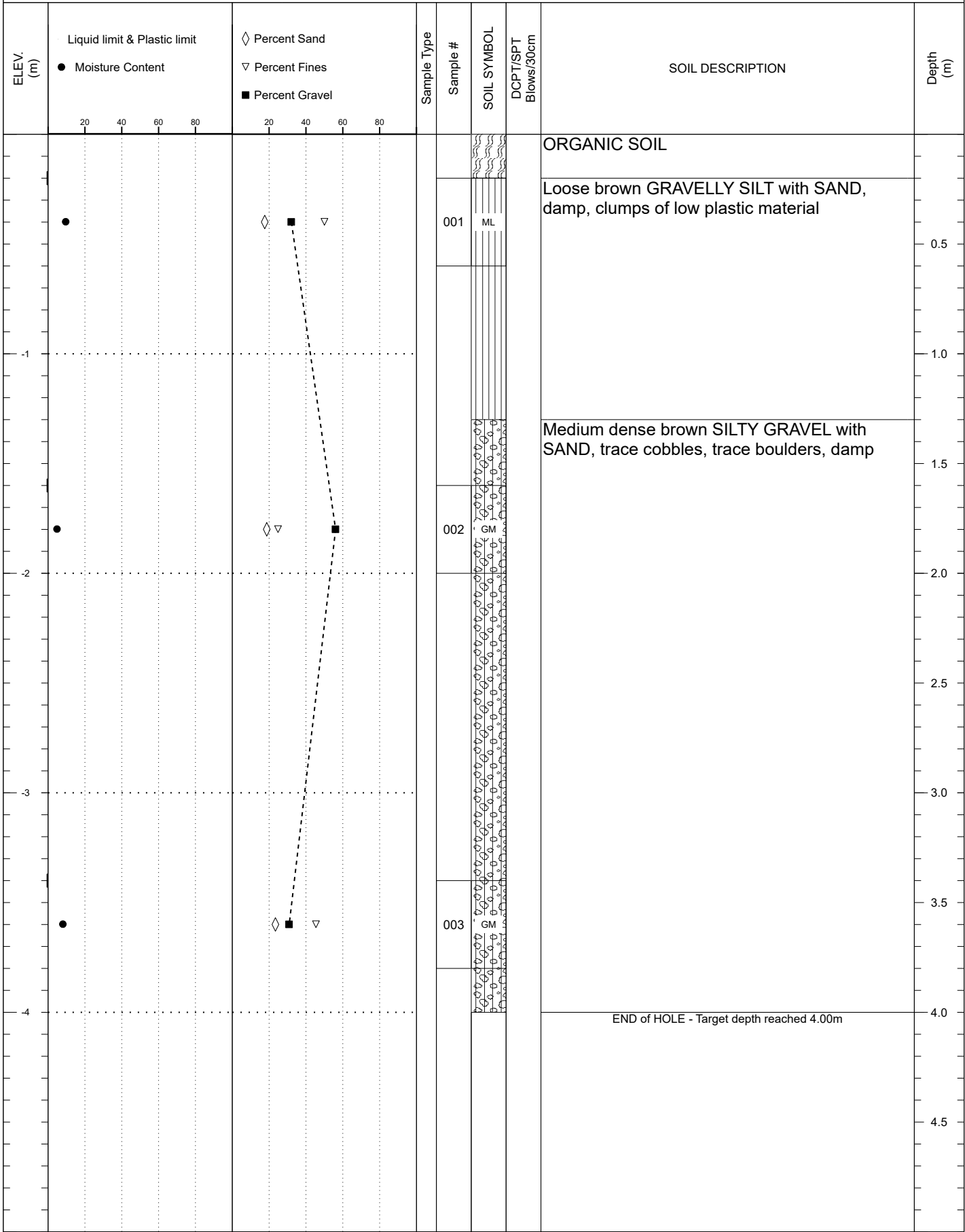


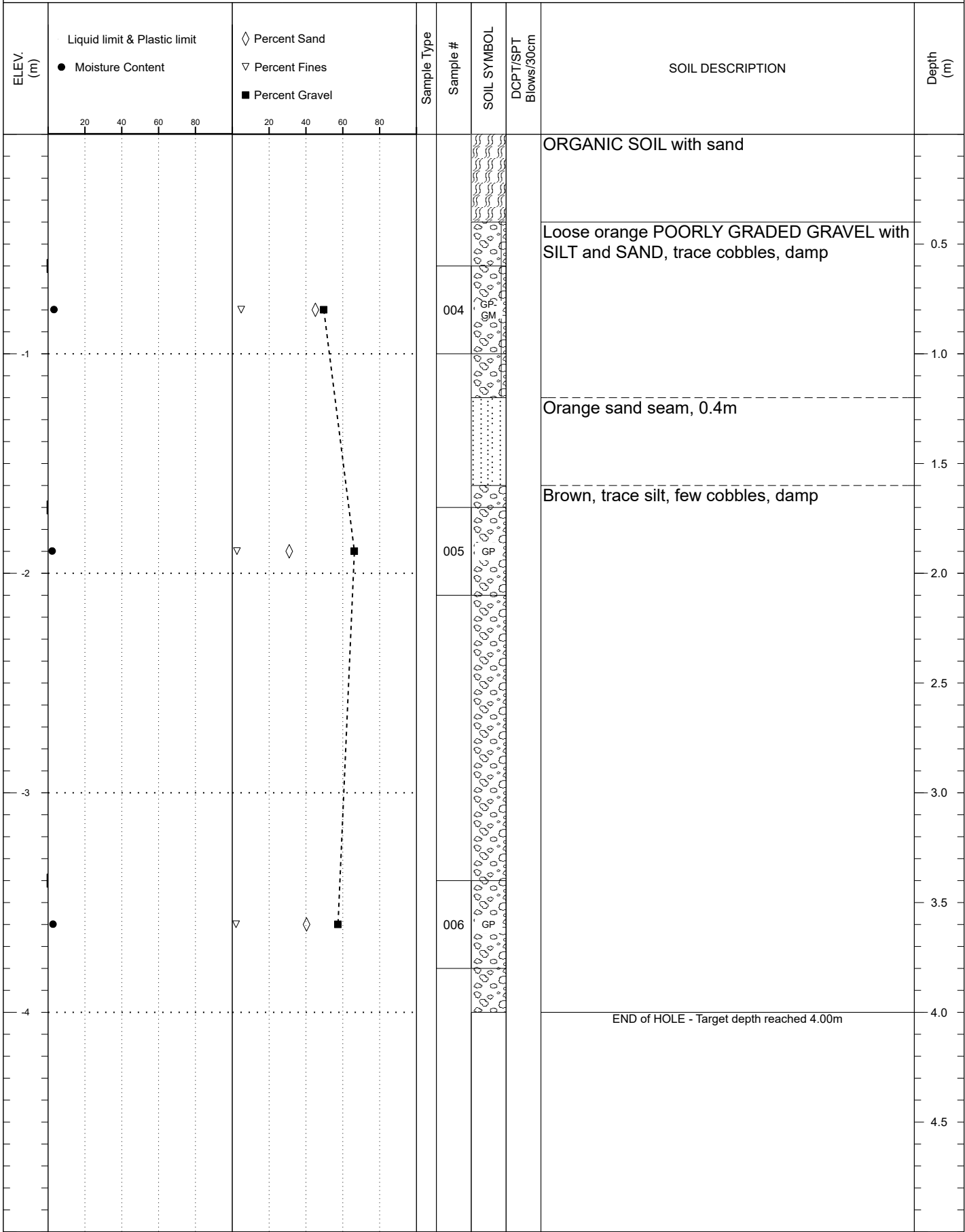
SUBSURFACE EXPLORATION AND TEST REPORT	Top Flat Creek Hill	SOURCE/TP#: 916-5852
CLIENT: Transportation Engineering	02 Klondike Hwy km 651 RHS	PROJECT NO: 115 O-04
EQUIPMENT: CAT 320CL	Coordinates: N7093612.38m E334054.73m	

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



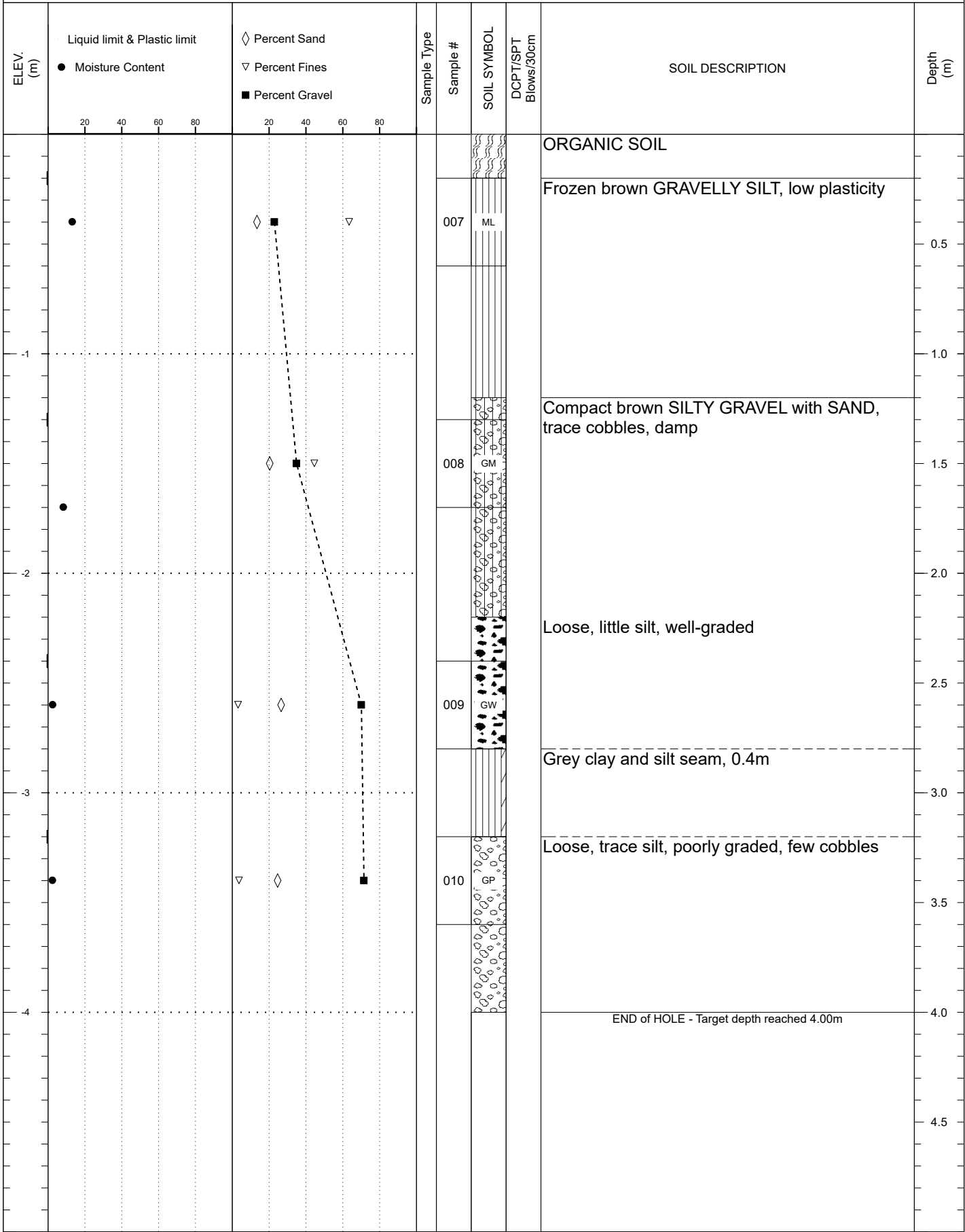
SUBSURFACE EXPLORATION AND TEST REPORT	Top Flat Creek Hill	SOURCE/TP#: 916-5853
CLIENT: Transportation Engineering	02 Klondike Hwy km 651 RHS	PROJECT NO: 115 O-04
EQUIPMENT: CAT 320CL	Coordinates: N7093637.95m E334124.45m	

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



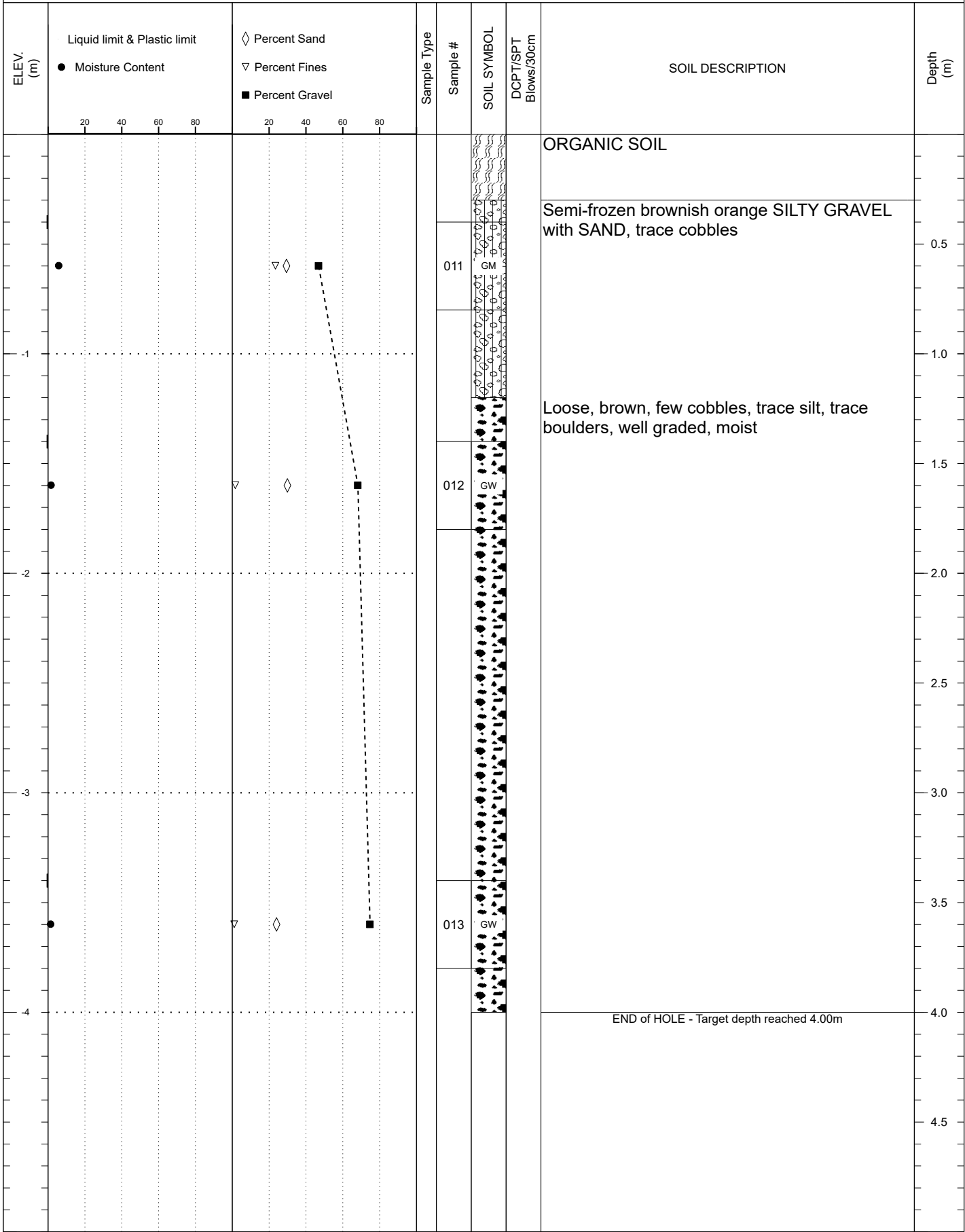
SUBSURFACE EXPLORATION AND TEST REPORT	Top Flat Creek Hill	SOURCE/TP#: 916-5855
CLIENT: Transportation Engineering	02 Klondike Hwy km 651 RHS	PROJECT NO: 115 O-04
EQUIPMENT: CAT 320CL	Coordinates: N7093680.91m E334031.06m	

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



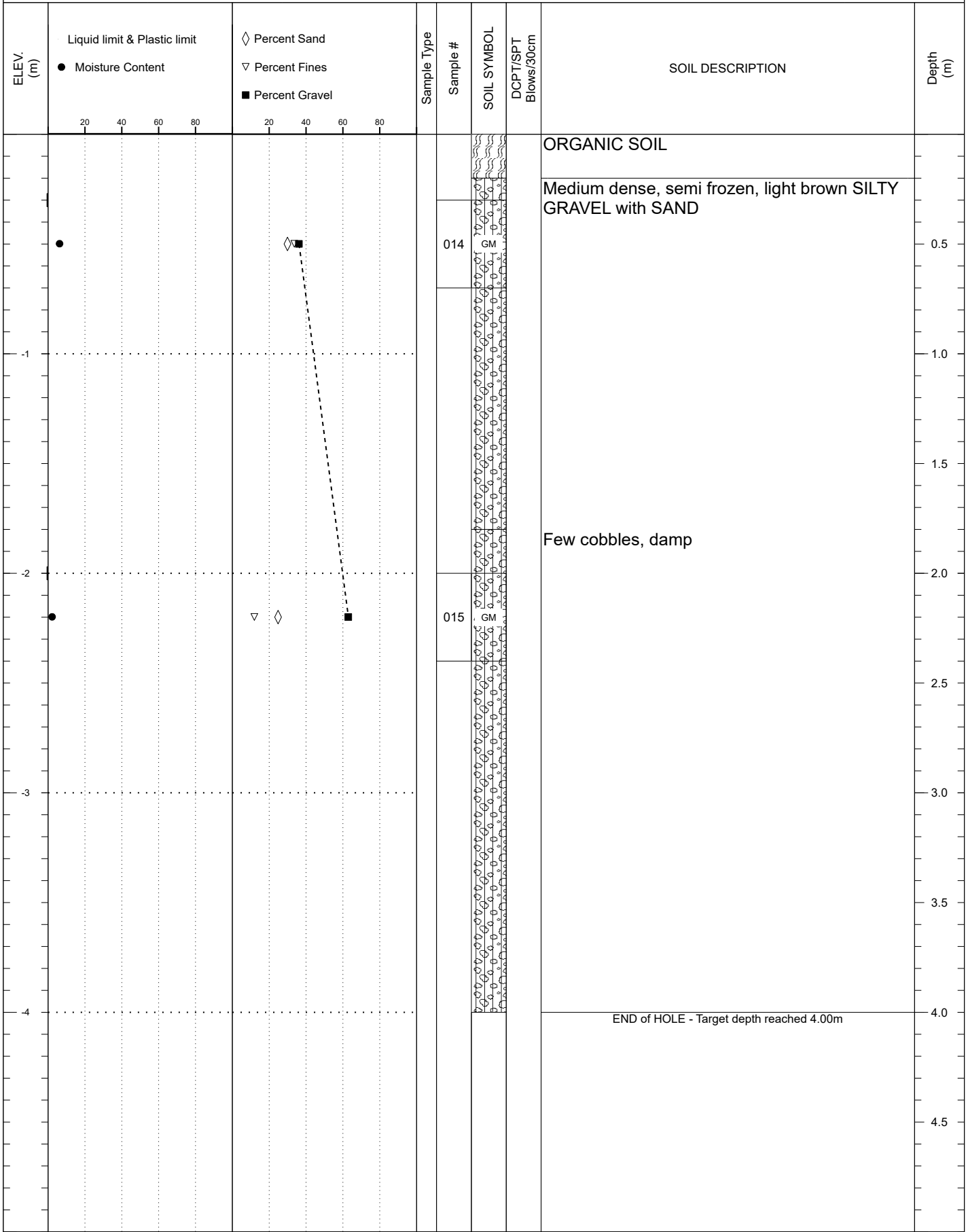
SUBSURFACE EXPLORATION AND TEST REPORT	Top Flat Creek Hill	SOURCE/TP#: 916-5856
CLIENT: Transportation Engineering	02 Klondike Hwy km 651 RHS	PROJECT NO: 115 O-04
EQUIPMENT: CAT 320CL	Coordinates: N7093672.07m E333876.59m	

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



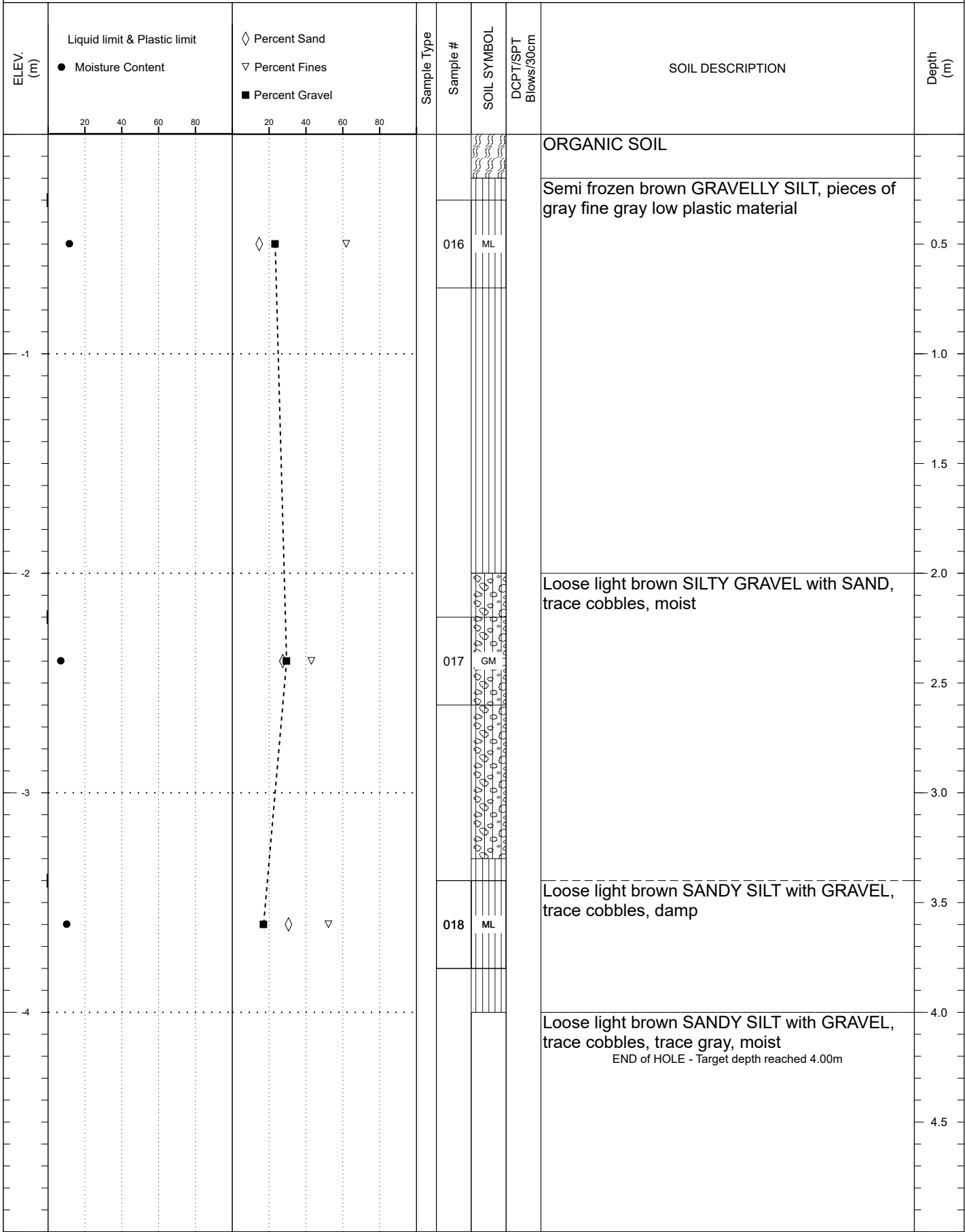
SUBSURFACE EXPLORATION AND TEST REPORT	Top Flat Creek Hill	SOURCE/TP#: 916-5857
CLIENT: Transportation Engineering	02 Klondike Hwy km 651 RHS	PROJECT NO: 115 O-04
EQUIPMENT: CAT 320CL	Coordinates: N7093672.07m E333876.59m	

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



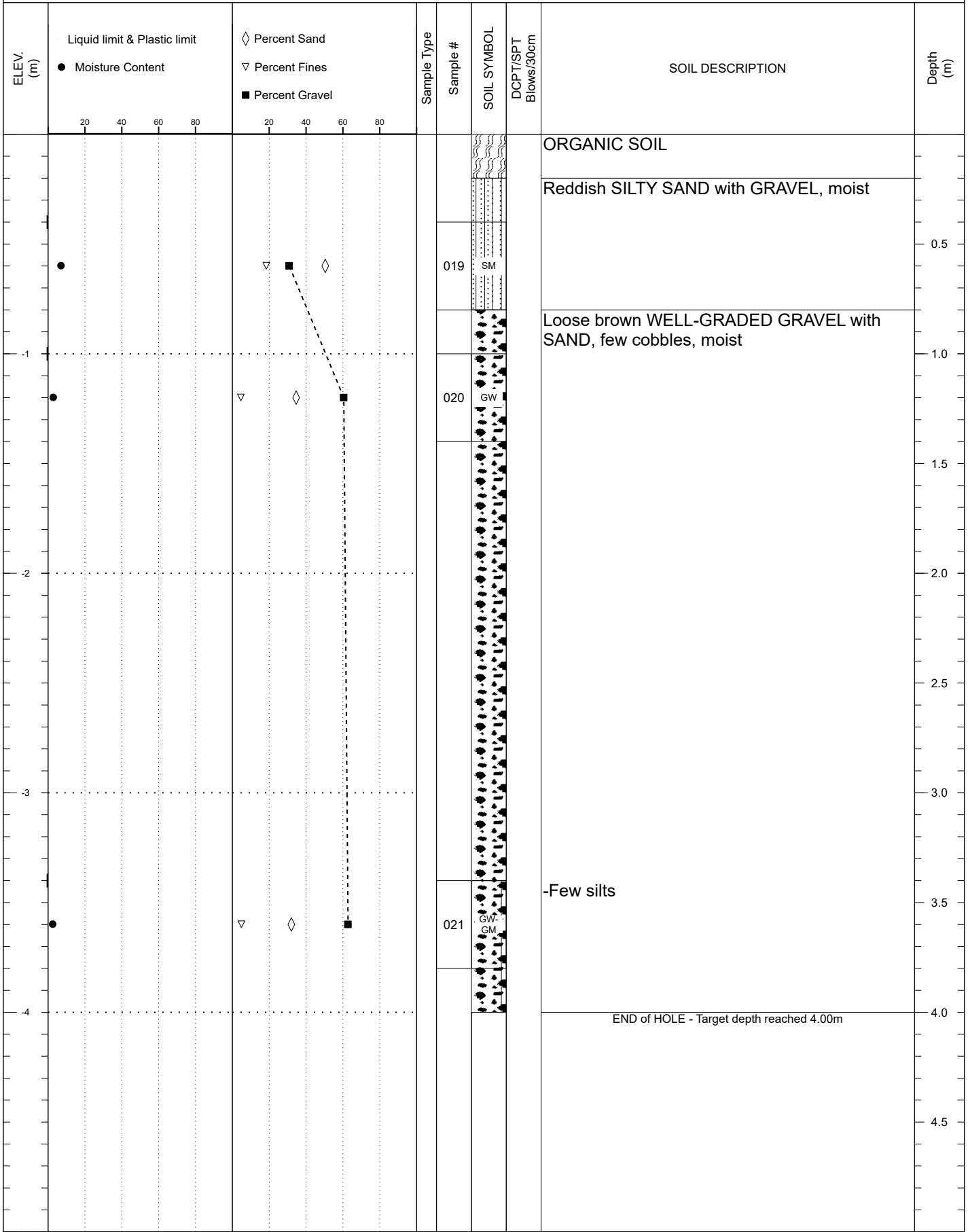
SUBSURFACE EXPLORATION AND TEST REPORT	Top Flat Creek Hill	SOURCE/TP#: 916-5858
CLIENT: Transportation Engineering	02 Klondike Hwy km 651 RHS	PROJECT NO: 115 O-04
EQUIPMENT: CAT 320CL	Coordinates: N7093729.24m E333934.16m	

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



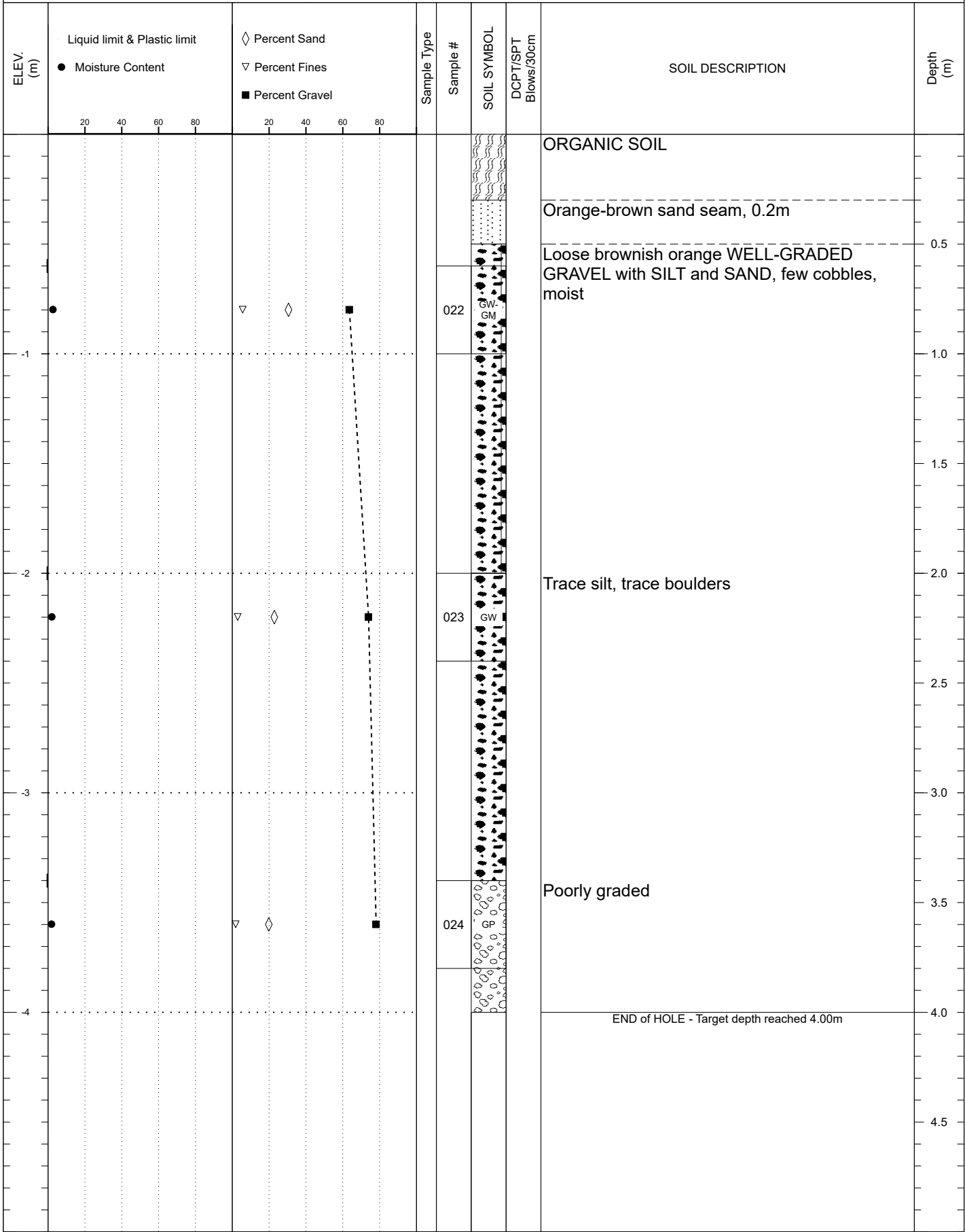
SUBSURFACE EXPLORATION AND TEST REPORT	Top Flat Creek Hill	SOURCE/TP#: 916-5859
CLIENT: Transportation Engineering	02 Klondike Hwy km 651 RHS	PROJECT NO: 115 O-04
EQUIPMENT: CAT 320CL	Coordinates: N7093749.54m E334006.39m	

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



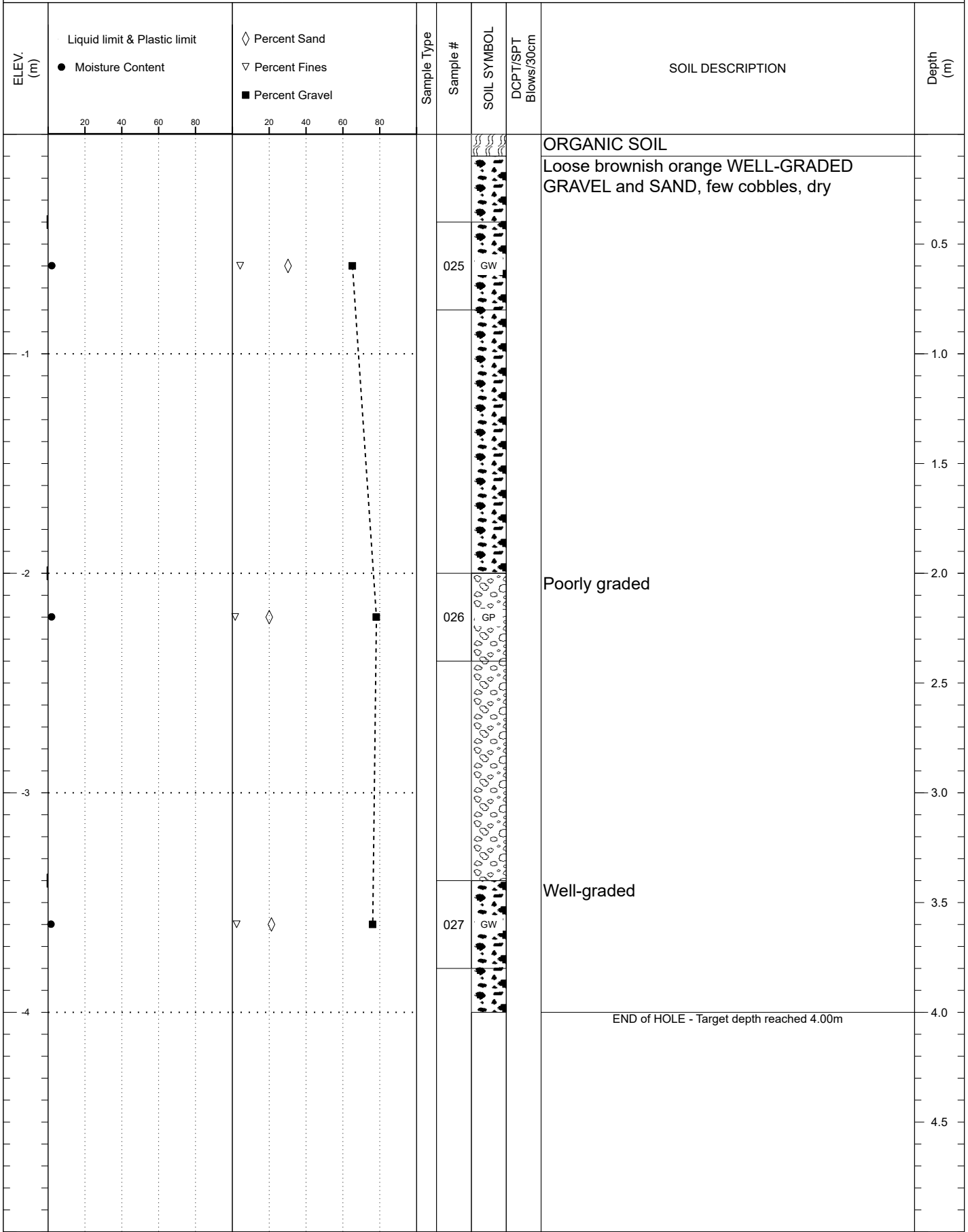
SUBSURFACE EXPLORATION AND TEST REPORT	Top Flat Creek Hill	SOURCE/TP#: 916-5860
CLIENT: Transportation Engineering	02 Klondike Hwy km 651 RHS	PROJECT NO: 115 O-04
EQUIPMENT: CAT 320CL	Coordinates: N7093827.04m E333983.57m	

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



SUBSURFACE EXPLORATION AND TEST REPORT	Top Flat Creek Hill	SOURCE/TP#: 916-5861
CLIENT: Transportation Engineering	02 Klondike Hwy km 651 RHS	PROJECT NO: 115 O-04
EQUIPMENT: CAT 320CL	Coordinates: N7093801.85m E333909.87m	

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



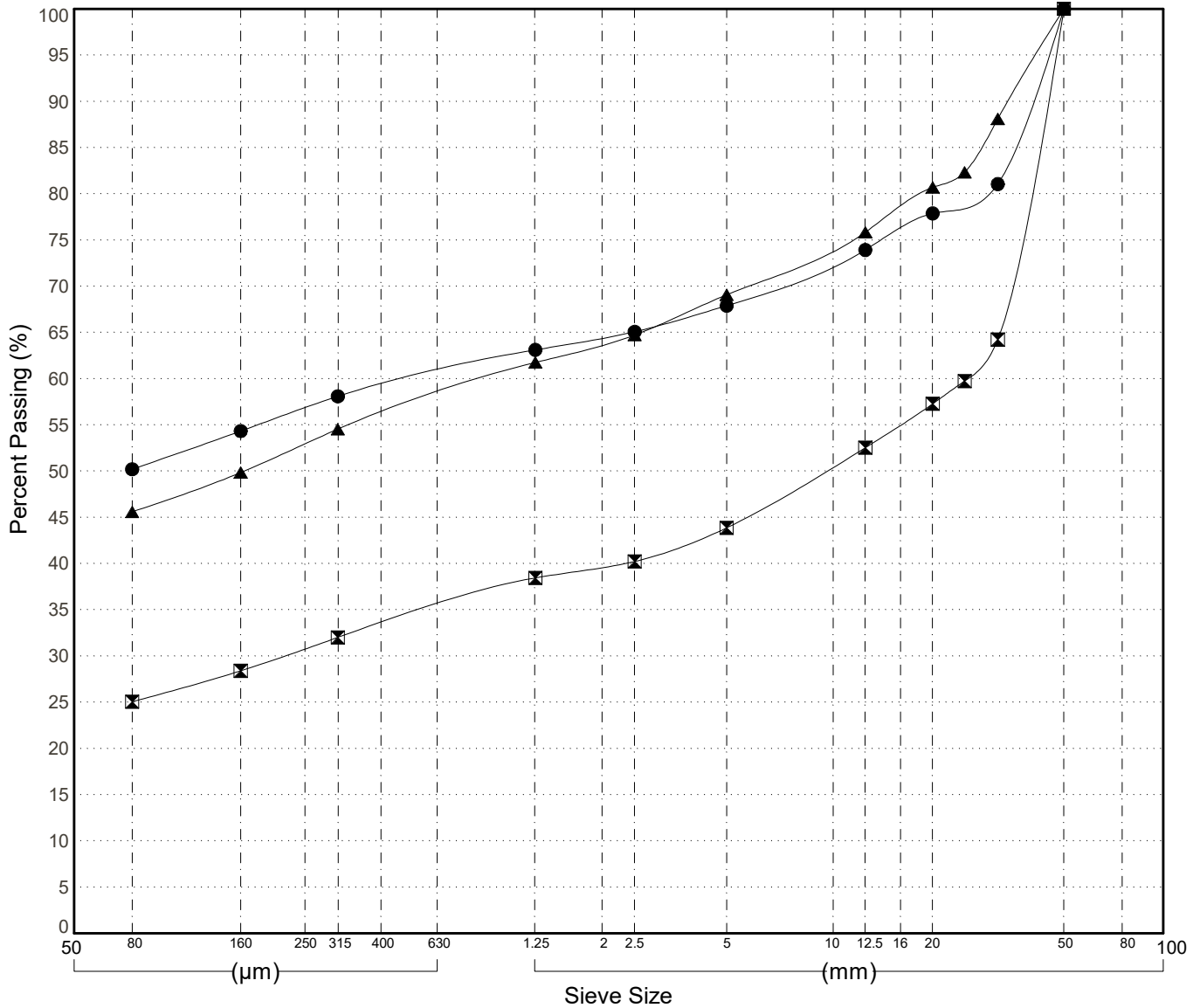
GRAIN SIZE ANALYSIS	Gravel Exploration Klondike Highway	SOURCE/TP#: 916-5852
McCrae Creek Contractor	Km 651.5 RHS	PROJECT NO: 552-202021-0204-06-1
CAT 320CL	Coordinates:Z07N N7091834m E628177m	ELEVATION: m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 001	001	0.2 to 0.6	GRAVELLY SILT with SAND(ML)	9.8	NP	NP	NP			
☒ 002	002	1.6 to 2.0	SILTY GRAVEL with SAND(GM)	5.0	NP	NP	NP			
▲ 003	003	3.4 to 3.8	SILTY GRAVEL with SAND(GM)	8.2	NP	NP	NP			

Field #	Lab #	%PASSING														% Breakdown				
			100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.0	0.850	0.400	0.250	0.160	0.080	Gravel	Sand	Silt	Clay
●	001	001	100.0	100.0	100.0	79.4	77.9	73.9	72.5	67.9	64.4	61.7	59.2	56.8	54.3	50.2	32.1	17.7	50.2	
☒	002	002	100.0	100.0	100.0	59.7	57.3	52.5	50.5	43.9	39.7	36.6	33.4	30.8	28.4	25.0	56.1	18.8	25.0	
▲	003	003	100.0	100.0	100.0	82.3	80.7	75.8	74.3	69.1	63.8	59.7	56.1	52.9	49.8	45.6	30.9	23.5	45.6	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



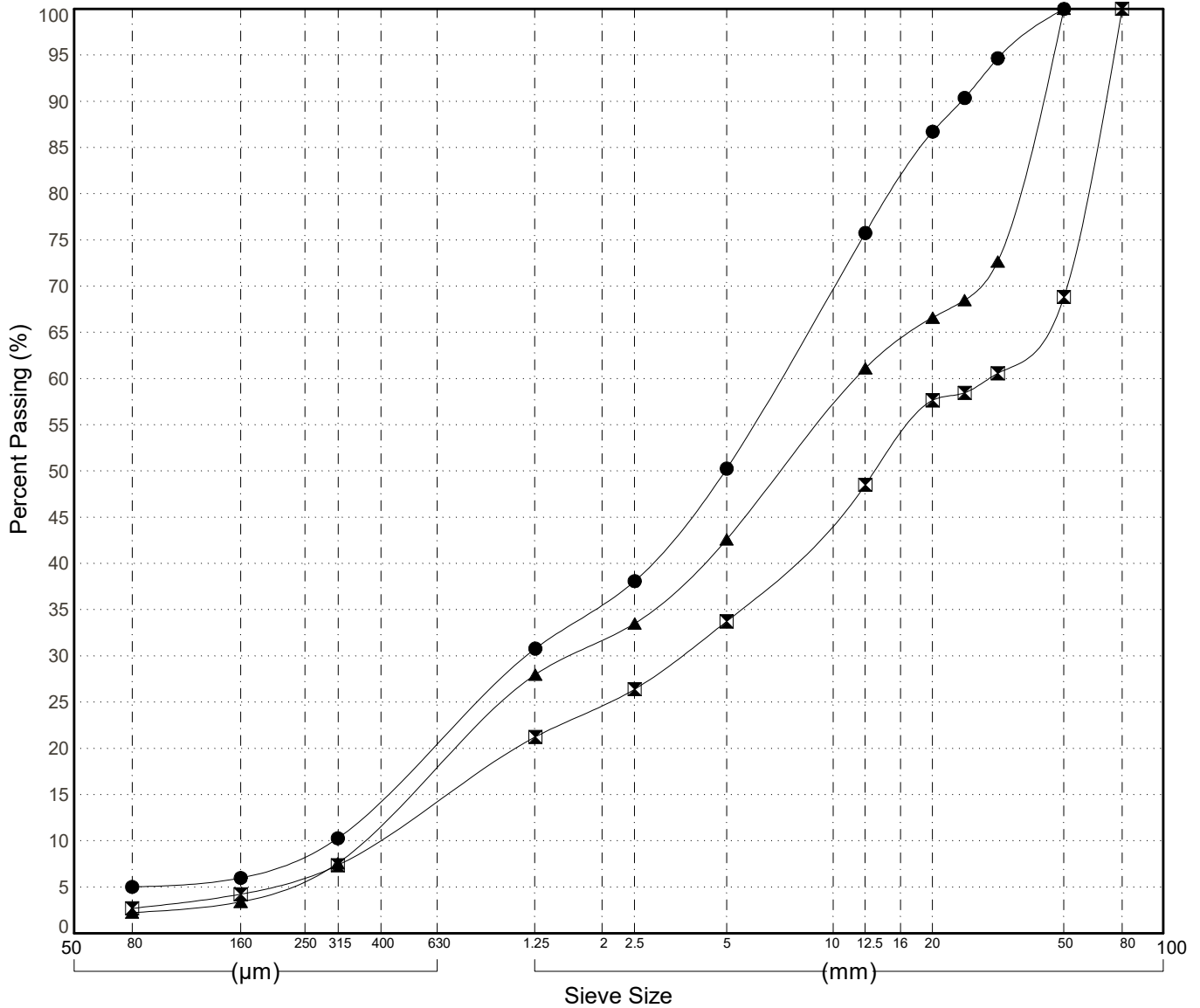
GRAIN SIZE ANALYSIS	Gravel Exploration Klondike Highway	SOURCE/TP#: 916-5853
McCrae Creek Contractor	Km 651.5 RHS Km 651.5 RHS	PROJECT NO: 552-202021-0204-06-1
CAT 320CL	Coordinates: Z07N N7091866m E628244m	ELEVATION: m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 004	004	0.6 to 1.0	POORLY GRADED GRAVEL with SILT and SAND(GP-GM)	3.4	NP	NP	NP	0.7	22.8	0.30
☒ 005	005	1.7 to 2.1	POORLY GRADED GRAVEL with SAND(GP)	2.4	NP	NP	NP	1.0	72.3	0.41
▲ 006	006	3.4 to 3.8	POORLY GRADED GRAVEL with SAND(GP)	2.8	NP	NP	NP	0.6	31.8	0.37

Field #	Lab #	% PASSING	Sieve Size (mm)													% Breakdown				
			100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.0	0.850	0.400	0.250	0.160	0.080	Gravel	Sand	Silt	Clay
●	004	004	100.0	100.0	100.0	90.4	86.7	75.8	69.9	50.3	35.7	25.1	14.7	8.8	6.0	5.0	49.7	45.2	5.0	
☒	005	005	100.0	100.0	68.8	58.5	57.7	48.5	45.1	33.7	24.7	17.4	10.4	6.3	4.2	2.7	66.3	31.0	2.7	
▲	006	006	100.0	100.0	100.0	68.5	66.6	61.1	56.9	42.6	31.7	22.3	12.0	6.2	3.4	2.2	57.4	40.4	2.2	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



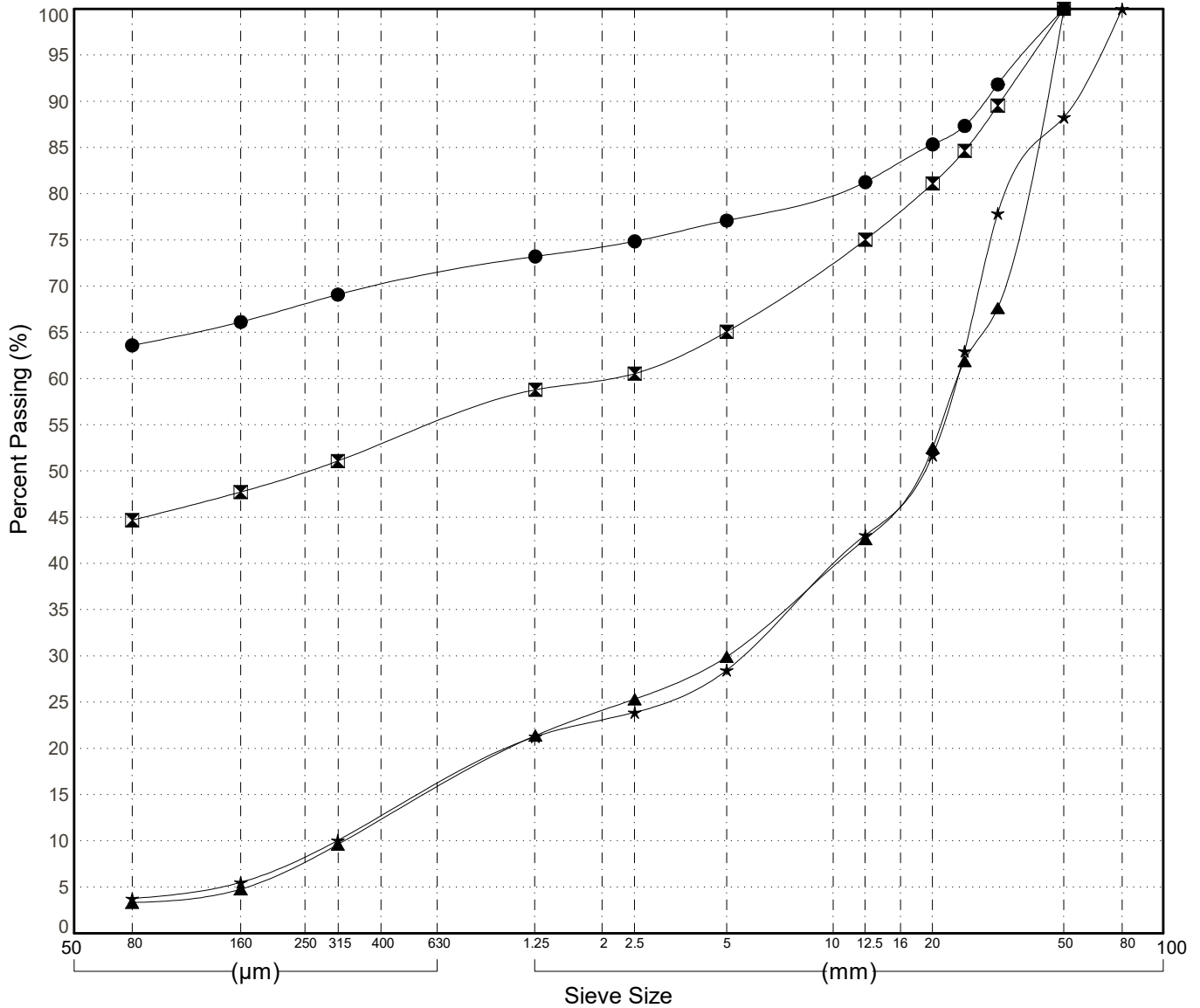
GRAIN SIZE ANALYSIS	Gravel Exploration Klondike Highway	SOURCE/TP#: 916-5855
McCrae Creek Contractor	Km 651.5 RHS	PROJECT NO: 552-202021-0204-06-1
CAT 320CL	Coordinates:Z07N N7091900m E628147m	ELEVATION: m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 007	007	0.2 to 0.6	GRAVELLY SILT(ML)	13.3	NP	NP	NP			
☒ 008	008	1.3 to 1.7	SILTY GRAVEL with SAND(GM)	8.4	NP	NP	NP			
▲ 009	009	2.4 to 2.8	WELL-GRADED GRAVEL with SAND(GW)	2.6	NP	NP	NP	2.9	72.4	0.33
★ 010	010	3.2 to 3.6	POORLY GRADED GRAVEL with SAND(GP)	2.5	NP	NP	NP	3.8	75.3	0.31

Field #	Lab #	% PASSING	100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.0	0.850	0.400	0.250	0.160	0.080	% Breakdown			
																	Gravel	Sand	Silt	Clay
●	007	007	100.0	100.0	100.0	87.3	85.3	81.3	80.3	77.1	74.3	72.1	70.0	68.1	66.1	63.6	22.9	13.5		63.6
☒	008	008	100.0	100.0	100.0	84.7	81.1	75.0	72.7	65.1	60.0	56.6	52.8	49.9	47.7	44.7	34.9	20.4		44.7
▲	009	009	100.0	100.0	100.0	61.9	52.5	42.6	39.7	29.9	24.1	18.1	12.2	8.0	4.8	3.3	70.1	26.6		3.3
★	010	010	100.0	100.0	88.3	63.0	51.7	43.1	39.7	28.5	23.0	18.1	12.5	8.5	5.5	3.8	71.5	24.7		3.8

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



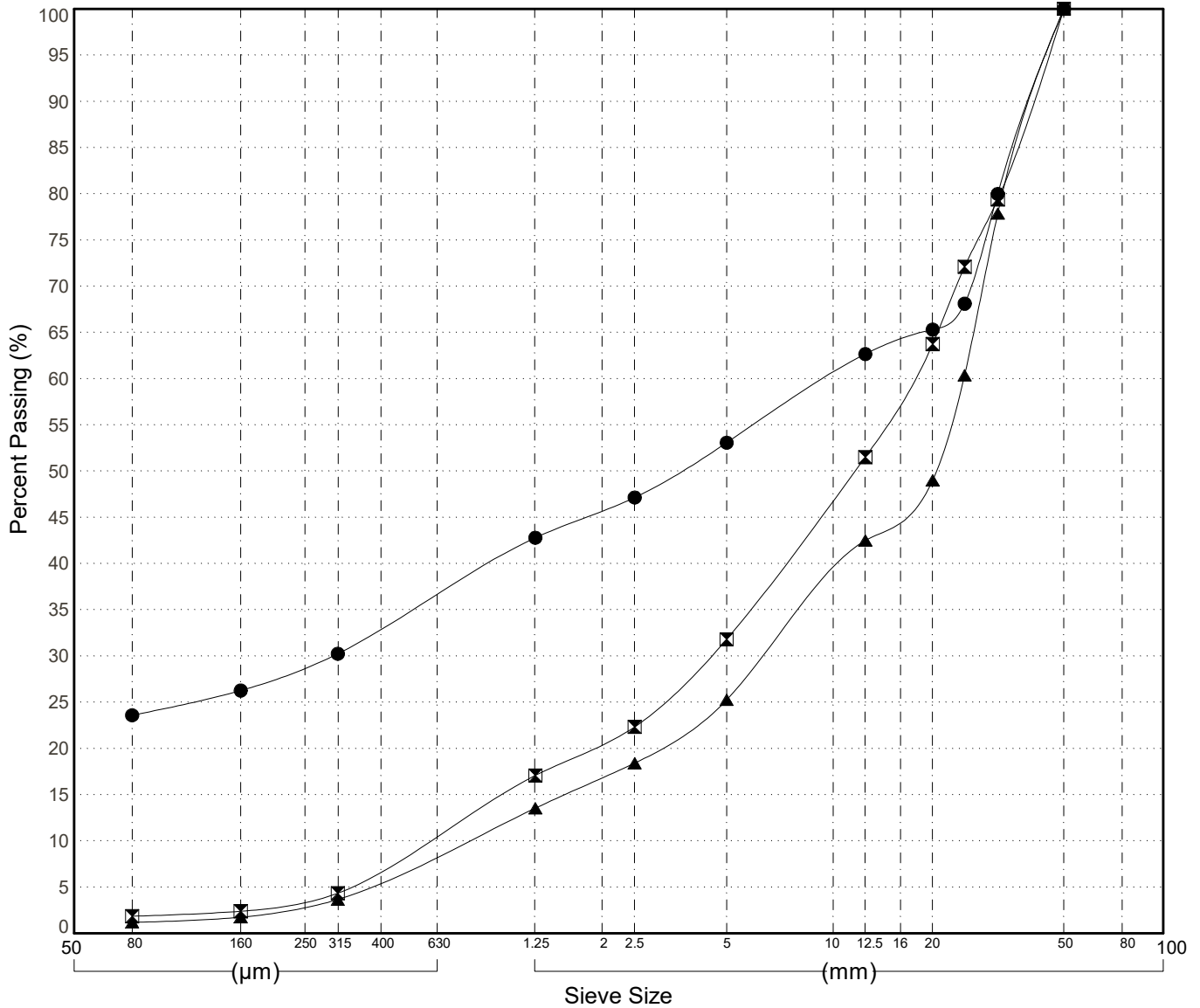
GRAIN SIZE ANALYSIS	Gravel Exploration Klondike Highway	SOURCE/TP#: 916-5856
McCrae Creek Contractor	Km 651.5 RHS	PROJECT NO: 552-202021-0204-06-1
CAT 320CL	Coordinates:Z07N N7091880m E628075m	ELEVATION: m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 011	011	0.4 to 0.8	SILTY GRAVEL with SAND(GM)	5.9	NP	NP	NP			
☒ 012	012	1.4 to 1.8	WELL-GRADED GRAVEL with SAND(GW)	1.8	NP	NP	NP	1.8	29.8	0.58
▲ 013	013	3.4 to 3.8	WELL-GRADED GRAVEL with SAND(GW)	1.6	NP	NP	NP	2.0	32.5	0.76

Field #	Lab #	%PASSING	Sieve Size (mm)													% Breakdown				
			100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.0	0.850	0.400	0.250	0.160	0.080	Gravel	Sand	Silt	Clay
●	011	011	100.0	100.0	100.0	68.1	65.3	62.7	60.4	53.1	45.7	39.3	33.0	28.9	26.3	23.6	46.9	29.5	23.6	
☒	012	012	100.0	100.0	100.0	72.1	63.7	51.5	47.0	31.8	20.6	13.5	7.1	3.7	2.4	1.8	68.2	30.0	1.8	
▲	013	013	100.0	100.0	100.0	60.4	49.0	42.5	38.5	25.2	16.8	10.8	5.8	3.0	1.7	1.2	74.8	24.1	1.2	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse

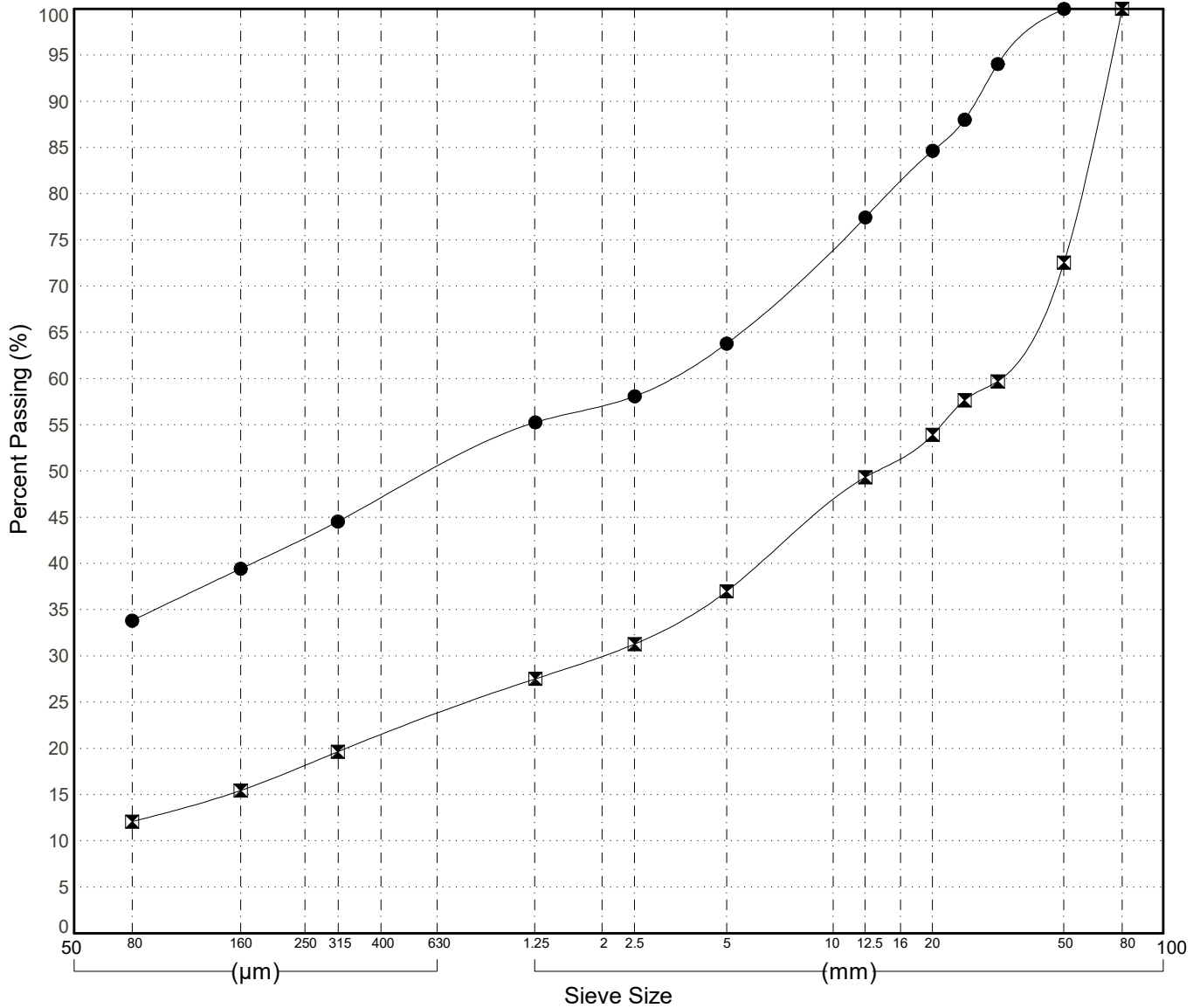


GRAIN SIZE ANALYSIS	Gravel Exploration Klondike Highway	SOURCE/TP#: 916-5857
McCrae Creek Contractor	Km 651.5 RHS	PROJECT NO: 552-202021-0204-06-1
CAT 320CL	Coordinates:Z07N N7091927m E627992m	ELEVATION: m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10									
● 014	014	0.3 to 0.7	SILTY GRAVEL with SAND(GM)	6.4	NP	NP	NP												
☒ 015	015	2.0 to 2.4	SILTY GRAVEL with SAND(GM)	2.4	NP	NP	NP	2.6	679.3										
Field #	Lab #	100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.0	0.850	0.400	0.250	0.160	0.080	% Breakdown			
● 014	014	100.0	100.0	100.0	88.0	84.6	77.4	74.3	63.8	57.2	52.3	46.9	42.8	39.4	33.8	36.2	30.0	33.8	
☒ 015	015	100.0	100.0	72.6	57.7	53.9	49.3	46.5	37.0	30.1	25.3	21.3	18.2	15.4	12.1	63.0	24.9	12.1	
											% PASSING				Gravel Sand Silt Clay				

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



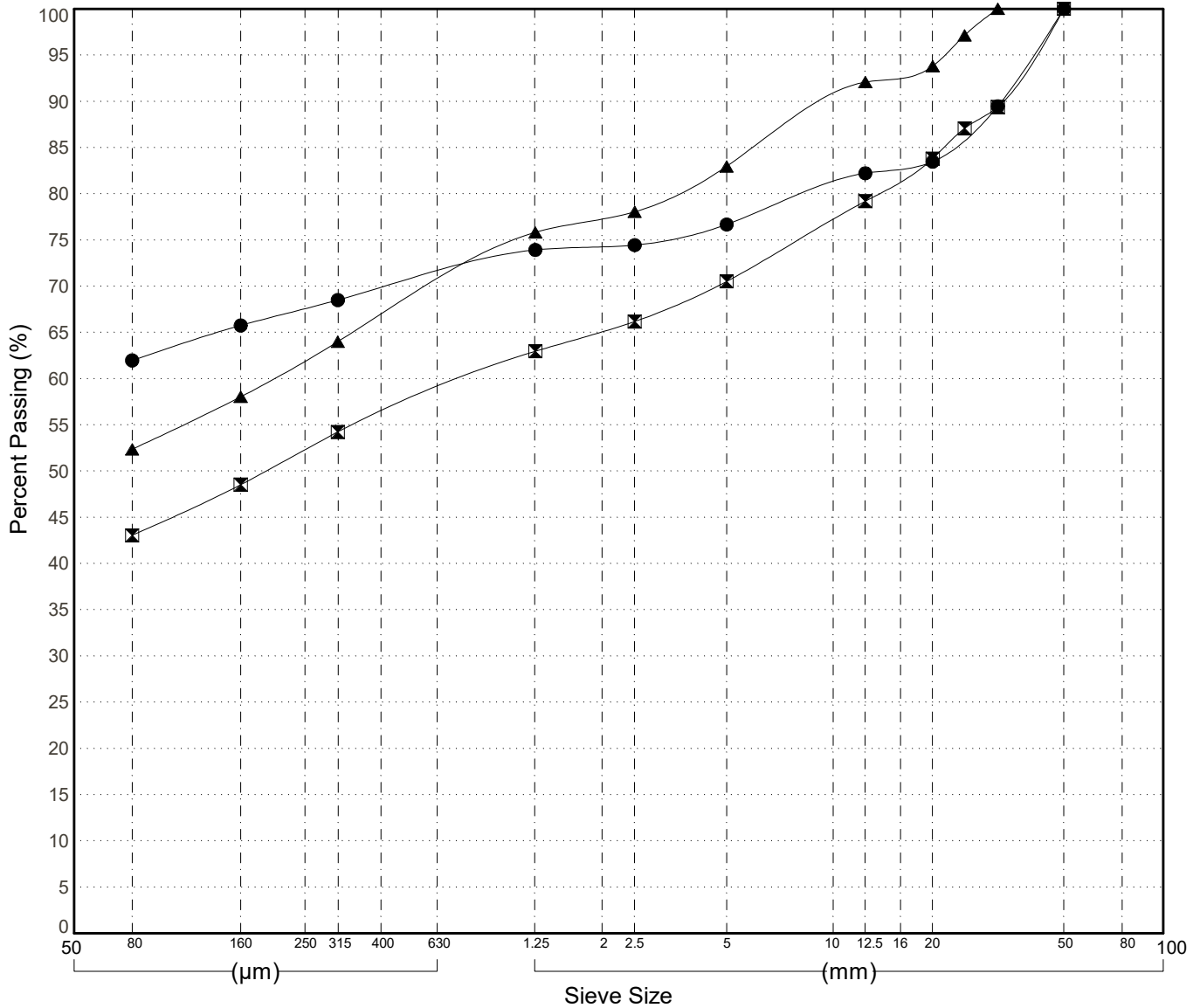
GRAIN SIZE ANALYSIS	Gravel Exploration Klondike Highway	SOURCE/TP#: 916-5858
McCrae Creek Contractor	Km 651.5 RHS	PROJECT NO: 552-202021-0204-06-1
CAT 320CL	Coordinates:Z07N N7091939m E628046m	ELEVATION: m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 016	016	0.3 to 0.7	GRAVELLY SILT (ML)	11.7	NP	NP	NP			
☒ 017	017	2.2 to 2.6	SILTY GRAVEL with SAND (GM)	7.1	NP	NP	NP			
▲ 018	018	3.4 to 3.8	SANDY SILT with GRAVEL (ML)	10.3	NP	NP	NP			

Field #	Lab #	% PASSING	100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.0	0.850	0.400	0.250	0.160	0.080	% Breakdown			
			Gravel	Sand	Silt	Clay														
●	016	016	100.0	100.0	100.0	86.4	83.5	82.2	80.9	76.7	74.3	72.4	69.7	67.6	65.8	62.0	23.3	14.7	62.0	
☒	017	017	100.0	100.0	100.0	87.1	83.8	79.2	77.2	70.5	65.1	60.5	56.1	52.3	48.5	43.1	29.5	27.5	43.1	
▲	018	018	100.0	100.0	100.0	97.1	93.8	92.1	90.0	83.0	77.3	72.5	66.6	62.0	58.0	52.4	17.0	30.6	52.4	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



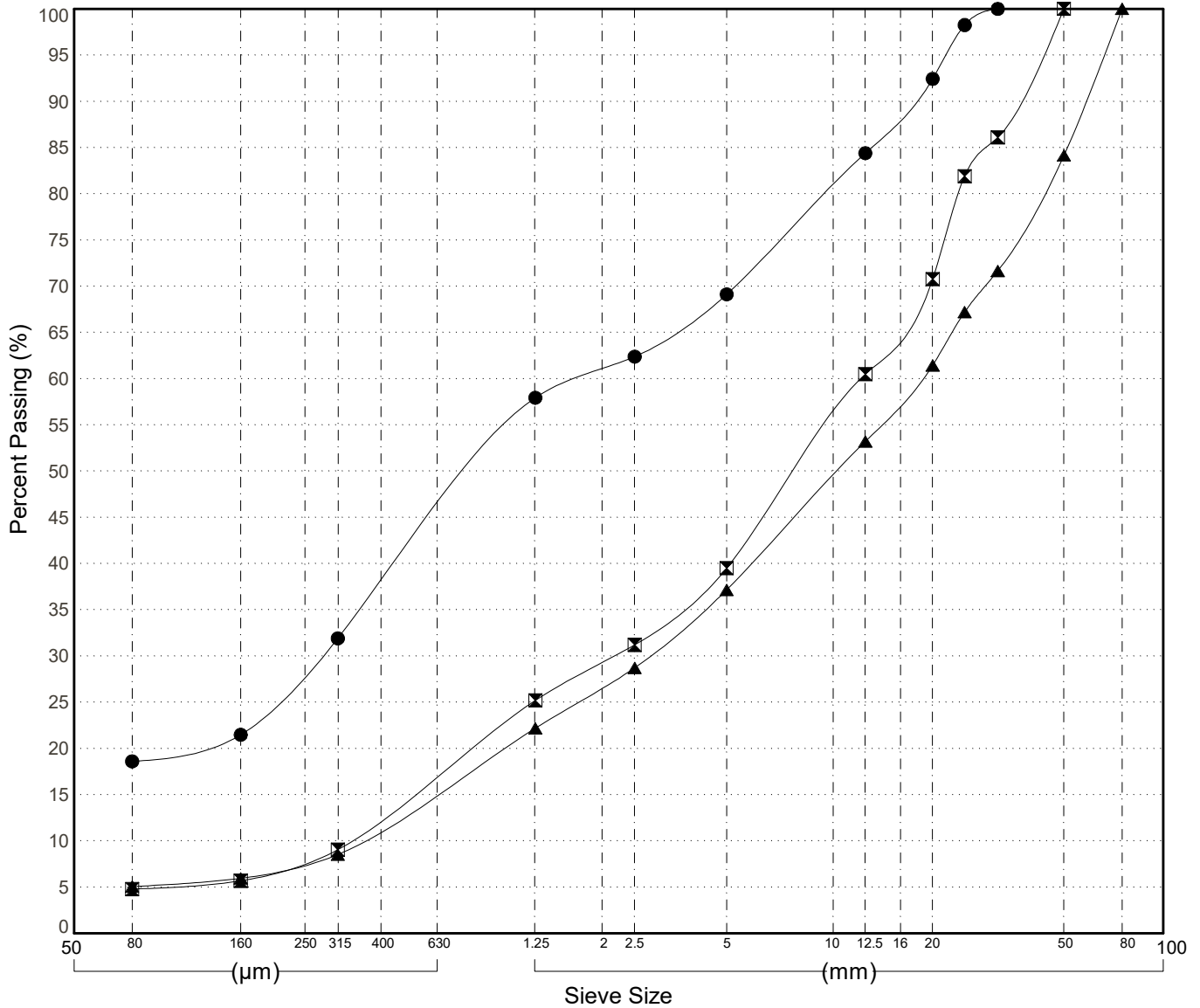
GRAIN SIZE ANALYSIS	Gravel Exploration Klondike Highway	SOURCE/TP#: 916-5859
McCrae Creek Contractor	Km 651.5 RHS	PROJECT NO: 552-202021-0204-06-1
CAT 320CL	Coordinates:Z07N N7091966m E628116m	ELEVATION: m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 019	019	0.4 to 0.8	SILTY SAND with GRAVEL(SM)	7.2	NP	NP	NP			
☒ 020	020	1.0 to 1.4	WELL-GRADED GRAVEL with SAND(GW)	3.0	NP	NP	NP	1.1	35.8	0.34
▲ 021	021	3.4 to 3.8	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	2.7	NP	NP	NP	1.1	50.3	0.37

Field #	Lab #	%PASSING	Sieve Size (mm)													% Breakdown				
			100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.0	0.850	0.400	0.250	0.160	0.080	Gravel	Sand	Silt	Clay
●	019	019	100.0	100.0	100.0	98.3	92.4	84.4	80.9	69.1	61.0	50.7	37.6	28.3	21.5	18.6	30.9	50.5	18.6	
☒	020	020	100.0	100.0	100.0	81.9	70.8	60.5	55.6	39.5	29.3	20.7	12.5	7.9	5.7	4.8	60.5	34.7	4.8	
▲	021	021	100.0	100.0	84.2	67.2	61.4	53.2	49.5	37.2	26.6	18.4	11.5	7.6	6.0	5.1	62.8	32.1	5.1	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



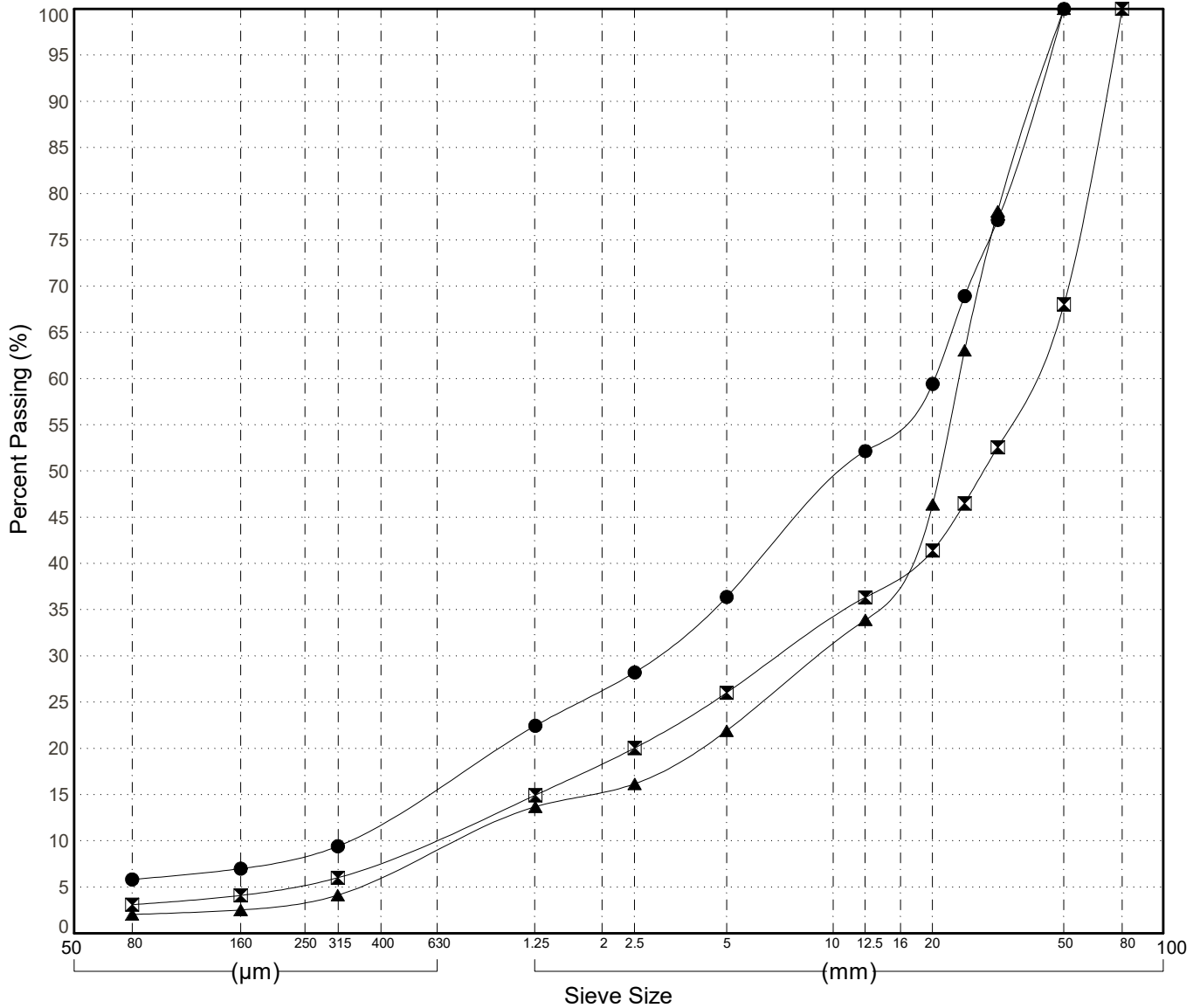
GRAIN SIZE ANALYSIS	Gravel Exploration Klondike Highway	SOURCE/TP#: 916-5860
McCrae Creek Contractor	Km 651.5 RHS	PROJECT NO: 552-202021-0204-06-1
CAT 320CL	Coordinates:Z07N N7092041m E628086m	ELEVATION: m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 022	022	0.6 to 1.0	WELL-GRADED GRAVEL with SILT and SAND(GW-GM)	2.8	NP	NP	NP	1.2	60.5	0.34
☒ 023	023	2.0 to 2.4	WELL-GRADED GRAVEL with SAND(GW)	2.2	NP	NP	NP	2.1	67.4	0.58
▲ 024	024	3.4 to 3.8	POORLY GRADED GRAVEL with SAND(GP)	2.1	NP	NP	NP	4.7	32.7	0.73

Field #	Lab #	%PASSING														% Breakdown				
			100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.0	0.850	0.400	0.250	0.160	0.080	Gravel	Sand	Silt	Clay
●	022	022	100.0	100.0	100.0	68.9	59.4	52.2	48.5	36.4	26.4	18.8	12.2	8.6	7.0	5.8	63.6	30.6	5.8	
☒	023	023	100.0	100.0	68.0	46.5	41.4	36.3	34.0	26.0	18.4	12.4	7.9	5.4	4.1	3.1	74.0	22.9	3.1	
▲	024	024	100.0	100.0	100.0	63.1	46.4	33.9	31.1	21.9	15.4	11.0	6.2	3.6	2.5	2.0	78.1	19.9	2.0	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



GRAIN SIZE ANALYSIS	Gravel Exploration Klondike Highway	SOURCE/TP#: 916-5861
McCrae Creek Contractor	Km 651.5 RHS	PROJECT NO: 552-202021-0204-06-1
CAT 320CL	Coordinates:Z07N N7092009m E628015m	ELEVATION: m

Master Revised June 2017

Field #	Lab #	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu	D10
● 025	025	0.4 to 0.8	WELL-GRADED GRAVEL with SAND(GW)	2.2	NP	NP	NP	1.5	41.0	0.40
☒ 026	026	2.0 to 2.4	POORLY GRADED GRAVEL with SAND(GP)	2.1	NP	NP	NP	4.6	47.9	0.72
▲ 027	027	3.4 to 3.8	WELL-GRADED GRAVEL with SAND(GW)	1.7	NP	NP	NP	2.6	44.8	0.73

Field #	Lab #	% PASSING	Sieve Size (mm)													% Breakdown			
			100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.0	0.850	0.400	0.250	0.160	0.080	Gravel	Sand	Clay
●	025	025	100.0	100.0	100.0	75.7	66.8	50.9	47.2	34.8	25.5	17.4	10.6	6.9	5.4	4.4	65.2	30.3	4.4
☒	026	026	100.0	100.0	100.0	44.3	37.7	31.6	29.3	21.8	16.2	11.3	5.7	2.9	2.1	1.7	78.2	20.1	1.7
▲	027	027	100.0	100.0	81.3	50.7	46.7	35.6	32.9	23.8	16.6	11.0	6.5	4.0	3.0	2.5	76.2	21.3	2.5

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse

