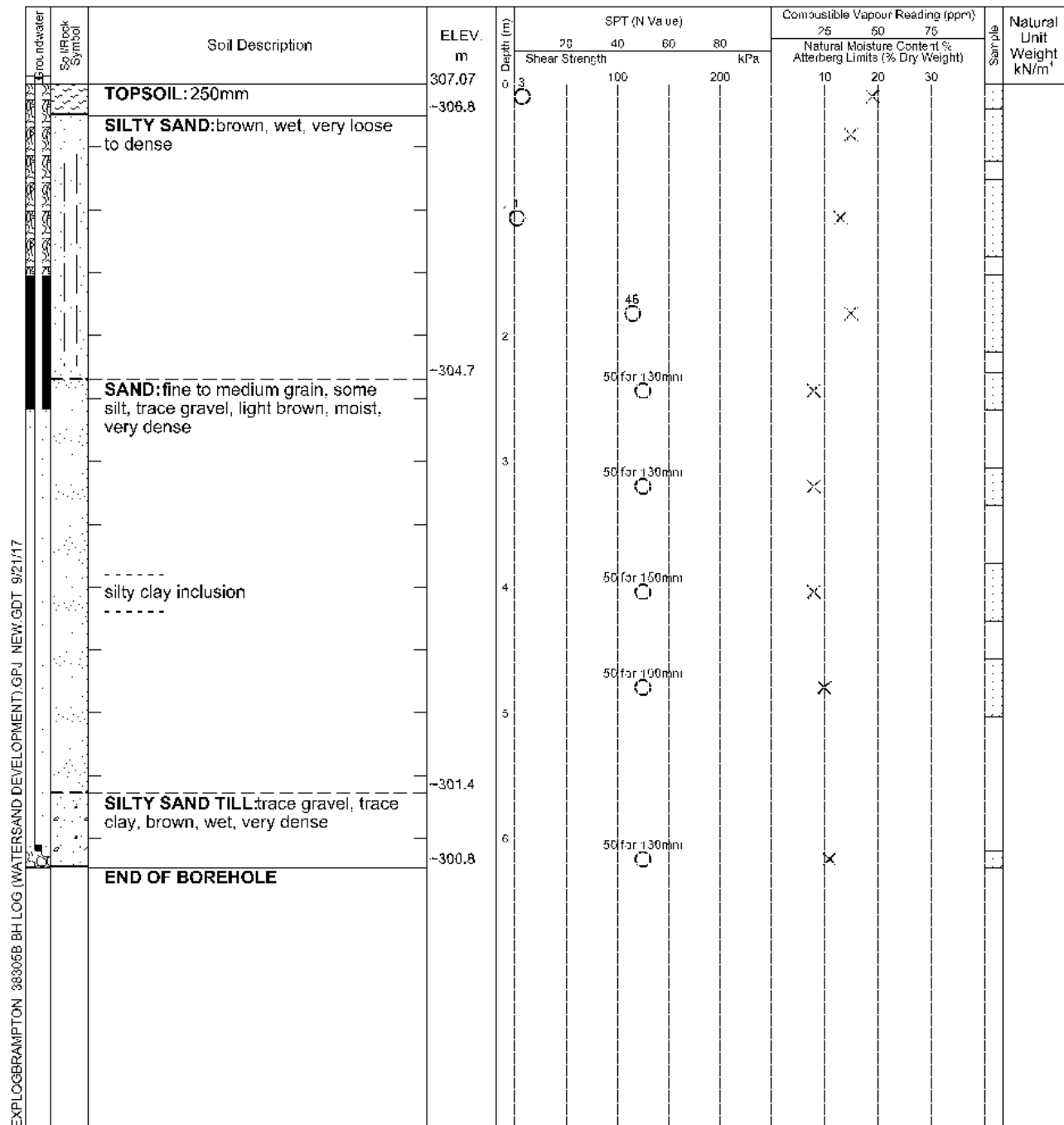
Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	-
June 22, 2017	5.54	-
August 18, 2017	Dry	-

Log of Borehole E45

Project No. BRM-00038305-B0

Drawing No. 234

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 6, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Combustible Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m ³
					Shear Strength kPa				Natural Moisture Content % Atterberg Limits (% Dry Weight)				
		TOPSOIL: 250mm	306.67	0					25	50	75		
		SAND: fine grain, some silt, trace clay, dark brown, moist	~306.4	0.3						X			
											X		
		SILT: some clay, some sand, occasional sand seams, light brown, moist, hard	~305.8							X			
											X		
		SILTY SAND TILL: trace gravel, trace clay, frequent sand inclusions, brown, moist, very dense	~305.3										
								92		X			
				2									
										X			
				3						X			
										X			
				4						X			
										X			
				5									
										X			
				6						X			
		END OF BOREHOLE	~300.3										

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.33



Log of Borehole E53

Project No. BRM-00038305-B0

Drawing No. 235

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 6, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

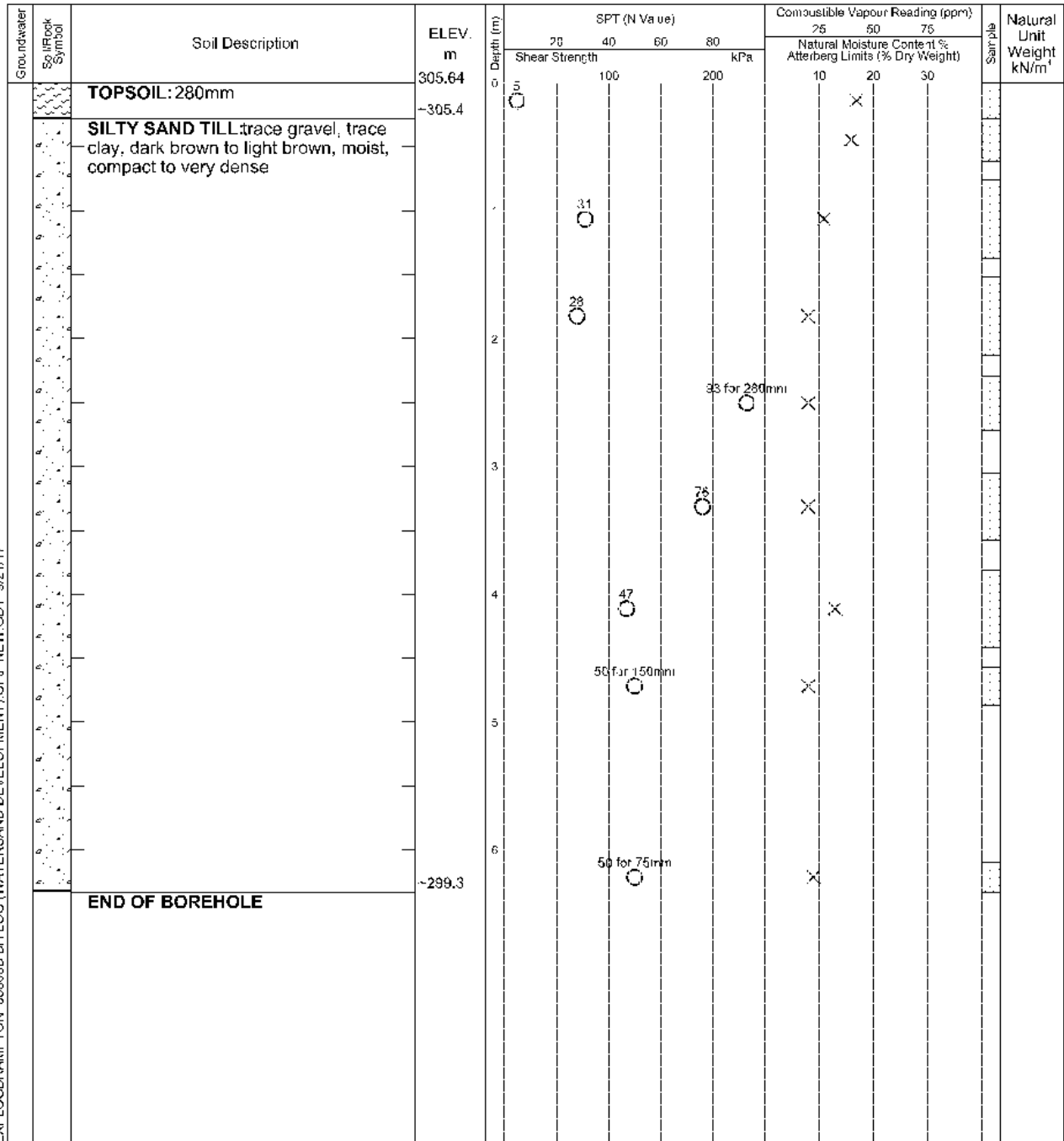
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.33

Log of Borehole E54

Project No. BRM-00038305-B0

Drawing No. 236

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 6, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

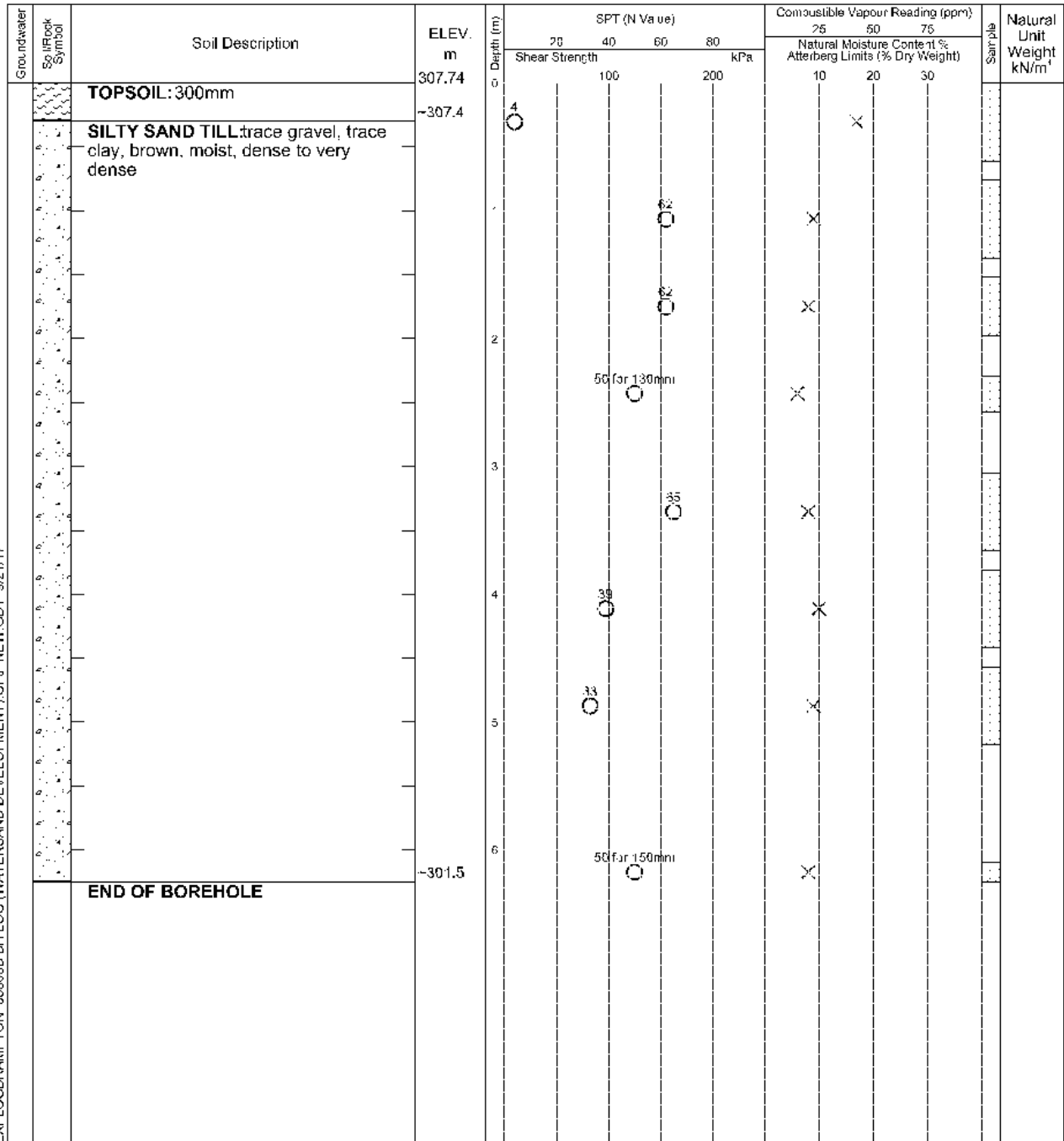
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25

Log of Borehole E55

Project No. BRM-00038305-B0

Drawing No. 237

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: June 6, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

Groundwater	Soil Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Combustible Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m ³
					20 40 60 80				25	50	75		
					Shear Strength kPa				Natural Moisture Content (% Dry Weight) Atterberg Limits (% Dry Weight)				
		TOPSOIL: 300mm	305.35	0									
		SILTY SAND TILL trace gravel, trace clay, dark brown to light brown, moist, very dense	~305.1	0.3									
				1.0									
				1.5									
				2.0									
				2.5									
				3.0									
				3.5									
				4.0									
				4.5									
				5.0									
				5.5									
				6.0									
		END OF BOREHOLE	~299.1	6.0									

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25



ROAD ALLOWANCE BETWEEN CONCESSIONS 9 AND 10

308.30
BH #32

MCKAY ROAD

308.71
BH #63

308.24
BH #76



308.24
BH #76

ROAD ALLOWANCE BETWEEN CONCESSIONS 9 AND 10

312.38
BH #117

MCKAY ROAD

309.95
BH #137

VETERAN

exp Services Inc.
t: +1.705.719.1100 f: +1.705.719.1109
14 Cedar Pointe Dr., Unit: 1510
Barrie, ON L4M 5R7
Canada
www.exp.com



- BUILDINGS • EARTH & ENVIRONMENT • ENERGY •
- INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •

CLIENT:	WATERSAND DEVELOPMENT
PROJECT:	PROPOSED WATERSAND RESIDENTIAL DEVELOPMENT
TITLE:	MCKAY ROAD WEST – BOREHOLE LOCATION PLAN
scale	1:3000
date	9/12/2017
drawn by	M.B.
project no	BRM-00038305-BO
DRAWING 238	

McKAY ROAD WEST

BH#	Figure #	Elevation
BH 32	239	308.30
BH 63	240	308.71
BH 76	241	308.22
BH 117	242	312.47
BH 137	243	309.95

Log of Borehole 32

Project No. BRM-00038305-B0

Drawing No. 239

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 2

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 28, 2017

Auger Sample

Combustible Vapour Reading

Drill Type: CME55 - Track Mount

SPT (N) Value

Natural Moisture

Datum: Geodetic

Dynamic Cone Test

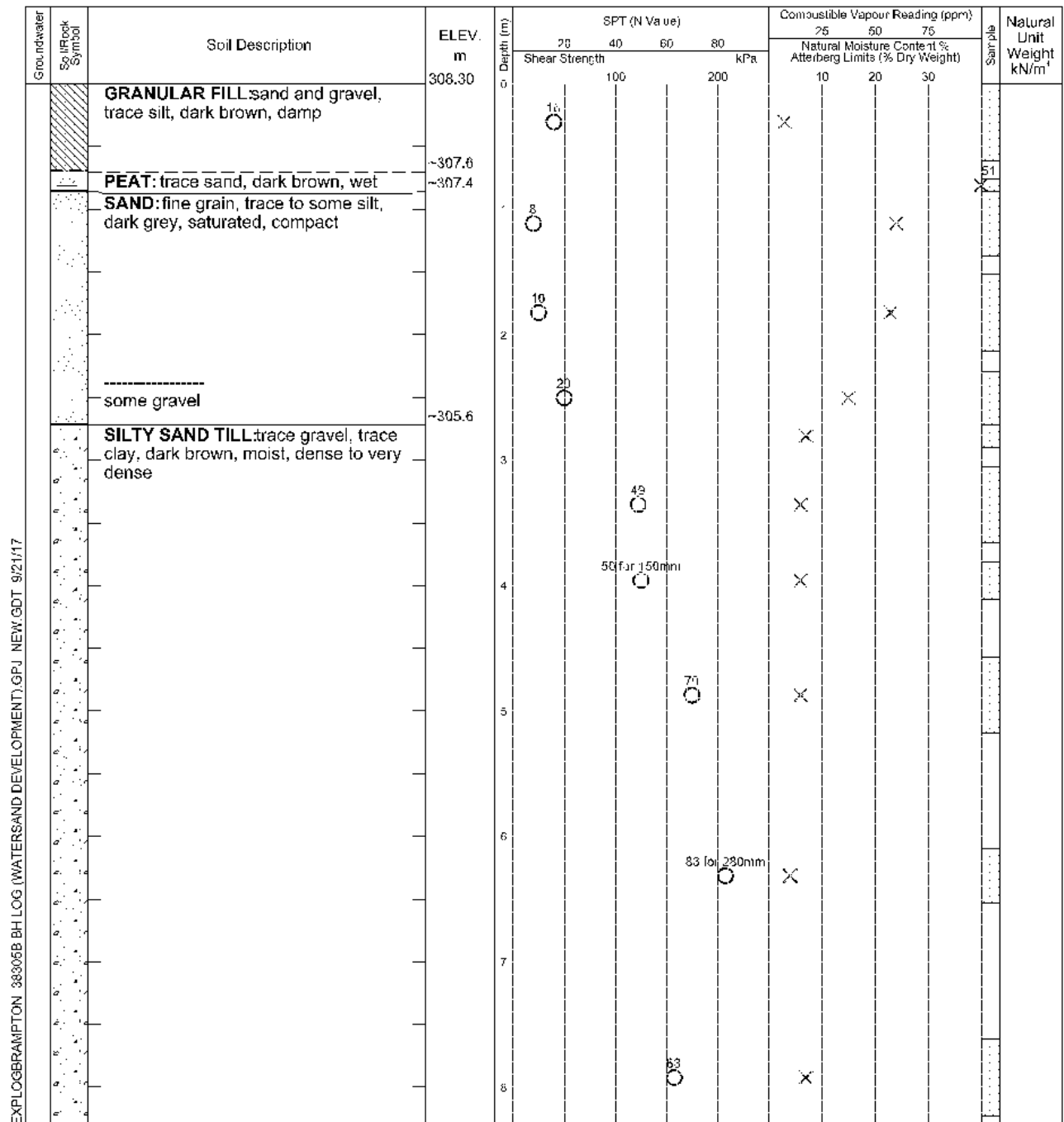
Plastic and Liquid Limit

Shelby Tube

Undrained Triaxial at
7% Strain at Failure

Field Vane Test

Penetrometer



Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	1.52	1.52



Log of Borehole 32

Project No. BRM-00038305-B0

Drawing No. 239

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 2 of 2

Groundwater	Soil/Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)			Compressible Vapour Reading (ppmv)			Sample	Natural Unit Weight kN/m³
					20	40	60	25	50	75		
			300.00		Shear Strength kPa			Natural Moisture Content % Atterberg Limits (% Dry Weight)				
					100		200	10	20	30		
				9		50 for 130mm		×				
				10								
			~297.4			50 for 130mm		×				
		END OF BOREHOLE										

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	1.52	1.52

Log of Borehole 63

Project No. BRM-00038305-B0

Drawing No. 240

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 2

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 25, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

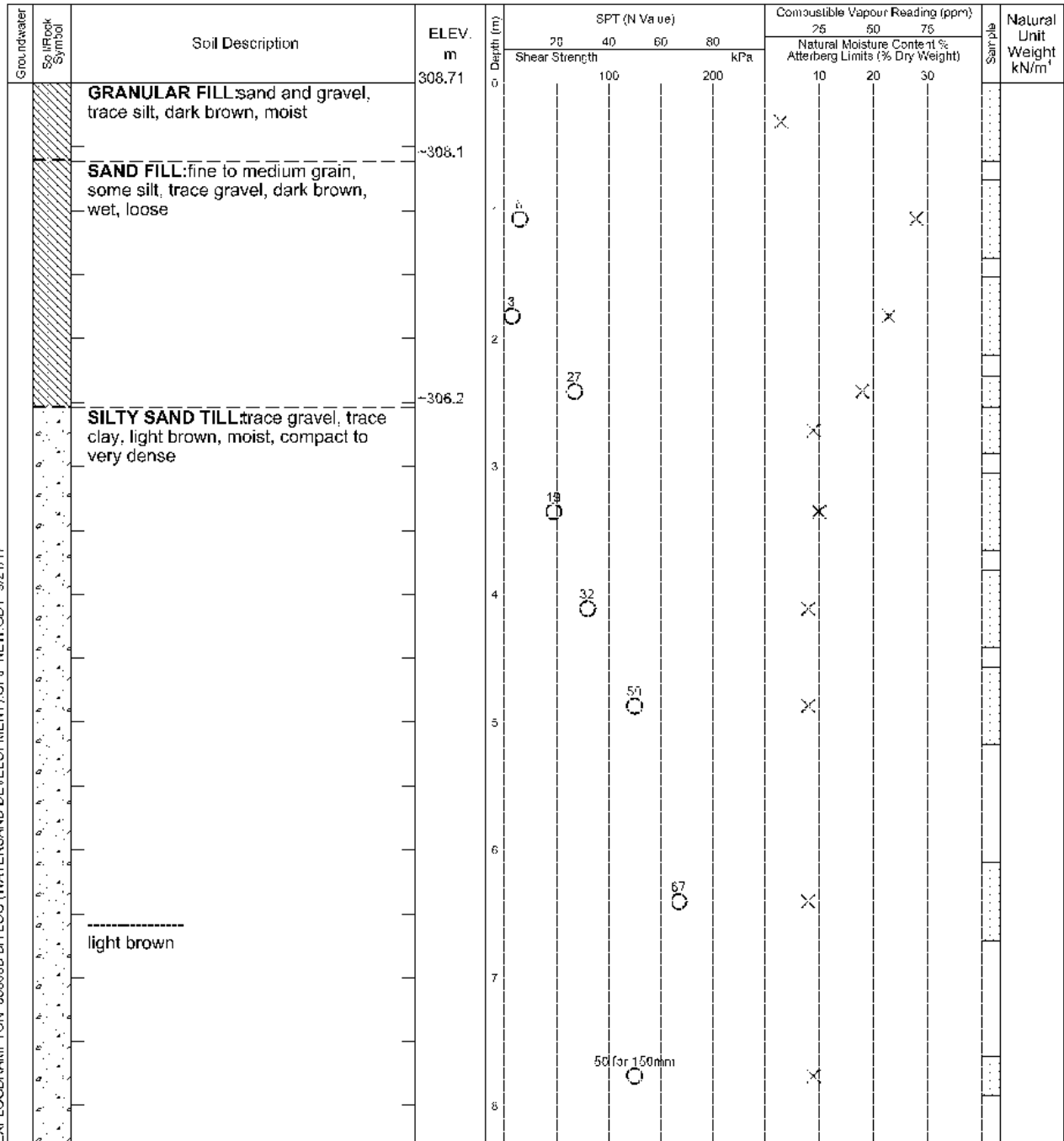
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	2.44	10.67



Log of Borehole 63

Project No. BRM-00038305-B0

Drawing No. 240

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 2 of 2

Groundwater Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)			Comminutable Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m³
				20	40	60	25	50	75		
		300.41		Shear Strength			Natural Moisture Content % Atterberg Limits (% Dry Weight)				
				100	200		10	20	30		
			9								
			10								
		~298.2									
	SAND: fine grain, trace silt, grey, wet, loose										
			11								
		~297.4									
	END OF BOREHOLE										

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	2.44	10.67

Log of Borehole 76

Project No. BRM-00038305-B0

Drawing No. 241

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 3

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 31, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

□

×

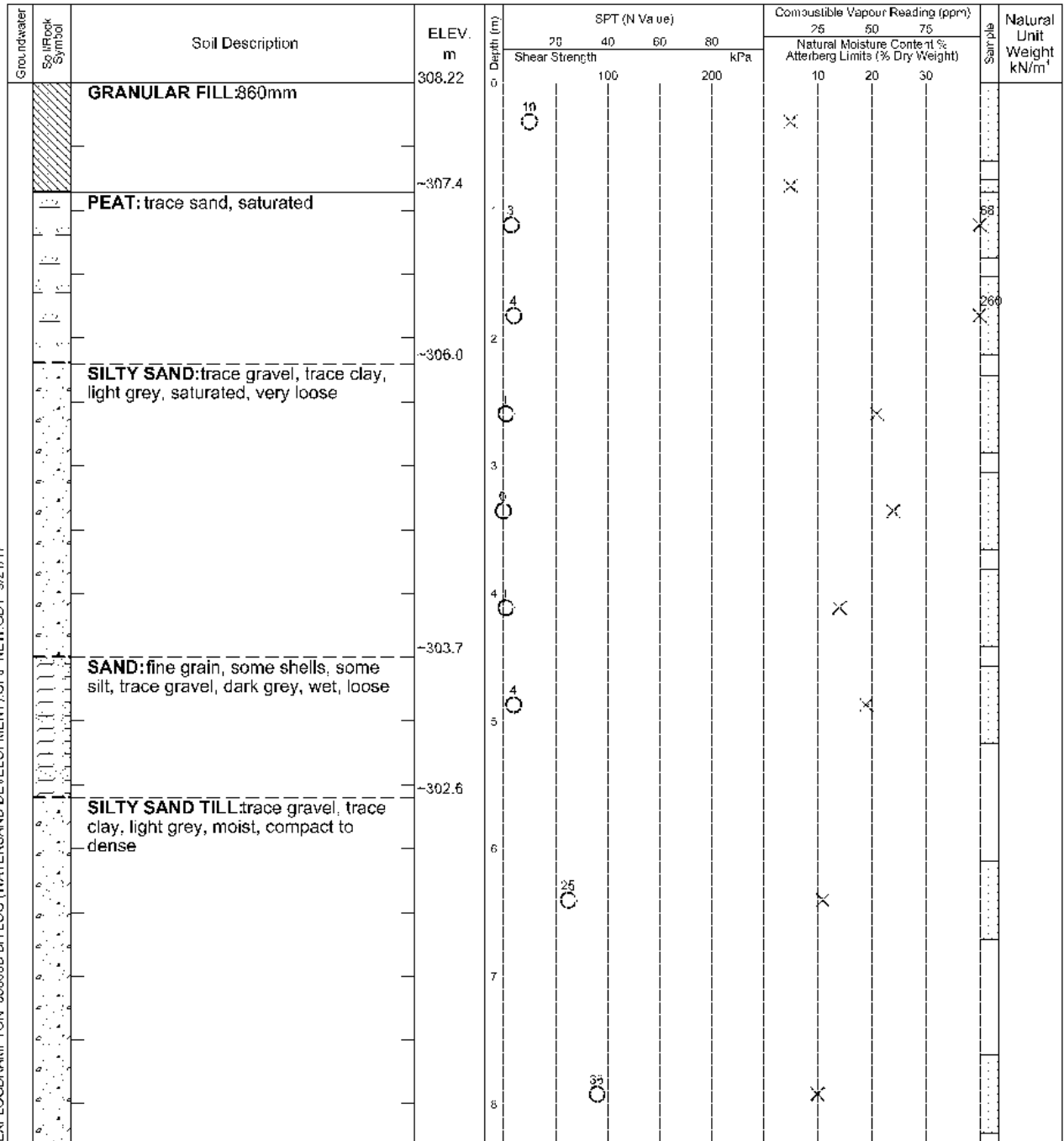
—○

⊕

▲

Datum: Geodetic

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	3.66	4.57



Log of Borehole 76

Project No. BRM-00038305-B0

Drawing No. 241

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 2 of 3

Groundwater Soil/Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Va ue)				Comnustible Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m³		
				20	40	60	80	25	50	75				
				Shoar Strength kPa				Natural Moisture Content % Atterberg Limits (% Dry Weight)						
		299.92 ~299.7			100		200		10	20	30			
	SAND: fine grain, some shells, some silt, trace gravel, dark grey, wet, very loose to compact		9											
			9.5											
			10											
			10.5											
			11											
			11.5											
			12											
			12.5											
			13											
			13.5											
			14											
			14.5											
			15											
			15.5											
			16											
			16.5											
			17											
	17.5													
	18													

Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	3.66	4.57



Log of Borehole 76

Project No. BRM-00038305-B0

Drawing No. 241

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 3 of 3

[illegible]

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	3.66	4.57



Log of Borehole 117

Project No. BRM-00038305-B0

Drawing No. 242

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 2

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 28, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

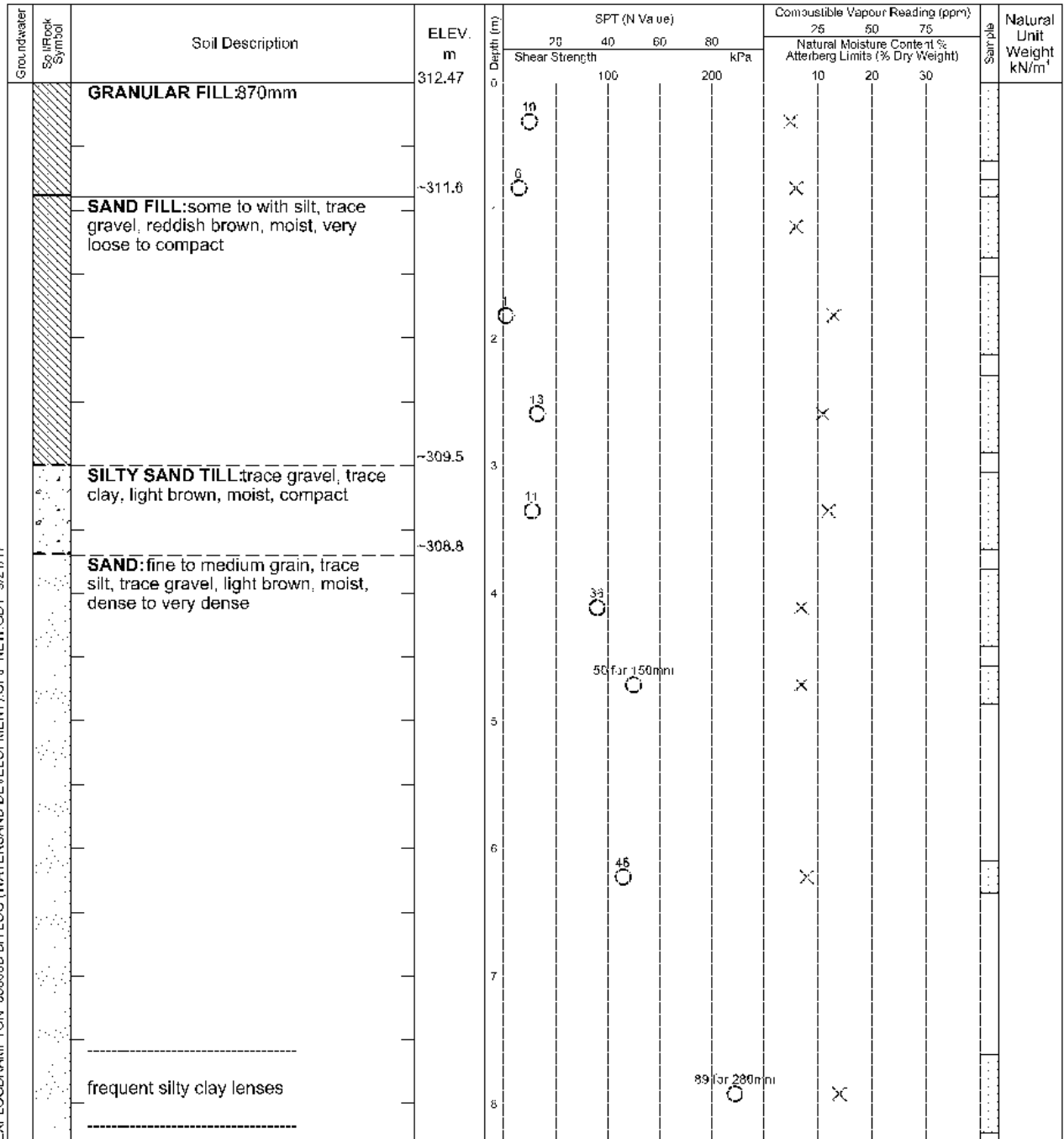
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	15.47



Log of Borehole 117

Project No. BRM-00038305-B0

Drawing No. 242

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 2 of 2

Groundwater	Soil/Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)			Compressible Vapour Reading (ppmv)			Sample	Natural Unit Weight kN/m ³
					20	40	60	25	50	75		
			304.17		Shear Strength			Natural Moisture Content % Atterberg Limits (% Dry Weight)				
					100		200	10	20	30		
				9		50 for 130mm		X				
				10								
				11		50 for 75mm		X				
			~301.0									
		SILT: some sand, some clay, trace gravel, dark grey, moist, hard		12		50 for 75mm		X				
				13								
			~298.7			50 for 150mm		X	X			
		SAND: fine to medium grain, trace silt, light grey, moist, very dense		14								
			~298.0									
		SILTY SAND TILL: trace gravel, trace clay, light grey, moist, very dense		15		50 for 75mm		X				
			~297.0									
		END OF BOREHOLE										

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	15.47

Log of Borehole 137

Project No. BRM-00038305-B0

Drawing No. 243

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 3

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 25, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

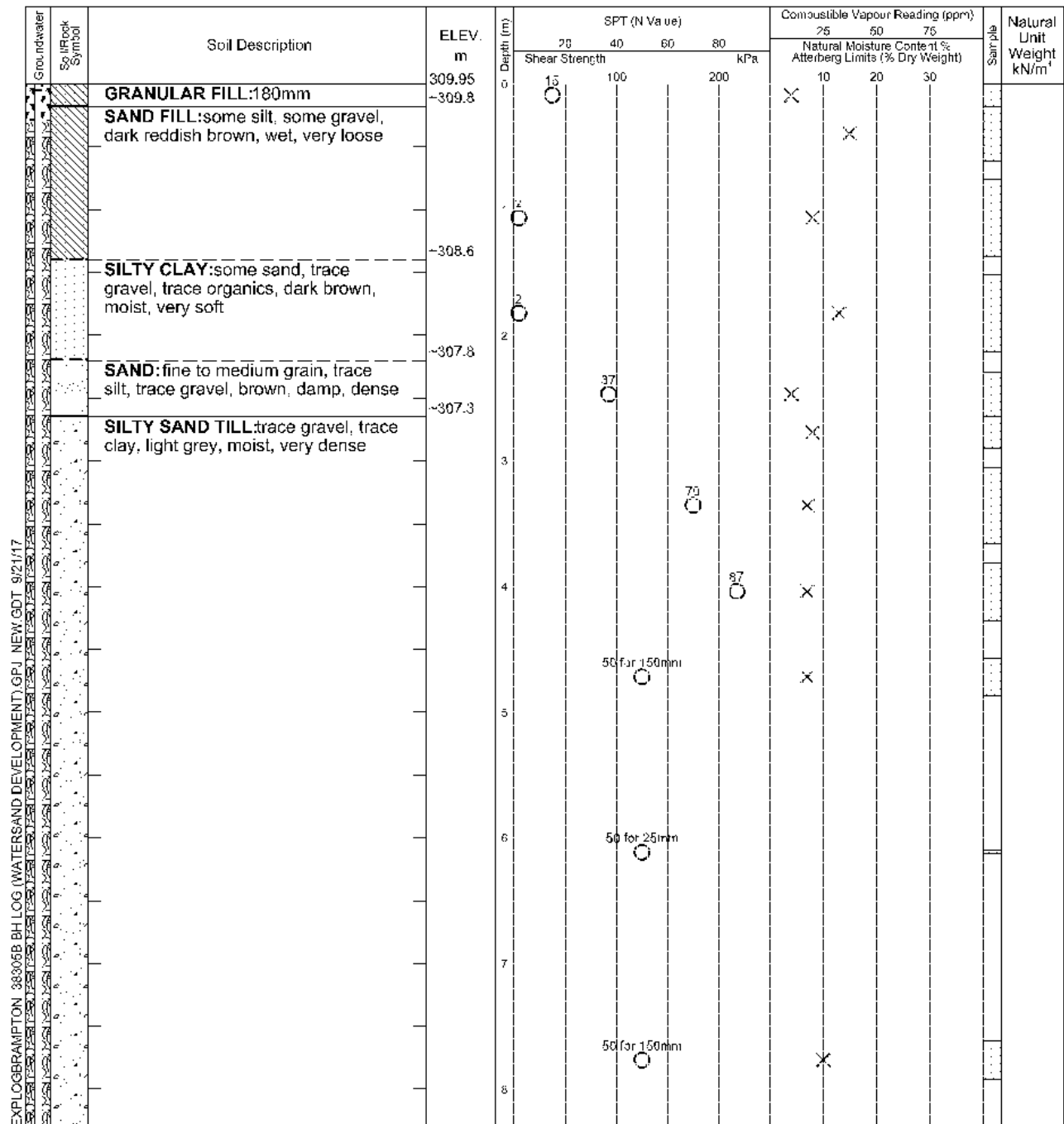
Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
7% Strain at Failure

Penetrometer



Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion August 18, 2017	Dry 19.87	- -



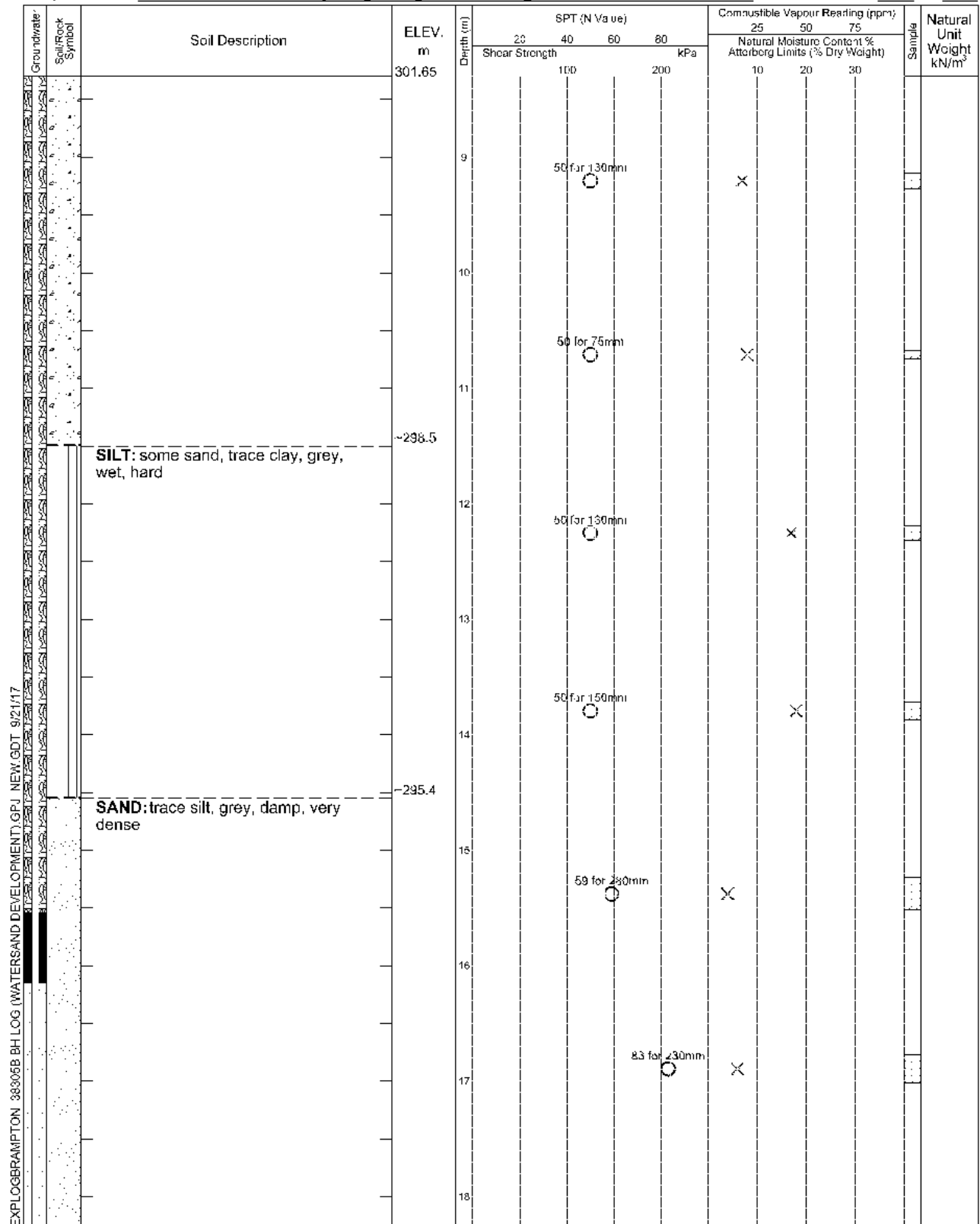
Log of Borehole 137

Project No. BRM-00038305-B0

Drawing No. 243

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 2 of 3



Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion August 18, 2017	Dry 19.87	- -



Log of Borehole 137

Project No. BRM-00038305-B0

Drawing No. 243

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 3 of 3

Groundwater	Soil/Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)			Combustible Vapour Reading (ppmv)			Sample	Natural Unit Weight kN/m³	
					20	40	60	80	25	50			75
					Shear Strength			Natural Moisture Content % Atterberg Limits (% Dry Weight)					
			291.69		100	150	200		10	20	30		
				19			59 for 150mm		X				
			~290.0				50 for 150mm		X				
END OF BOREHOLE LOG													

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion August 18, 2017	Dry 19.87	- -

VETERANS DRIVE & 5th SIDEROAD

BH#	Figure #	Elevation
BH 136	245	309.82
BH 146C	246	311.26
BH 149A	247	310.94
BH 150	248	312.57
BH 151	249	312.95
BH 152	250	313.03
BH 153	251	312.17
BH 154	252	307.83
BH 155	253	311.46
BH 156	254	312.32
BH 157	255	311.98
BH 158	256	310.69
BH 159	257	310.49
BH E7	258	309.01
BH E24	259	307.76
BH E43	260	306.54

Log of Borehole 136

Project No. BRM-00038305-B0

Drawing No. 245

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 27, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

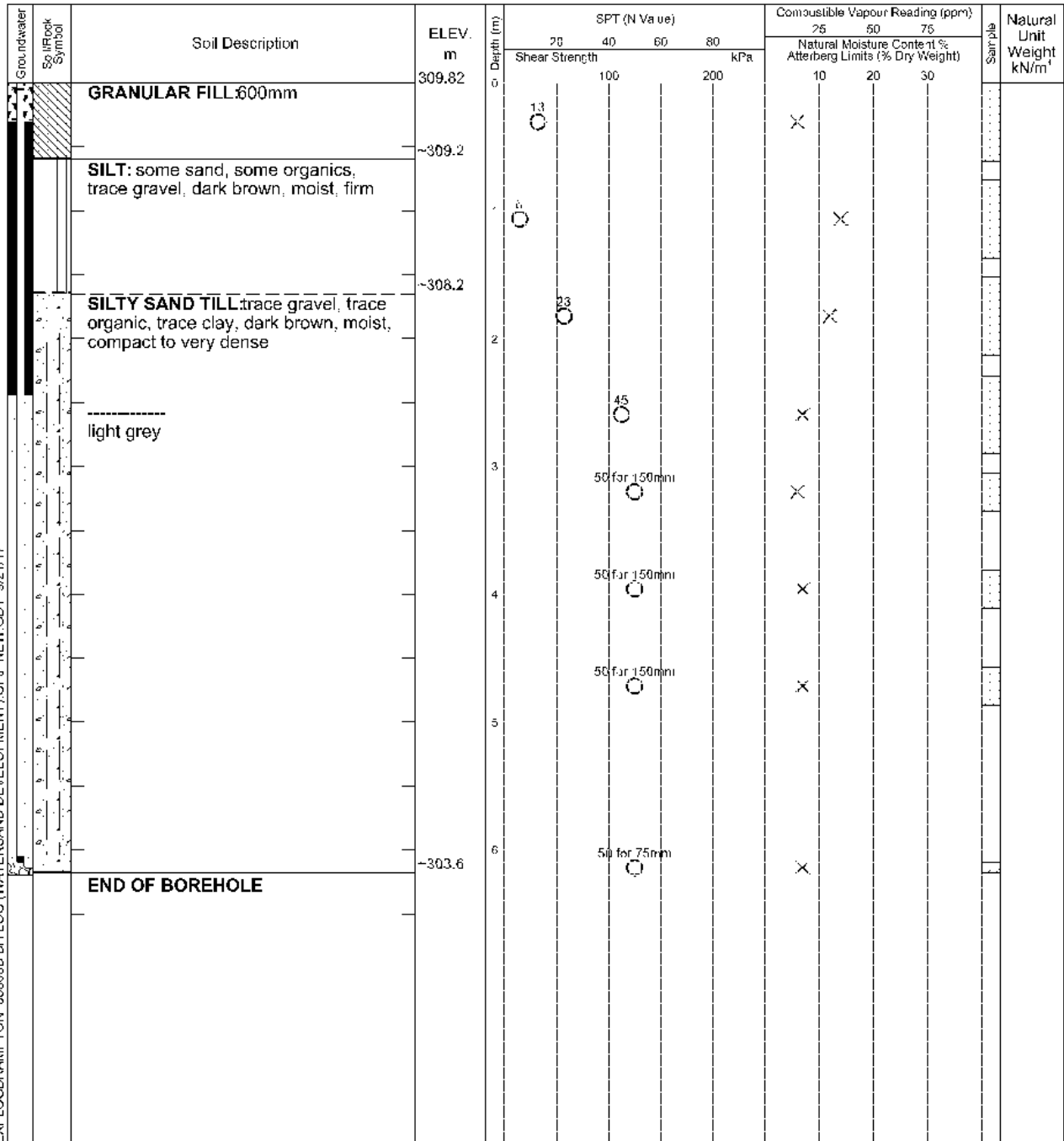
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	-
August 2, 2017	Dry	-
August 18, 2017	Dry	-

Log of Borehole 146C

Project No. BRM-00038305-B0

Drawing No. 246

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 27, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

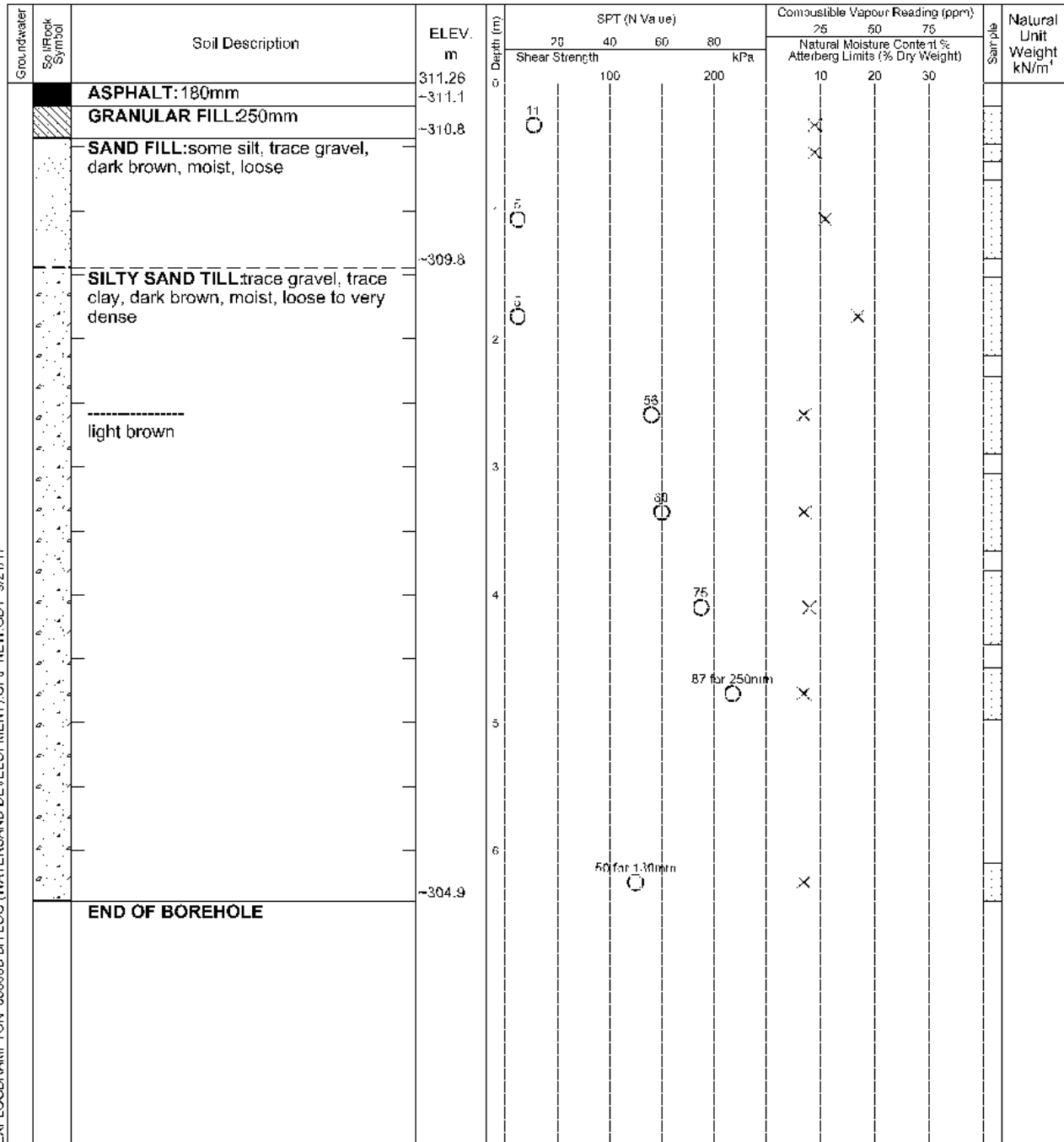
Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Datum: Geodetic



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.40

Log of Borehole 149A

Project No. BRM-00038305-B0

Drawing No. 247

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 27, 2017

Auger Sample

SPT (N) Value

Drill Type: CME55 - Track Mount

Dynamic Cone Test

Datum: Geodetic

Shelby Tube
Field Vane Test

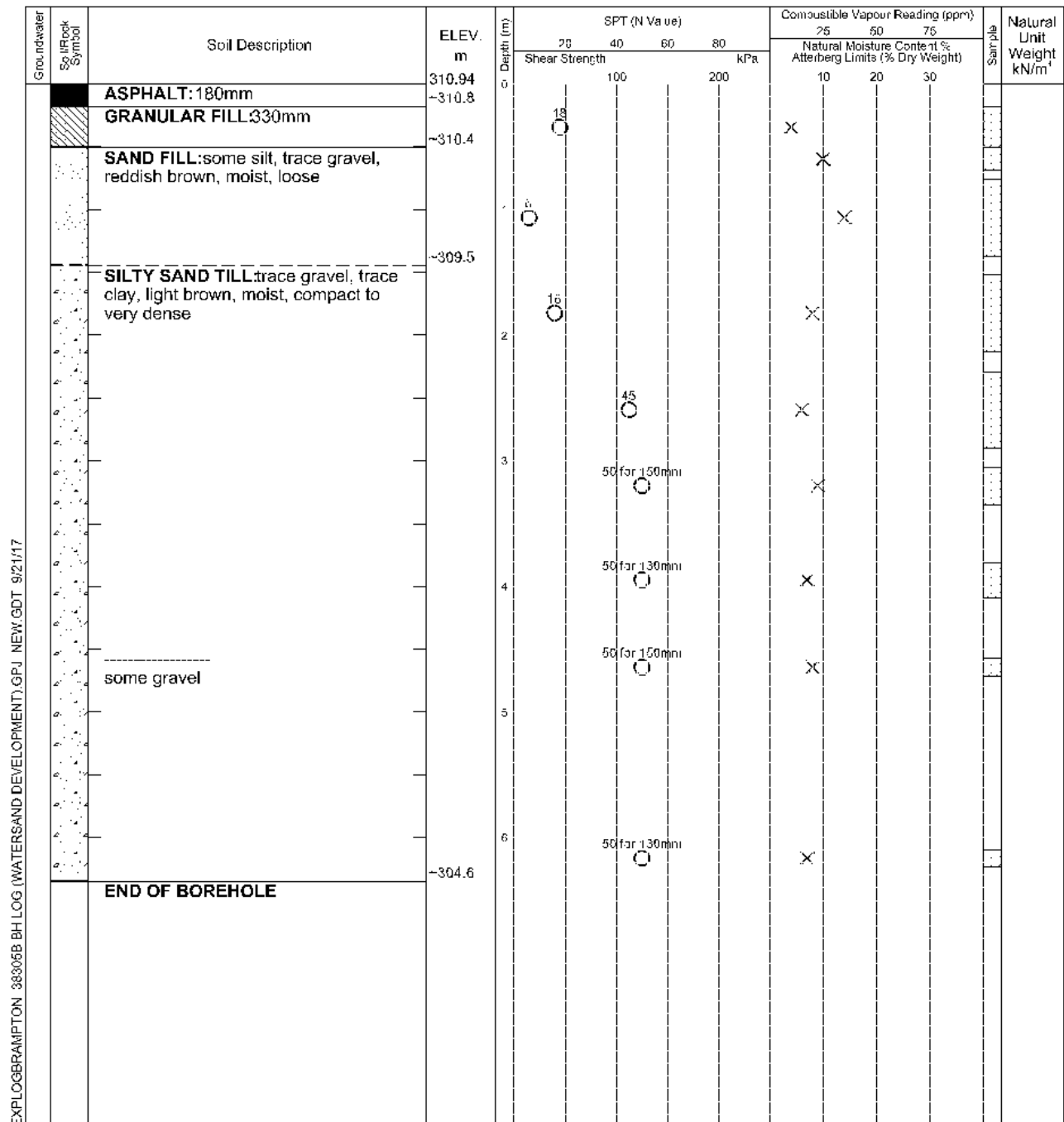
Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
7% Strain at Failure

Penetrometer



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.23



Log of Borehole 150

Project No. BRM-00038305-B0

Drawing No. 248

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 2

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 31, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

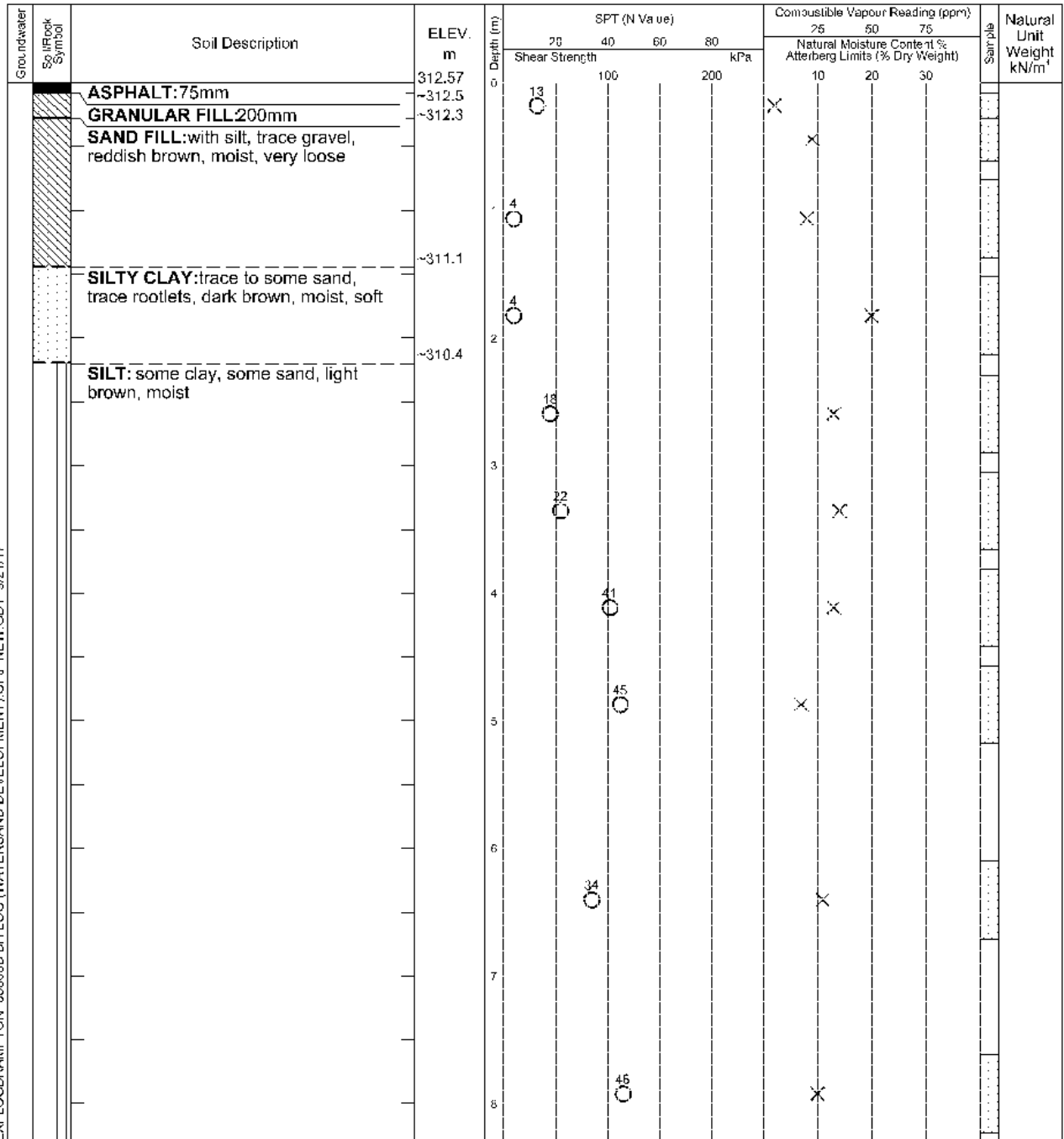
Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Datum: Geodetic



Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	12.47



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Log of Borehole 150

Project No. BRM-00038305-B0

Drawing No. 248

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 2 of 2

Groundwater	Soil/Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)			Compressible Vapour Reading (ppmv)			Sample	Natural Unit Weight kN/m ³
					20	40	60	25	50	75		
			304.27		Shear Strength			Natural Moisture Content % Atterberg Limits (% Dry Weight)				
						100		200				
				9								
						49						
				10								
						50 (for 130 min)						
				11								
				12								
		dark grey				50 (for 130 min)						
		END OF BOREHOLE	-300.1									

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	12.47

Log of Borehole 151

Project No. BRM-00038305-B0

Drawing No. 249

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 2

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 26, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

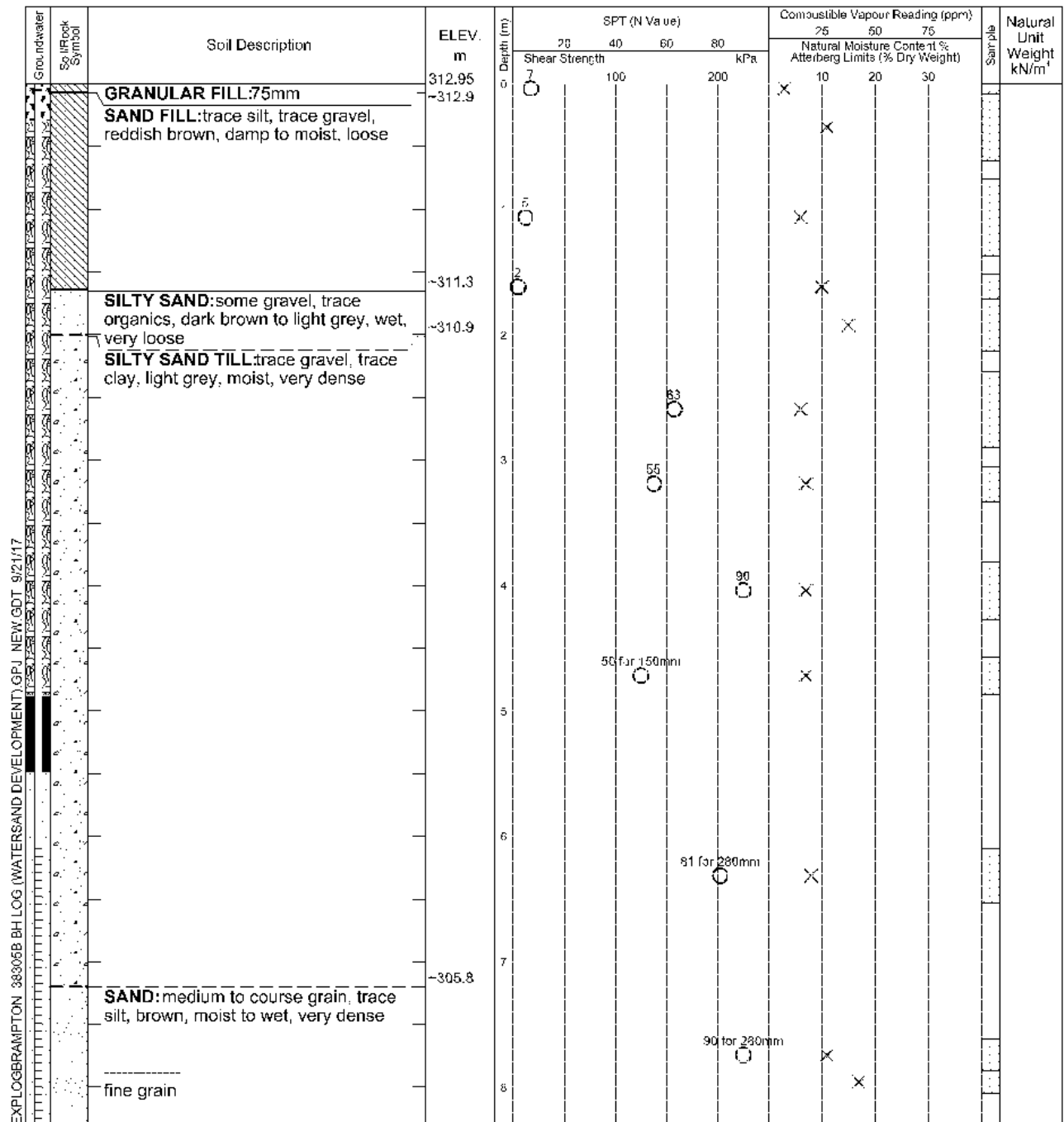
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	7.16	-
August 18, 2017	7.79	-



Log of Borehole 151

Project No. BRM-00038305-B0

Drawing No. 249

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 2 of 2

Groundwater	Soil/Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Value)				Combustible Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m³
					20	40	60	80	25	50	75		
					Shear Strength kPa				Natural Moisture Content % Atterberg Limits (% Dry Weight)				
					100			200	10	20	30		
		SILTY SAND TILL trace gravel, trace clay, light grey, wet, very dense	304.65 ~304.6	9									
		END OF BOREHOLE	~303.6										

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion August 18, 2017	7.16 7.79	- -

Log of Borehole 152

Project No. BRM-00038305-B0

Drawing No. 250

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 2

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 26, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

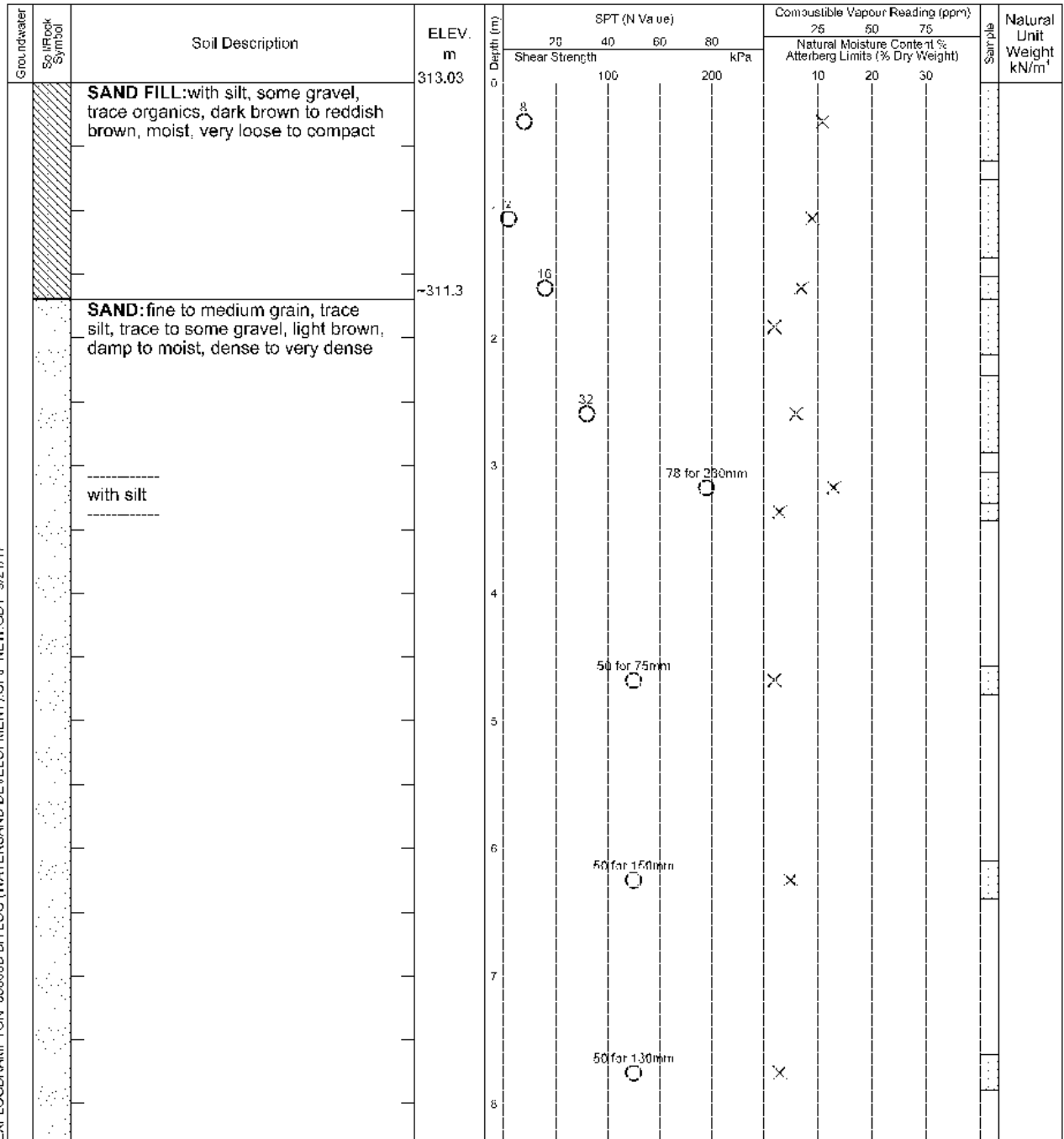
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Continued Next Page

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	9.14



Log of Borehole 152

Project No. BRM-00038305-B0

Drawing No. 250

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 2 of 2

Groundwater	Soil/Rock Symbol	Soil Description	ELEV. m	Depth (m)	SPT (N Va ue)			Comustible Vapour Reading (ppm)			Sample	Natural Unit Weight kN/m³
					20	40	60	25	50	75		
			304.73		Shear Strength kPa			Natural Moisture Content % Atterberg Limits (% Dry Weight)				
					100		200	10	20	30		
				9								
		END OF BOREHOLE	~303.9		50 for 150mm			X				

EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	9.14

Log of Borehole 153

Project No. BRM-00038305-B0

Drawing No. 251

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 26, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

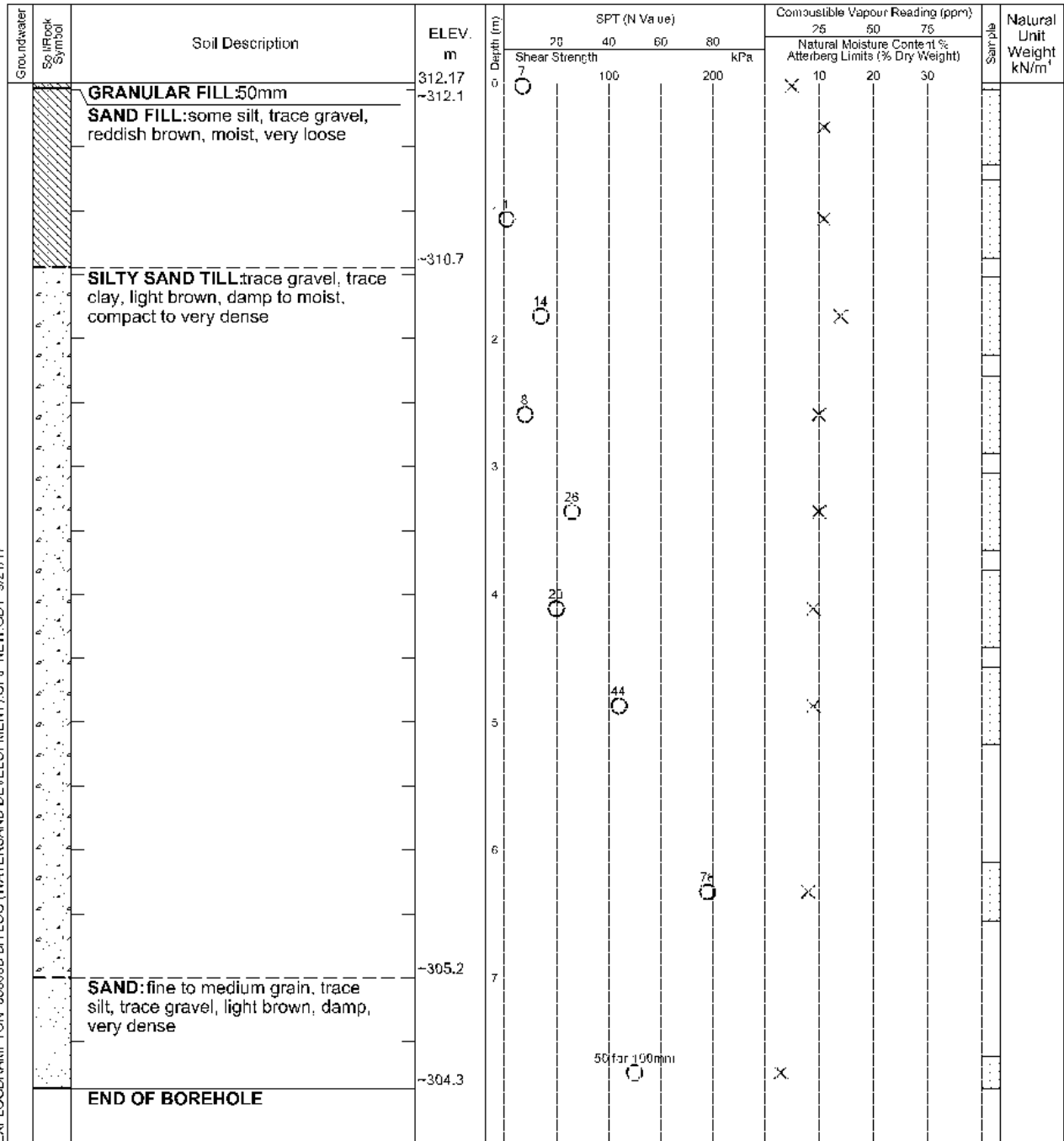
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	7.87

Log of Borehole 154

Project No. BRM-00038305-B0

Drawing No. 252

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 26, 2017

Auger Sample

SPT (N) Value

Drill Type: CME55 - Track Mount

Dynamic Cone Test

Shelby Tube

Datum: Geodetic

Field Vane Test

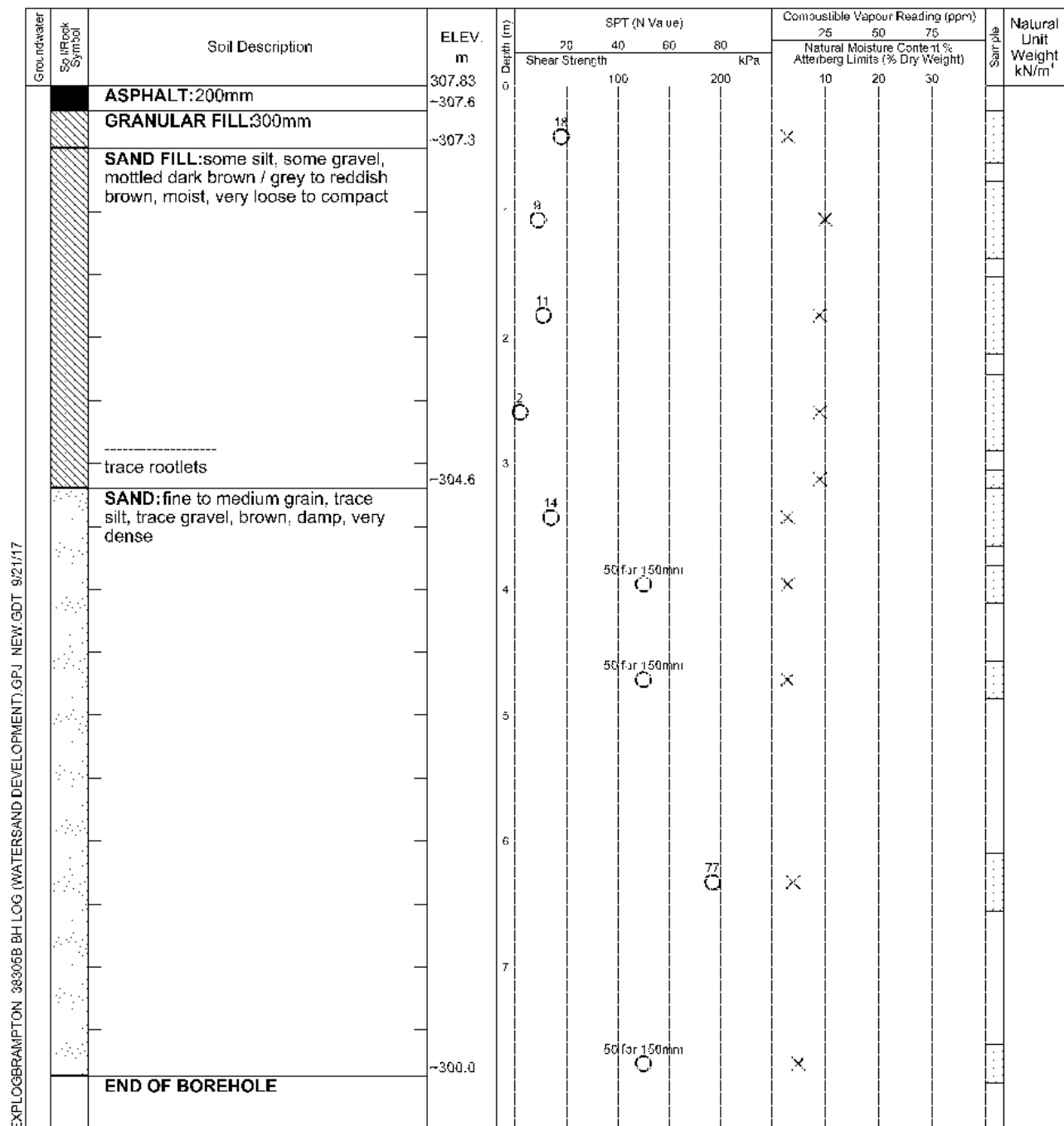
Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
7% Strain at Failure

Penetrometer



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	7.92



Log of Borehole 155

Project No. BRM-00038305-B0

Drawing No. 253

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 26, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

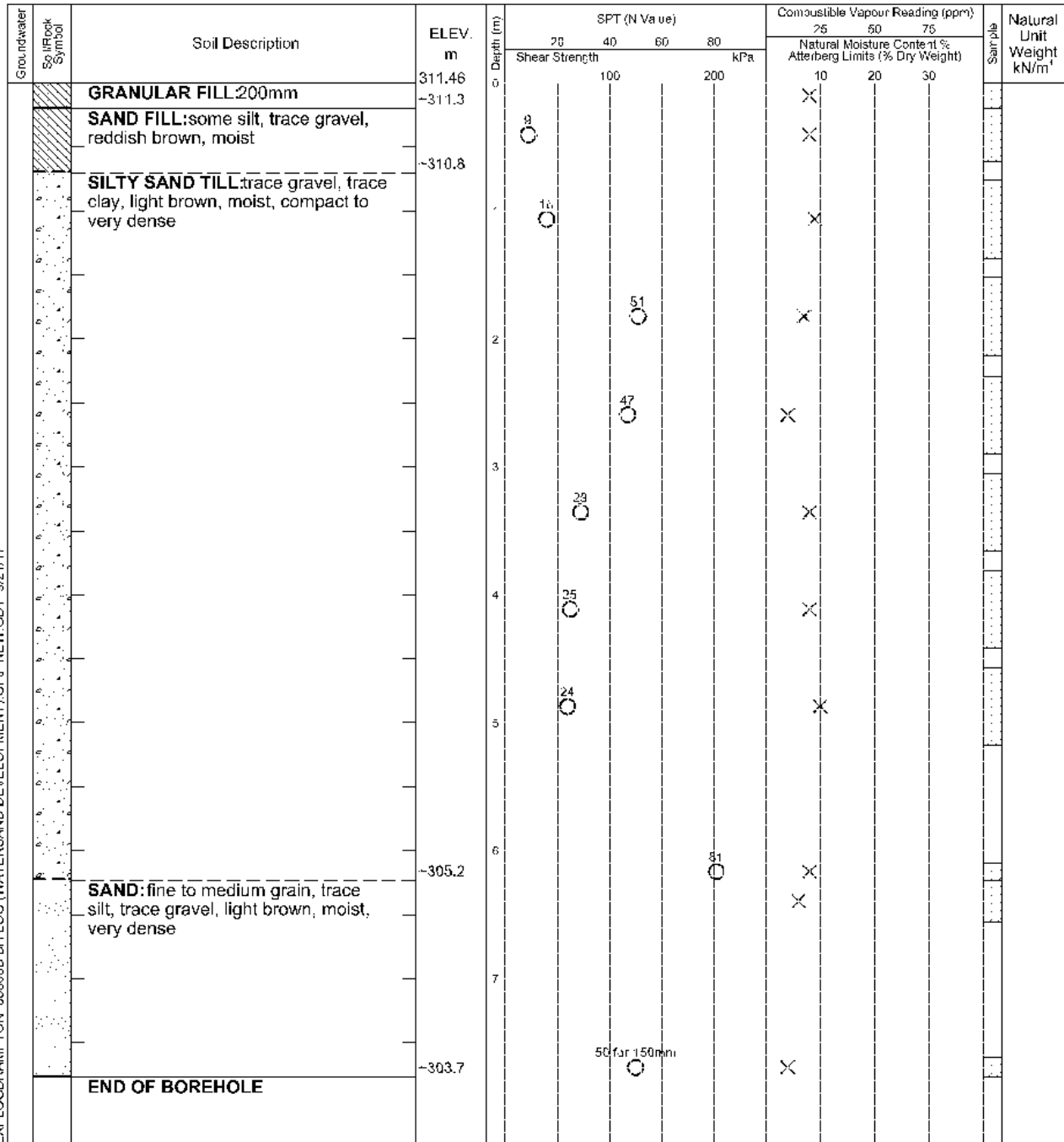
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	7.77

Log of Borehole 156

Project No. BRM-00038305-B0

Drawing No. 254

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 26, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

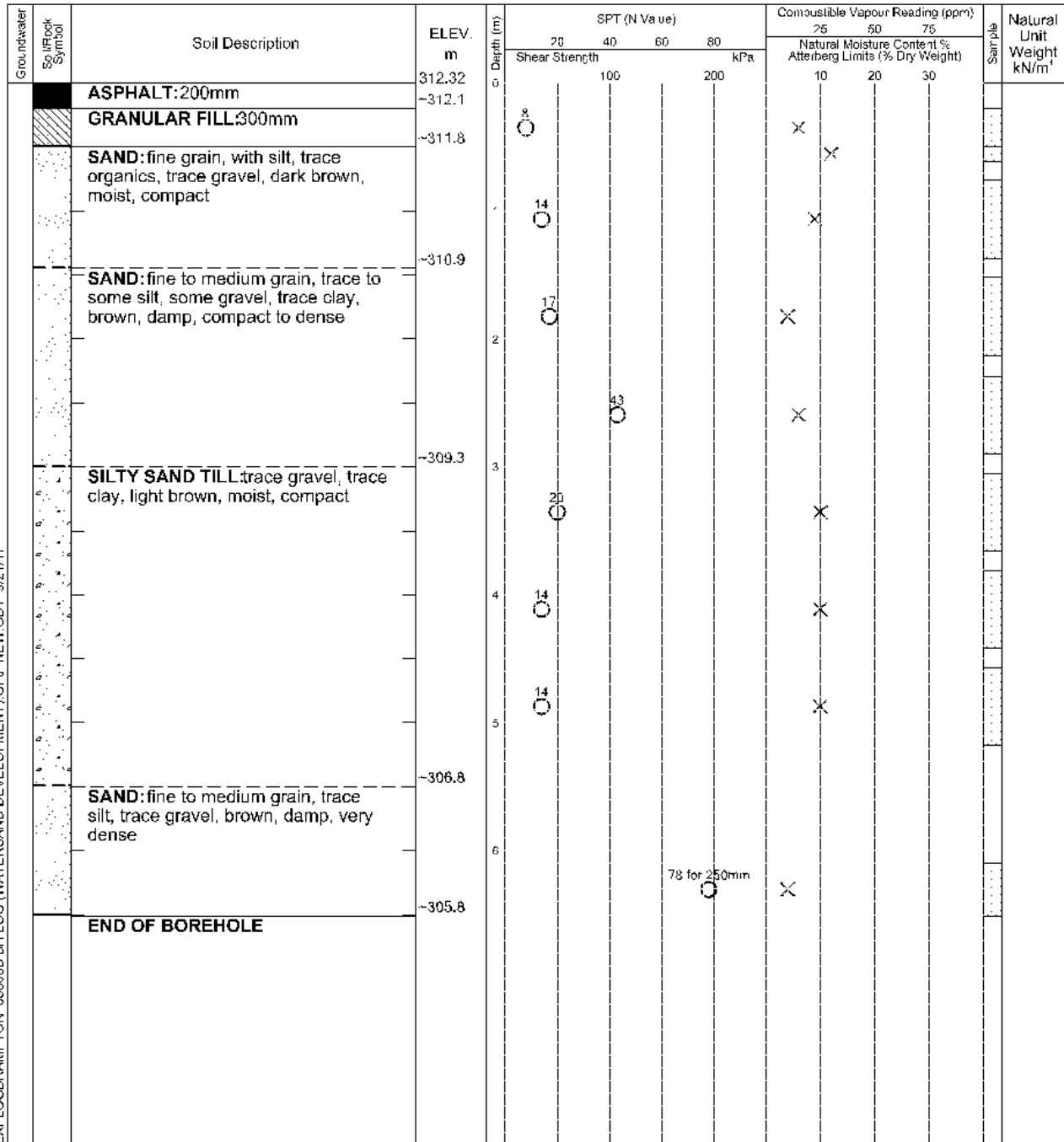
Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.10

Log of Borehole 157

Project No. BRM-00038305-B0

Drawing No. 255

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 26, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

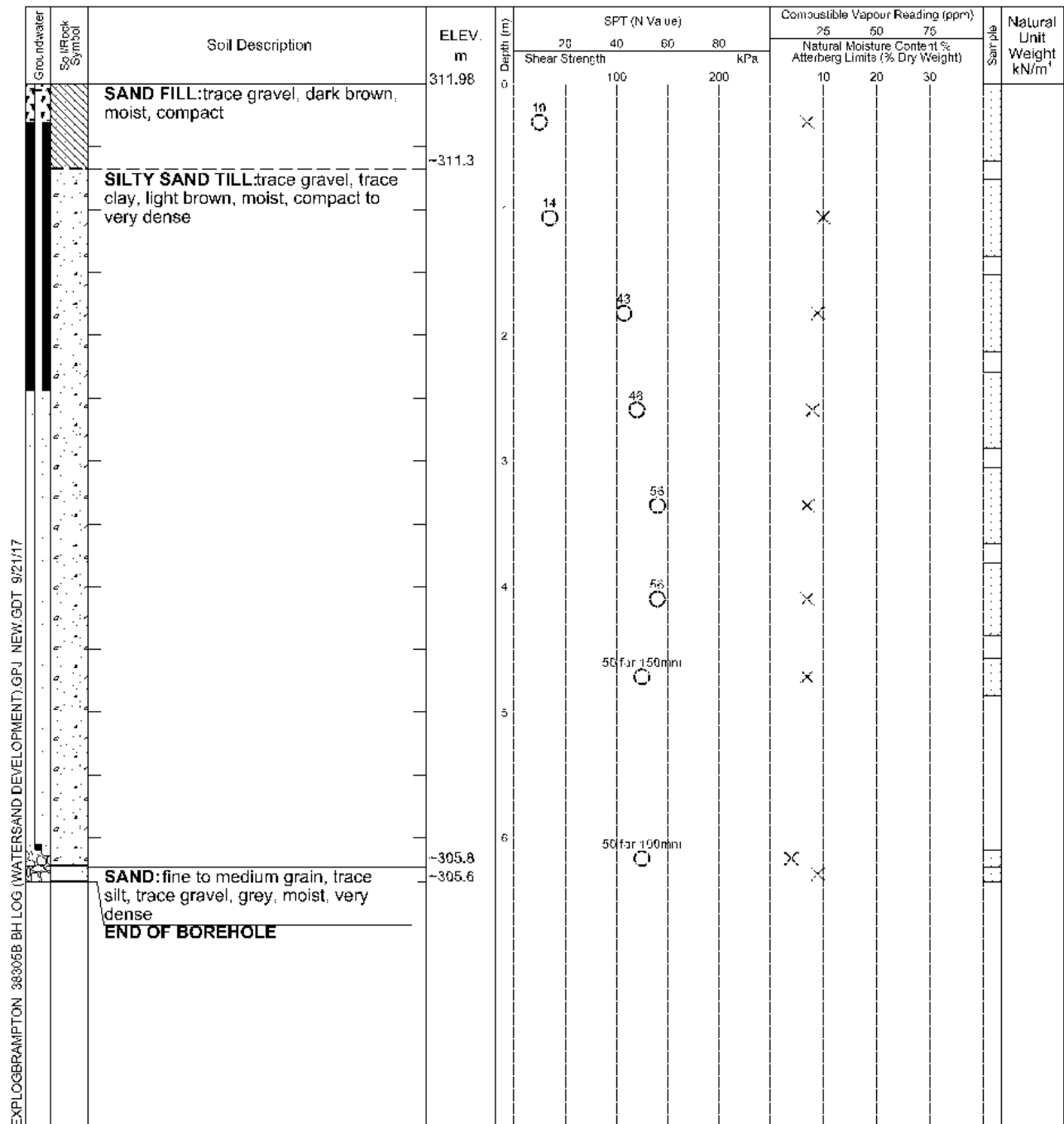
Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion August 18, 2017	Dry Dry	- -

Log of Borehole 158

Project No. BRM-00038305-B0

Drawing No. 256

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 27, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

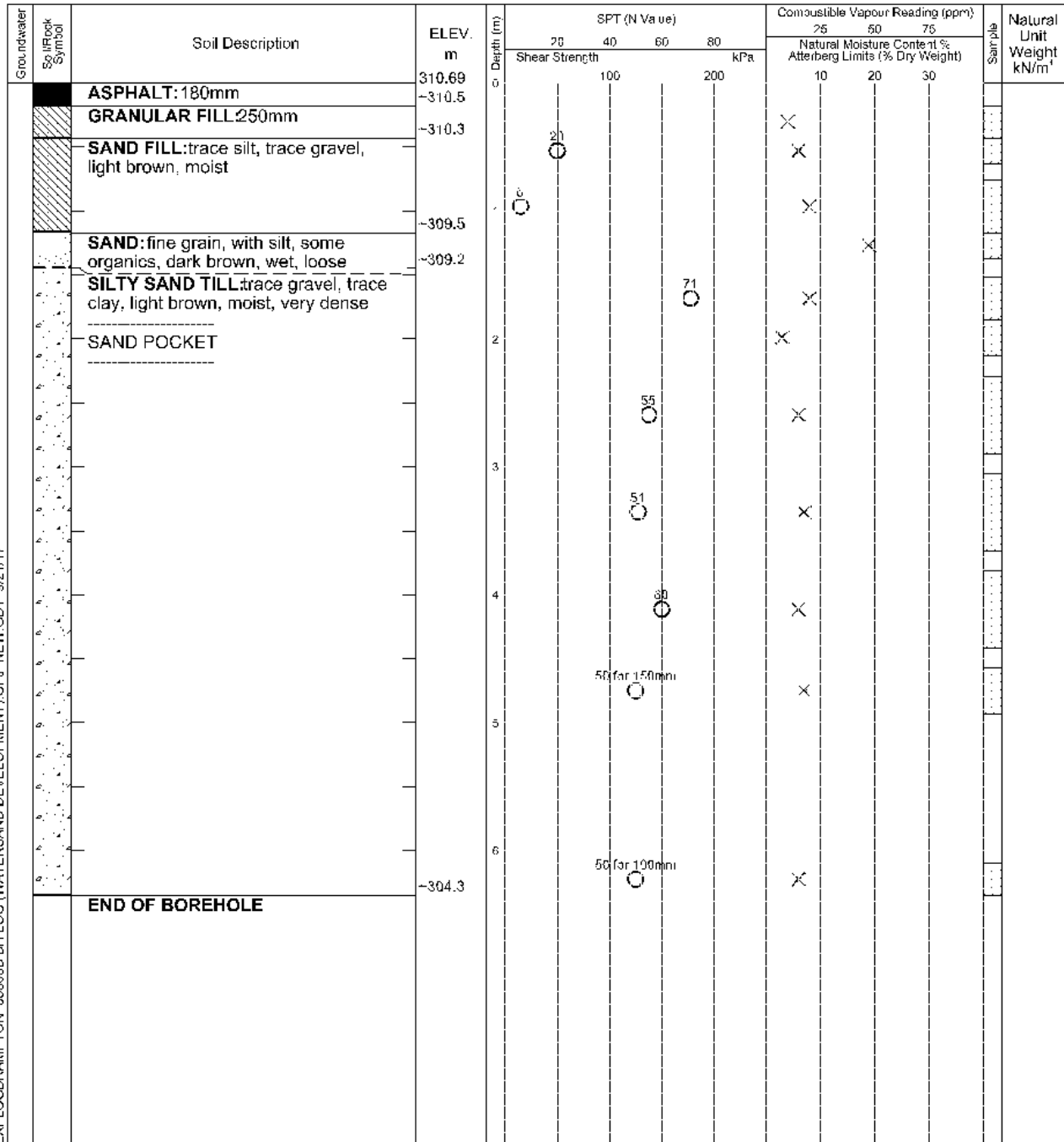
Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Datum: Geodetic



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.35



Log of Borehole 159

Project No. BRM-00038305-B0

Drawing No. 257

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 27, 2017

Auger Sample

SPT (N) Value

Drill Type: CME55 - Track Mount

Dynamic Cone Test

Shelby Type

Datum: Geodetic

Field Vane Test

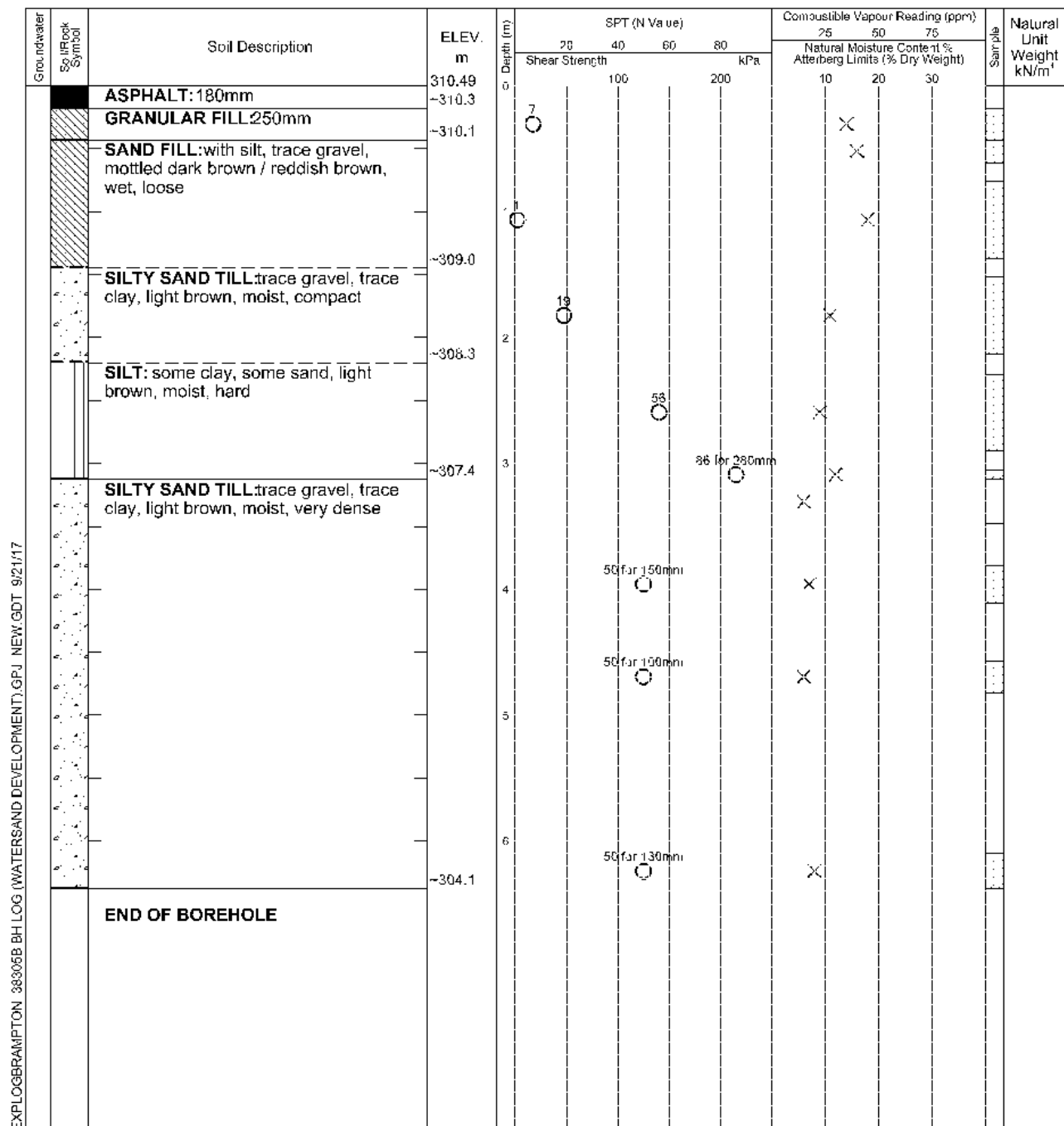
Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
7% Strain at Failure

Penetrometer



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.38



Log of Borehole E7

Project No. BRM-00038305-B0

Drawing No. 258

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 27, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

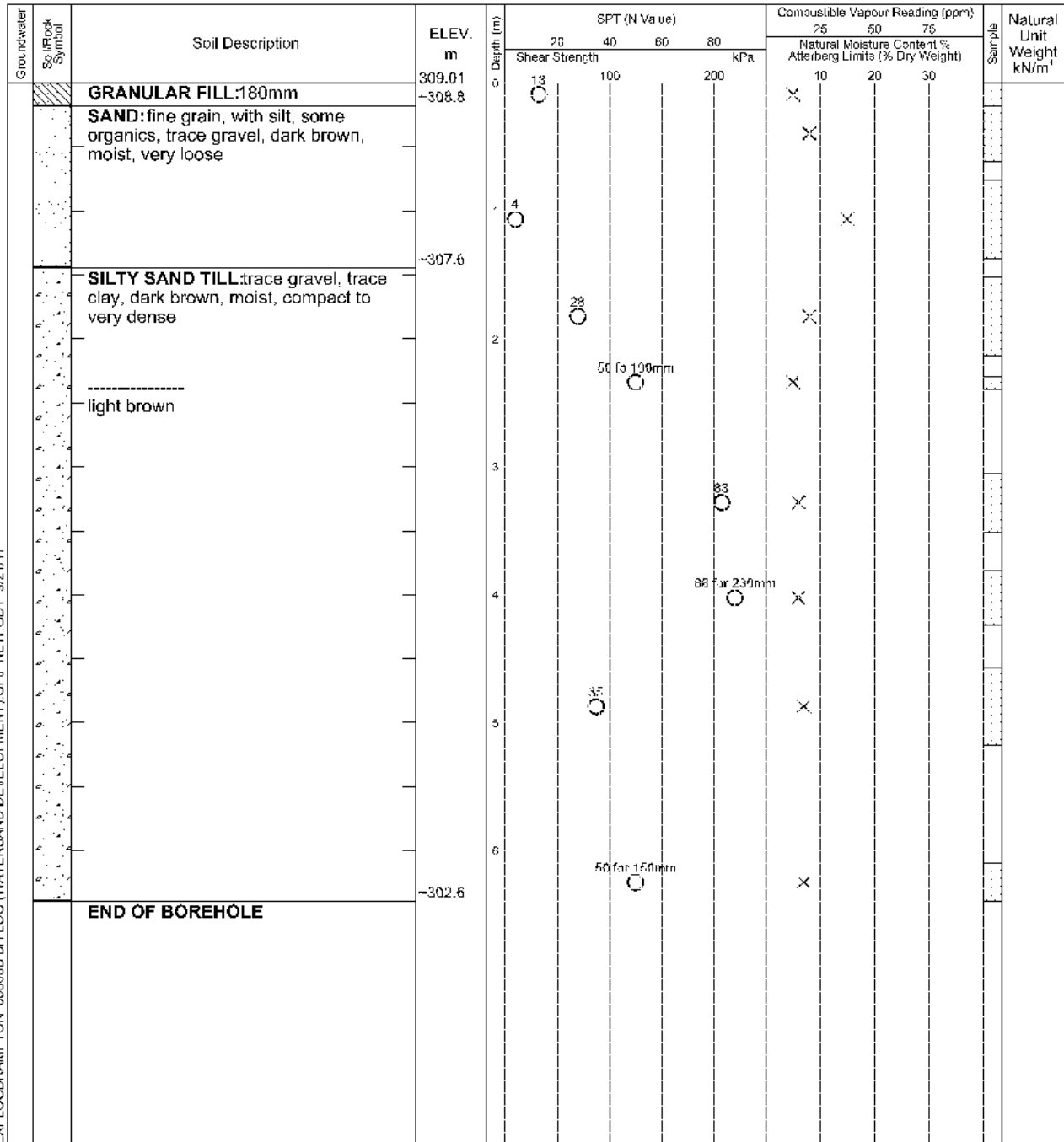
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17

Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.4



Log of Borehole E24

Project No. BRM-00038305-B0

Drawing No. 259

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 27, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

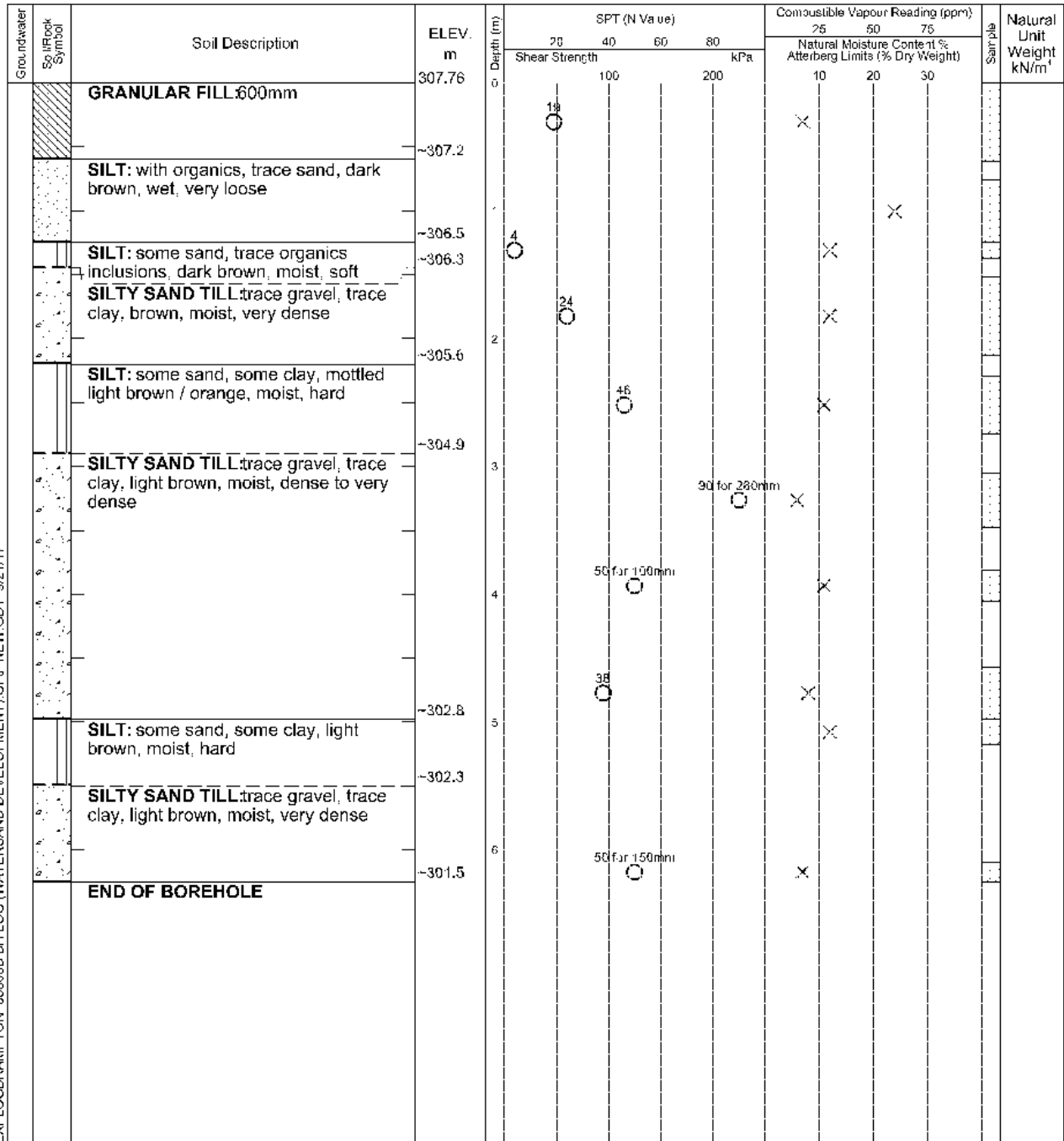
Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at
% Strain at Failure

Penetrometer

Datum: Geodetic



EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.25

Log of Borehole E43

Project No. BRM-00038305-B0

Drawing No. 260

Project: Geotechnical and Hydrogeological Investigation

Sheet No. 1 of 1

Location: McKay Road West & Veterans Drive, Barrie

Proposed Watersand Development

Date Drilled: July 27, 2017

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

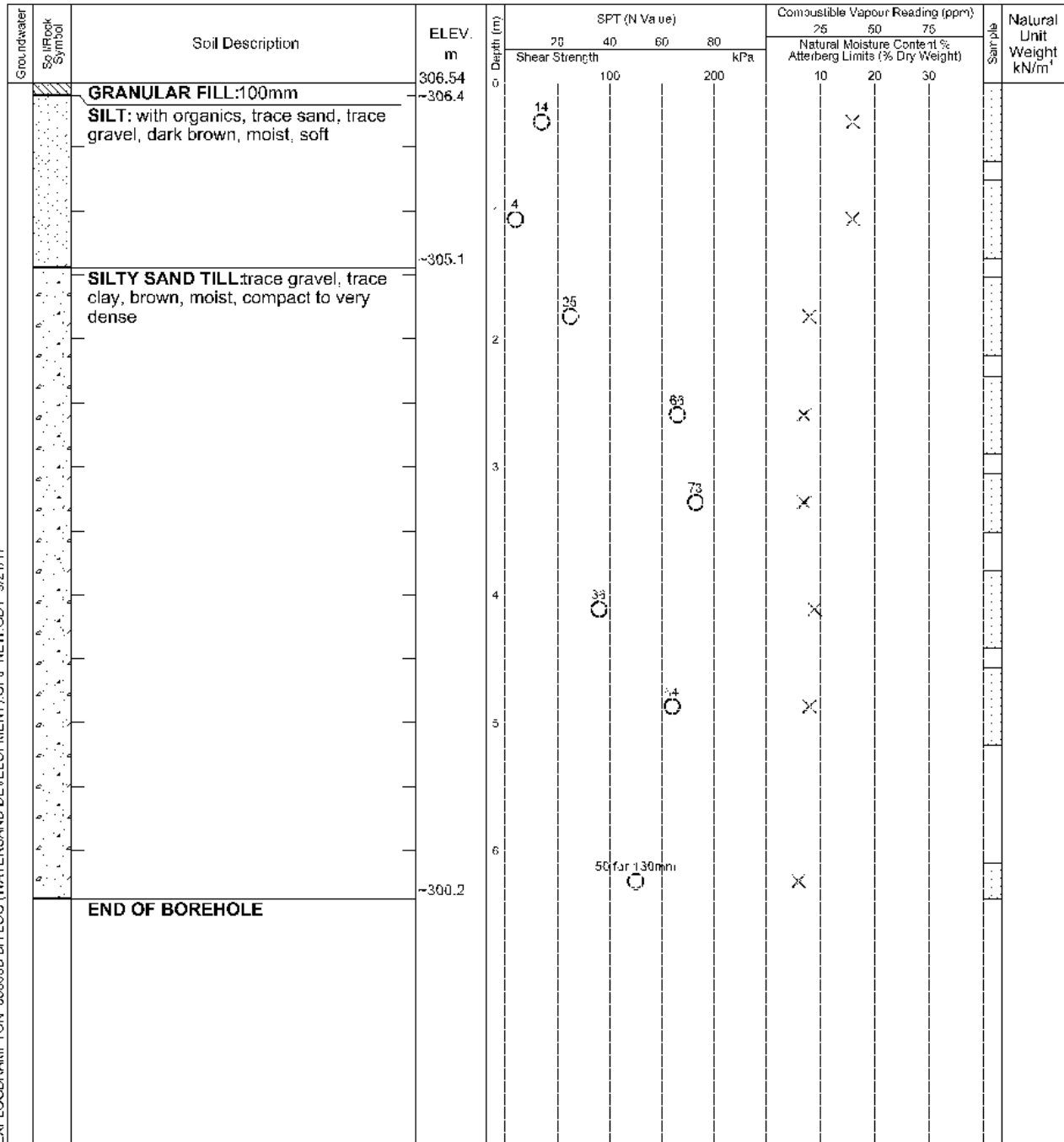
Undrained Triaxial at

% Strain at Failure

Penetrometer

Drill Type: CME55 - Track Mount

Datum: Geodetic

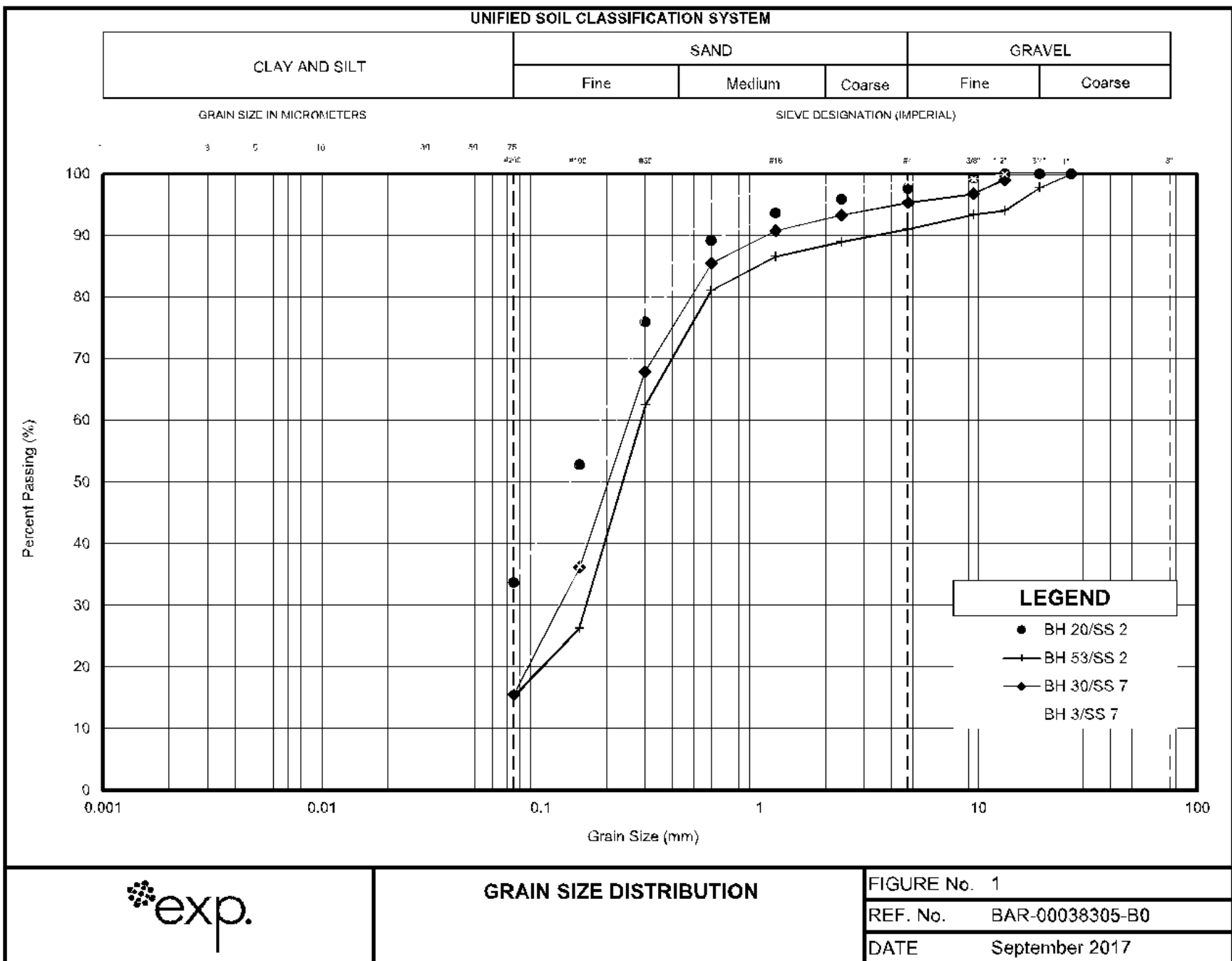


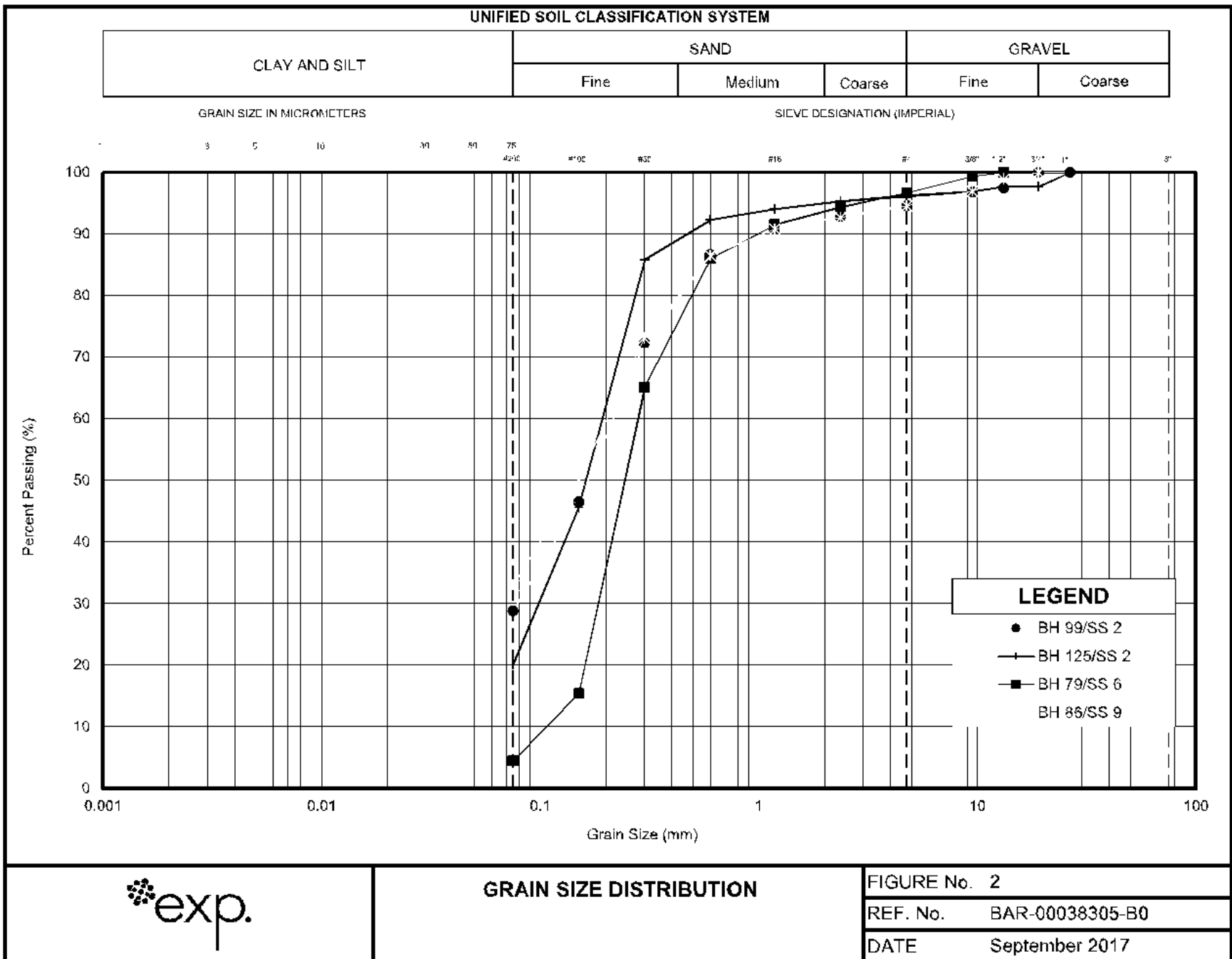
EXPLOGBRAMPTON 38305B BH LOG (WATERSAND DEVELOPMENT).GPJ NEW.GDT 9/21/17



Elapsed Time	Water Level (m)	Hole Open to (m)
Upon Completion	Dry	6.38

Appendix A: Grain Size Analyses



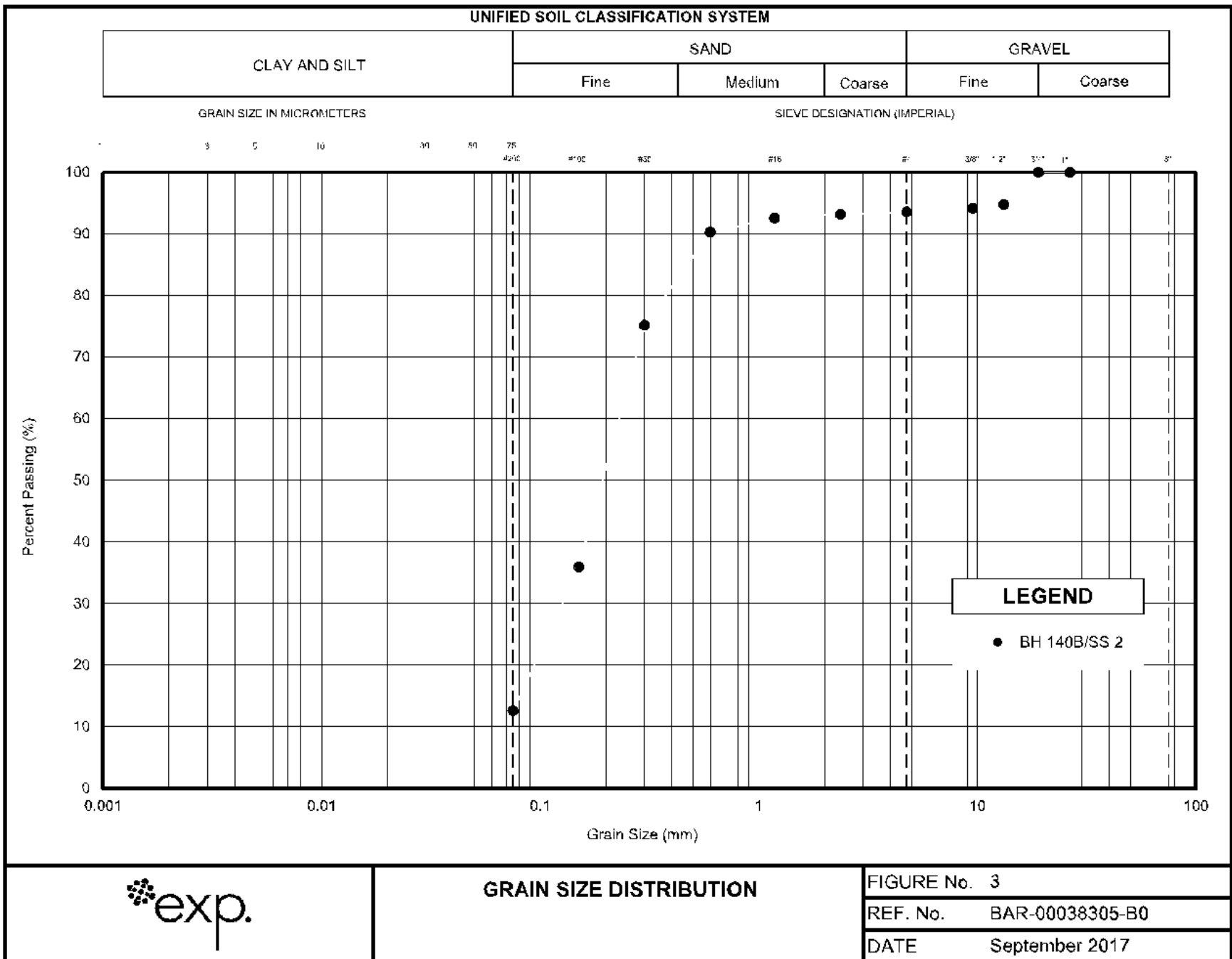


GRAIN SIZE DISTRIBUTION

FIGURE No. 2

REF. No. BAR-00038305-B0

DATE September 2017

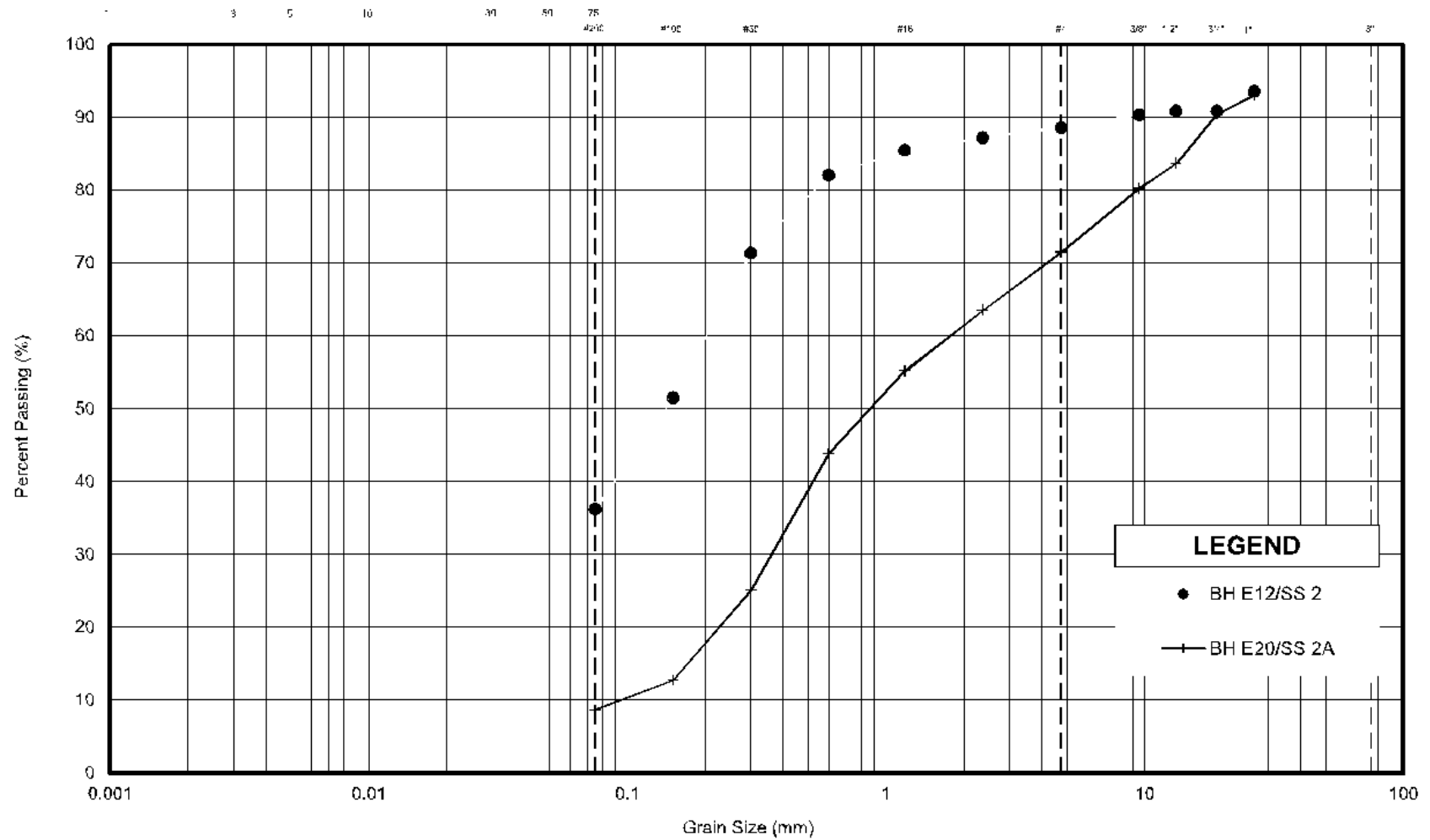


UNIFIED SOIL CLASSIFICATION SYSTEM

CLAY AND SILT	SAND			GRAVEL	
	Fine	Medium	Coarse	Fine	Coarse

GRAIN SIZE IN MICROMETERS

SIEVE DESIGNATION (IMPERIAL)

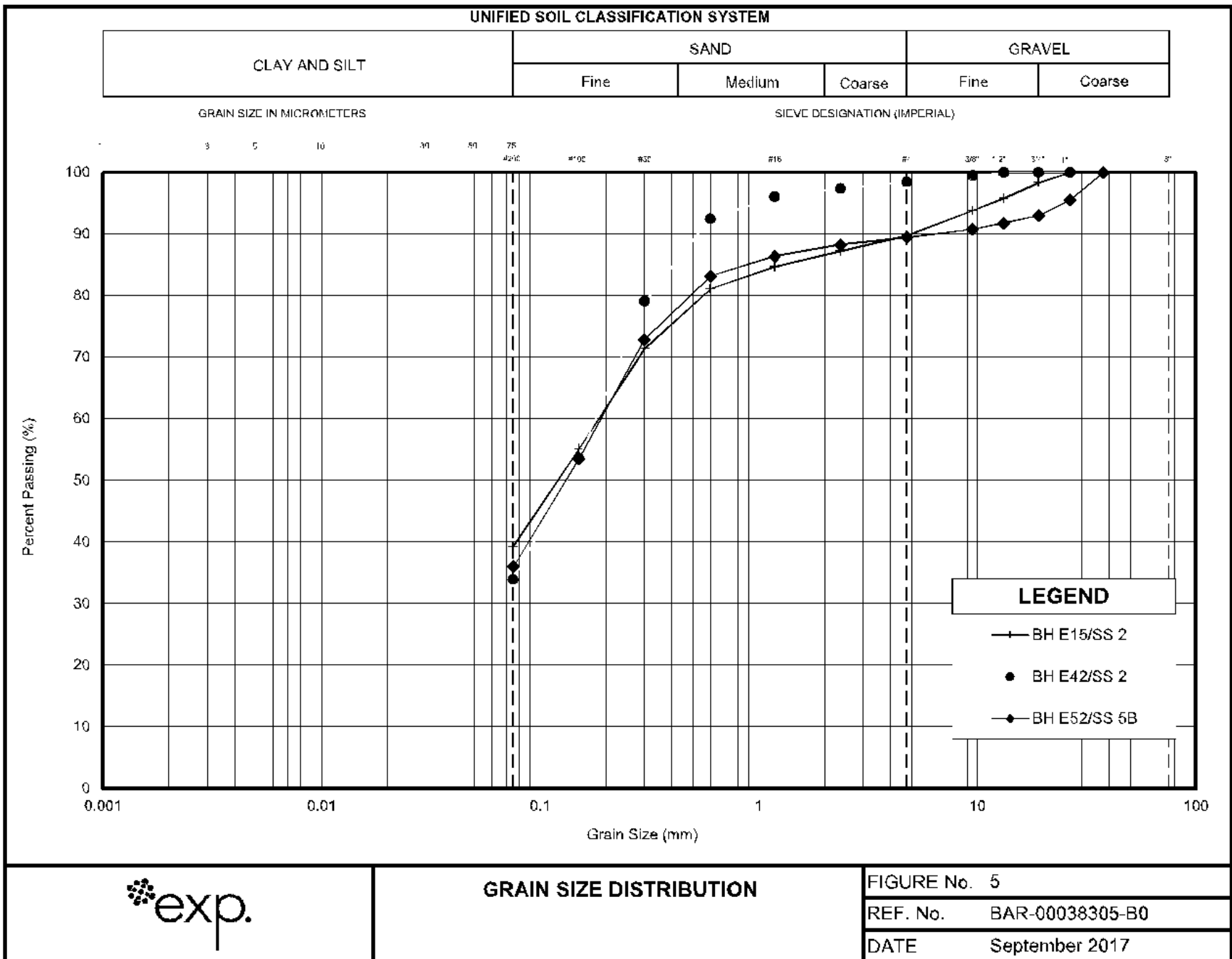


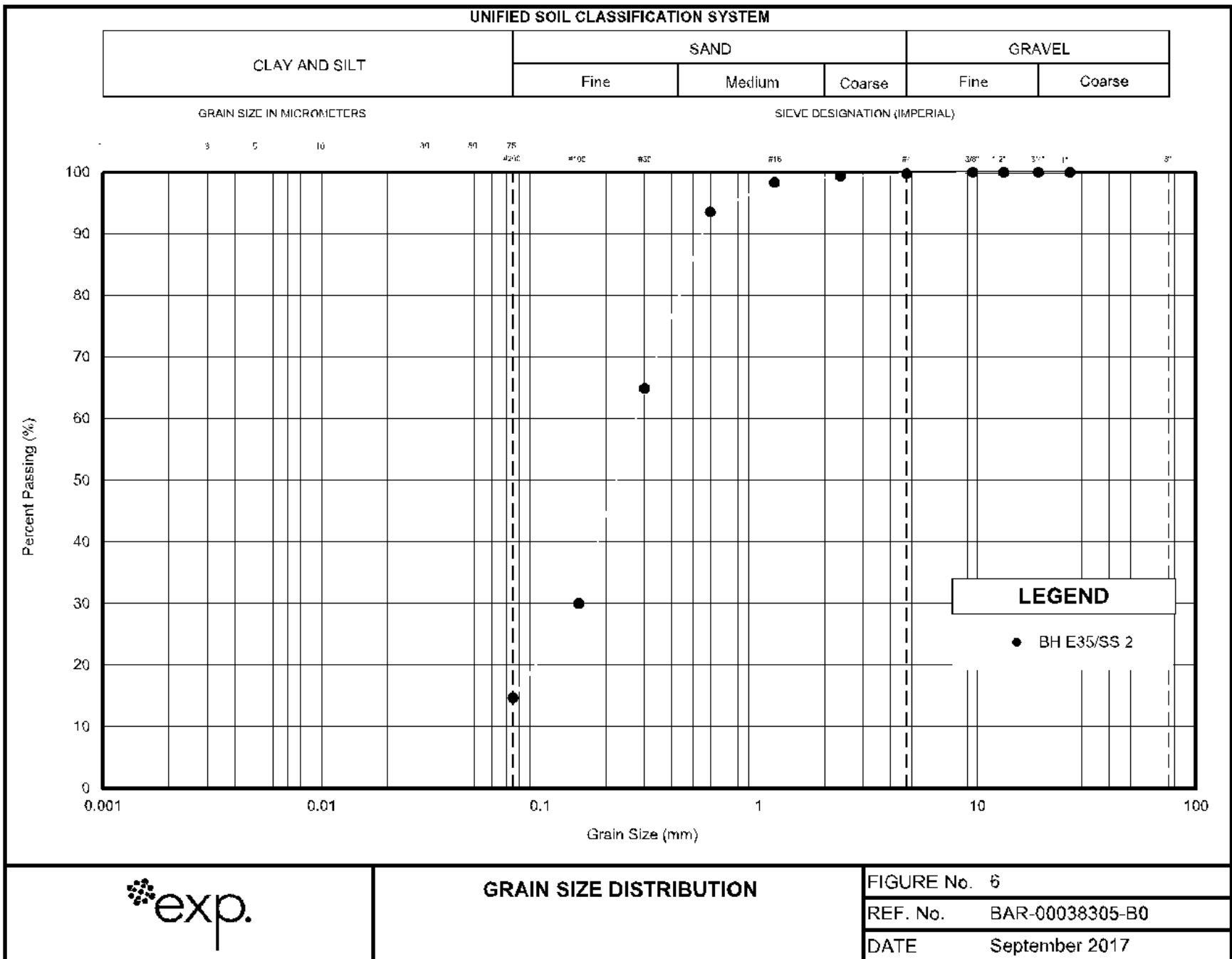
GRAIN SIZE DISTRIBUTION

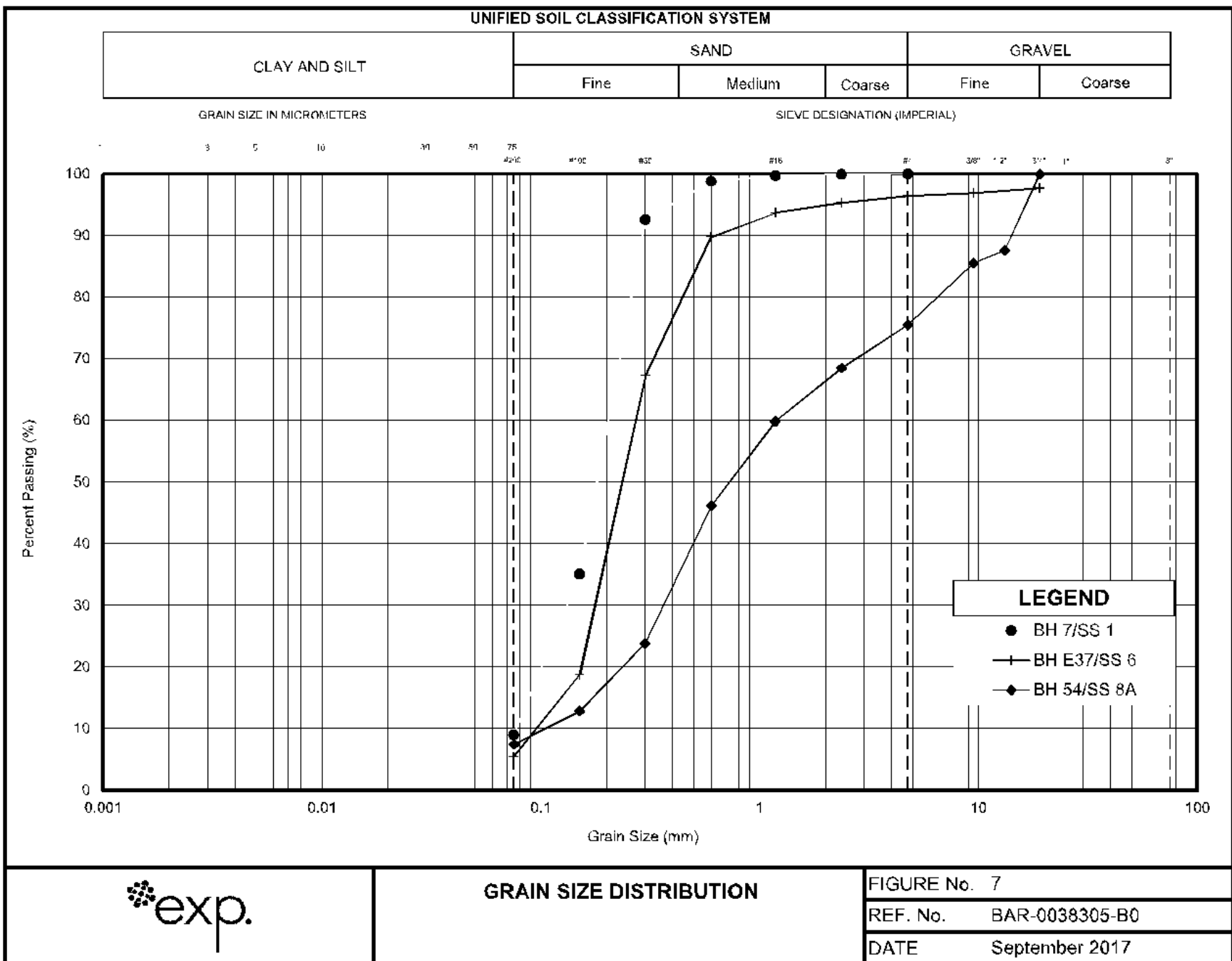
FIGURE No. 4

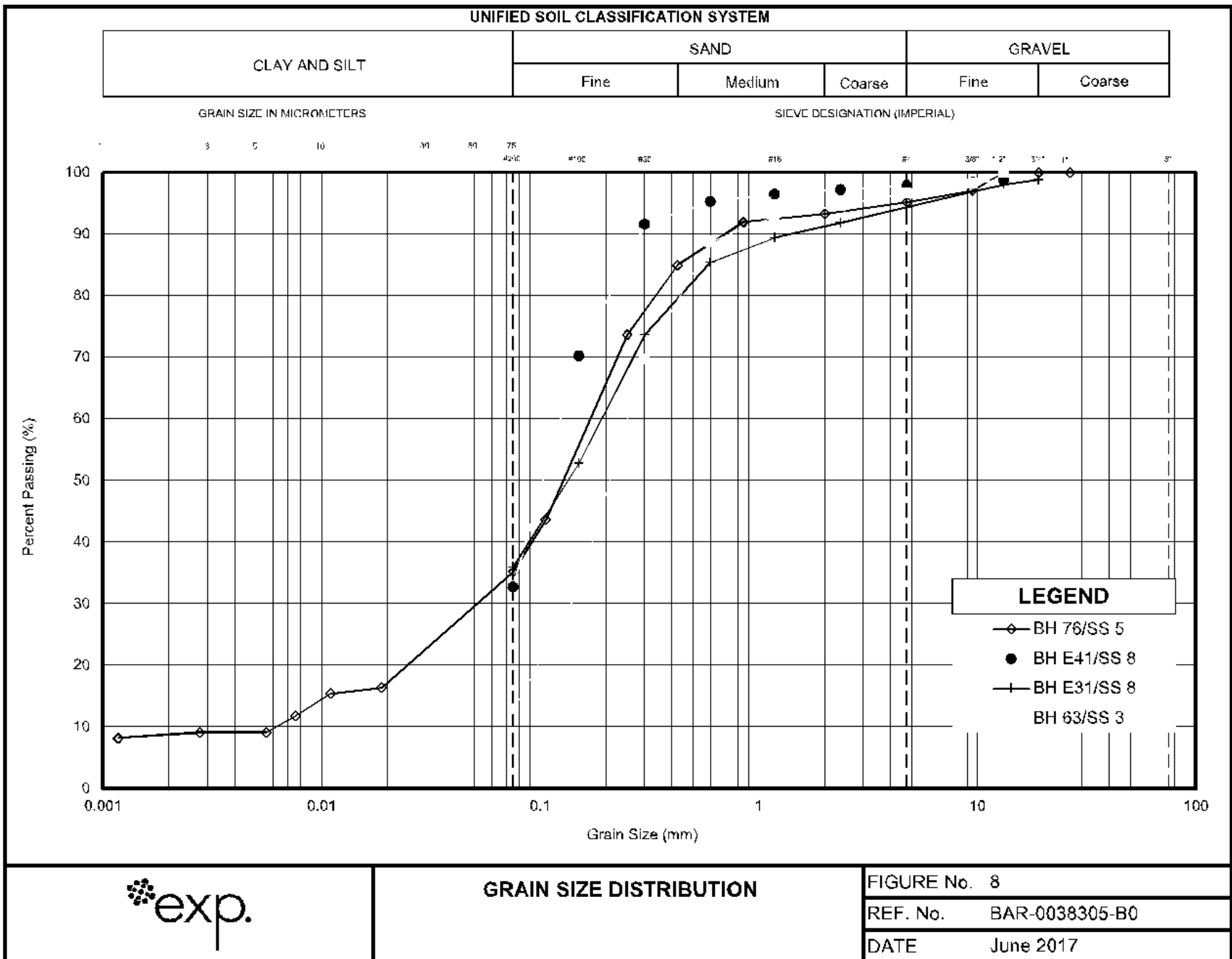
REF. No. BAR-00038305-B0

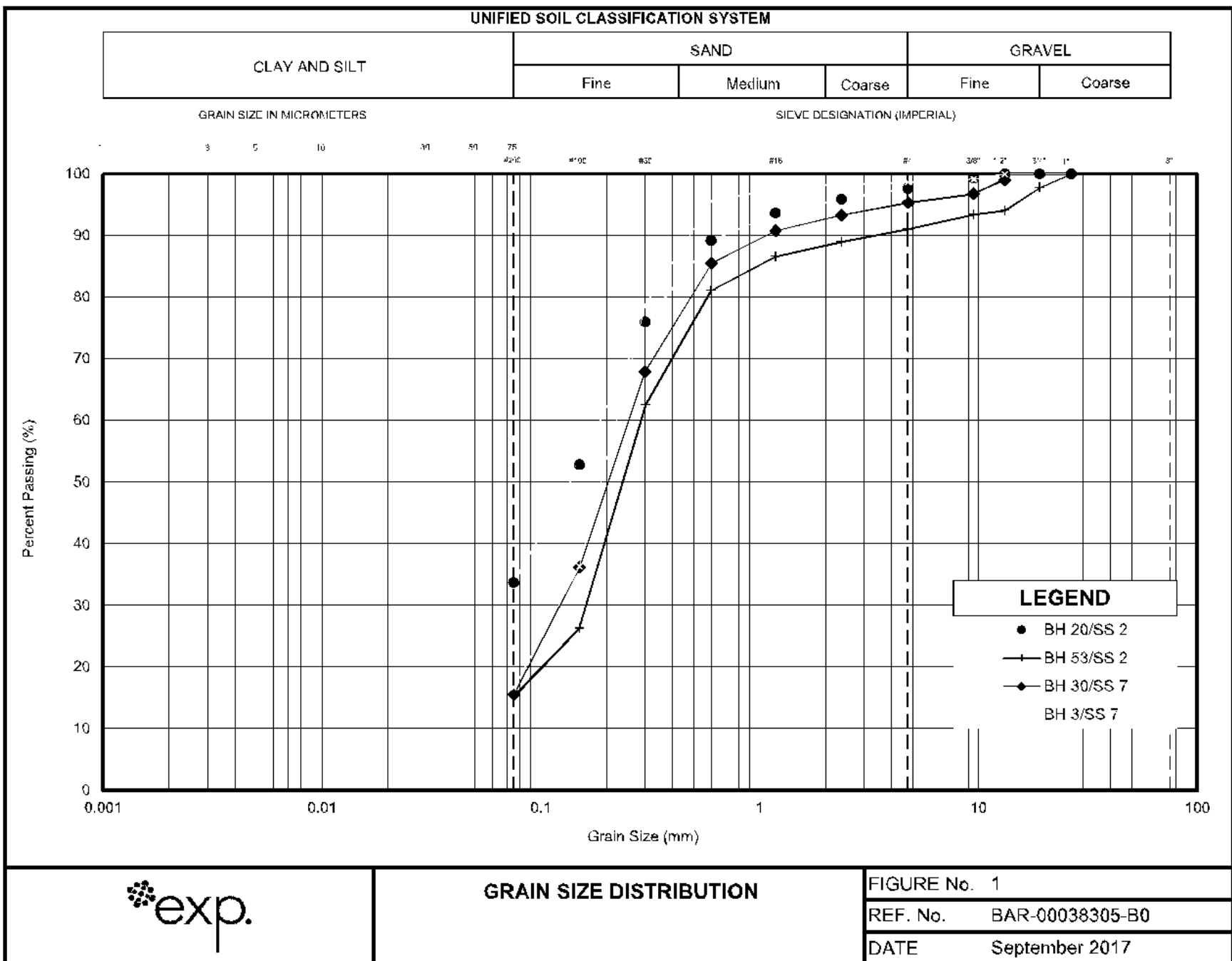
DATE September 2017

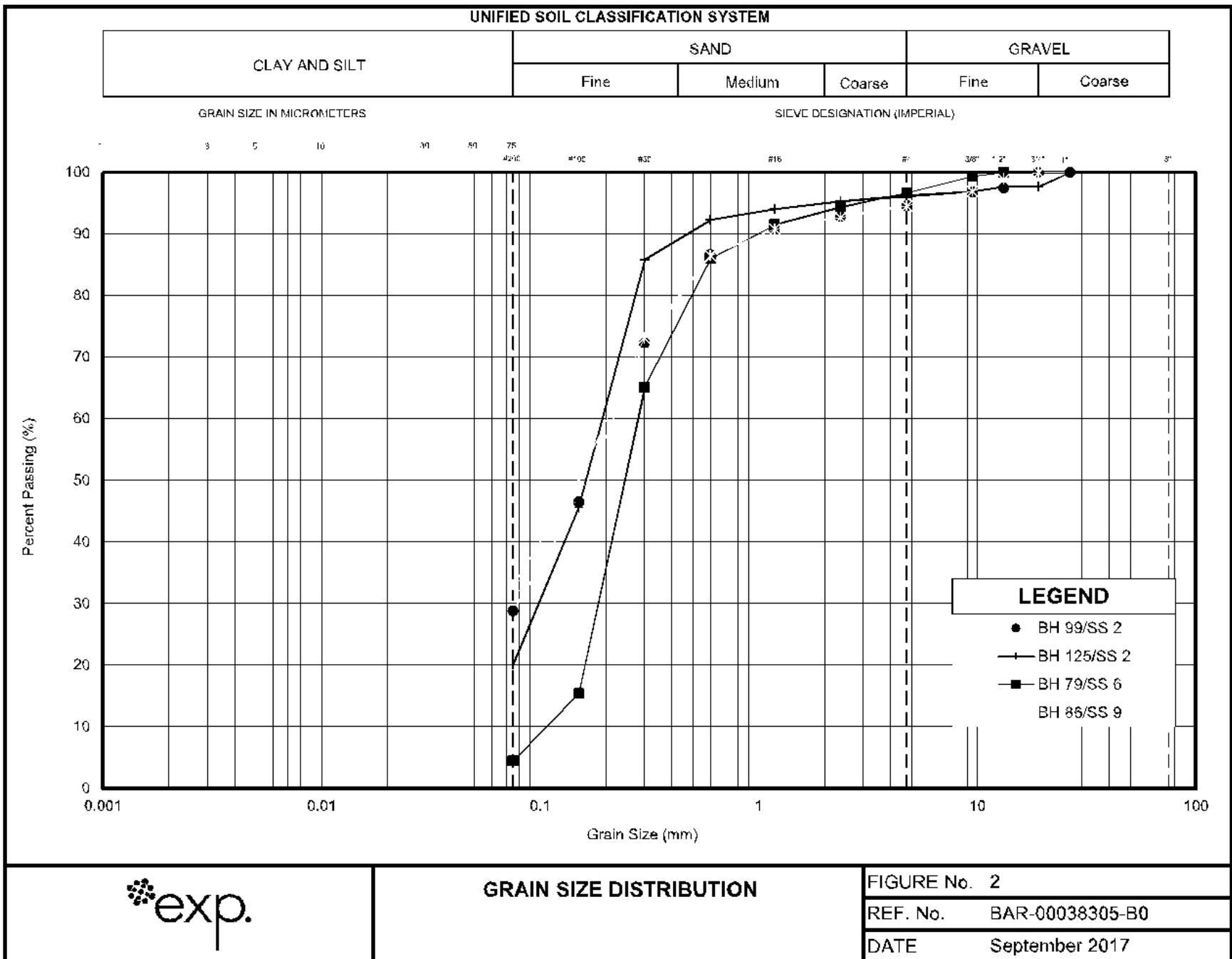


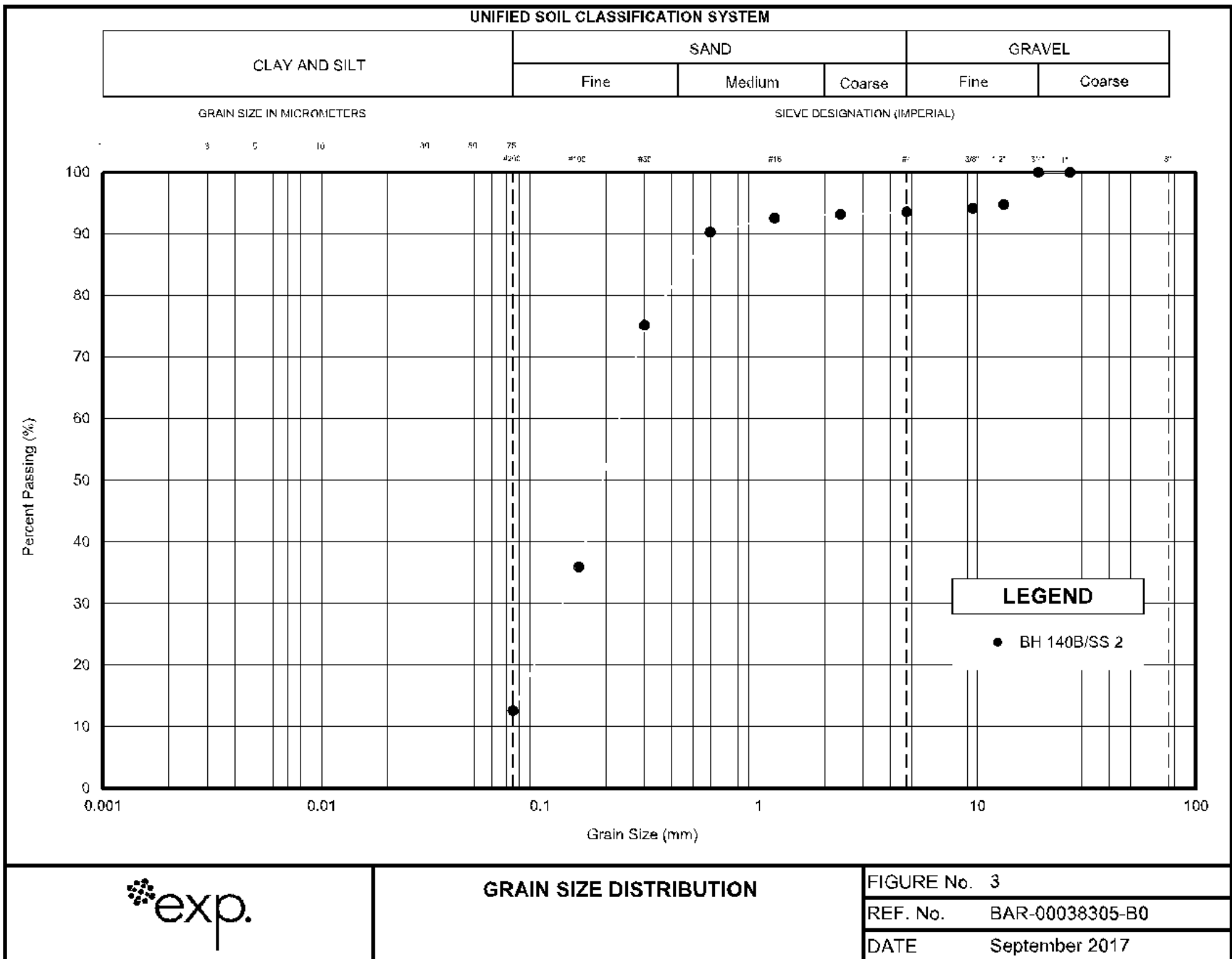










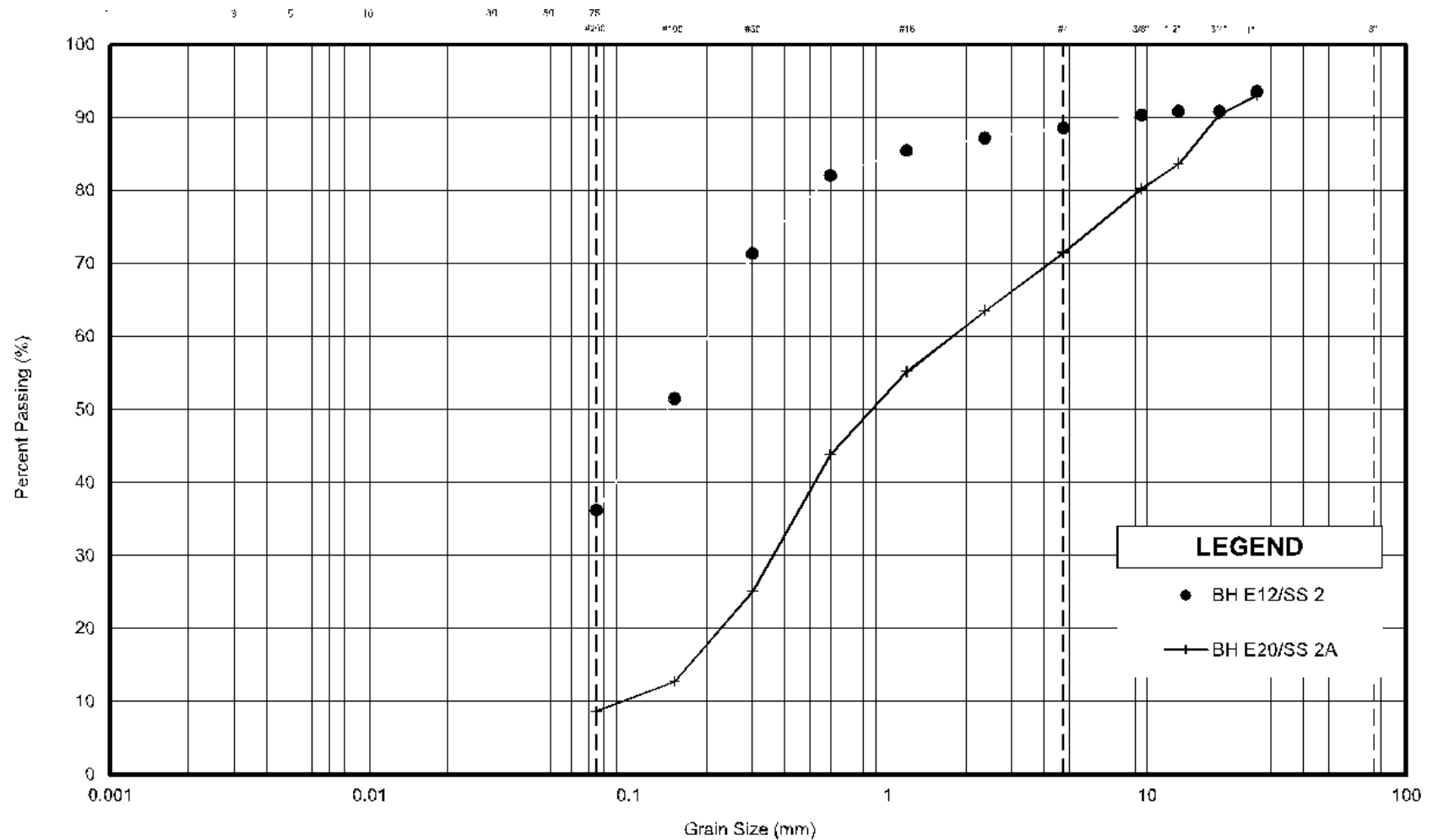


UNIFIED SOIL CLASSIFICATION SYSTEM

CLAY AND SILT	SAND			GRAVEL	
	Fine	Medium	Coarse	Fine	Coarse

GRAIN SIZE IN MICROMETERS

SIEVE DESIGNATION (IMPERIAL)

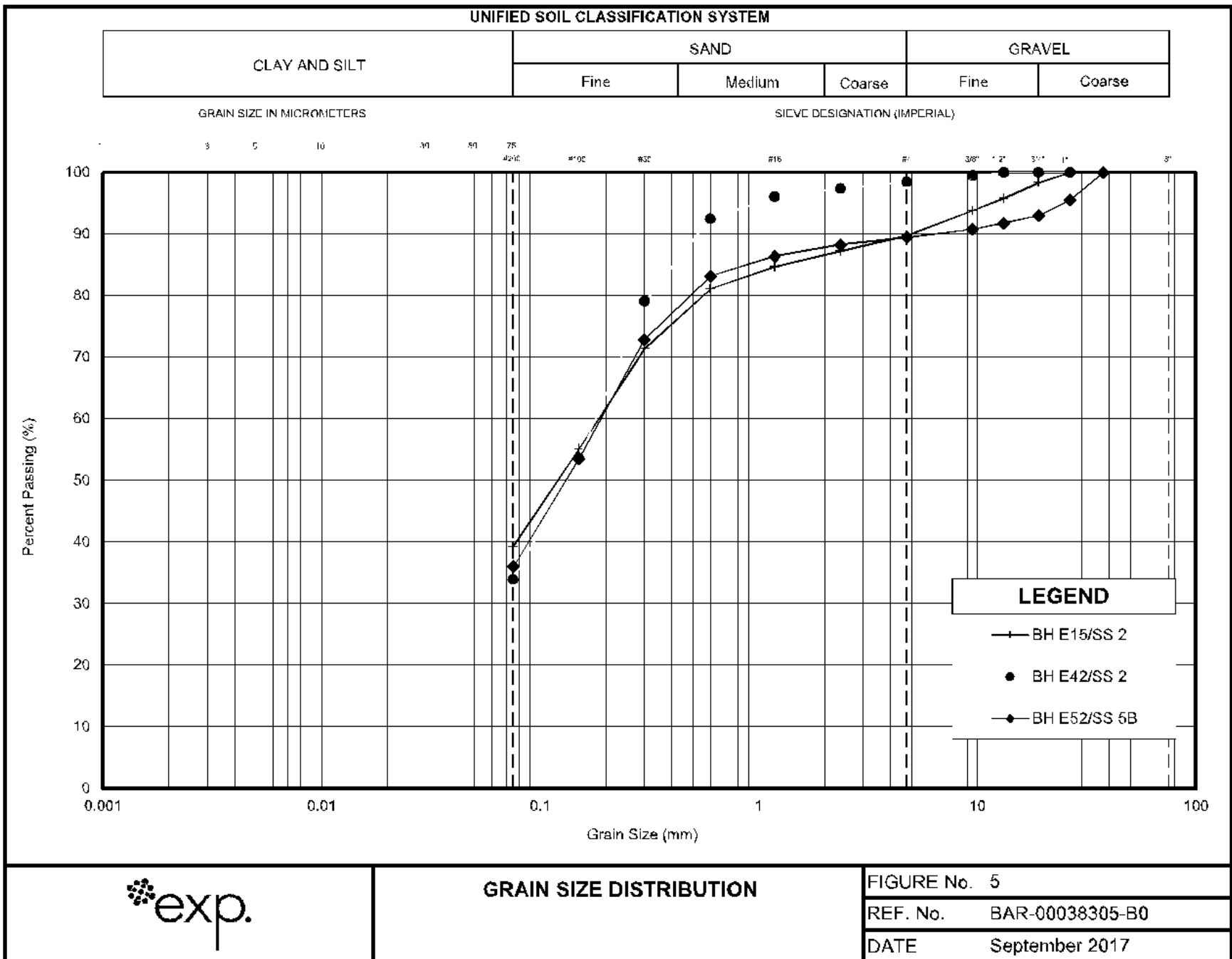


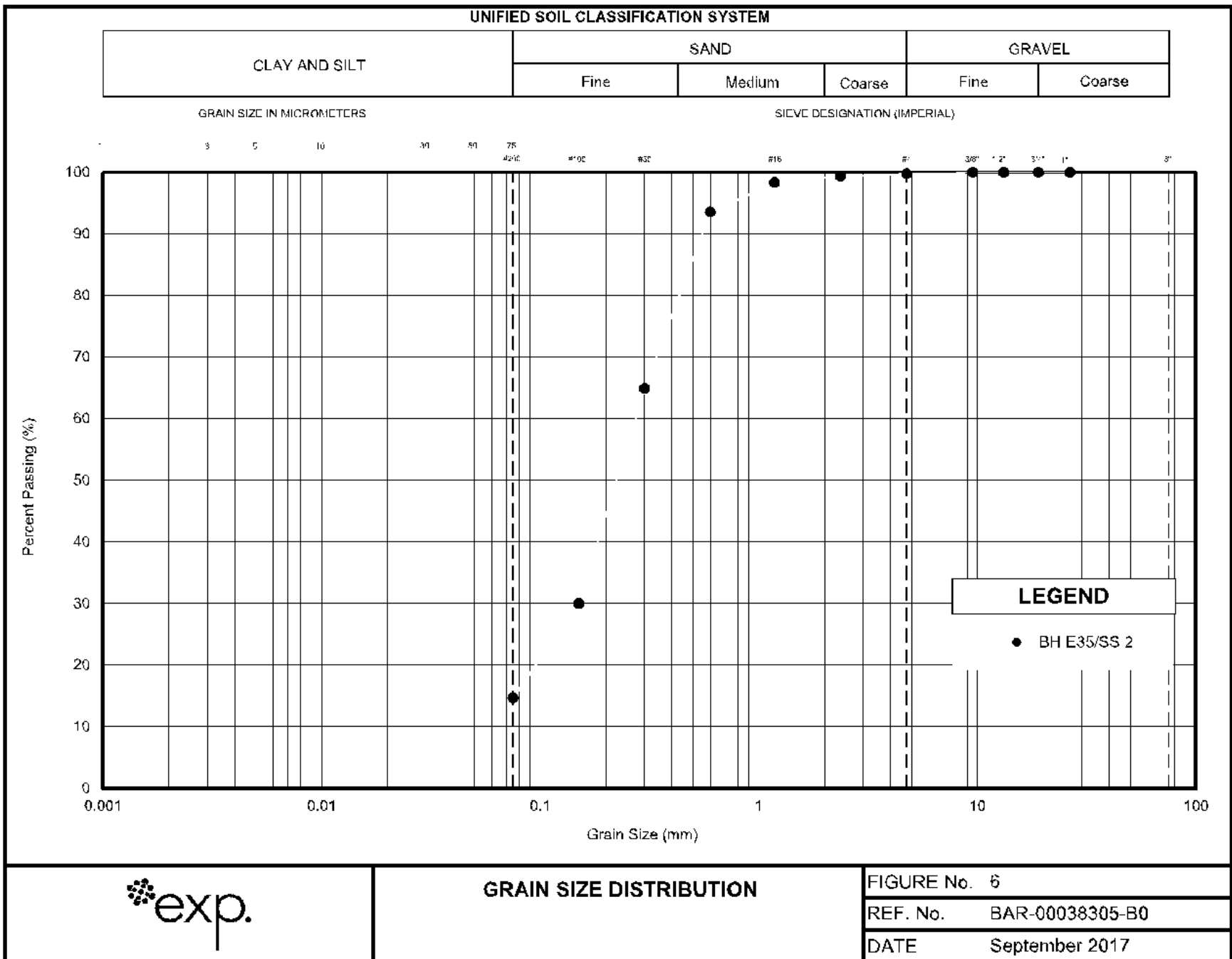
GRAIN SIZE DISTRIBUTION

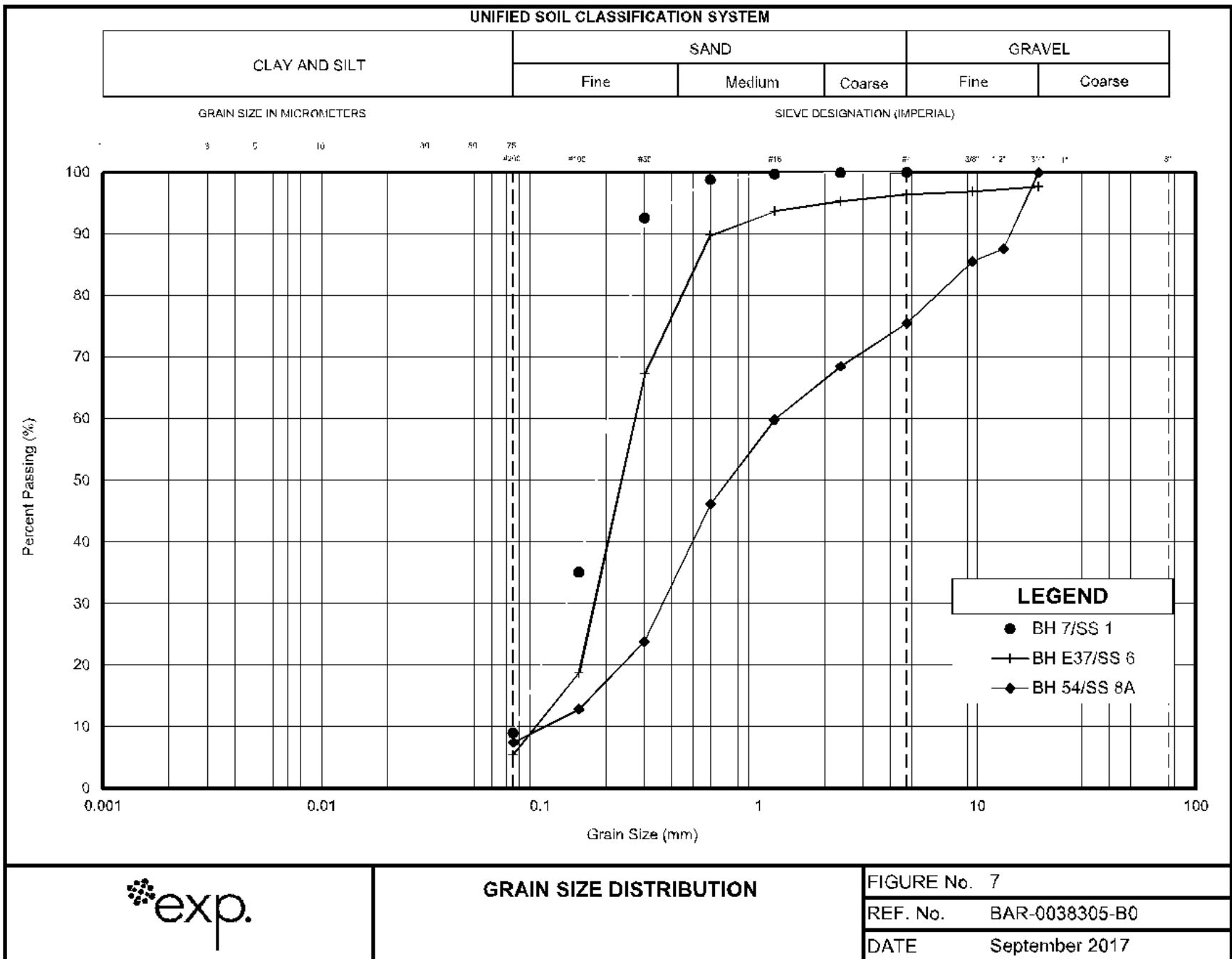
FIGURE No. 4

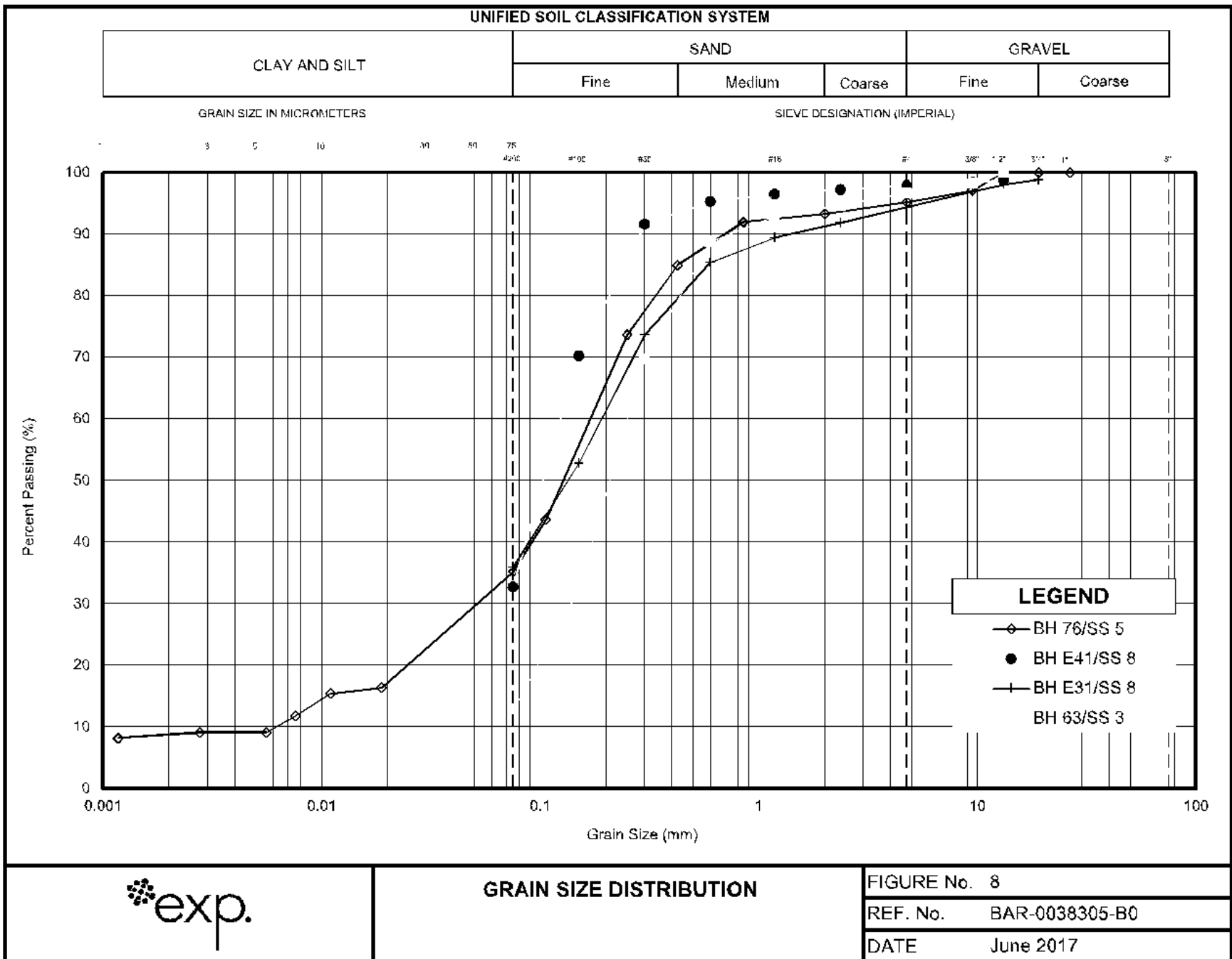
REF. No. BAR-00038305-B0

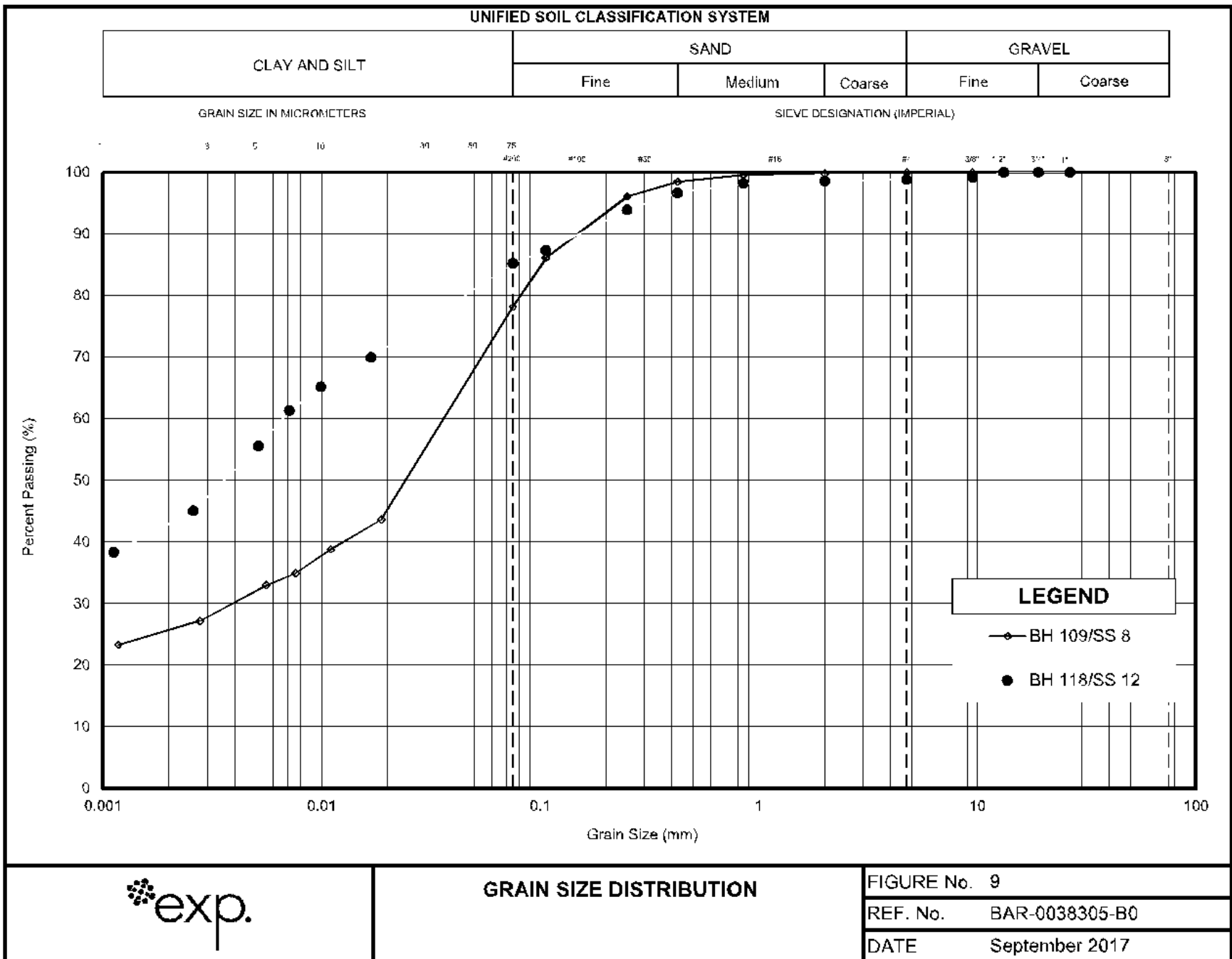
DATE September 2017

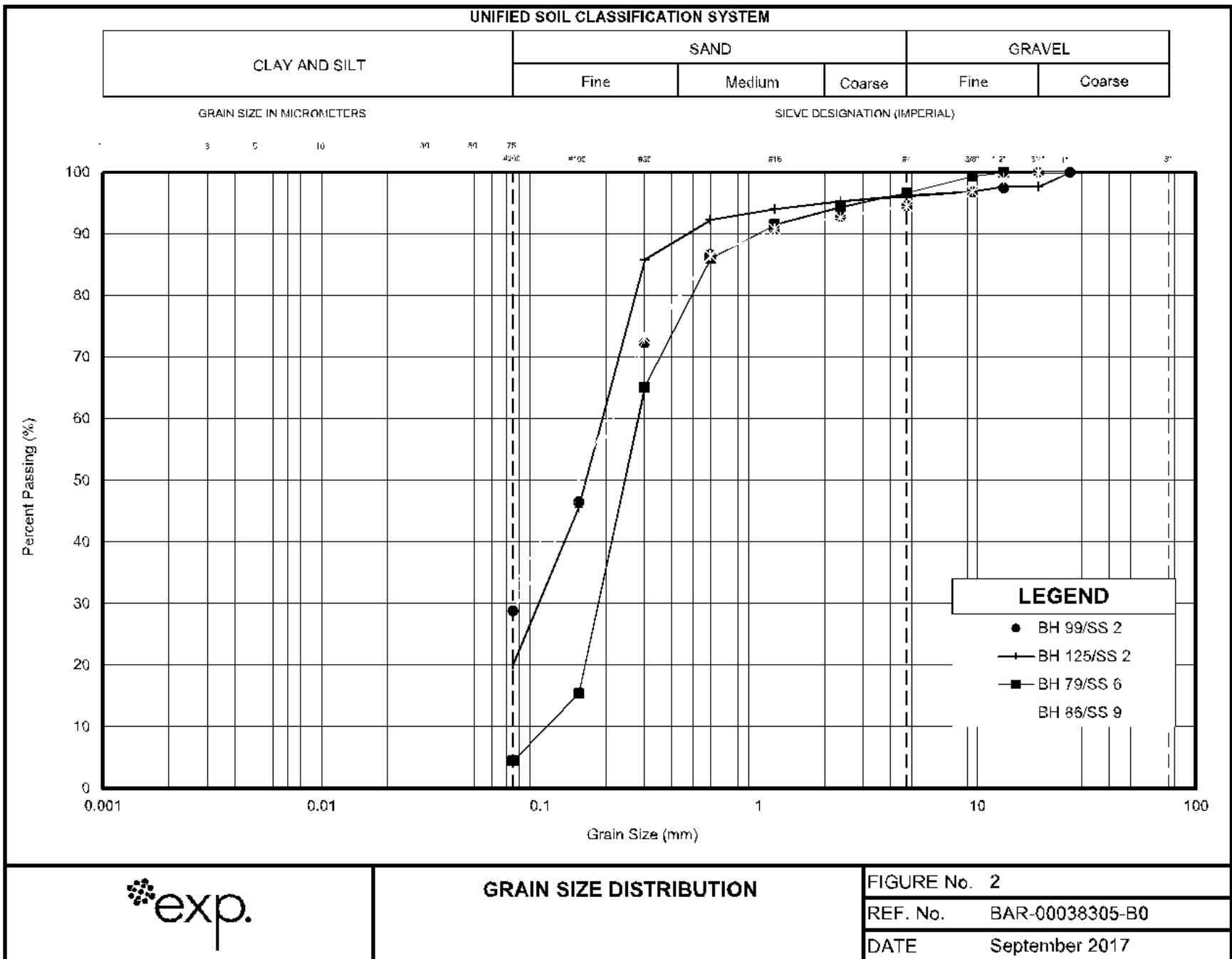


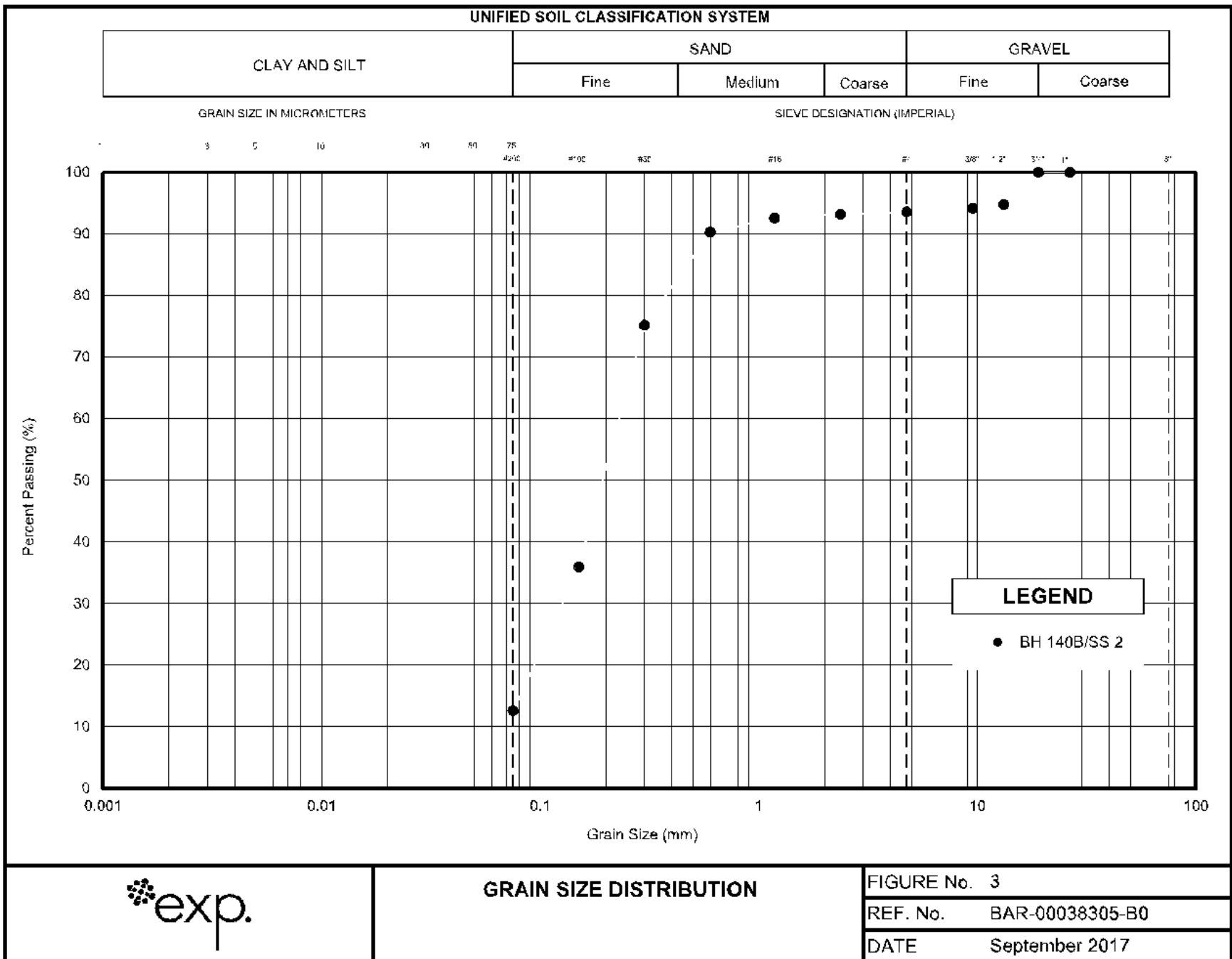










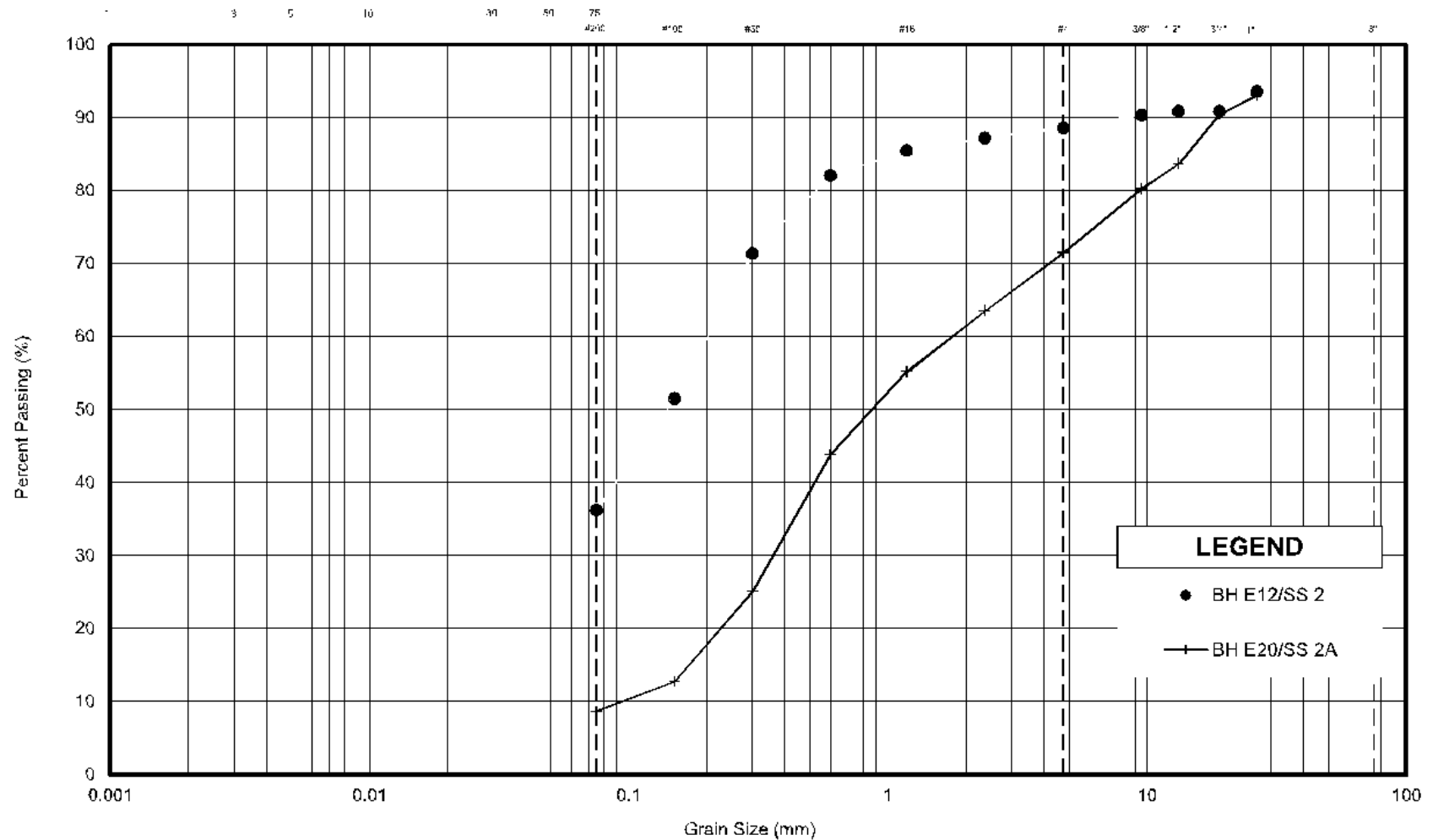


UNIFIED SOIL CLASSIFICATION SYSTEM

CLAY AND SILT	SAND			GRAVEL	
	Fine	Medium	Coarse	Fine	Coarse

GRAIN SIZE IN MICROMETERS

SIEVE DESIGNATION (IMPERIAL)

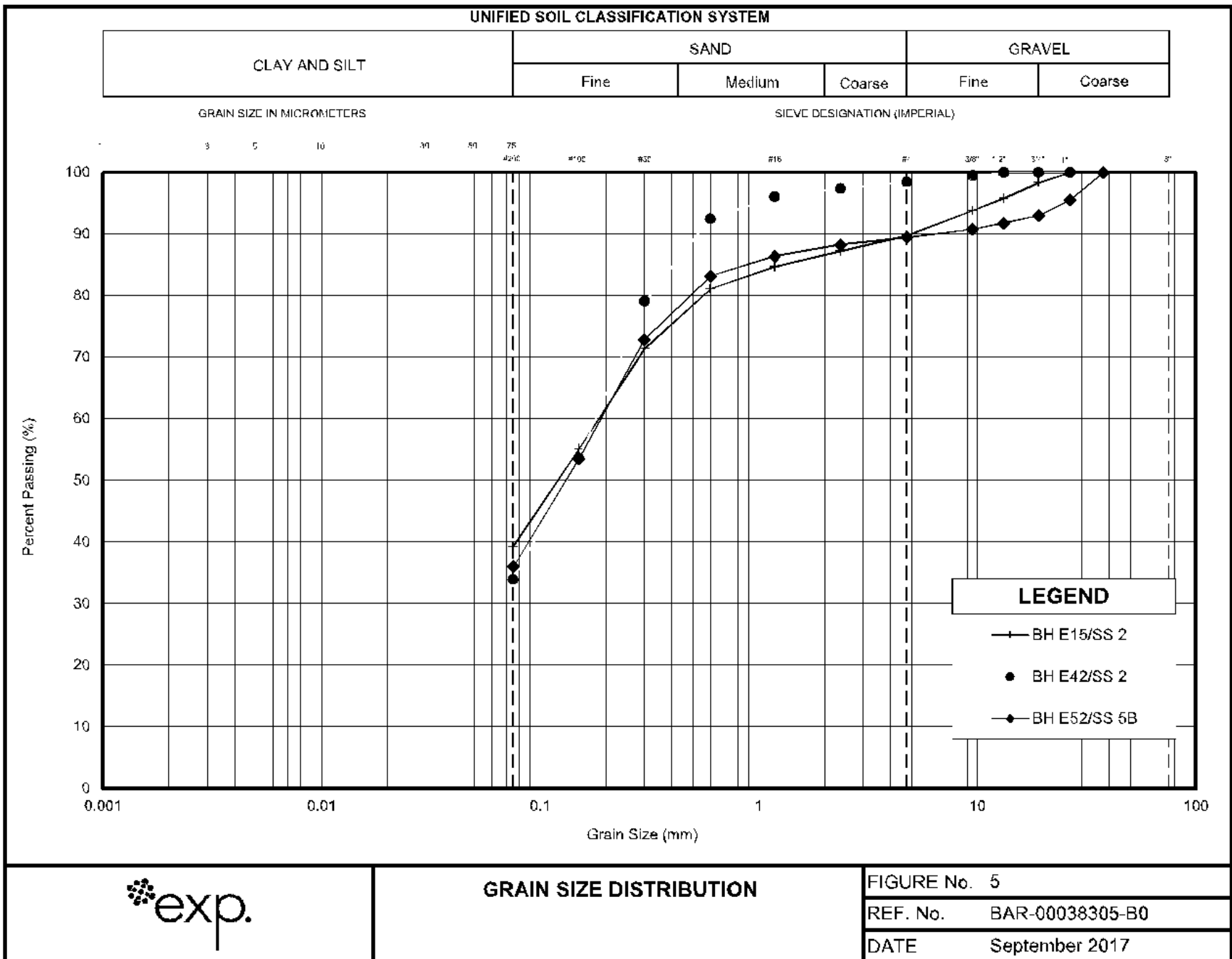


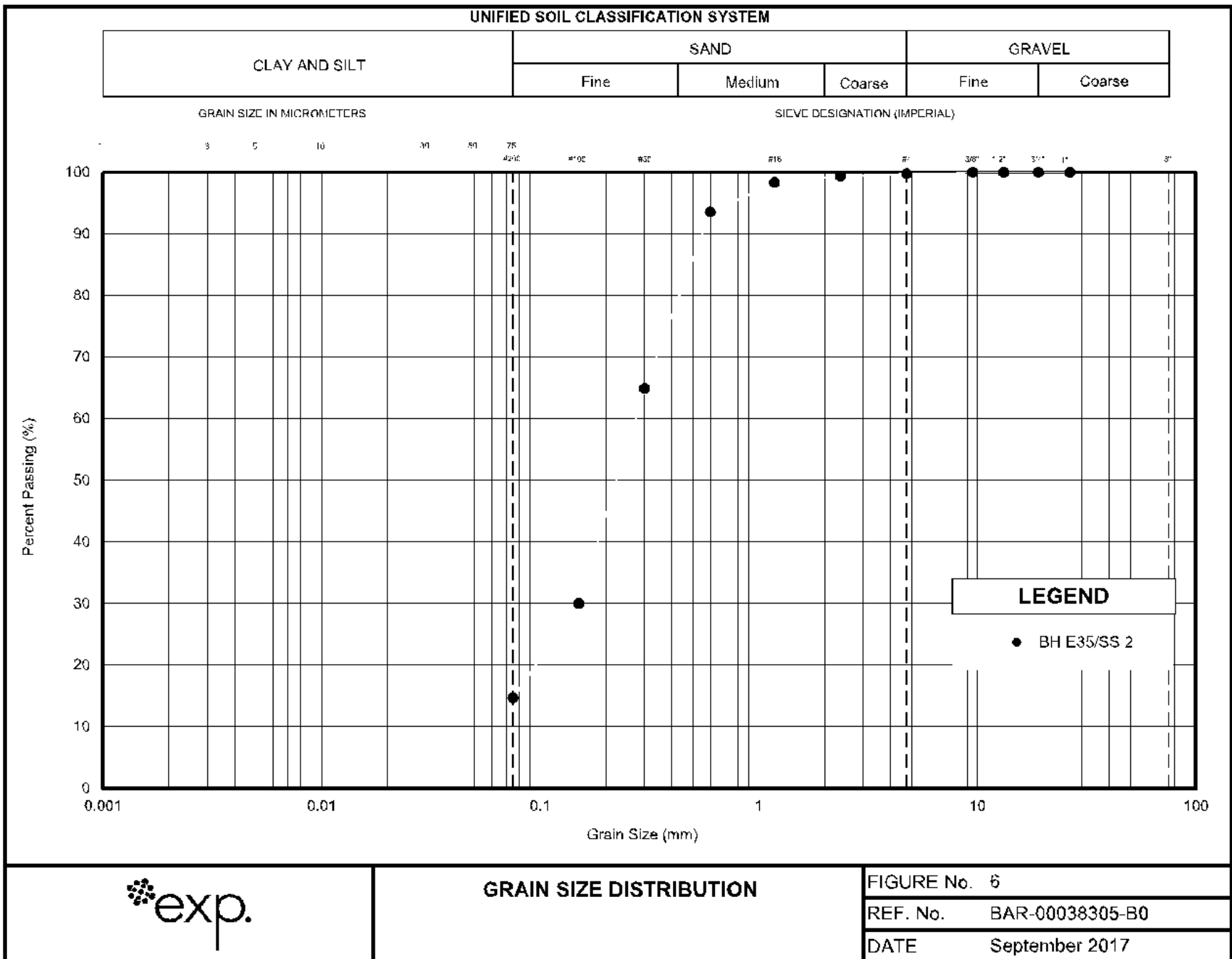
GRAIN SIZE DISTRIBUTION

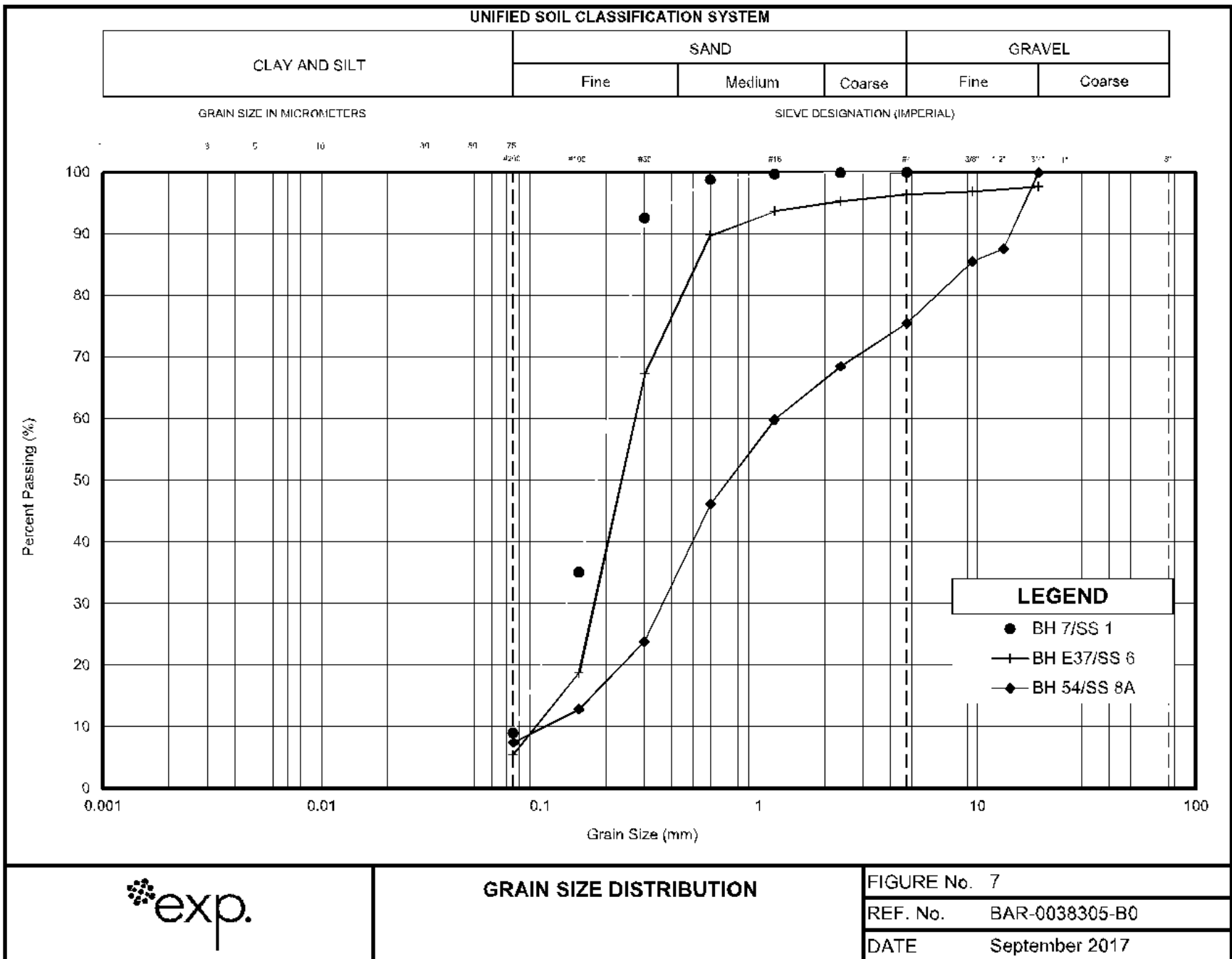
FIGURE No. 4

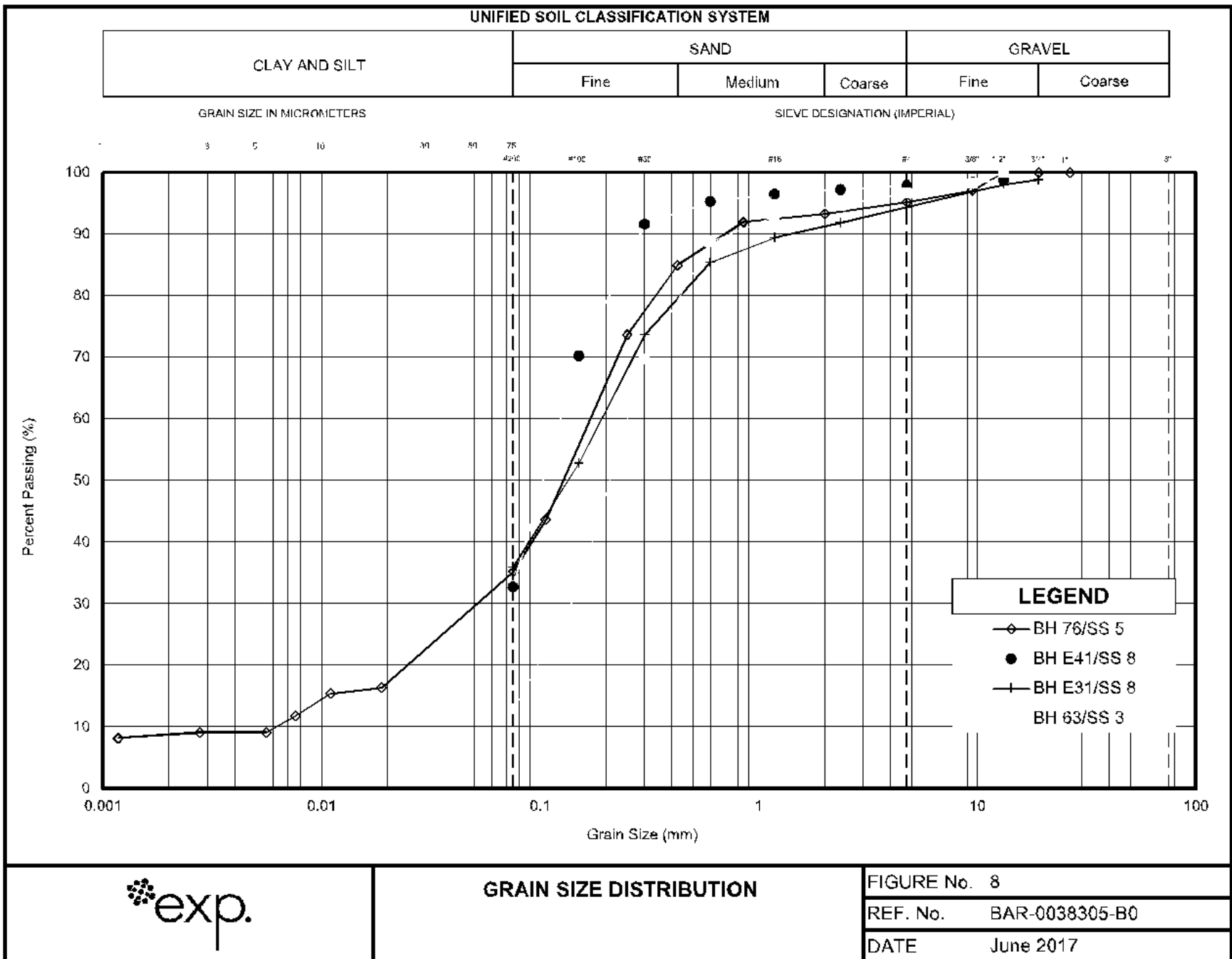
REF. No. BAR-00038305-B0

DATE September 2017









Appendix B: Results of Chemical Analysis

Your Project #: BRM-00038305-80

Site Location: MCKAY RD W & VETERANS DR, BARRIE

Attention: Rebecca Moser

exp Services Inc
4 Cedar Pointe Drive
Unit L
Barrie, ON
L4N 5R7

Your C.O.C. #: 620639-03-01, 620639-04-01, 620639-05-01, 620639-06-01

Report Date: 2017/08/01
Report #: R462843
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B7F7761

Received: 2017/07/25, 09:23

Sample Matrix: Soil
Samples Received: 37

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Hot Water Extractable Boron	8	2017/07/27	2017/07/27	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	24	2017/07/28	2017/07/28	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2017/07/28	2017/07/31	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	33	2017/07/27	2017/07/28	CAM SOP-00457	OMOE E3015 m
Cyanide (WAD) in Leachates	1	N/A	2017/07/27	CAM SOP-00457	OMOE 3015 m
Conductivity	13	2017/07/28	2017/07/28	CAM SOP-00414	OMOE E3530 v1 m
Conductivity	20	2017/07/28	2017/07/31	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	20	2017/07/26	2017/07/28	CAM SOP-00436	EPA 3060/7199 m
Hexavalent Chromium in Soil by IC (1)	13	2017/08/01	2017/08/01	CAM SOP-00436	EPA 3060/7199 m
Fluoride by ISE in Leachates	1	2017/07/27	2017/07/27	CAM SOP-00449	SM 22 4500-F- C m
Mercury (TCLP Leachable) (mg/L)	1	N/A	2017/07/28	CAM SOP-00453	EPA 7470A m
Strong Acid Leachable Metals by ICPMS	7	2017/07/27	2017/07/27	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	26	2017/07/27	2017/07/28	CAM SOP-00447	EPA 6020B m
Total Metals in TCLP Leachate by ICPMS	1	2017/07/27	2017/07/27	CAM SOP-00447	EPA 6020B m
Moisture	37	N/A	2017/07/27	CAM SOP-00445	Carter 2nd ed 51.2 m
Nitrate(NO3) + Nitrite(NO2) in Leachate	1	N/A	2017/07/27	CAM SOP-00440	SM 22 4500-NO3I/NO2B
OC Pesticides (Selected) & PCB (2)	4	2017/07/27	2017/07/28	CAM SOP-00307	SW846 8081, 8082
OC Pesticides Summed Parameters	1	N/A	2017/07/27	CAM SOP-00307	EPA 8081/8082 m
OC Pesticides Summed Parameters	3	N/A	2017/07/28	CAM SOP-00307	EPA 8081/8082 m
Polychlorinated Biphenyl in Leachate	1	2017/07/27	2017/07/27	CAM SOP-00309	EPA 8082A m
pH CaCl2 EXTRACT	33	2017/07/27	2017/07/27	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	20	N/A	2017/07/28	CAM SOP-00102	EPA 6010C
Sodium Adsorption Ratio (SAR)	13	N/A	2017/07/31	CAM SOP-00102	EPA 6010C
SAR - ICP Metals	20	2017/07/28	2017/07/28	CAM SOP-00408	EPA 6010D m
SAR - ICP Metals	13	2017/07/28	2017/07/31	CAM SOP-00408	EPA 6010D m
Sulphate (20:1 Extract)	1	N/A	2017/07/28	CAM SOP-00464	EPA 375.4 m

Your Project #: BRM-00038305-BQ

Site Location: MCKAY RD W & VETERANS DR, BARRIE

Attention: Rebecca Moser

exp Services Inc
4 Cedar Pointe Drive
Unit L
Barrie, ON
L4N 5R7

Your C.O.C. #: 620639-03-01, 620639-04-01, 620639-05-01, 620639-06-01

Report Date: 2017/08/0

Report #: R462845

Version: 2 - Fin

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B7F7761

Received: 2017/07/25, 09:23

Sample Matrix: Soil
Samples Received: 37

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
TCLP - % Solids	1	2017/07/26	2017/07/27	CAM SOP-00401	EPA 1311 Update I m
TCLP - Extraction Fluid	1	N/A	2017/07/27	CAM SOP-00401	EPA 1311 Update I m
TCLP - Initial and final pH	1	N/A	2017/07/27	CAM SOP-00401	EPA 1311 Update I m
TCLP Zero Headspace Extraction	1	2017/07/27	2017/07/28	CAM SOP-00430	EPA 1311 m
VOCs in ZHE Leachates	1	2017/07/28	2017/07/28	CAM SOP-00228	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

(2) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Your Project #: BRM-00038305-BD
Site Location: MCKAY RD W & VETERANS DR, BARRIE

Attention: Rebecca Moser

exp Services Inc
4 Cedar Pointe Drive
Unit L
Barrie, ON
L4N 5R7

Your C.O.C. #: 620639-03-01, 620639-04-01, 620639-05-01, 620639-06-01

Report Date: 2017/08/01
Report #: R4628456
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B7F7761
Received: 2017/07/25, 09:23

Encryption Key



Ronkin Gircean
Project Manager
02 Aug 2017 15:47:40

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Deepthi Shaji, Project Manager
Email: dshaji@maxxam.ca
Phone# (905) 817 5700 Ext 5807

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT190	EUT190		EUT191		
Sampling Date				2017/07/05 12:30	2017/07/05 12:30		2017/07/05 13:00		
COC Number				620639-03-01	620639-03-01		620639-03-01		
	UNITS	Criteria	Criteria-2	BHB2 551	BHB2 SS1 Lab-Dup	QC Batch	BHB2 SS10	RDL	QC Batch

Calculated Parameters

Sodium Adsorption Ratio	N/A	5.0	5.0	0.32		5088774	0.34		5088774
-------------------------	-----	-----	-----	------	--	---------	------	--	---------

Inorganics

Conductivity	mS/cm	0.7	0.7	0.14	0.15	5094988	0.14	0.002	5093946
Moisture	%	-	-	12	12	5092780	7.3	1.0	5092894
Available (CaCl2) pH	pH	-	-	5.45		5092771	8.02		5092807
WAD Cyanide (Free)	ug/g	0.051	0.051	0.06		5092834	<0.01	0.01	5092836

Metals

Soluble Calcium (Ca)	mg/L	-	-	15.9	38.3	5094982	12.4	0.5	5093945
Soluble Magnesium (Mg)	mg/L	-	-	1.9	2.0	5094982	2.3	0.5	5093945
Soluble Sodium (Na)	mg/L	-	-	<5	<5	5094982	<5	5	5093945

Inorganics

Chromium (VI)	ug/g	8	8	<0.2		5092072	<0.2	0.2	5099639
---------------	------	---	---	------	--	---------	------	-----	---------

Metals

Hot Water Ext Boron (B)	ug/g	1.5	1.5	0.17		5094930	0.053	0.050	5093703
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20		5093296	<0.20	0.20	5093224
Acid Extractable Arsenic (As)	ug/g	18	18	<1.0		5093296	<1.0	1.0	5093224
Acid Extractable Barium (Ba)	ug/g	390	390	41		5093296	42	0.50	5093224
Acid Extractable Beryllium (Be)	ug/g	4	4	0.26		5093296	0.23	0.20	5093224
Acid Extractable Boron (B)	ug/g	120	120	<5.0		5093296	<5.0	5.0	5093224
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	0.13		5093296	<0.10	0.10	5093224
Acid Extractable Chromium (Cr)	ug/g	160	160	34		5093296	13	1.0	5093224
Acid Extractable Cobalt (Co)	ug/g	22	22	3.6		5093296	3.8	0.10	5093224
Acid Extractable Copper (Cu)	ug/g	140	140	7.7		5093296	7.5	0.50	5093224
Acid Extractable Lead (Pb)	ug/g	120	120	7.6		5093296	2.6	1.0	5093224
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50		5093296	<0.50	0.50	5093224

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water

Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT190	EUT190		EUT191		
Sampling Date				2017/07/05 12:30	2017/07/05 12:30		2017/07/05 13:00		
COC Number				620639-03-01	620639-03-01		620639-03-01		
	UNITS	Criteria	Criteria-2	BHB2 SS1	BHB2 SS1 Lab-Dup	QC Batch	BHB2 SS10	RDL	QC Batch
Acid Extractable Nickel (Ni)	ug/g	100	100	6.5		5093296	7.3	0.50	5093224
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50		5093296	<0.50	0.50	5093224
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20		5093296	<0.20	0.20	5093224
Acid Extractable Thallium (Tl)	ug/g	1	1	<0.050		5093296	0.060	0.050	5093224
Acid Extractable Uranium (U)	ug/g	23	23	0.44		5093296	0.34	0.050	5093224
Acid Extractable Vanadium (V)	ug/g	86	86	24		5093296	24	5.0	5093224
Acid Extractable Zinc (Zn)	ug/g	340	340	32		5093296	18	5.0	5093224
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050		5093296	<0.050	0.050	5093224

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT192		EUT193	EUT193		
Sampling Date				2017/07/07 13:45		2017/07/07 14:15	2017/07/07 14:15		
COC Number				620639 03-01		620639 03-01	620639 03-01		
	UNITS	Criteria	Criteria-2	BHC2 552	QC Batch	BHC2 558	BHC2 558 Lab-Dup	RDL	QC Batch

Calculated Parameters

Sodium Adsorption Ratio	N/A	5.0	5.0	0.35	5088774	0.30			5088774
-------------------------	-----	-----	-----	------	---------	------	--	--	---------

Inorganics

Conductivity	mS/cm	0.7	0.7	0.12	5093946	0.13		0.002	5094988
Moisture	%	-	-	2.3	5092780	14		1.0	5092894
Available (CaCl2) pH	pH	-	-	8.10	5092771	8.04			5092807
WAD Cyanide (Free)	ug/g	0.051	0.051	<0.01	5092834	<0.01		0.01	5092836

Metals

Soluble Calcium (Ca)	mg/L	-	-	13.8	5093945	19.2		0.5	5094982
Soluble Magnesium (Mg)	mg/L	-	-	0.8	5093945	0.8		0.5	5094982
Soluble Sodium (Na)	mg/L	-	-	<5	5093945	<5		5	5094982

Inorganics

Chromium (VI)	ug/g	8	8	<0.2	5092072	<0.2	<0.2	0.2	5099639
---------------	------	---	---	------	---------	------	------	-----	---------

Metals

Hot Water Ext. Boron (B)	ug/g	1.5	1.5	<0.050	5094930	<0.050		0.050	5094930
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20	5093224	<0.20		0.20	5093296
Acid Extractable Arsenic (As)	ug/g	18	18	<1.0	5093224	<1.0		1.0	5093296
Acid Extractable Barium (Ba)	ug/g	390	390	7.1	5093224	11		0.50	5093296
Acid Extractable Beryllium (Be)	ug/g	4	4	<0.20	5093224	<0.20		0.20	5093296
Acid Extractable Boron (B)	ug/g	120	120	<5.0	5093224	<5.0		5.0	5093296
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	<0.10	5093224	<0.10		0.10	5093296
Acid Extractable Chromium (Cr)	ug/g	160	160	4.5	5093224	5.8		1.0	5093296
Acid Extractable Cobalt (Co)	ug/g	22	22	1.2	5093224	1.3		0.10	5093296
Acid Extractable Copper (Cu)	ug/g	140	140	2.2	5093224	3.0		0.50	5093296
Acid Extractable Lead (Pb)	ug/g	120	120	<1.0	5093224	1.0		1.0	5093296
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50	5093224	<0.50		0.50	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water

Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT192		EUT193	EUT193		
Sampling Date				2017/07/07 13:45		2017/07/07 14:15	2017/07/07 14:15		
COC Number				620639-03-01		620639-03-01	620639-03-01		
	UNITS	Criteria	Criteria-2	BHC2 S52	QC Batch	BHC2 S58	BHC2 S58 Lab-Dup	RDL	QC Batch
Acid Extractable Nickel (Ni)	ug/g	100	100	2.1	5093224	2.1		0.50	5093296
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50	5093224	<0.50		0.50	5093296
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20	5093224	<0.20		0.20	5093296
Acid Extractable Thallium (Tl)	ug/g	1	1	<0.050	5093224	<0.050		0.050	5093296
Acid Extractable Uranium (U)	ug/g	23	23	0.19	5093224	0.28		0.050	5093296
Acid Extractable Vanadium (V)	ug/g	86	86	11	5093224	16		5.0	5093296
Acid Extractable Zinc (Zn)	ug/g	340	340	5.8	5093224	5.9		5.0	5093296
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050	5093224	<0.050		0.050	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT194		EUT195		EUT196		
Sampling Date				2017/07/06 08:45		2017/07/06 09:30		2017/07/12 09:30		
COC Number				620639-03-01		620639-03-01		620639-03-01		
	UNITS	Criteria	Criteria-2	BHA3 SS1	QC Batch	BHA3 SS8	QC Batch	BH1 SS1	RDL	QC Batch

Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.0	5.0	0.19	5088774	0.37	5088774	0.23		5088774

Inorganics										
Conductivity	mS/cm	0.7	0.7	0.31	5093946	0.087	5094988	0.18	0.002	5094988
Moisture	%	-	-	11	5092894	8.2	5092780	13	1.0	5092894
Available (CaCl ₂) pH	pH	-	-	7.40	5092807	7.93	5092771	7.26		5092807
WAD Cyanide (Free)	ug/g	0.051	0.051	0.02	5092836	<0.01	5092834	0.01	0.01	5092836

Metals										
Soluble Calcium (Ca)	mg/L	-	-	46.0	5093945	12.0	5094982	33.9	0.5	5094982
Soluble Magnesium (Mg)	mg/L	-	-	4.5	5093945	0.9	5094982	1.2	0.5	5094982
Soluble Sodium (Na)	mg/L	-	-	<5	5093945	<5	5094982	<5	5	5094982

Inorganics										
Chromium (VI)	ug/g	8	8	<0.2	5099639	<0.2	5092072	<0.2	0.2	5099639

Metals										
Hot Water Ext. Boron (B)	ug/g	1.5	1.5	0.070	5094930	<0.050	5094930	0.071	0.050	5094930
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20	5093224	<0.20	5093296	<0.20	0.20	5093296
Acid Extractable Arsenic (As)	ug/g	18	18	<1.0	5093224	<1.0	5093296	<1.0	1.0	5093296
Acid Extractable Barium (Ba)	ug/g	390	390	42	5093224	31	5093296	49	0.50	5093296
Acid Extractable Beryllium (Be)	ug/g	4	4	0.35	5093224	<0.20	5093296	0.29	0.20	5093296
Acid Extractable Boron (B)	ug/g	120	120	<5.0	5093224	<5.0	5093296	<5.0	5.0	5093296
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	<0.10	5093224	<0.10	5093296	0.12	0.10	5093296
Acid Extractable Chromium (Cr)	ug/g	160	160	24	5093224	10	5093296	12	1.0	5093296
Acid Extractable Cobalt (Co)	ug/g	22	22	4.0	5093224	3.0	5093296	3.5	0.10	5093296
Acid Extractable Copper (Cu)	ug/g	140	140	5.6	5093224	5.7	5093296	5.1	0.50	5093296
Acid Extractable Lead (Pb)	ug/g	120	120	5.9	5093224	2.0	5093296	5.7	1.0	5093296
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50	5093224	<0.50	5093296	<0.50	0.50	5093296
Acid Extractable Nickel (Ni)	ug/g	100	100	7.1	5093224	5.8	5093296	6.5	0.50	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT194		EUT195		EUT196		
Sampling Date				2017/07/06 08:45		2017/07/06 09:30		2017/07/12 09:30		
COC Number				620639-03-01		620639-03-01		620639-03-01		
	UNITS	Criteria	Criteria-2	BHA3 SS1	QC Batch	BHA3 SS8	QC Batch	BH1 SS1	RDL	QC Batch
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50	5093224	<0.50	5093296	<0.50	0.50	5093296
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20	5093224	<0.20	5093296	<0.20	0.20	5093296
Acid Extractable Thallium (Tl)	ug/g	1	1	0.064	5093224	<0.050	5093296	0.062	0.050	5093296
Acid Extractable Uranium (U)	ug/g	23	23	0.44	5093224	0.41	5093296	0.36	0.050	5093296
Acid Extractable Vanadium (V)	ug/g	86	86	31	5093224	22	5093296	25	5.0	5093296
Acid Extractable Zinc (Zn)	ug/g	340	340	22	5093224	12	5093296	24	5.0	5093296
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050	5093224	<0.050	5093296	<0.050	0.050	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT197		EUT198		EUT199		
Sampling Date				2017/07/12 10:00		2017/06/22 10:40		2017/06/22 11:30		
COC Number				620639-03-01		620639-03-01		620639-03-01		
	UNITS	Criteria	Criteria-2	BH1 S55	QC Batch	BH8 S51	QC Batch	BH8 S58	RDL	QC Batch

Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.0	5.0	0.36	5088774	0.25	5088774	0.29		5089869

Inorganics										
Conductivity	mS/cm	0.7	0.7	0.12	5093946	0.20	5093946	0.20	0.002	5093946
Moisture	%	-	-	8.6	5092894	13	5092780	6.2	1.0	5092780
Available (CaCl ₂) pH	pH	-	-	7.88	5092807	7.56	5092771	8.04		5092771
WAD Cyanide (Free)	ug/g	0.051	0.051	<0.01	5092836	0.01	5092834	<0.01	0.01	5092834

Metals										
Soluble Calcium (Ca)	mg/L	-	-	14.0	5093945	29.8	5093945	15.8	0.5	5093945
Soluble Magnesium (Mg)	mg/L	-	-	0.6	5093945	<0.5	5093945	4.2	0.5	5093945
Soluble Sodium (Na)	mg/L	-	-	<5	5093945	<5	5093945	<5	5	5093945

Inorganics										
Chromium (VI)	ug/g	8	8	<0.2	5099639	<0.2	5092072	<0.2	0.2	5092072

Metals										
Hot Water Ext. Boron (B)	ug/g	1.5	1.5	<0.050	5094930	0.19	5094930	0.066	0.050	5094930
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20	5093224	<0.20	5093224	<0.20	0.20	5093296
Acid Extractable Arsenic (As)	ug/g	18	18	<1.0	5093224	2.1	5093224	<1.0	1.0	5093296
Acid Extractable Barium (Ba)	ug/g	390	390	39	5093224	38	5093224	36	0.50	5093296
Acid Extractable Beryllium (Be)	ug/g	4	4	<0.20	5093224	0.34	5093224	<0.20	0.20	5093296
Acid Extractable Boron (B)	ug/g	120	120	<5.0	5093224	<5.0	5093224	<5.0	5.0	5093296
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	<0.10	5093224	0.21	5093224	<0.10	0.10	5093296
Acid Extractable Chromium (Cr)	ug/g	160	160	10	5093224	14	5093224	13	1.0	5093296
Acid Extractable Cobalt (Co)	ug/g	22	22	2.7	5093224	3.8	5093224	3.2	0.10	5093296
Acid Extractable Copper (Cu)	ug/g	140	140	5.0	5093224	6.6	5093224	6.2	0.50	5093296
Acid Extractable Lead (Pb)	ug/g	120	120	1.8	5093224	6.8	5093224	2.1	1.0	5093296
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50	5093224	<0.50	5093224	<0.50	0.50	5093296
Acid Extractable Nickel (Ni)	ug/g	100	100	4.7	5093224	6.6	5093224	6.6	0.50	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water

Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT197		EUT198		EUT199		
Sampling Date				2017/07/12 10:00		2017/06/22 10:40		2017/06/22 11:30		
COC Number				620639-03-01		620639-03-01		620639-03-01		
	UNITS	Criteria	Criteria-2	BH1 SS5	QC Batch	BH8 SS1	QC Batch	BH8 SS8	RDL	QC Batch
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50	5093224	<0.50	5093224	<0.50	0.50	5093296
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20	5093224	<0.20	5093224	<0.20	0.20	5093296
Acid Extractable Thallium (Tl)	ug/g	1	1	<0.050	5093224	0.073	5093224	<0.050	0.050	5093296
Acid Extractable Uranium (U)	ug/g	23	23	0.32	5093224	0.47	5093224	0.41	0.050	5093296
Acid Extractable Vanadium (V)	ug/g	86	86	24	5093224	28	5093224	23	5.0	5093296
Acid Extractable Zinc (Zn)	ug/g	340	340	14	5093224	27	5093224	15	5.0	5093296
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050	5093224	<0.050	5093224	<0.050	0.050	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water

Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT200	EUT201		EUT202		
Sampling Date				2017/07/13 10:50	2017/07/13 11:10		2017/07/14 15:10		
COC Number				620639-04-01	620639-04-01		620639-04-01		
	UNITS	Criteria	Criteria-2	BH40 S52	BH40 S58	QC Batch	BH48 S51	RDL	QC Batch

Calculated Parameters									
Sodium Adsorption Ratio	N/A	5.0	5.0	0.35	0.41	5089869	0.24		5089869
Inorganics									
Conductivity	mS/cm	0.7	0.7	0.11	0.11	5093946	0.029	0.002	5094988
Moisture	%	-	-	10	5.3	5092780	14	1.0	5092780
Available (CaCl ₂) pH	pH	-	-	7.62	8.03	5092771	7.46		5092771
WAD Cyanide (Free)	ug/g	0.051	0.051	<0.01	<0.01	5092834	0.01	0.01	5092834
Metals									
Soluble Calcium (Ca)	mg/L	-	-	15.1	10.2	5093945	33.7	0.5	5094982
Soluble Magnesium (Mg)	mg/L	-	-	<0.5	0.8	5093945	<0.5	0.5	5094982
Soluble Sodium (Na)	mg/L	-	-	<5	<5	5093945	<5	5	5094982
Inorganics									
Chromium (VI)	ug/g	8	8	<0.2	<0.2	5092072	<0.2	0.2	5092072
Metals									
Hot Water Ext. Boron (B)	ug/g	1.5	1.5	<0.050	0.074	5094930	0.11	0.050	5094930
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20	<0.20	5093224	<0.20	0.20	5093296
Acid Extractable Arsenic (As)	ug/g	18	18	<1.0	<1.0	5093224	<1.0	1.0	5093296
Acid Extractable Barium (Ba)	ug/g	390	390	32	22	5093224	28	0.50	5093296
Acid Extractable Beryllium (Be)	ug/g	4	4	0.23	<0.20	5093224	0.30	0.20	5093296
Acid Extractable Boron (B)	ug/g	120	120	<5.0	<5.0	5093224	<5.0	5.0	5093296
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	<0.10	<0.10	5093224	0.14	0.10	5093296
Acid Extractable Chromium (Cr)	ug/g	160	160	12	7.5	5093224	11	1.0	5093296
Acid Extractable Cobalt (Co)	ug/g	22	22	3.6	2.0	5093224	2.8	0.10	5093296
Acid Extractable Copper (Cu)	ug/g	140	140	6.8	4.1	5093224	3.1	0.50	5093296
Acid Extractable Lead (Pb)	ug/g	120	120	2.5	1.4	5093224	5.3	1.0	5093296
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50	<0.50	5093224	<0.50	0.50	5093296
Acid Extractable Nickel (Ni)	ug/g	100	100	7.9	3.6	5093224	5.4	0.50	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT200	EUT201		EUT202		
Sampling Date				2017/07/13 10:50	2017/07/13 11:10		2017/07/14 15:10		
COC Number				620639-04-01	620639-04-01		620639-04-01		
	UNITS	Criteria	Criteria-2	BH40 SS2	BH40 SS8	QC Batch	BH48 SS1	RDL	QC Batch
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50	<0.50	5093224	<0.50	0.50	5093296
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20	<0.20	5093224	<0.20	0.20	5093296
Acid Extractable Thallium (Tl)	ug/g	1	1	0.053	<0.050	5093224	<0.050	0.050	5093296
Acid Extractable Uranium (U)	ug/g	23	23	0.31	0.26	5093224	0.40	0.050	5093296
Acid Extractable Vanadium (V)	ug/g	86	86	23	21	5093224	24	5.0	5093296
Acid Extractable Zinc (Zn)	ug/g	340	340	18	10	5093224	18	5.0	5093296
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050	<0.050	5093224	<0.050	0.050	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water

Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT203		EUT204		EUT205		
Sampling Date				2017/07/14 16:00		2017/07/10 14:45		2017/07/10 15:40		
COC Number				620639-04-01		620639-04-01		620639-04-01		
	UNITS	Criteria	Criteria-2	BH48 5S8	QC Batch	BH33 5S1	QC Batch	BH33 5S8	RDL	QC Batch

Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.0	5.0	0.38	5089869	0.23	5089869	0.28		5089869

Inorganics										
Conductivity	mS/cm	0.7	0.7	0.12	5093946	0.27	5093946	0.21	0.002	5093946
Moisture	%	-	-	11	5092780	13	5092780	10	1.0	5092894
Available (CaCl ₂) pH	pH	-	-	7.98	5092771	7.42	5092771	7.76		5092807
WAD Cyanide (Free)	ug/g	0.051	0.051	<0.01	5092834	0.02	5092834	<0.01	0.01	5092836

Metals										
Soluble Calcium (Ca)	mg/L	-	-	11.5	5093945	33.7	5093945	22.3	0.5	5093945
Soluble Magnesium (Mg)	mg/L	-	-	1.2	5093945	0.6	5093945	1.0	0.5	5093945
Soluble Sodium (Na)	mg/L	-	-	<5	5093945	<5	5093945	<5	5	5093945

Inorganics										
Chromium (VI)	ug/g	8	8	<0.2	5092072	<0.2	5092072	<0.2	0.2	5099639

Metals										
Hot Water Ext. Boron (B)	ug/g	1.5	1.5	<0.050	5095860	0.29	5093703	<0.050	0.050	5093703
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20	5093296	<0.20	5093224	<0.20	0.20	5093224
Acid Extractable Arsenic (As)	ug/g	18	18	<1.0	5093296	<1.0	5093224	<1.0	1.0	5093224
Acid Extractable Barium (Ba)	ug/g	390	390	35	5093296	29	5093224	44	0.50	5093224
Acid Extractable Beryllium (Be)	ug/g	4	4	<0.20	5093296	0.21	5093224	<0.20	0.20	5093224
Acid Extractable Boron (B)	ug/g	120	120	<5.0	5093296	<5.0	5093224	<5.0	5.0	5093224
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	<0.10	5093296	0.18	5093224	<0.10	0.10	5093224
Acid Extractable Chromium (Cr)	ug/g	160	160	10	5093296	9.1	5093224	12	1.0	5093224
Acid Extractable Cobalt (Co)	ug/g	22	22	2.8	5093296	2.4	5093224	3.3	0.10	5093224
Acid Extractable Copper (Cu)	ug/g	140	140	4.7	5093296	4.7	5093224	6.8	0.50	5093224
Acid Extractable Lead (Pb)	ug/g	120	120	1.9	5093296	5.3	5093224	2.3	1.0	5093224
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50	5093296	<0.50	5093224	<0.50	0.50	5093224
Acid Extractable Nickel (Ni)	ug/g	100	100	5.4	5093296	4.6	5093224	6.5	0.50	5093224

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT203		EUT204		EUT205		
Sampling Date				2017/07/14 16:00		2017/07/10 14:45		2017/07/10 15:40		
COC Number				620639-04-01		620639-04-01		620639-04-01		
	UNITS	Criteria	Criteria-2	BH48 SS8	QC Batch	BH33 SS1	QC Batch	BH33 SS8	RDL	QC Batch
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50	5093296	<0.50	5093224	<0.50	0.50	5093224
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20	5093296	<0.20	5093224	<0.20	0.20	5093224
Acid Extractable Thallium (Tl)	ug/g	1	1	<0.050	5093296	<0.050	5093224	<0.050	0.050	5093224
Acid Extractable Uranium (U)	ug/g	23	23	0.31	5093296	0.50	5093224	0.39	0.050	5093224
Acid Extractable Vanadium (V)	ug/g	86	86	21	5093296	19	5093224	24	5.0	5093224
Acid Extractable Zinc (Zn)	ug/g	340	340	13	5093296	18	5093224	16	5.0	5093224
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050	5093296	<0.050	5093224	<0.050	0.050	5093224

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water

Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT206	EUT206		EUT207		
Sampling Date				2017/06/21 12:50	2017/06/21 12:50		2017/06/21 13:30		
COC Number				620639-04-01	620639-04-01		620639-04-01		
	UNITS	Criteria	Criteria-2	BH61 SS2	BH61 SS2 Lab-Dup	QC Batch	BH61 SS8	RDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	5.0	5.0	0.37		5089869	0.36		5089869
Inorganics									
Conductivity	mS/cm	0.7	0.7	0.087		5094988	0.088	0.002	5094988
Moisture	%	-	-	9.1		5092780	6.7	1.0	5092780
Available (CaCl ₂) pH	pH	-	-	7.92		5092771	8.01		5092771
WAD Cyanide (Free)	ug/g	0.051	0.051	<0.01		5092834	<0.01	0.01	5092834
Metals									
Soluble Calcium (Ca)	mg/L	-	-	13.5		5094982	12.8	0.5	5094982
Soluble Magnesium (Mg)	mg/L	-	-	<0.5		5094982	0.9	0.5	5094982
Soluble Sodium (Na)	mg/L	-	-	<5		5094982	<5	5	5094982
Inorganics									
Chromium (VI)	ug/g	8	8	<0.2		5092072	<0.2	0.2	5092072
Metals									
Hot Water Ext. Boron (B)	ug/g	1.5	1.5	<0.050		5094930	<0.050	0.050	5095032
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20	<0.20	5093224	<0.20	0.20	5093224
Acid Extractable Arsenic (As)	ug/g	18	18	<1.0	<1.0	5093224	<1.0	1.0	5093224
Acid Extractable Barium (Ba)	ug/g	390	390	23	27	5093224	40	0.50	5093224
Acid Extractable Beryllium (Be)	ug/g	4	4	<0.20	<0.20	5093224	<0.20	0.20	5093224
Acid Extractable Boron (B)	ug/g	120	120	<5.0	<5.0	5093224	<5.0	5.0	5093224
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	<0.10	<0.10	5093224	<0.10	0.10	5093224
Acid Extractable Chromium (Cr)	ug/g	160	160	9.2	11	5093224	11	1.0	5093224
Acid Extractable Cobalt (Co)	ug/g	22	22	2.5	3.0	5093224	3.4	0.10	5093224
Acid Extractable Copper (Cu)	ug/g	140	140	5.7	6.2	5093224	6.5	0.50	5093224
Acid Extractable Lead (Pb)	ug/g	120	120	1.8	2.0	5093224	2.2	1.0	5093224
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50	<0.50	5093224	<0.50	0.50	5093224
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate Criteria: Ontario Reg. 153/04 (Amended April 15, 2011) Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition Soil - Residential/Parkland/Institutional Property Use - Coarse Texture Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011) Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition Soil - Residential/Parkland/Institutional Property Use - Coarse Texture									

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT206	EUT206		EUT207		
Sampling Date				2017/06/21 12:50	2017/06/21 12:50		2017/06/21 13:30		
COC Number				620639-04-01	620639-04-01		620639-04-01		
	UNITS	Criteria	Criteria-2	BH61 SS2	BH61 SS2 Lab-Dup	QC Batch	BH61 SS8	RDL	QC Batch
Acid Extractable Nickel (Ni)	ug/g	100	100	4.6	5.5	5093224	6.2	0.50	5093224
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50	<0.50	5093224	<0.50	0.50	5093224
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20	<0.20	5093224	<0.20	0.20	5093224
Acid Extractable Thallium (Tl)	ug/g	1	1	<0.050	<0.050	5093224	0.051	0.050	5093224
Acid Extractable Uranium (U)	ug/g	23	23	0.27	0.34	5093224	0.34	0.050	5093224
Acid Extractable Vanadium (V)	ug/g	86	86	21	25	5093224	26	5.0	5093224
Acid Extractable Zinc (Zn)	ug/g	340	340	11	14	5093224	15	5.0	5093224
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050	<0.050	5093224	<0.050	0.050	5093224

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT208	EUT208		EUT209		
Sampling Date				2017/06/21 15:55	2017/06/21 15:55		2017/06/21 16:30		
COC Number				620639-04-01	620639-04-01		620639-04-01		
	UNITS	Criteria	Criteria-2	BH81 SS1	BH81 SS1 Lab-Dup	QC Batch	BH81 SS8	RDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	5.0	5.0	0.32		5089869	0.35		5089869
Inorganics									
Conductivity	mS/cm	0.7	0.7	0.14		5093946	0.094	0.002	5094988
Moisture	%	-	-	5.6	5.6	5092894	5.6	1.0	5092894
Available {CaCl ₂ } pH	pH	-	-	7.58		5092807	8.15		5092807
WAD Cyanide (Free)	ug/g	0.051	0.051	<0.01		5092836	<0.01	0.01	5092836
Metals									
Soluble Calcium (Ca)	mg/L	-	-	16.7		5093945	14.5	0.5	5094982
Soluble Magnesium (Mg)	mg/L	-	-	1.4		5093945	0.7	0.5	5094982
Soluble Sodium (Na)	mg/L	-	-	<5		5093945	<5	5	5094982
Inorganics									
Chromium (VI)	ug/g	8	8	0.3		5099639	<0.2	0.2	5099639
Metals									
Hot Water Ext. Boron (B)	ug/g	1.5	1.5	0.091		5093703	<0.050	0.050	5095032
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20		5093224	<0.20	0.20	5093296
Acid Extractable Arsenic (As)	ug/g	18	18	<1.0		5093224	<1.0	1.0	5093296
Acid Extractable Barium (Ba)	ug/g	390	390	16		5093224	36	0.50	5093296
Acid Extractable Beryllium (Be)	ug/g	4	4	<0.20		5093224	<0.20	0.20	5093296
Acid Extractable Boron (B)	ug/g	120	120	<5.0		5093224	<5.0	5.0	5093296
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	<0.10		5093224	<0.10	0.10	5093296
Acid Extractable Chromium (Cr)	ug/g	160	160	14		5093224	12	1.0	5093296
Acid Extractable Cobalt (Co)	ug/g	22	22	2.1		5093224	3.6	0.10	5093296
Acid Extractable Copper (Cu)	ug/g	140	140	3.0		5093224	6.2	0.50	5093296
Acid Extractable Lead (Pb)	ug/g	120	120	3.0		5093224	1.8	1.0	5093296
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50		5093224	<0.50	0.50	5093296
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									
Lab-Dup = Laboratory Initiated Duplicate									
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)									
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition									
Soil - Residential/Parkland/Institutional Property Use - Coarse Texture									
Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)									
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition									
Soil - Residential/Parkland/Institutional Property Use - Coarse Texture									

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT208	EUT208		EUT209		
Sampling Date				2017/06/21 15:55	2017/06/21 15:55		2017/06/21 16:30		
COC Number				620639-04-01	620639-04-01		620639-04-01		
	UNITS	Criteria	Criteria-2	BH81 SS1	BH81 SS1 Lab-Dup	QC Batch	BH81 SS8	RDL	QC Batch
Acid Extractable Nickel (Ni)	ug/g	100	100	3.7		5093224	7.1	0.50	5093296
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50		5093224	<0.50	0.50	5093296
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20		5093224	<0.20	0.20	5093296
Acid Extractable Thallium (Tl)	ug/g	1	1	<0.050		5093224	<0.050	0.050	5093296
Acid Extractable Uranium (U)	ug/g	23	23	0.31		5093224	0.30	0.050	5093296
Acid Extractable Vanadium (V)	ug/g	86	86	28		5093224	24	5.0	5093296
Acid Extractable Zinc (Zn)	ug/g	340	340	15		5093224	16	5.0	5093296
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050		5093224	<0.050	0.050	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT210		EUT211		EUT212		
Sampling Date				2017/06/23 11:00		2017/06/23 11:50		2017/06/22 11:40		
COC Number				620639-05-01		620639-05-01		620639-05-01		
	UNITS	Criteria	Criteria-2	BH108 S51	QC Batch	BH108 S58	QC Batch	BH112 S52	RDL	QC Batch

Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.0	5.0	0.19	5089869	0.37	5089869	0.37		5089869
Inorganics										
Conductivity	mS/cm	0.7	0.7	0.26	5094988	0.089	5094988	0.11	0.002	5093946
Moisture	%	-	-	14	5092894	9.9	5092894	7.2	1.0	5092780
Available (CaCl ₂) pH	pH	-	-	7.98	5092807	7.99	5092807	7.93		5092771
WAD Cyanide (Free)	ug/g	0.051	0.051	0.02	5092836	<0.01	5092836	<0.01	0.01	5092834
Metals										
Soluble Calcium (Ca)	mg/L	-	-	51.1	5094982	13.0	5094982	14.0	0.5	5093945
Soluble Magnesium (Mg)	mg/L	-	-	1.3	5094982	0.7	5094982	<0.5	0.5	5093945
Soluble Sodium (Na)	mg/L	-	-	<5	5094982	<5	5094982	<5	5	5093945
Inorganics										
Chromium (VI)	ug/g	8	8	0.4	5099639	<0.2	5099639	<0.2	0.2	5092072
Metals										
Hot Water Ext. Boron (B)	ug/g	1.5	1.5	0.17	5095032	<0.050	5094930	<0.050	0.050	5094930
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20	5093296	<0.20	5093296	<0.20	0.20	5093224
Acid Extractable Arsenic (As)	ug/g	18	18	1.6	5093296	<1.0	5093296	<1.0	1.0	5093224
Acid Extractable Barium (Ba)	ug/g	390	390	70	5093296	23	5093296	12	0.50	5093224
Acid Extractable Beryllium (Be)	ug/g	4	4	0.44	5093296	<0.20	5093296	<0.20	0.20	5093224
Acid Extractable Boron (B)	ug/g	120	120	<5.0	5093296	<5.0	5093296	<5.0	5.0	5093224
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	0.34	5093296	<0.10	5093296	<0.10	0.10	5093224
Acid Extractable Chromium (Cr)	ug/g	160	160	110	5093296	7.5	5093296	5.3	1.0	5093224
Acid Extractable Cobalt (Co)	ug/g	22	22	5.7	5093296	2.0	5093296	1.4	0.10	5093224
Acid Extractable Copper (Cu)	ug/g	140	140	11	5093296	3.6	5093296	2.1	0.50	5093224
Acid Extractable Lead (Pb)	ug/g	120	120	14	5093296	1.4	5093296	1.1	1.0	5093224
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50	5093296	<0.50	5093296	<0.50	0.50	5093224
Acid Extractable Nickel (Ni)	ug/g	100	100	9.9	5093296	3.4	5093296	2.9	0.50	5093224

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT210		EUT211		EUT212		
Sampling Date				2017/06/23 11:00		2017/06/23 11:50		2017/06/22 11:40		
COC Number				620639-05-01		620639-05-01		620639-05-01		
	UNITS	Criteria	Criteria-2	BH108 S51	QC Batch	BH108 S58	QC Batch	BH112 S52	RDL	QC Batch
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50	5093296	<0.50	5093296	<0.50	0.50	5093224
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20	5093296	<0.20	5093296	<0.20	0.20	5093224
Acid Extractable Thallium (Tl)	ug/g	1	1	0.088	5093296	<0.050	5093296	<0.050	0.050	5093224
Acid Extractable Uranium (U)	ug/g	23	23	0.47	5093296	0.27	5093296	0.23	0.050	5093224
Acid Extractable Vanadium (V)	ug/g	86	86	37	5093296	19	5093296	15	5.0	5093224
Acid Extractable Zinc (Zn)	ug/g	340	340	64	5093296	9.1	5093296	6.4	5.0	5093224
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050	5093296	<0.050	5093296	<0.050	0.050	5093224

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-BO
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT213		EUT214		EUT215		
Sampling Date				2017/06/22 12:40		2017/06/27 13:30		2017/06/27 14:40		
COC Number				620639-05-01		620639-05-01		620639-05-01		
	UNITS	Criteria	Criteria-2	BH112 SS8	QC Batch	BH135 SS1	QC Batch	BH135 SS8	RDL	QC Batch

Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.0	5.0	0.34	5089869	0.23	5089869	0.32		5089869
Inorganics										
Conductivity	mS/cm	0.7	0.7	0.096	5094988	0.22	5093946	0.12	0.002	5094988
Moisture	%	-	-	6.7	5092780	12	5092894	11	1.0	5092780
Available (CaCl ₂) pH	pH	-	-	8.01	5092771	7.48	5092807	7.95		5092771
WAD Cyanide (Free)	ug/g	0.051	0.051	<0.01	5092834	0.01	5092836	<0.01	0.01	5092834
Metals										
Soluble Calcium (Ca)	mg/L	-	-	14.8	5094982	35.4	5093945	16.5	0.5	5094982
Soluble Magnesium (Mg)	mg/L	-	-	0.7	5094982	0.5	5093945	0.9	0.5	5094982
Soluble Sodium (Na)	mg/L	-	-	<5	5094982	<5	5093945	<5	5	5094982
Inorganics										
Chromium (VI)	ug/g	8	8	<0.2	5092072	<0.2	5099639	<0.2	0.2	5092072
Metals										
Hot Water Ext. Boron (B)	ug/g	1.5	1.5	<0.050	5094930	0.094	5093703	<0.050	0.050	5094930
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20	5093296	<0.20	5093224	<0.20	0.20	5093296
Acid Extractable Arsenic (As)	ug/g	18	18	<1.0	5093296	2.1	5093224	<1.0	1.0	5093296
Acid Extractable Barium (Ba)	ug/g	390	390	28	5093296	40	5093224	32	0.50	5093296
Acid Extractable Beryllium (Be)	ug/g	4	4	<0.20	5093296	0.30	5093224	<0.20	0.20	5093296
Acid Extractable Boron (B)	ug/g	120	120	<5.0	5093296	<5.0	5093224	<5.0	5.0	5093296
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	<0.10	5093296	0.11	5093224	<0.10	0.10	5093296
Acid Extractable Chromium (Cr)	ug/g	160	160	9.1	5093296	12	5093224	10	1.0	5093296
Acid Extractable Cobalt (Co)	ug/g	22	22	2.6	5093296	4.0	5093224	3.0	0.10	5093296
Acid Extractable Copper (Cu)	ug/g	140	140	5.0	5093296	5.4	5093224	6.0	0.50	5093296
Acid Extractable Lead (Pb)	ug/g	120	120	1.8	5093296	4.5	5093224	2.0	1.0	5093296
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50	5093296	<0.50	5093224	<0.50	0.50	5093296
Acid Extractable Nickel (Ni)	ug/g	100	100	4.6	5093296	6.9	5093224	5.6	0.50	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water

Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT213		EUT214		EUT215		
Sampling Date				2017/06/22 12:40		2017/06/27 13:30		2017/06/27 14:40		
COC Number				620639-05-01		620639-05-01		620639-05-01		
	UNITS	Criteria	Criteria-2	BH112 S58	QC Batch	BH135 S51	QC Batch	BH135 S58	RDL	QC Batch
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50	5093296	<0.50	5093224	<0.50	0.50	5093296
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20	5093296	<0.20	5093224	<0.20	0.20	5093296
Acid Extractable Thallium (Tl)	ug/g	1	1	<0.050	5093296	0.062	5093224	<0.050	0.050	5093296
Acid Extractable Uranium (U)	ug/g	23	23	0.30	5093296	0.34	5093224	0.35	0.050	5093296
Acid Extractable Vanadium (V)	ug/g	86	86	19	5093296	29	5093224	24	5.0	5093296
Acid Extractable Zinc (Zn)	ug/g	340	340	11	5093296	23	5093224	14	5.0	5093296
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050	5093296	<0.050	5093224	<0.050	0.050	5093296

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water

Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT216	EUT216	EUT217		
Sampling Date				2017/07/11 11:30	2017/07/11 11:30	2017/07/11 11:00		
COC Number				620639-05-01	620639-05-01	620639-05-01		
	UNITS	Criteria	Criteria-2	BH147 SS2	BH147 SS2 Lab-Dup	BH144C SS1	RDL	QC Batch
Calculated Parameters								
Sodium Adsorption Ratio	N/A	5.0	5.0	0.35		0.26		5089869
Inorganics								
Conductivity	mS/cm	0.7	0.7	0.12		0.19	0.002	5093946
Moisture	%	-	-	6.3		9.3	1.0	5092780
Available (CaCl2) pH	pH	-	-	7.90	7.90	5.99		5092771
WAD Cyanide (Free)	ug/g	0.051	0.051	<0.01	<0.01	0.06	0.01	5092834
Metals								
Soluble Calcium (Ca)	mg/L	-	-	13.5		24.2	0.5	5093945
Soluble Magnesium (Mg)	mg/L	-	-	1.3		2.8	0.5	5093945
Soluble Sodium (Na)	mg/L	-	-	<5		<5	5	5093945
Inorganics								
Chromium (VI)	ug/g	8	8	<0.2	<0.2	<0.2	0.2	5092072
Metals								
Hot Water Ext Boron (B)	ug/g	1.5	1.5	<0.050		0.21	0.050	5094930
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20		<0.20	0.20	5093224
Acid Extractable Arsenic (As)	ug/g	18	18	<1.0		4.4	1.0	5093224
Acid Extractable Barium (Ba)	ug/g	390	390	7.1		45	0.50	5093224
Acid Extractable Beryllium (Be)	ug/g	4	4	<0.20		0.31	0.20	5093224
Acid Extractable Boron (B)	ug/g	120	120	<5.0		<5.0	5.0	5093224
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	<0.10		0.19	0.10	5093224
Acid Extractable Chromium (Cr)	ug/g	160	160	5.1		15	1.0	5093224
Acid Extractable Cobalt (Co)	ug/g	22	22	1.1		3.8	0.10	5093224
Acid Extractable Copper (Cu)	ug/g	140	140	1.4		8.4	0.50	5093224
Acid Extractable Lead (Pb)	ug/g	120	120	1.0		7.3	1.0	5093224
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50		<0.50	0.50	5093224
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)								
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition								
Soil - Residential/Parkland/Institutional Property Use - Coarse Texture								
Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)								
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition								
Soil - Residential/Parkland/Institutional Property Use - Coarse Texture								

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT216	EUT216	EUT217		
Sampling Date				2017/07/11 11:30	2017/07/11 11:30	2017/07/11 11:00		
COC Number				620639-05-01	620639-05-01	620639-05-01		
	UNITS	Criteria	Criteria-2	BH147 SS2	BH147 SS2 Lab-Dup	BH144C SS1	RDL	QC Batch
Acid Extractable Nickel (Ni)	ug/g	100	100	2.1		6.3	0.50	5093224
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50		<0.50	0.50	5093224
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20		<0.20	0.20	5093224
Acid Extractable Thallium (Tl)	ug/g	1	1	<0.050		0.058	0.050	5093224
Acid Extractable Uranium (U)	ug/g	23	23	0.19		0.54	0.050	5093224
Acid Extractable Vanadium (V)	ug/g	86	86	11		34	5.0	5093224
Acid Extractable Zinc (Zn)	ug/g	340	340	5.1		40	5.0	5093224
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050		<0.050	0.050	5093224

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT218		EUT219		EUT220		
Sampling Date				2017/07/11 12:00		2017/07/11 12:20		2017/07/11 12:40		
COC Number				620639-05-01		620639-05-01		620639-06-01		
	UNITS	Criteria	Criteria-2	BH E23 S51	QC Batch	BH E48 S51	QC Batch	BH E52 S51	RDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.0	5.0	0.31	5089869	0.19	5089869	0.15		5089869
Inorganics										
Conductivity	mS/cm	0.7	0.7	0.13	5093946	0.27	5094988	0.48	0.002	5093946
Moisture	%	-	-	10	5092894	11	5092780	13	1.0	5092780
Available (CaCl ₂) pH	pH	-	-	6.29	5092807	6.77	5092771	7.12		5092771
WAD Cyanide (Free)	ug/g	0.051	0.051	0.02	5092836	0.05	5092834	0.05	0.01	5092834
Metals										
Soluble Calcium (Ca)	mg/L	-	-	13.5	5093945	45.9	5094982	67.3	0.5	5093945
Soluble Magnesium (Mg)	mg/L	-	-	3.5	5093945	5.5	5094982	8.9	0.5	5093945
Soluble Sodium (Na)	mg/L	-	-	<5	5093945	<5	5094982	<5	5	5093945
Inorganics										
Chromium (VI)	ug/g	8	8	0.8	5099639	<0.2	5092072	<0.2	0.2	5092072
Metals										
Hot Water Ext. Boron (B)	ug/g	1.5	1.5	0.17	5093703	0.21	5095032	0.17	0.050	5094930
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5	<0.20	5093224	<0.20	5093296	<0.20	0.20	5093224
Acid Extractable Arsenic (As)	ug/g	18	18	1.5	5093224	1.2	5093296	1.9	1.0	5093224
Acid Extractable Barium (Ba)	ug/g	390	390	55	5093224	47	5093296	40	0.50	5093224
Acid Extractable Beryllium (Be)	ug/g	4	4	0.33	5093224	0.28	5093296	0.32	0.20	5093224
Acid Extractable Boron (B)	ug/g	120	120	<5.0	5093224	<5.0	5093296	<5.0	5.0	5093224
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	0.23	5093224	0.14	5093296	0.15	0.10	5093224
Acid Extractable Chromium (Cr)	ug/g	160	160	63	5093224	15	5093296	14	1.0	5093224
Acid Extractable Cobalt (Co)	ug/g	22	22	4.7	5093224	4.0	5093296	4.0	0.10	5093224
Acid Extractable Copper (Cu)	ug/g	140	140	8.4	5093224	5.8	5093296	4.7	0.50	5093224
Acid Extractable Lead (Pb)	ug/g	120	120	8.1	5093224	6.5	5093296	6.7	1.0	5093224
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9	<0.50	5093224	<0.50	5093296	<0.50	0.50	5093224
Acid Extractable Nickel (Ni)	ug/g	100	100	9.2	5093224	6.6	5093296	6.9	0.50	5093224
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)										
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition										
Soil - Residential/Parkland/Institutional Property Use - Coarse Texture										
Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)										
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition										
Soil - Residential/Parkland/Institutional Property Use - Coarse Texture										

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT218		EUT219		EUT220		
Sampling Date				2017/07/11 12:00		2017/07/11 12:20		2017/07/11 12:40		
COC Number				620639-05-01		620639-05-01		620639-06-01		
	UNITS	Criteria	Criteria-2	BH E23 SS1	QC Batch	BH E48 SS1	QC Batch	BH E52 SS1	RDL	QC Batch
Acid Extractable Selenium (Se)	ug/g	2.4	2.4	<0.50	5093224	<0.50	5093296	<0.50	0.50	5093224
Acid Extractable Silver (Ag)	ug/g	20	20	<0.20	5093224	<0.20	5093296	<0.20	0.20	5093224
Acid Extractable Thallium (Tl)	ug/g	1	1	0.069	5093224	0.077	5093296	0.057	0.050	5093224
Acid Extractable Uranium (U)	ug/g	23	23	0.39	5093224	0.39	5093296	0.49	0.050	5093224
Acid Extractable Vanadium (V)	ug/g	86	86	31	5093224	27	5093296	30	5.0	5093224
Acid Extractable Zinc (Zn)	ug/g	340	340	41	5093224	29	5093296	36	5.0	5093224
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27	<0.050	5093224	<0.050	5093296	<0.050	0.050	5093224

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT220		EUT221		EUT222		
Sampling Date				2017/07/11 12:40		2017/07/11 13:00		2017/07/11 10:45		
COC Number				620639-06-01		620639-06-01		620639-06-01		
	UNITS	Criteria	Criteria-2	BH E52 S51 Lab-Dup	QC Batch	BH E54 S51	QC Batch	BH 146B S51	RDL	QC Batch

Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.0	5.0		5089869	0.22	5089869	0.24		5089869

Inorganics										
Conductivity	mS/cm	0.7	0.7		5093946	0.25	5093946	0.19	0.002	5093946
Moisture	%	-	-		5092780	14	5092780	12	1.0	5092894
Available (CaCl ₂) pH	pH	-	-		5092771	7.10	5092771	6.12		5092807
WAD Cyanide [Free]	ug/g	0.051	0.051		5092834	0.02	5092834	0.05	0.01	5092836

Metals										
Soluble Calcium (Ca)	mg/L	-	-		5093945	32.3	5093945	27.4	0.5	5093945
Soluble Magnesium (Mg)	mg/L	-	-		5093945	5.3	5093945	3.1	0.5	5093945
Soluble Sodium (Na)	mg/L	-	-		5093945	<5	5093945	<5	5	5093945

Inorganics										
Chromium (VI)	ug/g	8	8		5092072	<0.2	5092072	<0.2	0.2	5099639

Metals										
Hot Water Ext. Boron (B)	ug/g	1.5	1.5	0.18	5094930	0.28	5093703	0.21	0.050	5093703
Acid Extractable Antimony (Sb)	ug/g	7.5	7.5		5093224	<0.20	5093224	<0.20	0.20	5093224
Acid Extractable Arsenic (As)	ug/g	18	18		5093224	3.1	5093224	2.4	1.0	5093224
Acid Extractable Barium (Ba)	ug/g	390	390		5093224	64	5093224	58	0.50	5093224
Acid Extractable Beryllium (Be)	ug/g	4	4		5093224	0.37	5093224	0.33	0.20	5093224
Acid Extractable Boron (B)	ug/g	120	120		5093224	<5.0	5093224	<5.0	5.0	5093224
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2		5093224	0.15	5093224	0.12	0.10	5093224
Acid Extractable Chromium (Cr)	ug/g	160	160		5093224	17	5093224	14	1.0	5093224
Acid Extractable Cobalt (Co)	ug/g	22	22		5093224	4.6	5093224	4.1	0.10	5093224
Acid Extractable Copper (Cu)	ug/g	140	140		5093224	8.7	5093224	6.9	0.50	5093224
Acid Extractable Lead (Pb)	ug/g	120	120		5093224	7.3	5093224	6.2	1.0	5093224
Acid Extractable Molybdenum (Mo)	ug/g	6.9	6.9		5093224	<0.50	5093224	<0.50	0.50	5093224

RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
Lab-Dup = Laboratory Initiated Duplicate										
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)										
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition										
Soil - Residential/Parkland/Institutional Property Use - Coarse Texture										
Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)										
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition										
Soil - Residential/Parkland/Institutional Property Use - Coarse Texture										

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT220		EUT221		EUT222		
Sampling Date				2017/07/11 12:40		2017/07/11 13:00		2017/07/11 10:45		
COC Number				620639-06-01		620639-06-01		620639-06-01		
	UNITS	Criteria	Criteria-2	BH E52 S51 Lab-Dup	QC Batch	BH E54 S51	QC Batch	BH 146B S51	RDL	QC Batch
Acid Extractable Nickel (Ni)	ug/g	100	100		5093224	7.8	5093224	6.5	0.50	5093224
Acid Extractable Selenium (Se)	ug/g	2.4	2.4		5093224	<0.50	5093224	<0.50	0.50	5093224
Acid Extractable Silver (Ag)	ug/g	20	20		5093224	<0.20	5093224	<0.20	0.20	5093224
Acid Extractable Thallium (Tl)	ug/g	1	1		5093224	0.070	5093224	0.056	0.050	5093224
Acid Extractable Uranium (U)	ug/g	23	23		5093224	0.49	5093224	0.42	0.050	5093224
Acid Extractable Vanadium (V)	ug/g	86	86		5093224	33	5093224	33	5.0	5093224
Acid Extractable Zinc (Zn)	ug/g	340	340		5093224	39	5093224	33	5.0	5093224
Acid Extractable Mercury (Hg)	ug/g	0.27	0.27		5093224	<0.050	5093224	<0.050	0.050	5093224

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID				EUT222		
Sampling Date				2017/07/11 10:45		
COC Number				620639-06-01		
	UNITS	Criteria	Criteria-2	BH 14GB SS1 Lab-Dup	RDL	QC Batch
Inorganics						
Conductivity	mS/cm	0.7	0.7	0.18	0.002	5093946
Metals						
Soluble Calcium (Ca)	mg/L	-	-	26.7	0.5	5093945
Soluble Magnesium (Mg)	mg/L	-	-	3.3	0.5	5093945
Soluble Sodium (Na)	mg/L	-	-	<5	5	5093945
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate Criteria: Ontario Reg. 153/04 (Amended April 15, 2011) Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition Soil - Residential/Parkland/Institutional Property Use - Coarse Texture Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011) Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition Soil - Residential/Parkland/Institutional Property Use - Coarse Texture						

O.REG 153 OC PESTICIDES (SOIL)

Maxxam ID				EUT223		EUT224		EUT225		
Sampling Date				2017/07/14 14:00		2017/07/11 13:30		2017/07/14 14:30		
COC Number				620639-06-01		620639-06-01		620639-06-01		
	UNITS	Criteria	Criteria-2	BH E11 S51	QC Batch	BH 99 S51	QC Batch	BH E44 S51	RDL	QC Batch
Inorganics										
Moisture	%	-	-	11	5093092	7.0	5094017	14	1.0	5093092
Calculated Parameters										
Chlordane (Total)	ug/g	0.05	0.05	<0.0020	5089003	<0.0020	5089003	<0.0020	0.0020	5089003
o,p-DDD + p,p-DDD	ug/g	3.3	3.3	<0.0020	5089003	<0.0020	5089003	<0.0020	0.0020	5089003
o,p-DDE + p,p-DDE	ug/g	0.26	0.26	<0.0020	5089003	<0.0020	5089003	<0.0020	0.0020	5089003
o,p-DDT + p,p-DDT	ug/g	1.4	1.4	<0.0020	5089003	<0.0020	5089003	0.0022	0.0020	5089003
Total Endosulfan	ug/g	0.05	-	<0.0020	5089003	<0.0020	5089003	<0.0020	0.0020	5089003
Total PCB	ug/g	0.35	0.35	<0.015	5089003	<0.015	5089003	<0.015	0.015	5089003
Pesticides & Herbicides										
Aldrin	ug/g	0.05	0.05	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
a-Chlordane	ug/g	0.05	0.05	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
g-Chlordane	ug/g	0.05	0.05	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
o,p-DDD	ug/g	3.3	-	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
p,p-DDD	ug/g	3.3	-	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
o,p-DDE	ug/g	0.26	-	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
p,p-DDE	ug/g	0.26	-	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
o,p-DDT	ug/g	1.4	-	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
p,p-DDT	ug/g	1.4	-	<0.0020	5093655	<0.0020	5093655	0.0022	0.0020	5093655
Dieldrin	ug/g	0.05	0.05	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
Lindane	ug/g	0.056	0.056	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
Endosulfan I (alpha)	ug/g	0.04	0.04	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
Endosulfan II (beta)	ug/g	0.04	0.04	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
Endrin	ug/g	0.04	0.04	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
Heptachlor	ug/g	0.15	0.15	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
Heptachlor epoxide	ug/g	0.05	0.05	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
Hexachlorobenzene	ug/g	0.52	0.52	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)										
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition										
Soil - Residential/Parkland/Institutional Property Use - Coarse Texture										
Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)										
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition										
Soil - Residential/Parkland/Institutional Property Use - Coarse Texture										

O.REG 153 OC PESTICIDES (SOIL)

Maxxam ID				EUT223		EUT224		EUT225		
Sampling Date				2017/07/14 14:00		2017/07/11 13:30		2017/07/14 14:30		
COC Number				620639-06-01		620639-06-01		620639-06-01		
	UNITS	Criteria	Criteria-2	BH E11 S51	QC Batch	BH 99 S51	QC Batch	BH E44 S51	RDL	QC Batch
Hexachlorobutadiene	ug/g	0.012	0.012	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
Hexachloroethane	ug/g	0.089	0.089	<0.0020	5093655	<0.0020	5093655	<0.0020	0.0020	5093655
Methoxychlor	ug/g	0.13	0.13	<0.0050	5093655	<0.0050	5093655	<0.0050	0.0050	5093655
Aroclor 1242	ug/g	-	-	<0.015	5093655	<0.015	5093655	<0.015	0.015	5093655
Aroclor 1248	ug/g	-	-	<0.015	5093655	<0.015	5093655	<0.015	0.015	5093655
Aroclor 1254	ug/g	-	-	<0.015	5093655	<0.015	5093655	<0.015	0.015	5093655
Aroclor 1260	ug/g	-	-	<0.015	5093655	<0.015	5093655	<0.015	0.015	5093655
Surrogate Recovery (%)										
2,4,5,6-Tetrachloro-m-xylene	%	-	-	90	5093655	78	5093655	80		5093655
Decachlorobiphenyl	%	-	-	129	5093655	115	5093655	106		5093655

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Texture

O.REG 153 OC PESTICIDES (SOIL)

Maxxam ID				EUT225	EUT226		
Sampling Date				2017/07/14 14:30	2017/07/11 11:45		
COC Number				620639-06-01	620639-06-01		
	UNITS	Criteria	Criteria-2	BH E44 SS1 Lab-Dup	BH 146B SS1	RDL	QC Batch
Inorganics							
Moisture	%	-	-		15	1.0	5093092
Calculated Parameters							
Chlordane (Total)	ug/g	0.05	0.05		<0.0020	0.0020	5089003
o,p-DDD + p,p-DDD	ug/g	3.3	3.3		<0.0020	0.0020	5089003
o,p-DDE + p,p-DDE	ug/g	0.26	0.26		<0.0020	0.0020	5089003
o,p-DDT + p,p-DDT	ug/g	1.4	1.4		<0.0020	0.0020	5089003
Total Endosulfan	ug/g	0.05	-		<0.0020	0.0020	5089003
Total PCB	ug/g	0.35	0.35		<0.015	0.015	5089003
Pesticides & Herbicides							
Aldrin	ug/g	0.05	0.05	<0.0020	<0.0020	0.0020	5093655
a-Chlordane	ug/g	0.05	0.05	<0.0020	<0.0020	0.0020	5093655
g-Chlordane	ug/g	0.05	0.05	<0.0020	<0.0020	0.0020	5093655
o,p-DDD	ug/g	3.3	-	<0.0020	<0.0020	0.0020	5093655
p,p-DDD	ug/g	3.3	-	<0.0020	<0.0020	0.0020	5093655
o,p-DDE	ug/g	0.26	-	<0.0020	<0.0020	0.0020	5093655
p,p-DDE	ug/g	0.26	-	<0.0020	<0.0020	0.0020	5093655
o,p-DDT	ug/g	1.4	-	<0.0020	<0.0020	0.0020	5093655
p,p-DDT	ug/g	1.4	-	0.0028	<0.0020	0.0020	5093655
Dieldrin	ug/g	0.05	0.05	<0.0020	<0.0020	0.0020	5093655
Lindane	ug/g	0.056	0.056	<0.0020	<0.0020	0.0020	5093655
Endosulfan I (alpha)	ug/g	0.04	0.04	<0.0020	<0.0020	0.0020	5093655
Endosulfan II (beta)	ug/g	0.04	0.04	<0.0020	<0.0020	0.0020	5093655
Endrin	ug/g	0.04	0.04	<0.0020	<0.0020	0.0020	5093655
Heptachlor	ug/g	0.15	0.15	<0.0020	<0.0020	0.0020	5093655
Heptachlor epoxide	ug/g	0.05	0.05	<0.0020	<0.0020	0.0020	5093655
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate Criteria: Ontario Reg. 153/04 (Amended April 15, 2011) Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition Soil - Residential/Parkland/Institutional Property Use - Coarse Texture Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011) Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition Soil - Residential/Parkland/Institutional Property Use - Coarse Texture							

O.REG 153 OC PESTICIDES (SOIL)

Maxxam ID				EUT225	EUT226		
Sampling Date				2017/07/14 14:30	2017/07/11 11:45		
COC Number				620639-06-01	620639-06-01		
	UNITS	Criteria	Criteria-2	BH E44 SS1 Lab-Dup	BH 146B SS1	RDL	QC Batch
Hexachlorobenzene	ug/g	0.52	0.52	<0.0020	<0.0020	0.0020	5093655
Hexachlorobutadiene	ug/g	0.012	0.012	<0.0020	<0.0020	0.0020	5093655
Hexachloroethane	ug/g	0.089	0.089	<0.0020	<0.0020	0.0020	5093655
Methoxychlor	ug/g	0.13	0.13	<0.0050	<0.0050	0.0050	5093655
Aroclor 1242	ug/g	-	-	<0.015	<0.015	0.015	5093655
Aroclor 1248	ug/g	-	-	<0.015	<0.015	0.015	5093655
Aroclor 1254	ug/g	-	-	<0.015	<0.015	0.015	5093655
Aroclor 1260	ug/g	-	-	<0.015	<0.015	0.015	5093655
Surrogate Recovery (%)							
2,4,5,6-Tetrachloro-m-xylene	%	-	-	89	77		5093655
Decachlorobiphenyl	%	-	-	126	116		5093655
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate Criteria: Ontario Reg. 153/04 (Amended April 15, 2011) Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition Soil - Residential/Parkland/Institutional Property Use - Coarse Texture Criteria-2: Ontario Reg. 153/04 (Amended April 15, 2011) Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition Soil - Residential/Parkland/Institutional Property Use - Coarse Texture							

O.REG 55B TCLP INORGANICS PACKAGE (SOIL)

Maxxam ID		EUT224		
Sampling Date		2017/07/11 13:30		
COC Number		620639-06-01		
	UNITS	BH 99 551	ADL	QC Batch
Inorganics				
Leachable Fluoride (F-)	mg/L	0.20	0.10	5093389
Leachable WAD Cyanide (Free)	mg/L	<0.010	0.010	5093366
Leachable Nitrite (N)	mg/L	<0.10	0.10	5093418
Leachable Nitrate (N)	mg/L	<1.0	1.0	5093418
Leachable Nitrate + Nitrite (N)	mg/L	<1.0	1.0	5093418
Metals				
Leachable Mercury (Hg)	mg/L	<0.0010	0.0010	5093199
Leachable Arsenic (As)	mg/L	<0.2	0.2	5093430
Leachable Barium (Ba)	mg/L	0.4	0.2	5093430
Leachable Boron (B)	mg/L	<0.1	0.1	5093430
Leachable Cadmium (Cd)	mg/L	<0.05	0.05	5093430
Leachable Chromium (Cr)	mg/L	<0.1	0.1	5093430
Leachable Lead (Pb)	mg/L	<0.1	0.1	5093430
Leachable Selenium (Se)	mg/L	<0.1	0.1	5093430
Leachable Silver (Ag)	mg/L	<0.01	0.01	5093430
Leachable Uranium (U)	mg/L	<0.01	0.01	5093430
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

O.REG 558 TCLP LEACHATE PREPARATION (SOIL)

Maxxam ID		EUT224		
Sampling Date		2017/07/11 13:30		
COC Number		620639-06-01		
	UNITS	BH 99 SS1	RDL	QC Batch
Inorganics				
Final pH	pH	6.29		5092310
Initial pH	pH	9.31		5092310
TCLP - % Solids	%	100	0.2	5092301
TCLP Extraction Fluid	N/A	FLUID 1		5092309
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

O.REG 558 TCLP PCBs (SOIL)

Maxxam ID		EUT224	EUT224		
Sampling Date		2017/07/11 13:30	2017/07/11 13:30		
COC Number		620639-06-01	620639-06-01		
	UNITS	BH 99 551	BH 99 551 Lab-Dup	RDL	QC Batch
PCBs					
Leachable Total PCB	ug/L	<3.0	<3.0	3.0	5093583
Surrogate Recovery (%)					
Leachable Decachlorobiphenyl	%	86	83		5093583
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Lab-Dup = Laboratory Initiated Duplicate					

O.REG 558 TCLP VOLATILE ORGANICS HS (SOIL)

Maxxam ID		EUT224	EUT224		
Sampling Date		2017/07/11 13:30	2017/07/11 13:30		
COC Number		620639-06-01	620639-06-01		
	UNITS	BH 99 551	BH 99 551 Lab-Dup	RDL	QC Batch
Charge/Prep Analysis					
Amount Extracted (Wet Weight) (g)	N/A	25	25	N/A	5093071
Volatile Organics					
Leachable Benzene	mg/L	<0.020	<0.020	0.020	5095163
Leachable Carbon Tetrachloride	mg/L	<0.020	<0.020	0.020	5095163
Leachable Chlorobenzene	mg/L	<0.020	<0.020	0.020	5095163
Leachable Chloroform	mg/L	<0.020	<0.020	0.020	5095163
Leachable 1,2-Dichlorobenzene	mg/L	<0.050	<0.050	0.050	5095163
Leachable 1,4-Dichlorobenzene	mg/L	<0.050	<0.050	0.050	5095163
Leachable 1,2-Dichloroethane	mg/L	<0.050	<0.050	0.050	5095163
Leachable 1,1-Dichloroethylene	mg/L	<0.020	<0.020	0.020	5095163
Leachable Methylene Chloride(Dichloromethane)	mg/L	<0.20	<0.20	0.20	5095163
Leachable Methyl Ethyl Ketone (2-Butanone)	mg/L	<1.0	<1.0	1.0	5095163
Leachable Tetrachloroethylene	mg/L	<0.020	<0.020	0.020	5095163
Leachable Trichloroethylene	mg/L	<0.020	<0.020	0.020	5095163
Leachable Vinyl Chloride	mg/L	<0.020	<0.020	0.020	5095163
Surrogate Recovery (%)					
Leachable 4-Bromofluorobenzene	%	98	100		5095163
Leachable O4-1,2-Dichloroethane	%	101	103		5095163
Leachable O8-Toluene	%	98	97		5095163
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate N/A = Not Applicable					

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

RESULTS OF ANALYSES OF SOIL

Maxxam ID		EUT207		
Sampling Date		2017/06/21 13:30		
CDC Number		620639-04-01		
	UNITS	BH61 SS8	RDL	QC Batch
Inorganics				
Soluble (20:1) Sulphate (SO4)	ug/g	<20	20	5094931
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT190
Sample ID: BHB2 SS1
Matrix: Soil

Collected: 2017/07/05
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/27	Daniel Teclu
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5088774	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT190 Dup
Sample ID: BHB2 SS1
Matrix: Soil

Collected: 2017/07/05
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT191
Sample ID: BHB2 SS10
Matrix: Soil

Collected: 2017/07/05
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5093703	2017/07/27	2017/07/27	Azita Fazaeli
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5088774	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT192
Sample ID: BHC2 SS2
Matrix: Soil

Collected: 2017/07/07
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT192
Sample ID: BHC2 SS2
Matrix: Soil

Collected: 2017/07/07
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5088774	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaali

Maxxam ID: EUT193
Sample ID: BHC2 SS8
Matrix: Soil

Collected: 2017/07/07
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qu
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/27	Daniel Teclu
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5088774	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT193 Dup
Sample ID: BHC2 SS8
Matrix: Soil

Collected: 2017/07/07
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin

Maxxam ID: EUT194
Sample ID: BHA3 SS1
Matrix: Soil

Collected: 2017/07/06
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5088774	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaali

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT195
Sample ID: BHA3 SS8
Matrix: Soil

Collected: 2017/07/06
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/27	Daniel Teclu
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5088774	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT196
Sample ID: BH1 SS1
Matrix: Soil

Collected: 2017/07/12
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/28	Daniel Teclu
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5088774	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT197
Sample ID: BH1 SS5
Matrix: Soil

Collected: 2017/07/12
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5088774	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaell

Maxxam Job #: B7F7751
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT198
Sample ID: BHB SS1
Matrix: Soil

Collected: 2017/06/22
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5088774	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT199
Sample ID: BHB SS2
Matrix: Soil

Collected: 2017/06/22
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/28	Daniel Teclu
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT200
Sample ID: BH40 SS2
Matrix: Soil

Collected: 2017/07/13
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT201
Sample ID: BH40 SS8
Matrix: Soil

Collected: 2017/07/13
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT202
Sample ID: BH48 SS1
Matrix: Soil

Collected: 2017/07/14
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/28	Daniel Teclu
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT203
Sample ID: BH48 SS8
Matrix: Soil

Collected: 2017/07/14
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5095860	2017/07/28	2017/07/31	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/27	Daniel Teclu
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT204
Sample ID: BH33 SS1
Matrix: Soil

Collected: 2017/07/10
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5093703	2017/07/27	2017/07/27	Azita Fazaeli
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftan
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT205
Sample ID: BH33 SS8
Matrix: Soil

Collected: 2017/07/10
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5093703	2017/07/27	2017/07/27	Azita Fazaeli
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT206
Sample ID: BH61 SS2
Matrix: Soil

Collected: 2017/06/21
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT206 Dup
Sample ID: BH61 SS2
Matrix: Soil

Collected: 2017/06/21
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman

Maxxam ID: EUT207
Sample ID: BH61 SS8
Matrix: Soil

Collected: 2017/06/21
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5095032	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John
Sulphate (20:1 Extract)	KONE/EC	5094931	N/A	2017/07/28	Deonarine Ramnarine

Maxxam ID: EUT208
Sample ID: BH81 SS1
Matrix: Soil

Collected: 2017/06/21
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5093703	2017/07/27	2017/07/27	Azita Fazaali
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093946	2017/07/28	2017/07/28	Azita Fazaali

Maxxam ID: EUT208 Dup
Sample ID: BH81 SS1
Matrix: Soil

Collected: 2017/06/21
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT209
Sample ID: BH81 SS8
Matrix: Soil

Collected: 2017/06/21
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5095032	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/27	Daniel Teclu
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT210
Sample ID: BH108 SS1
Matrix: Soil

Collected: 2017/06/23
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5095032	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/28	Daniel Teclu
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT211
Sample ID: BH108 SS8
Matrix: Soil

Collected: 2017/06/23
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/27	Daniel Teclu
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT212
Sample ID: BH112 SS2
Matrix: Soil

Collected: 2017/06/22
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT213
Sample ID: BH112 SS8
Matrix: Soil

Collected: 2017/06/22
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/28	Daniel Teclu
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT214
Sample ID: BH135 SS1
Matrix: Soil

Collected: 2017/06/27
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5093703	2017/07/27	2017/07/27	Azita Fazaeli
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT215
Sample ID: BH135 S58
Matrix: Soil

Collected: 2017/06/27
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/28	Daniel Techu
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftani
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT216
Sample ID: BH147 S52
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftan
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT216 Dup
Sample ID: BH147 S52
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar

Maxxam ID: EUT217
Sample ID: BH144C SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT217
Sample ID: BH144C SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftan
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT218
Sample ID: BH E23 SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5093703	2017/07/27	2017/07/27	Azita Fazaeli
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftan
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT219
Sample ID: BH E48 SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5095032	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5094988	2017/07/28	2017/07/28	Xuanhong Qiu
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093296	2017/07/27	2017/07/27	Daniel Teclu
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftan
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/31	Automated Statchk
SAR - ICP Metals	ICP	5094982	2017/07/28	2017/07/31	Jolly John

Maxxam ID: EUT220
Sample ID: BH E52 SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jolly John
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT220
Sample ID: BH E52 SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftan
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT220 Dup
Sample ID: BH E52 SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5094930	2017/07/28	2017/07/28	Jo ly John

Maxxam ID: EUT221
Sample ID: BH E54 SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5093703	2017/07/27	2017/07/27	Azita Fazaeli
Free (WAD) Cyanide	TECH	5092834	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5092072	2017/07/26	2017/07/28	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092780	N/A	2017/07/27	Valentina Kaftan
pH CaCl2 EXTRACT	AT	5092771	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT222
Sample ID: BH 1468 SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5093703	2017/07/27	2017/07/27	Azita Fazaeli
Free (WAD) Cyanide	TECH	5092836	2017/07/27	2017/07/28	Louise Harding
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5099639	2017/08/01	2017/08/01	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5093224	2017/07/27	2017/07/28	John Bowman
Moisture	BAL	5092894	N/A	2017/07/27	Valentina Kaftan
pH CaCl2 EXTRACT	AT	5092807	2017/07/27	2017/07/27	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5089869	N/A	2017/07/28	Automated Statchk
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT222 Dup
Sample ID: BH 146B SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	5093946	2017/07/28	2017/07/31	Neil Dassanayake
SAR - ICP Metals	ICP	5093945	2017/07/28	2017/07/28	Azita Fazaeli

Maxxam ID: EUT223
Sample ID: BH E11 SS1
Matrix: Soil

Collected: 2017/07/14
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	5093092	N/A	2017/07/27	Valentina Kaftani
OC Pesticides (Selected) & PCB	GC/ECD	5093655	2017/07/27	2017/07/28	Joy Zhang
OC Pesticides Summed Parameters	CALC	5089003	N/A	2017/07/28	Automated Statchk

Maxxam ID: EUT224
Sample ID: BH 99 SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Cyanide (WAD) in Leachates	SKAL/CN	5093366	N/A	2017/07/27	Lantian Jin
Fluoride by ISE in Leachates	ISE	5093389	2017/07/27	2017/07/27	Surinder Rai
Mercury (TCLP Leachable) (mg/L)	CV/AA	5093199	N/A	2017/07/28	Ron Morrison
Total Metals in TCLP Leachate by ICPMS	ICP1/MS	5093430	2017/07/27	2017/07/27	Arefa Dabhad
Moisture	BAL	5094017	N/A	2017/07/27	Valentina Kaftani
Nitrate(NO3) + Nitrite(NO2) in Leachate	LACH	5093418	N/A	2017/07/27	Sarabjit Raina
OC Pesticides (Selected) & PCB	GC/ECD	5093655	2017/07/27	2017/07/28	Joy Zhang
OC Pesticides Summed Parameters	CALC	5089003	N/A	2017/07/27	Automated Statchk
Polychlorinated Biphenyl in Leachate	GC/ECD	5093583	2017/07/27	2017/07/27	Dawn Alarie
TCLP - % Solids	BAL	5092301	2017/07/26	2017/07/27	Jian (Ken) Wang
TCLP - Extraction Fluid		5092309	N/A	2017/07/27	Jian (Ken) Wang
TCLP - Initial and final pH	PH	5092310	N/A	2017/07/27	Jian (Ken) Wang
TCLP Zero Headspace Extraction		5093071	2017/07/27	2017/07/28	Walt Wang
VOCs in ZHE Leachates	GC/MS	5095163	2017/07/28	2017/07/28	Manpreet Sarao

Maxxam ID: EUT224 Dup
Sample ID: BH 99 SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Polychlorinated Biphenyl in Leachate	GC/ECD	5093583	2017/07/27	2017/07/27	Dawn Alarie
TCLP Zero Headspace Extraction		5093071	2017/07/27	2017/07/28	Walt Wang
VOCs in ZHE Leachates	GC/MS	5095163	2017/07/28	2017/07/28	Manpreet Sarao

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

TEST SUMMARY

Maxxam ID: EUT225
Sample ID: BH E44 SS1
Matrix: Soil

Collected: 2017/07/14
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	5093092	N/A	2017/07/27	Valentina Kaftani
OC Pesticides (Selected) & PCB	GC/ECD	5093655	2017/07/27	2017/07/28	Joy Zhang
OC Pesticides Summed Parameters	CALC	5089003	N/A	2017/07/28	Automated Statchk

Maxxam ID: EUT225 Dup
Sample ID: BH E44 SS1
Matrix: Soil

Collected: 2017/07/14
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
OC Pesticides (Selected) & PCB	GC/ECD	5093655	2017/07/27	2017/07/28	Joy Zhang

Maxxam ID: EUT226
Sample ID: BH 146B SS1
Matrix: Soil

Collected: 2017/07/11
Shipped:
Received: 2017/07/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	5093092	N/A	2017/07/27	Valentina Kaftani
OC Pesticides (Selected) & PCB	GC/ECD	5093655	2017/07/27	2017/07/28	Joy Zhang
OC Pesticides Summed Parameters	CALC	5089003	N/A	2017/07/28	Automated Statchk

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	13°C
-----------	------

Sample EUT190 [BH82 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT191 [BH82 SS10] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT192 [BHC2 SS2] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT193 [BHC2 SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT194 [BHA3 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT195 [BHA3 SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT196 [BH1 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT197 [BH1 SS5] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT198 [BHB SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT199 [BHB SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT200 [BH40 SS2] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT201 [BH40 SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT202 [BH48 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT203 [BH48 SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT204 [BH33 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT205 [BH33 SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT206 [BH61 SS2] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT207 [BH61 SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT208 [BH81 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT209 [BH81 SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT210 [BH108 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT211 [BH108 SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT212 [BH112 SS2] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT213 [BH112 SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT214 [BH135 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT215 [BH135 SS8] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT216 [BH147 SS2] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT217 [BH144C SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT218 [BH E23 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT219 [BH E48 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT220 [BH E52 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT221 [BH E54 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT222 [BH 146B SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample EUT224 [BH 99 SS1] : Sample extracted past holding time. Analysis was performed past sample holding time. This may increase the variability associated with these results. Reported result in a minimum concentration and is not acceptable for establishing that the waste does not exceed the regulatory level.

Results relate only to the items tested.

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

QUALITY ASSURANCE REPORT

exp Services Inc

Client Project #: BRM-00038305-80

Site Location: MCKAY RD W & VETERANS DR, BARRIE

Sampler Initials: RM

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value [%]	QC Limits	Value	UNITS
5093583	Leachable Decachlorobiphenyl	2017/07/27	97	30 - 130	86	30 - 130	88	%				
5093655	2,4,5,6-Tetrachloro-m-xylene	2017/07/28	64	50 - 130	78	50 - 130	78	%				
5093655	Decachlorobiphenyl	2017/07/28	101	50 - 130	104	50 - 130	129	%				
5095163	Leachable 4-Bromofluorobenzene	2017/07/28	102	70 - 130	102	70 - 130	98	%				
5095163	Leachable D4-1,2-Dichloroethane	2017/07/28	99	70 - 130	101	70 - 130	101	%				
5095163	Leachable D8-Toluene	2017/07/28	101	70 - 130	101	70 - 130	98	%				
5092072	Chromium (VI)	2017/07/28	70 (1)	75 - 125	101	80 - 120	<0.2	ug/g	NC	35		
5092771	Available (CaCl2) pH	2017/07/27			99	97 - 103			0.030	N/A		
5092780	Moisture	2017/07/27							0	20		
5092807	Available (CaCl2) pH	2017/07/27			99	97 - 103			0.23	N/A		
5092834	WAD Cyanide (Free)	2017/07/28	101	75 - 125	97	80 - 120	<0.01	ug/g	NC	35		
5092836	WAD Cyanide (Free)	2017/07/28	104	75 - 125	99	80 - 120	<0.01	ug/g	NC	35		
5092894	Moisture	2017/07/27							0	20		
5093092	Moisture	2017/07/27							0.95	20		
5093199	Leachable Mercury (Hg)	2017/07/28	106	75 - 125	105	80 - 120	<0.0010	mg/L	NC	25	<0.0010	mg/L
5093224	Acid Extractable Antimony (Sb)	2017/07/28	102	75 - 125	101	80 - 120	<0.20	ug/g	NC	30		
5093224	Acid Extractable Arsenic (As)	2017/07/28	103	75 - 125	108	80 - 120	<1.0	ug/g	NC	30		
5093224	Acid Extractable Barium (Ba)	2017/07/28	113	75 - 125	103	80 - 120	<0.50	ug/g	16	30		
5093224	Acid Extractable Beryllium (Be)	2017/07/28	103	75 - 125	101	80 - 120	<0.20	ug/g	NC	30		
5093224	Acid Extractable Boron (B)	2017/07/28	99	75 - 125	101	80 - 120	<5.0	ug/g	NC	30		
5093224	Acid Extractable Cadmium (Cd)	2017/07/28	104	75 - 125	100	80 - 120	<0.10	ug/g	NC	30		
5093224	Acid Extractable Chromium (Cr)	2017/07/28	102	75 - 125	106	80 - 120	<1.0	ug/g	14	30		
5093224	Acid Extractable Cobalt (Co)	2017/07/28	104	75 - 125	103	80 - 120	<0.10	ug/g	18	30		
5093224	Acid Extractable Copper (Cu)	2017/07/28	104	75 - 125	105	80 - 120	<0.50	ug/g	8.7	30		
5093224	Acid Extractable Lead (Pb)	2017/07/28	100	75 - 125	101	80 - 120	<1.0	ug/g	11	30		
5093224	Acid Extractable Mercury (Hg)	2017/07/28	103	75 - 125	106	80 - 120	<0.050	ug/g	NC	30		
5093224	Acid Extractable Molybdenum (Mo)	2017/07/28	102	75 - 125	102	80 - 120	<0.50	ug/g	NC	30		
5093224	Acid Extractable Nickel (Ni)	2017/07/28	108	75 - 125	105	80 - 120	<0.50	ug/g	16	30		
5093224	Acid Extractable Selenium (Se)	2017/07/28	100	75 - 125	104	80 - 120	<0.50	ug/g	NC	30		
5093224	Acid Extractable Silver (Ag)	2017/07/28	102	75 - 125	101	80 - 120	<0.20	ug/g	NC	30		
5093224	Acid Extractable Thallium (Tl)	2017/07/28	101	75 - 125	101	80 - 120	<0.050	ug/g	NC	30		

QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
5093224	Acid Extractable Uranium (U)	2017/07/28	100	75 - 125	99	80 - 120	<0.050	ug/g	24	30		
5093224	Acid Extractable Vanadium (V)	2017/07/28	106	75 - 125	103	80 - 120	<5.0	ug/g	15	30		
5093224	Acid Extractable Zinc (Zn)	2017/07/28	114	75 - 125	103	80 - 120	<5.0	ug/g	20	30		
5093296	Acid Extractable Antimony (Sb)	2017/07/27	90	75 - 125	95	80 - 120	<0.20	ug/g	NC	30		
5093296	Acid Extractable Arsenic (As)	2017/07/27	99	75 - 125	102	80 - 120	<1.0	ug/g	13	30		
5093296	Acid Extractable Barium (Ba)	2017/07/27	NC	75 - 125	90	80 - 120	<0.50	ug/g	5.4	30		
5093296	Acid Extractable Beryllium (Be)	2017/07/27	97	75 - 125	96	80 - 120	<0.20	ug/g	2.1	30		
5093296	Acid Extractable Boron (B)	2017/07/27	94	75 - 125	93	80 - 120	<5.0	ug/g	0.16	30		
5093296	Acid Extractable Cadmium (Cd)	2017/07/27	97	75 - 125	97	80 - 120	<0.10	ug/g	NC	30		
5093296	Acid Extractable Chromium (Cr)	2017/07/27	103	75 - 125	103	80 - 120	<1.0	ug/g	2.8	30		
5093296	Acid Extractable Cobalt (Co)	2017/07/27	99	75 - 125	104	80 - 120	<0.10	ug/g	0.69	30		
5093296	Acid Extractable Copper (Cu)	2017/07/27	94	75 - 125	101	80 - 120	<0.50	ug/g	1.9	30		
5093296	Acid Extractable Lead (Pb)	2017/07/27	98	75 - 125	100	80 - 120	<1.0	ug/g	0.12	30		
5093296	Acid Extractable Mercury (Hg)	2017/07/27	101	75 - 125	101	80 - 120	<0.050	ug/g	NC	30		
5093296	Acid Extractable Molybdenum (Mo)	2017/07/27	97	75 - 125	99	80 - 120	<0.50	ug/g	NC	30		
5093296	Acid Extractable Nickel (Ni)	2017/07/27	104	75 - 125	103	80 - 120	<0.50	ug/g	3.6	30		
5093296	Acid Extractable Selenium (Se)	2017/07/27	98	75 - 125	100	80 - 120	<0.50	ug/g	NC	30		
5093296	Acid Extractable Silver (Ag)	2017/07/27	98	75 - 125	101	80 - 120	<0.20	ug/g	NC	30		
5093296	Acid Extractable Thallium (Tl)	2017/07/27	99	75 - 125	100	80 - 120	<0.050	ug/g	5.4	30		
5093296	Acid Extractable Uranium (U)	2017/07/27	98	75 - 125	98	80 - 120	<0.050	ug/g	3.7	30		
5093296	Acid Extractable Vanadium (V)	2017/07/27	NC	75 - 125	104	80 - 120	<5.0	ug/g	2.8	30		
5093296	Acid Extractable Zinc (Zn)	2017/07/27	NC	75 - 125	102	80 - 120	<5.0	ug/g	8.8	30		
5093366	Leachable WAD Cyanide (Free)	2017/07/27	101	80 - 120	100	80 - 120	<0.0020	mg/L	NC	20	<0.010	mg/L
5093389	Leachable Fluoride (F-)	2017/07/27	94	80 - 120	104	80 - 120	<0.10	mg/L	2.4	25	<0.10	mg/L
5093418	Leachable Nitrate (N)	2017/07/27	102	80 - 120	98	80 - 120	<1.0	mg/L	NC	25	<1.0	mg/L
5093418	Leachable Nitrate + Nitrite (N)	2017/07/27	103	80 - 120	99	80 - 120	<1.0	mg/L	NC	25	<1.0	mg/L
5093418	Leachable Nitrite (N)	2017/07/27	107	80 - 120	101	80 - 120	<0.10	mg/L	NC	25	<0.10	mg/L
5093430	Leachable Arsenic (As)	2017/07/27	97	80 - 120	99	80 - 120	<0.2	mg/L	NC	35		
5093430	Leachable Barium (Ba)	2017/07/27	99	80 - 120	102	80 - 120	<0.2	mg/L	NC	35		
5093430	Leachable Boron (B)	2017/07/27	104	80 - 120	102	80 - 120	<0.1	mg/L	NC	35		
5093430	Leachable Cadmium (Cd)	2017/07/27	93	80 - 120	96	80 - 120	<0.05	mg/L	NC	35		

QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
5093430	Leachable Chromium (Cr)	2017/07/27	96	80 - 120	96	80 - 120	<0.1	mg/L	NC	35		
5093430	Leachable Lead (Pb)	2017/07/27	91	80 - 120	95	80 - 120	<0.1	mg/L	NC	35		
5093430	Leachable Selenium (Se)	2017/07/27	97	80 - 120	96	80 - 120	<0.1	mg/L	NC	35		
5093430	Leachable Silver (Ag)	2017/07/27	86	80 - 120	92	80 - 120	<0.01	mg/L	NC	35		
5093430	Leachable Uranium (U)	2017/07/27	90	80 - 120	94	80 - 120	<0.01	mg/L	NC	35		
5093583	Leachable Total PCB	2017/07/27	120	30 - 130	112	30 - 130	<3.0	ug/L	NC	40		
5093655	a-Chlordane	2017/07/28	73	50 - 130	89	50 - 130	<0.0020	ug/g	NC	40		
5093655	Aldrin	2017/07/28	76	50 - 130	96	50 - 130	<0.0020	ug/g	NC	40		
5093655	Aroclor 1242	2017/07/28					<0.015	ug/g	NC	40		
5093655	Aroclor 1248	2017/07/28					<0.015	ug/g	NC	40		
5093655	Aroclor 1254	2017/07/28					<0.015	ug/g	NC	40		
5093655	Aroclor 1260	2017/07/28					<0.015	ug/g	NC	40		
5093655	Dieldrin	2017/07/28	71	50 - 130	101	50 - 130	<0.0020	ug/g	NC	40		
5093655	Endosulfan I (alpha)	2017/07/28	66	50 - 130	94	50 - 130	<0.0020	ug/g	NC	40		
5093655	Endosulfan II (beta)	2017/07/28	84	50 - 130	91	50 - 130	<0.0020	ug/g	NC	40		
5093655	Endrin	2017/07/28	70	50 - 130	92	50 - 130	<0.0020	ug/g	NC	40		
5093655	g-Chlordane	2017/07/28	70	50 - 130	84	50 - 130	<0.0020	ug/g	NC	40		
5093655	Heptachlor epoxide	2017/07/28	67	50 - 130	84	50 - 130	<0.0020	ug/g	NC	40		
5093655	Heptachlor	2017/07/28	70	50 - 130	86	50 - 130	<0.0020	ug/g	NC	40		
5093655	Hexachlorobenzene	2017/07/28	66	50 - 130	78	50 - 130	<0.0020	ug/g	NC	40		
5093655	Hexachlorobutadiene	2017/07/28	63	50 - 130	89	50 - 130	<0.0020	ug/g	NC	40		
5093655	Hexachloroethane	2017/07/28	56	50 - 130	73	50 - 130	<0.0020	ug/g	NC	40		
5093655	Lindane	2017/07/28	67	50 - 130	78	50 - 130	<0.0020	ug/g	NC	40		
5093655	Methoxychlor	2017/07/28	100	50 - 130	113	50 - 130	<0.0050	ug/g	NC	40		
5093655	o,p-DDD	2017/07/28	85	50 - 130	101	50 - 130	<0.0020	ug/g	NC	40		
5093655	o,p-DDE	2017/07/28	95	50 - 130	105	50 - 130	<0.0020	ug/g	NC	40		
5093655	o,p-DDT	2017/07/28	83	50 - 130	96	50 - 130	<0.0020	ug/g	NC	40		
5093655	p,p-DDD	2017/07/28	75	50 - 130	92	50 - 130	<0.0020	ug/g	NC	40		
5093655	p,p-DDE	2017/07/28	90	50 - 130	106	50 - 130	<0.0020	ug/g	NC	40		
5093655	p,p-DDT	2017/07/28	89	50 - 130	102	50 - 130	<0.0020	ug/g	NC	40		
5093703	Hot Water Ext. Boron (B)	2017/07/27	114	75 - 125	108	75 - 125	<0.050	ug/g	16	40		

QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc
Client Project #: BRM-0003B305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
5093945	Soluble Calcium (Ca)	2017/07/28			98	80 - 120	<0.5	mg/L	2.6	30		
5093945	Soluble Magnesium (Mg)	2017/07/28			95	80 - 120	<0.5	mg/L	4.5	30		
5093945	Soluble Sodium (Na)	2017/07/28			97	80 - 120	<5	mg/L	NC	30		
5093946	Conductivity	2017/07/31			98	90 - 110	<0.002	mS/cm	0.98	10		
5094017	Moisture	2017/07/27							1.0	20		
5094930	Hot Water Ext. Boron (B)	2017/07/28	109	75 - 125	101	75 - 125	<0.050	ug/g	3.1	40		
5094931	Soluble (20:1) Sulphate (SO4)	2017/07/28	NC	70 - 130	108	70 - 130	<20	ug/g	22	35		
5094982	Soluble Calcium (Ca)	2017/07/31			110	80 - 120	<0.5	mg/L	14	30		
5094982	Soluble Magnesium (Mg)	2017/07/31			101	80 - 120	<0.5	mg/L	5.7	30		
5094982	Soluble Sodium (Na)	2017/07/31			100	80 - 120	<5	mg/L	NC	30		
5094988	Conductivity	2017/07/28			101	90 - 110	<0.002	mS/cm	5.7	10		
5095032	Hot Water Ext. Boron (B)	2017/07/28	108	75 - 125	99	75 - 125	<0.050	ug/g	NC	40		
5095163	Leachable 1,1-Dichloroethylene	2017/07/28	102	70 - 130	102	70 - 130	<0.020	mg/L	NC	30		
5095163	Leachable 1,2-Dichlorobenzene	2017/07/28	89	70 - 130	90	70 - 130	<0.050	mg/L	NC	30		
5095163	Leachable 1,2-Dichloroethane	2017/07/28	92	70 - 130	94	70 - 130	<0.050	mg/L	NC	30		
5095163	Leachable 1,4-Dichlorobenzene	2017/07/28	90	70 - 130	91	70 - 130	<0.050	mg/L	NC	30		
5095163	Leachable Benzene	2017/07/28	97	70 - 130	97	70 - 130	<0.020	mg/L	NC	30		
5095163	Leachable Carbon Tetrachloride	2017/07/28	101	70 - 130	100	70 - 130	<0.020	mg/L	NC	30		
5095163	Leachable Chlorobenzene	2017/07/28	92	70 - 130	93	70 - 130	<0.020	mg/L	NC	30		
5095163	Leachable Chloroform	2017/07/28	94	70 - 130	95	70 - 130	<0.020	mg/L	NC	30		
5095163	Leachable Methyl Ethyl Ketone (2-Butanone)	2017/07/28	84	60 - 140	88	60 - 140	<1.0	mg/L	NC	30		
5095163	Leachable Methylene Chloride(Dichloromethane)	2017/07/28	86	70 - 130	87	70 - 130	<0.20	mg/L	NC	30		
5095163	Leachable Tetrachloroethylene	2017/07/28	93	70 - 130	93	70 - 130	<0.020	mg/L	NC	30		
5095163	Leachable Trichloroethylene	2017/07/28	95	70 - 130	95	70 - 130	<0.020	mg/L	NC	30		
5095163	Leachable Vinyl Chloride	2017/07/28	92	70 - 130	92	70 - 130	<0.020	mg/L	NC	30		
5095860	Hot Water Ext. Boron (B)	2017/07/31	96	75 - 125	100	75 - 125	<0.050	ug/g	2.3	40		

QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
5099639	Chromium (VI)	2017/08/01	81	75 - 125	86	80 - 120	<0.2	ug/g	NC	35		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Leachate Blank: A blank matrix containing all reagents used in the leaching procedure. Used to determine any process contamination.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The matrix spike was reanalyzed to confirm result.

Maxxam Job #: B7F7761
Report Date: 2017/08/02

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Sampler Initials: RM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s)

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page

25 Jul - 23

Deepthi Sha

IN QMS

BA DOE

11111111111111111111

11761

Qty

NS

PNV 1247

BRM-030505-50

Proposed Manager

08/17

11111111111111111111

120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

MOE REFUTATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXI QUALITY WATER CLAIM OF CUS TODAY

Regular (Standard) TAT
via e-mail 41 hours
4. Training and Development
Please refer Standard in Appendix 1
Monday 2008
Rush AT 72 hours submission



8
7
55
4
9
8
6
6
4
55

FOR THE QUALITY OF WATER SUPPLY, THE QUALITY OF WATER MUST BE SUBMITTED ON THE MAXI QUALITY WATER CLAIM OF CUS TODAY

2

7

25

Logarithmic Mean Error

df = 10

MCLE REGURATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE
SUBMITTED TO THE HAWAII DRINKING WATER CLINIC OF CUSTODY

UNAPPROVED BY EPA 100100

Please provide a copy of this to the EPA

1

+

5

+

+

+

+

+

+

Sample must be submitted to the EPA for analysis
until the results are received

Page 1 of 1

ALL REGIMENTS DRINKING WATER OPERATIONS MUST BE ELIMINATED ON THE MOUNTAIN DRINKING WATER CHAIN OF CUSTODY

1100 1100 1100 1100

Page 1 of 1

SAMPLES MUST BE TESTED FOR ALL 1100 1100 1100 1100

Download your free white paper today!

Page 56 of 56

Your Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Your C.O.C. #: 620639-01-01, 620639-02-01

Attention: Rebecca Moser

exp Services Inc
4 Cedar Pointe Drive
Unit L
Barrie, ON
L4N 5R7

Report Date: 2017/08/1
Report #: R464273
Version: 2 - Fin

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B7G4732

Received: 2017/08/02, 12:19

Sample Matrix: Soil
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Hot Water Extractable Boron	12	2017/08/04	2017/08/04	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	12	2017/08/04	2017/08/05	CAM SOP-00457	OMOE E3015 m
Conductivity	4	2017/08/04	2017/08/04	CAM SOP-00414	OMOE E3530 v1 m
Conductivity	8	2017/08/08	2017/08/08	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	4	2017/08/03	2017/08/04	CAM SOP-00436	EPA 3060/7199 m
Hexavalent Chromium in Soil by IC (3)	8	2017/08/04	2017/08/08	CAM SOP-00436	EPA 3060/7199 m
Strong Acid Leachable Metals by ICPMS	12	2017/08/04	2017/08/09	CAM SOP-00447	EPA 60208 m
Moisture	12	N/A	2017/08/04	CAM SOP-00445	Carter 2nd ed 51.2 m
pH CaCl2 EXTRACT	4	2017/08/04	2017/08/04	CAM SOP-00413	EPA 9045 D m
pH CaCl2 EXTRACT	8	2017/08/08	2017/08/08	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	4	N/A	2017/08/08	CAM SOP-00102	EPA 6010C
Sodium Adsorption Ratio (SAR)	8	N/A	2017/08/09	CAM SOP-00102	EPA 6010C
SAR - ICP Metals	4	2017/08/04	2017/08/04	CAM SOP-00408	EPA 6010D m
SAR - ICP Metals	8	2017/08/08	2017/08/08	CAM SOP-00408	EPA 6010D m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported: unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotopic dilution methods.

Results relate to samples tested.

Your Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE
Your C.O.C. #: 620639-01-01, 620639-02-01

Attention: Rebecca Moser

exp Services Inc
4 Cedar Pointe Drive
Unit L
Barrie, ON
L4N 5R7

Report Date: 2017/08/1
Report #: R464273
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: 8764732

Received: 2017/08/02, 12:19

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference

(1) Soils are reported on a dry weight basis unless otherwise specified.

Encryption Key



Runklin Gracian
Project Manager
10 Aug 2017 17:16:54

Please direct all questions regarding this Certificate of Analysis to your Project Manager

Deepthi Shaji, Project Manager

Email: dshaji@maxxam.ca

Phone# (905) 817-5700 Ext 5807

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			EWD230		EWD231	EWD232	EWD233		
Sampling Date			2017/07/31 12:30		2017/07/31 13:15	2017/07/28 07:30	2017/07/28 07:55		
COC Number			620639-01-01		620639-01-01	620639-01-01	620639-01-01		
	UNITS	Criteria	BH76 SS2	RDL	BH76 SS8	BH117 SS2	BH117 SS6	RDL	QC Batch

Calculated Parameters

Sodium Adsorption Ratio	N/A	5.0	23		2.9	7.1	2.3		5101702
-------------------------	-----	-----	----	--	-----	-----	-----	--	---------

Inorganics

Conductivity	mS/cm	0.7	5.2	0.002	0.38	0.34	0.16	0.002	5106186
Moisture	%	-	31	1.0	11	6.7	6.6	1.0	5105596
Available [CaCl2] pH	pH	-	7.18		7.68	7.69	8.02		5105969
WAD Cyanide (Free)	ug/g	0.051	0.04	0.04	<0.01	<0.01	<0.01	0.01	5106147

Metals

Soluble Calcium (Ca)	mg/L	-	107	0.5	19.6	7.3	6.9	0.5	5106180
Soluble Magnesium (Mg)	mg/L	-	3.4	0.5	1.5	<0.5	1.3	0.5	5106180
Soluble Sodium (Na)	mg/L	-	876	5	49	70	25	5	5106180

Inorganics

Chromium (VI)	ug/g	10	<0.2	0.2	<0.2	<0.2	<0.2	0.2	5104803
---------------	------	----	------	-----	------	------	------	-----	---------

Metals

Hot Water Ext. Boron (B)	ug/g	1.5	0.32	0.050	<0.050	<0.050	<0.050	0.050	5106118
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	0.20	<0.20	<0.20	<0.20	0.20	5106084
Acid Extractable Arsenic (As)	ug/g	18	<1.0	1.0	<1.0	<1.0	<1.0	1.0	5106084
Acid Extractable Barium (Ba)	ug/g	390	26	0.50	39	14	6.1	0.50	5106084
Acid Extractable Beryllium (Be)	ug/g	5	<0.20	0.20	0.24	<0.20	<0.20	0.20	5106084
Acid Extractable Boron (B)	ug/g	120	<5.0	5.0	<5.0	<5.0	<5.0	5.0	5106084
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.16	0.10	<0.10	<0.10	<0.10	0.10	5106084
Acid Extractable Chromium (Cr)	ug/g	160	8.4	1.0	13	8.5	11	1.0	5106084
Acid Extractable Cobalt (Co)	ug/g	22	2.0	0.10	3.5	2.2	2.1	0.10	5106084
Acid Extractable Copper (Cu)	ug/g	180	8.1	0.50	7.1	2.5	2.1	0.50	5106084
Acid Extractable Lead (Pb)	ug/g	120	11	1.0	2.7	2.6	1.2	1.0	5106084
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	0.50	<0.50	<0.50	<0.50	0.50	5106084
Acid Extractable Nickel (Ni)	ug/g	130	5.1	0.50	7.0	3.8	2.8	0.50	5106084
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	0.50	<0.50	<0.50	<0.50	0.50	5106084
Acid Extractable Silver (Ag)	ug/g	25	<0.20	0.20	<0.20	<0.20	<0.20	0.20	5106084
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.050	<0.050	<0.050	<0.050	0.050	5106084
Acid Extractable Uranium (U)	ug/g	23	1.4	0.050	0.33	0.28	0.38	0.050	5106084
Acid Extractable Vanadium (V)	ug/g	86	20	5.0	25	25	38	5.0	5106084

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Texture

Maxxam Job #: B7G4732
Report Date: 2017/08/10

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			EWD230		EWD231	EWD232	EWD233		
Sampling Date			2017/07/31 12:30		2017/07/31 13:15	2017/07/28 07:30	2017/07/28 07:55		
CQC Number			620639-01-01		620639-01-01	620639-01-01	620639-01-01		
	UNITS	Criteria	BH76 SS2	RDL	BH76 SS8	BH117 SS2	BH117 SS6	RDL	QC Batch
Acid Extractable Zinc (Zn)	ug/g	340	46	5.0	22	13	8.2	5.0	5106084
Acid Extractable Mercury (Hg)	ug/g	1.8	<0.050	0.050	<0.050	<0.050	<0.050	0.050	5106084

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			EWD234	EWD235	EWD235	EWD236	EWD237		
Sampling Date			2017/07/26 12:40	2017/07/26 13:30	2017/07/26 13:30	2017/07/31 08:00	2017/07/31 08:40		
COC Number			620639-01-01	620639-01-01	620639-01-01	620639-01-01	620639-01-01		
	UNITS	Criteria	BH154 S52	BH154 S58	BH154 S58 Lab-Dup	BH150 S52	BH150 S56	RDL	QC Batch

Calculated Parameters

Sodium Adsorption Ratio	N/A	5.0	15	4.1		5.8	16		5101702
-------------------------	-----	-----	----	-----	--	-----	----	--	---------

Inorganics

Conductivity	mS/cm	0.7	0.85	0.19		0.22	1.4	0.002	5108433
Moisture	%	-	8.6	3.8	4.0	7.9	12	1.0	5106252
Available {CaCl2} pH	pH	-	7.89	8.04	8.11	7.54	7.97		5106270
WAD Cyanide (Free)	ug/g	0.051	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	5106133

Metals

Soluble Calcium (Ca)	mg/L	-	12.1	4.9		6.3	18.7	0.5	5108426
Soluble Magnesium (Mg)	mg/L	-	<0.5	<0.5		<0.5	0.8	0.5	5108426
Soluble Sodium (Na)	mg/L	-	185	33		53	260	5	5108426

Inorganics

Chromium (VI)	ug/g	10	<0.2	<0.2	<0.2	<0.2	0.2	0.2	5105849
---------------	------	----	------	------	------	------	-----	-----	---------

Metals

Hot Water Ext. Boron (B)	ug/g	1.5	0.12	<0.050		0.11	0.052	0.050	5106118
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	<0.20		<0.20	<0.20	0.20	5106347
Acid Extractable Arsenic (As)	ug/g	18	<1.0	<1.0		<1.0	<1.0	1.0	5106347
Acid Extractable Barium (Ba)	ug/g	390	35	6.9		16	130	0.50	5106347
Acid Extractable Beryllium (Be)	ug/g	5	2.5	<0.20		0.21	0.48	0.20	5106347
Acid Extractable Boron (B)	ug/g	120	54	<5.0		<5.0	8.4	5.0	5106347
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10		<0.10	<0.10	0.10	5106347
Acid Extractable Chromium (Cr)	ug/g	160	10	4.6		9.9	22	1.0	5106347
Acid Extractable Cobalt (Co)	ug/g	22	3.4	1.5		2.8	8.2	0.10	5106347
Acid Extractable Copper (Cu)	ug/g	180	6.0	3.2		3.8	15	0.50	5106347
Acid Extractable Lead (Pb)	ug/g	120	3.6	1.2		2.6	5.7	1.0	5106347
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	<0.50		<0.50	<0.50	0.50	5106347
Acid Extractable Nickel (Ni)	ug/g	130	5.9	2.8		5.8	16	0.50	5106347
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	<0.50		<0.50	<0.50	0.50	5106347
Acid Extractable Silver (Ag)	ug/g	25	<0.20	<0.20		<0.20	<0.20	0.20	5106347
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	<0.050		<0.050	0.14	0.050	5106347
Acid Extractable Uranium (U)	ug/g	23	0.32	0.22		0.34	0.41	0.050	5106347

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			EWD234	EWD235	EWD235	EWD236	EWD237		
Sampling Date			2017/07/26 12:40	2017/07/26 13:30	2017/07/26 13:30	2017/07/31 08:00	2017/07/31 08:40		
COC Number			620639-01-01	620639-01-01	620639-01-01	620639-01-01	620639-01-01		
	UNITS	Criteria	BH154 S52	BH154 S58	BH154 S58 Lab-Dup	BH150 S52	BH150 S56	RDL	QC Batch
Acid Extractable Vanadium (V)	ug/g	86	25	11		24	35	5.0	5106347
Acid Extractable Zinc (Zn)	ug/g	340	21	7.2		13	40	5.0	5106347
Acid Extractable Mercury (Hg)	ug/g	1.8	<0.050	<0.050		<0.050	<0.050	0.050	5106347

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Texture

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			EWD238	EWD239	EWD239	EWD240	EWD241		
Sampling Date			2017/07/27 12:45	2017/07/27 13:25	2017/07/27 13:25	2017/07/27 16:10	2017/07/27 16:50		
COC Number			620639-01-01	620639-01-01	620639-01-01	620639-02-01	620639-02-01		
	UNITS	Criteria	BH136 SS2	BH136 SS7	BH136 SS7 Lab-Dup	BHE43 SS2	BHE43 SS8	RDL	QC Batch

Calculated Parameters

Sodium Adsorption Ratio	N/A	5.0	8.4	2.8		10	2.7		5101702
-------------------------	-----	-----	-----	-----	--	----	-----	--	---------

Inorganics

Conductivity	mS/cm	0.7	0.49	0.26		1.0	0.18	0.002	5108433
Moisture	%	-	16	6.9		13	6.4	1.0	5106252
Available [CaCl2] pH	pH	-	7.71	7.95		7.65	8.01		5106270
WAD Cyanide (Free)	ug/g	0.051	0.01	<0.01		<0.01	<0.01	0.01	5106133

Metals

Soluble Calcium (Ca)	mg/L	-	8.2	10.3		21.8	6.9	0.5	5108426
Soluble Magnesium (Mg)	mg/L	-	<0.5	<0.5		1.8	<0.5	0.5	5108426
Soluble Sodium (Na)	mg/L	-	87	32		189	26	5	5108426

Inorganics

Chromium (VI)	ug/g	10	<0.2	<0.2		<0.2	<0.2	0.2	5105849
---------------	------	----	------	------	--	------	------	-----	---------

Metals

Hot Water Ext. Boron (B)	ug/g	1.5	0.15	<0.050		0.20	<0.050	0.050	5106118
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5106347
Acid Extractable Arsenic (As)	ug/g	18	<1.0	<1.0	<1.0	2.1	<1.0	1.0	5106347
Acid Extractable Barium (Ba)	ug/g	390	36	31	32	72	30	0.50	5106347
Acid Extractable Beryllium (Be)	ug/g	5	0.21	<0.20	<0.20	0.48	<0.20	0.20	5106347
Acid Extractable Boron (B)	ug/g	120	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5106347
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	0.28	<0.10	0.10	5106347
Acid Extractable Chromium (Cr)	ug/g	160	11	9.1	8.9	16	8.7	1.0	5106347
Acid Extractable Cobalt (Co)	ug/g	22	3.6	3.0	2.9	5.5	2.6	0.10	5106347
Acid Extractable Copper (Cu)	ug/g	180	6.6	5.6	5.4	9.3	4.5	0.50	5106347
Acid Extractable Lead (Pb)	ug/g	120	7.9	1.8	1.8	10	1.7	1.0	5106347
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5106347
Acid Extractable Nickel (Ni)	ug/g	130	6.1	5.2	5.3	9.2	4.5	0.50	5106347
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5106347
Acid Extractable Silver (Ag)	ug/g	25	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5106347
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	<0.050	<0.050	0.098	<0.050	0.050	5106347
Acid Extractable Uranium (U)	ug/g	23	0.29	0.28	0.28	0.36	0.31	0.050	5106347

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Texture

Maxxam Job #: B7G4732
Report Date: 2017/08/10

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			EWD238	EWD239	EWD239	EWD240	EWD241		
Sampling Date			2017/07/27 12:45	2017/07/27 13:25	2017/07/27 13:25	2017/07/27 16:10	2017/07/27 16:50		
COC Number			620639-01-01	620639-01-01	620639-01-01	620639-02-01	620639-02-01		
	UNITS	Criteria	BH136 SS2	BH136 SS7	BH136 SS7 Lab-Dup	BHE43 SS2	BHE43 SS8	RDL	QC Batch
Acid Extractable Vanadium (V)	ug/g	86	28	23	22	31	22	5.0	5106347
Acid Extractable Zinc (Zn)	ug/g	340	25	13	13	72	11	5.0	5106347
Acid Extractable Mercury (Hg)	ug/g	1.8	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	5106347

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Texture

Maxxam Job #: B7G4732
Report Date: 2017/08/10

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE

TEST SUMMARY

Maxxam ID: EWD230
Sample ID: BH76 SS2
Matrix: Soil

Collected: 2017/07/31
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106147	2017/08/04	2017/08/05	Louise Harding
Conductivity	AT	5106186	2017/08/04	2017/08/04	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5104803	2017/08/03	2017/08/04	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106084	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5105596	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5105969	2017/08/04	2017/08/04	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/08	Automated Statchk
SAR - ICP Metals	ICP	5106180	2017/08/04	2017/08/04	Jolly John

Maxxam ID: EWD231
Sample ID: BH76 SS8
Matrix: Soil

Collected: 2017/07/31
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106147	2017/08/04	2017/08/05	Louise Harding
Conductivity	AT	5106186	2017/08/04	2017/08/04	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5104803	2017/08/03	2017/08/04	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106084	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5105596	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5105969	2017/08/04	2017/08/04	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/08	Automated Statchk
SAR - ICP Metals	ICP	5106180	2017/08/04	2017/08/04	Jolly John

Maxxam ID: EWD232
Sample ID: BH117 SS2
Matrix: Soil

Collected: 2017/07/28
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106147	2017/08/04	2017/08/05	Louise Harding
Conductivity	AT	5106186	2017/08/04	2017/08/04	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5104803	2017/08/03	2017/08/04	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106084	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5105596	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5105969	2017/08/04	2017/08/04	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/08	Automated Statchk
SAR - ICP Metals	ICP	5106180	2017/08/04	2017/08/04	Jolly John

Maxxam Job #: B7G4732
Report Date: 2017/08/10

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE

TEST SUMMARY

Maxxam ID: EWD233
Sample ID: BH117 SS6
Matrix: Soil

Collected: 2017/07/28
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106147	2017/08/04	2017/08/05	Louise Harding
Conductivity	AT	5106186	2017/08/04	2017/08/04	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5104803	2017/08/03	2017/08/04	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106084	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5105596	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5105969	2017/08/04	2017/08/04	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/08	Automated Statchk
SAR - ICP Metals	ICP	5106180	2017/08/04	2017/08/04	Jolly John

Maxxam ID: EWD234
Sample ID: BH154 SS2
Matrix: Soil

Collected: 2017/07/26
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106133	2017/08/04	2017/08/05	Lantian Jin
Conductivity	AT	5108433	2017/08/08	2017/08/08	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5105849	2017/08/04	2017/08/08	Manoj Kumar Gera
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106347	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5106252	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5106270	2017/08/08	2017/08/08	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/09	Automated Statchk
SAR - ICP Metals	ICP	5108426	2017/08/08	2017/08/08	Azita Fazaeli

Maxxam ID: EWD235
Sample ID: BH154 SS8
Matrix: Soil

Collected: 2017/07/26
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106133	2017/08/04	2017/08/05	Lantian Jin
Conductivity	AT	5108433	2017/08/08	2017/08/08	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5105849	2017/08/04	2017/08/08	Manoj Kumar Gera
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106347	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5106252	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5106270	2017/08/08	2017/08/08	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/09	Automated Statchk
SAR - ICP Metals	ICP	5108426	2017/08/08	2017/08/08	Azita Fazaeli

Maxxam Job #: B7G4732
Report Date: 2017/08/10

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE

TEST SUMMARY

Maxxam ID: EWD235 Dup
Sample ID: BH154 SS8
Matrix: Soil

Collected: 2017/07/26
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	5106133	2017/08/04	2017/08/05	Lantian Jin
Hexavalent Chromium in Soil by IC	IC/SPEC	5105849	2017/08/04	2017/08/08	Manoj Kumar Gera
Moisture	BAL	5106252	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5106270	2017/08/08	2017/08/08	Tahir Anwar

Maxxam ID: EWD236
Sample ID: BH150 SS2
Matrix: Soil

Collected: 2017/07/31
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106133	2017/08/04	2017/08/05	Lantian Jin
Conductivity	AT	5108433	2017/08/08	2017/08/08	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5105849	2017/08/04	2017/08/08	Manoj Kumar Gera
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106347	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5106252	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5106270	2017/08/08	2017/08/08	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/09	Automated Statchk
SAR - ICP Metals	ICP	5108426	2017/08/08	2017/08/08	Azita Fazaeli

Maxxam ID: EWD237
Sample ID: BH150 SS6
Matrix: Soil

Collected: 2017/07/31
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106133	2017/08/04	2017/08/05	Lantian Jin
Conductivity	AT	5108433	2017/08/08	2017/08/08	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5105849	2017/08/04	2017/08/08	Manoj Kumar Gera
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106347	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5106252	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5106270	2017/08/08	2017/08/08	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/09	Automated Statchk
SAR - ICP Metals	ICP	5108426	2017/08/08	2017/08/08	Azita Fazaeli

Maxxam ID: EWD238
Sample ID: BH136 SS2
Matrix: Soil

Collected: 2017/07/27
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106133	2017/08/04	2017/08/05	Lantian Jin
Conductivity	AT	5108433	2017/08/08	2017/08/08	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5105849	2017/08/04	2017/08/08	Manoj Kumar Gera
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106347	2017/08/04	2017/08/09	Daniel Teclu

Maxxam Job #: B7G4732
Report Date: 2017/08/10

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE

TEST SUMMARY

Maxxam ID: EWD238
Sample ID: BH136 SS2
Matrix: Soil

Collected: 2017/07/27
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	5106252	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5106270	2017/08/08	2017/08/08	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/09	Automated Statchk
SAR - ICP Metals	ICP	5108426	2017/08/08	2017/08/08	Azita Fazaeli

Maxxam ID: EWD239
Sample ID: BH136 SS2
Matrix: Soil

Collected: 2017/07/27
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106133	2017/08/04	2017/08/05	Lantian Jin
Conductivity	AT	5108433	2017/08/08	2017/08/08	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5105849	2017/08/04	2017/08/08	Manoj Kumar Gera
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106347	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5106252	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5106270	2017/08/08	2017/08/08	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/09	Automated Statchk
SAR - ICP Metals	ICP	5108426	2017/08/08	2017/08/08	Azita Fazaeli

Maxxam ID: EWD239 Dup
Sample ID: BH136 SS2
Matrix: Soil

Collected: 2017/07/27
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106347	2017/08/04	2017/08/09	Daniel Teclu

Maxxam ID: EWD240
Sample ID: BHE43 SS2
Matrix: Soil

Collected: 2017/07/27
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106133	2017/08/04	2017/08/05	Lantian Jin
Conductivity	AT	5108433	2017/08/08	2017/08/08	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5105849	2017/08/04	2017/08/08	Manoj Kumar Gera
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106347	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5106252	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5106270	2017/08/08	2017/08/08	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/09	Automated Statchk
SAR - ICP Metals	ICP	5108426	2017/08/08	2017/08/08	Azita Fazaeli

Maxxam Job #: B7G4732
Report Date: 2017/08/10

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE

TEST SUMMARY

Maxxam ID: EWD241
Sample ID: 8HE43 SS8
Matrix: Soil

Collected: 2017/07/27
Shipped:
Received: 2017/08/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5106118	2017/08/04	2017/08/04	Jolly John
Free (WAD) Cyanide	TECH	5106133	2017/08/04	2017/08/05	Lantian Jin
Conductivity	AT	5108433	2017/08/08	2017/08/08	Neil Dassanayake
Hexavalent Chromium in Soil by IC	IC/SPEC	5105849	2017/08/04	2017/08/08	Manoj Kumar Gera
Strong Acid Leachable Metals by ICPMS	ICP/MS	5106347	2017/08/04	2017/08/09	Daniel Teclu
Moisture	BAL	5106252	N/A	2017/08/04	Nimarta Singh
pH CaCl2 EXTRACT	AT	5106270	2017/08/08	2017/08/08	Tahir Anwar
Sodium Adsorption Ratio (SAR)	CALC/MET	5101702	N/A	2017/08/09	Automated Statchk
SAR ICP Metals	ICP	5108426	2017/08/08	2017/08/08	Azita Fazaeli

Maxxam Job #: B7G4732
Report Date: 2017/08/10

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	13°C
-----------	------

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

Exp Services Inc
Client Project #: BRM-0003B305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5104803	Chromium (VI)	2017/08/04	76	75 - 125	89	80 - 120	<0.2	ug/g	NC	35
5105596	Moisture	2017/08/04							2.1	20
5105849	Chromium (VI)	2017/08/08	88	75 - 125	92	80 - 120	<0.2	ug/g	NC	35
5105969	Available (CaCl ₂) pH	2017/08/04			99	97 - 103			0.73	N/A
5106084	Acid Extractable Antimony (Sb)	2017/08/10	95	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5106084	Acid Extractable Arsenic (As)	2017/08/10	102	75 - 125	98	80 - 120	<1.0	ug/g	NC	30
5106084	Acid Extractable Barium (Ba)	2017/08/10	103	75 - 125	101	80 - 120	<0.50	ug/g	22	30
5106084	Acid Extractable Beryllium (Be)	2017/08/10	100	75 - 125	94	80 - 120	<0.20	ug/g	NC	30
5106084	Acid Extractable Boron (B)	2017/08/10	95	75 - 125	91	80 - 120	<5.0	ug/g	NC	30
5106084	Acid Extractable Cadmium (Cd)	2017/08/10	99	75 - 125	101	80 - 120	<0.10	ug/g	103 (1)	30
5106084	Acid Extractable Chromium (Cr)	2017/08/10	101	75 - 125	99	80 - 120	<1.0	ug/g	8.7	30
5106084	Acid Extractable Cobalt (Co)	2017/08/10	100	75 - 125	99	80 - 120	<0.10	ug/g	1.2	30
5106084	Acid Extractable Copper (Cu)	2017/08/10	96	75 - 125	98	80 - 120	<0.50	ug/g	1.9	30
5106084	Acid Extractable Lead (Pb)	2017/08/10	95	75 - 125	99	80 - 120	<1.0	ug/g	19	30
5106084	Acid Extractable Mercury (Hg)	2017/08/10	93	75 - 125	97	80 - 120	<0.050	ug/g	NC	30
5106084	Acid Extractable Molybdenum (Mo)	2017/08/10	98	75 - 125	96	80 - 120	<0.50	ug/g	NC	30
5106084	Acid Extractable Nickel (Ni)	2017/08/10	97	75 - 125	100	80 - 120	<0.50	ug/g	8.1	30
5106084	Acid Extractable Selenium (Se)	2017/08/10	99	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5106084	Acid Extractable Silver (Ag)	2017/08/10	97	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5106084	Acid Extractable Thallium (Tl)	2017/08/10	98	75 - 125	97	80 - 120	<0.050	ug/g	NC	30
5106084	Acid Extractable Uranium (U)	2017/08/10	97	75 - 125	97	80 - 120	<0.050	ug/g	26	30
5106084	Acid Extractable Vanadium (V)	2017/08/10	95	75 - 125	99	80 - 120	<5.0	ug/g	6.2	30
5106084	Acid Extractable Zinc (Zn)	2017/08/10	103	75 - 125	101	80 - 120	<5.0	ug/g	19	30
5106118	Hot Water Ext. Boron (B)	2017/08/04	106	75 - 125	100	75 - 125	<0.050	ug/g	1.6	40
5106133	WAD Cyanide (Free)	2017/08/05	94	75 - 125	93	80 - 120	<0.01	ug/g	NC	35
5106147	WAD Cyanide (Free)	2017/08/05	93	75 - 125	94	80 - 120	<0.01	ug/g	NC	35
5106180	Soluble Calcium (Ca)	2017/08/04			107	80 - 120	<0.5	mg/L	1.9	30
5106180	Soluble Magnesium (Mg)	2017/08/04			100	80 - 120	<0.5	mg/L	8.3	30
5106180	Soluble Sodium (Na)	2017/08/04			93	80 - 120	<5	mg/L	NC	30
5106186	Conductivity	2017/08/04			100	90 - 110	<0.002	mS/cm	4.8	10
5106252	Moisture	2017/08/04							5.1	20

QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc
Client Project #: BRM-00038305-80
Site Location: MCKAY RD W & VETERANS DR, BARRIE

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5106270	Available (CaCl2) pH	2017/08/08			100	97 - 103			0.88	N/A
5106347	Acid Extractable Antimony (Sb)	2017/08/09	96	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5106347	Acid Extractable Arsenic (As)	2017/08/09	101	75 - 125	106	80 - 120	<1.0	ug/g	NC	30
5106347	Acid Extractable Barium (Ba)	2017/08/09	NC	75 - 125	102	80 - 120	<0.50	ug/g	6.2	30
5106347	Acid Extractable Beryllium (Be)	2017/08/09	103	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5106347	Acid Extractable Boron (B)	2017/08/09	99	75 - 125	100	80 - 120	<5.0	ug/g	NC	30
5106347	Acid Extractable Cadmium (Cd)	2017/08/09	100	75 - 125	97	80 - 120	<0.10	ug/g	NC	30
5106347	Acid Extractable Chromium (Cr)	2017/08/09	97	75 - 125	103	80 - 120	<1.0	ug/g	2.3	30
5106347	Acid Extractable Cobalt (Co)	2017/08/09	98	75 - 125	102	80 - 120	<0.10	ug/g	1.5	30
5106347	Acid Extractable Copper (Cu)	2017/08/09	98	75 - 125	101	80 - 120	<0.50	ug/g	2.5	30
5106347	Acid Extractable Lead (Pb)	2017/08/09	100	75 - 125	100	80 - 120	<1.0	ug/g	3.4	30
5106347	Acid Extractable Mercury (Hg)	2017/08/09	91	75 - 125	96	80 - 120	<0.050	ug/g	NC	30
5106347	Acid Extractable Molybdenum (Mo)	2017/08/09	98	75 - 125	99	80 - 120	<0.50	ug/g	NC	30
5106347	Acid Extractable Nickel (Ni)	2017/08/09	98	75 - 125	107	80 - 120	<0.50	ug/g	0.59	30
5106347	Acid Extractable Selenium (Se)	2017/08/09	101	75 - 125	106	80 - 120	<0.50	ug/g	NC	30
5106347	Acid Extractable Silver (Ag)	2017/08/09	101	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5106347	Acid Extractable Thallium (Tl)	2017/08/09	99	75 - 125	100	80 - 120	<0.050	ug/g	NC	30
5106347	Acid Extractable Uranium (U)	2017/08/09	100	75 - 125	99	80 - 120	<0.050	ug/g	1.1	30
5106347	Acid Extractable Vanadium (V)	2017/08/09	87	75 - 125	105	80 - 120	<5.0	ug/g	4.8	30
5106347	Acid Extractable Zinc (Zn)	2017/08/09	104	75 - 125	101	80 - 120	<5.0	ug/g	0.69	30
5108426	Soluble Calcium (Ca)	2017/08/08			94	80 - 120	<0.5	mg/L	0.69	30
5108426	Soluble Magnesium (Mg)	2017/08/08			93	80 - 120	<0.5	mg/L	21	30
5108426	Soluble Sodium (Na)	2017/08/08			98	80 - 120	<5	mg/L	1.4	30

QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc
Client Project #: BRM-00038305-B0
Site Location: MCKAY RD W & VETERANS DR, BARRIE

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5108433	Conductivity	2017/08/08			100	90 - 110	<0.002	mS/cm	1.4	10

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatures", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

11/10/2011 10:00:00 AM

MODE REGULATORY DRINKING WATER WITHIN THE PERMITTED CONSUMPTION LIMITS
SUBMITTED BY THE LOCAL DRINKING WATER UTILITY OF CUSTODY

Drinking water quality report for the year 2011

SS

SS

SS

QUALITY OF DRINKING WATER WITHIN THE PERMITTED CONSUMPTION LIMITS
SUBMITTED BY THE LOCAL DRINKING WATER UTILITY OF CUSTODY

