

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4470	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6762214m E485036m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100			0 20 40 60 80 100								
							001	SW-SM		WELL-GRADED SAND with SILT and GRAVEL -Surfacing Gravel -End of fill		
							002	GW		WELL-GRADED GRAVEL with SAND -Dark brown, moist, dense to very dense -Grinding Drilling	1	
							003	SM		SILTY SAND with GRAVEL -Dark brown, moist, dense -Driller notes gravelly drilling at 13' (4m)	2	
							004	SM		-Damp	3	
											4	
										END of HOLE		



Highways and Public Works
 Transportation Engineering Branch

LOGGED BY: SMH	Termination Depth: 4.5m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4471	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6762404m E484998m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100						
	PLASTIC 0 20 40 60 80 100 M.C.	0 20 40 60 80 100	0 20 40 60 80 100					SURFACING AGGREGATE WELL-GRADED GRAVEL with SILT and SAND -Brown, damp, dense -Max size 50mm	1
					005	GW-GM			
								SANDY SILT with GRAVEL -Grey, damp to moist, dense to very dense -Max size 25mm -Driller notes change at 4m	2
					006	ML			3
								-Damp, dense	4
					007	ML			
								END of HOLE	

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4472	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6762603m E484963m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample Type Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
						SURFACING AGGREGATE	
			008	SM		SILTY SAND with GRAVEL -Light brown, dense, moist	
			009	GW-GM		WELL-GRADED GRAVEL with SILT and SAND -Grey, saturated, dense -Water measured at 1.3m	1
			010	SM		SILTY SAND -Grey, wet, dense	3
			011	SM		-Moist, very dense	4
						END of HOLE	

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4473	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6762801m E484929m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
											SURFACING AGGREGATE	
								012	GW-GM		WELL-GRADED GRAVEL with SILT and SAND -Light brown, moist, dense to very dense -Grinding drilling, suspect cobbles	1
								013	GW-GM		-Brown, dense	2
								014	GW-GM		-max size to 50mm	3
								015	SP-SM		POORLY GRADED SAND with SILT and GRAVEL -Brown, loose	
								016	ML		SANDY SILT -Light brown, moist, dense to very dense	4
								017	ML		-Brown, damp, dense	
											SILT with SAND -Grey, moist -Odd rock	5
								018	ML			
											END of HOLE	6

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4474	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6762986m E484868m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☐ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
											SURFACING AGGREGATE	
								019	SW-SM		WELL-GRADED SAND with SILT and GRAVEL -Light brown, humid, dense	1
								020	SM		-Smooth drilling SILTY SAND -damp	2
								021	ML		SANDY SILT with GRAVEL -Brown, damp, dense	3
								022	ML		SANDY SILT -Brownish grey, moist	4
											END of HOLE	

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4475	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6763181m E484809m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
							SURFACING AGGREGATE	
							SANDY SILT -Brown, humid, very dense -Fill material to 1m left, 1.5m right	
								1
								2
							SANDY SILT with GRAVEL -Brown, moist, dense	
								3
							SILTY SAND with GRAVEL -Brown, humid, dense	
								4
							END of HOLE	

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4476	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6763372m E484764m		ELEVATION: m	
SAMPLE TYPE		UNDISTURBED DCPT AUGER BULK SPT CORE			
ELEV. (m) PLASTIC M.C LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ 0 20 40 60 80 100		Sample Type Sample # SOIL SYMBOL DCPT/SPT Blows/30cm	
				SOIL DESCRIPTION	
				SURFACING AGGREGATE	
				SILTY SAND with GRAVEL	
				-Brown, damp, dense	
				-Light brown, humid, dense to very dense	
				-Brown, moist, dense	
				-Slight grinding	
				END of HOLE	

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4477	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6763563m E484739m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
							SURFACING AGGREGATE -Light brown	
							SILTY GRAVEL with SAND -Brown, damp, very dense -Grinding drilling	1
				030	GM			2
				031	GM			3
							SILTY SAND with GRAVEL -Tough grinding drilling	4
				032	SM			
							END of HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4478	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6763775m E484711m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
					033	GM		SILTY GRAVEL with SAND -Light brown, damp, very dense	1
					034	SM		SILTY SAND with GRAVEL -Light brown, damp, dense	2
					035	GM		-Boulder SILTY GRAVEL with SAND -Brown, damp to moist, very dense	3
					036	SM		SILTY SAND with GRAVEL -Brown, damp to moist, very dense	4
								END OF HOLE	

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Termination Depth: 4.7m

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4479	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6763972m E484692m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ 0 20 40 60 80 100			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	1.0	●	■	◆		037	SM		SILTY SAND with GRAVEL -Light brown, damp, loose	1		
	2.0	●	■	◆	★	038	SM		SILTY SAND -Brown, moist, loose	2		
3.0	●	■	◆	★	039	SP-SM		POORLY GRADED SAND with SILT -Greyish brown, moist, loose	3			
4.0	●	■	◆	★	040	SM		SILTY SAND with GRAVEL -Grey, dense	4			
END of HOLE												

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4480	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6764175m E484664m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ 0 20 40 60 80 100			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
									SURFACING AGGREGATE			
						041	SM		SILTY SAND -Dark brown, damp, dense to very dense -Grinding drilling	1		
						042	SM		SILTY SAND with GRAVEL -Brownish grey, damp, dense -Smooth drilling -Odd bigger rock to 80mm			
						043	GM		SILTY GRAVEL with SAND -Dark brown, damp, very dense -Drilling sound indicates few larger rocks	2		
										3		
						044	SM		SILTY SAND with GRAVEL -Grey, damp, very dense	4		
									END of HOLE			

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4481	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6764373m E484639m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ 0 20 40 60 80 100			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
							045	GM		SURFACING AGGREGATE SILTY GRAVEL with SAND -Light brown, damp, dense	1	
							046	GM		-Boulder SILTY GRAVEL with SAND -Dark brown, damp, very dense -More cobbles	2	
							047	SM		SILTY SAND with GRAVEL -Dark brown, moist, very dense	3	
							048	SM		-Smooth	4	
										END of HOLE		



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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4482	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6764573m E484600m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
					049	SM		SILTY SAND with GRAVEL -Light brown, humid, dense -Cobbles -Grinding drilling -Brown, damp	1
					050	SM		-Smooth drilling	2
					051	SM		SILTY SAND with GRAVEL -Brown, saturated, dense to medium dense -Sample limited by large rock	3
					052	SP-SM		POORLY GRADED SAND with SILT and GRAVEL -Light brown	4
								END of HOLE	

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4483	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6764766m E484500m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☐ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID								
	0 20 40 60 80 100 0 20 40 60 80 100 0 20 40 60 80 100								
					053	GM		SURFACING AGGREGATE SILTY GRAVEL with SAND -Brown, moist, dense -Grinding drilling	1
					054	SM		SILTY SAND with GRAVEL -Light brown, moist, dense	2
					055	SM		SILTY SAND -Black, moist, dense to very dense -Organics -Very smooth drilling	
					056	SM		SILTY SAND -Brown, moist, dense	3
								SILTY SAND with GRAVEL -Very dense	4
					057	ML		SANDY SILT with GRAVEL -Dark grey, moist, dense	5
					058	ML			6
								END OF HOLE	

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4484	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6764954m E484516m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ 0 20 40 60 80 100			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
										SURFACING AGGREGATE		
									SILTY SAND with GRAVEL -Light brown, damp, dense			
										1		
									-Brown, moist			
										2		
									SILTY SAND -Dense to very dense			
										3		
										4		
									SILTY SAND with GRAVEL -Damp, very dense			
									END of HOLE			

	LOGGED BY: SMH	Termination Depth: 4.6m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4485				
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1				
B61 150mm Solid Stem		Coordinates: Z09V N6765163m E484519m		ELEVATION: m				
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE						
ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100 0 20 40 60 80 100							
							SURFACING AGGREGATE	
				063	SM		SILTY SAND with GRAVEL -Light brown, humid, dense -Grinding Drilling -Brown, moist	1
				064	SM		-Damp, very dense	2
				065	SM			3
				066	SM			4
							END of HOLE	

Highways and Public Works
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4486	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6765370m E484520m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	40	60	80	100						
										SURFACING AGGREGATE		
										SILTY GRAVEL with SAND -Light brown, damp, dense		
										-Grinding jerky drilling, possible cobble	1	
										SILTY SAND with GRAVEL -Brown, damp, dense -Smooth drilling		
										-Grinding drilling	2	
										SILTY SAND -Moist, dense to very dense -Smooth drilling		
										SILTY SAND with GRAVEL -damp, dense	3	
											4	
										END of HOLE		

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4487	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6765564m E484526m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
							SURFACING AGGREGATE	
				071	SM		SILTY SAND with GRAVEL -Very light brown, humid, dense -200mm rock in ditch, likely from fill	1
				072	SM		-Brown, damp	2
				073	ML		-Grinding drilling SANDY SILT with GRAVEL -Brown, damp, very dense	3
				074	ML		SILTY SAND with GRAVEL -Brown, damp, very dense	4
							END of HOLE	

Highways and Public Works
Transportation Engineering Branch

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 REVIEWED BY: M. Idrees

Termination Depth: 4.6m
 Complete: 9/25/2013 12:45:00 PM
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4488	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6765778m E484526m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100						
								SURFACING AGGREGATE	
					075	GM		SILTY GRAVEL with SAND -Very light brown, humid, dense	
					076	SM		SILTY SAND with GRAVEL -Brown, damp, very dense -Smooth drilling	1
					077	SM		-Very smooth drilling	2
					078	SM		-Dark brown -500-600 psi down pressure	3
								Grinding drilling, small cobble -Grey, humid	4
								END of HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.6m

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Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4489	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6765950m E484480m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	40	60	80						
							079	SM		SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, dense	1
							080	ML		SANDY SILT with GRAVEL -Brown, damp, dense	2
							081	SM		SILTY SAND with GRAVEL -Dark brown, moist, dense -Smooth drilling	3
							082	ML		SANDY SILT <<L>-Dark brown, moist, dense	4
							083	ML		-Grey, moist to wet, dense to very dense -Smooth steady drilling	5
							084	ML		-Dark brown to grey, wet -Possibly plastic	6
							085	SM		SILTY SAND with GRAVEL -Brown, wet, dense -Never found original ground END of HOLE	7
											8
											9

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 9.1m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4490	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6766072m E484313m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☐ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C LIQUID								
	0 20 40 60 80 100								
					086	GM		SURFACING AGGREGATE SILTY GRAVEL with SAND -Brown, damp, dense -Grinding drilling -Smooth drilling -Grinding drilling	1
					087	ML		SILT with SAND -Very light brown, moist, dense to very dense	2
					088	ML		SANDY SILT with GRAVEL -Damp, dense -One point of grinding drilling, otherwise smooth	3
					089	GM		SILTY GRAVEL with SAND -Dark brown, damp, very dense	4
								END of HOLE	

Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.6m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 806-4491	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6766173m E484172m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☒ AUGER ☐ BULK ☒ SPT ☐ CORE			
ELEV. (m) PLASTIC M.C LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ 0 20 40 60 80 100		SOIL DESCRIPTION Depth (m)	
		Sample Type Sample # SOIL SYMBOL DCPT/SPT Blows/30cm		SURFACING AGGREGATE SILTY GRAVEL with SAND -Light brown, humid, dense SANDY SILT with GRAVEL -Brown, wet, dense SANDY SILT -Grey, wet, dense SILT with SAND -Light brown, wet, dense -Drilling change -Smooth drilling -SANDY SILT -Dark brown, wet, dense END of HOLE	
				1 2 3 4	

Highways and Public Works
 Transportation Engineering Branch

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 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4492	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6766335m E484060m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	40						
	0	20	40					SURFACING AGGREGATE	
					095	GM		SILTY GRAVEL with SAND -Brown, moist, dense -Grinding drilling	1
					096	ML		SANDY SILT -Light brown, moist, dense -Grinding drilling -Smooth drilling	2
					097	ML		SANDY SILT with GRAVEL -Brown, moist, very dense -Grinding drilling <<L>-Smooth drilling	3
					098	ML		-Dark brown, damp -Grindy drilling -Suspect cobble, 4.2m to 4.4m	4
								END of HOLE	

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4493	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6766518m E483765m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
										SURFACING AGGREGATE		
										SILTY GRAVEL with SAND -Brown, humid, dense		
										-Grinding/jerking drilling	1	
										SANDY SILT with GRAVEL -Dark brown, damp, very dense		
										-Smooth drilling	2	
										-Light brown, moist, dense	3	
										SILTY SAND with GRAVEL -Brown, moist, dense	4	
										END of HOLE		

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.6m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4494	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6766700m E483886m		ELEVATION: m	
SAMPLE TYPE		UNDISTURBED DCPT AUGER BULK SPT CORE			
ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample Type Sample # SOIL SYMBOL DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
				SURFACING AGGREGATE SILTY GRAVEL with SAND -Light brown, damp, dense to very dense -Occasional grinding drilling	1
			104 ML	SANDY SILT -Brown, moist, dense -Mostly smooth drilling -Grinding drilling	2
			105 SM	SILTY SAND with GRAVEL -Dark brown, damp, very dense -Smooth drilling	3
			106 SM		4
				END of HOLE	

Highways and Public Works

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4495	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6766910m E483798m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100						
	0	20	100					SURFACING AGGREGATE	
					107	GM		SILTY GRAVEL with SAND -Light brown, damp, dense	
								-Smooth drilling	1
					108	ML		-Fill ends at 1.3m on RHS, 0.9m on LHS. avg of 1.1m across fill SANDY SILT with GRAVEL -Brown, damp, very dense	
								-Slow drilling, very dense	2
					109	GM		SILTY GRAVEL with SAND -Dark brown, damp, very dense	3
								SILTY SAND with GRAVEL -Dark brown, moist, very dense -Steady, tough drilling	4
					110	SM		END of HOLE	

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4496	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6767092m E483719m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
								SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, humid, dense	
					111	SM			1
					112	ML		SANDY SILT -Brown, damp, dense	2
					113	ML		SANDY SILT with GRAVEL -Moist	3
					114	ML		-Dark brown, very dense	4
					115	GM		SILTY GRAVEL with SAND -Dark brown, moist, very dense -Some cobbles encountered -Mostly smooth drilling	5
								END of HOLE	6

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 6m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4497	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6767268m E483638m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100						
0	0	0	0					SURFACING AGGREGATE	
1	●	◆	■		116	SM		SILTY SAND with GRAVEL -Light brown, moist, dense to very dense -Tough drilling, odd cobble encountered	
2	●	◆	■		117	GM		SILTY GRAVEL with SAND -Dark brown, moist, very dense -Very dark brown, almost grey	
3	●	◆	■		118	GM			
4	●	◆	■		119	SM		SILTY SAND with GRAVEL -Grey, moist, extremely dense -Very tough drilling	
								END of HOLE	

Highways and Public Works
Transportation Engineering Branch

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4498	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6767446m E483556m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
120	●	◆	■		120	GM		SILTY GRAVEL with SAND -Light brown, damp, dense	
121	●	◆	■		121	SM		SILTY SAND with GRAVEL -Brown, moist, very dense	1
122	●	◆	■		122	ML		SANDY SILT with GRAVEL -Brown, moist, very dense	2
123	●	◆	■		123	SM		SILTY SAND with GRAVEL -Greyish brown, wet, dense	3
								END OF HOLE	4

Highways and Public Works
Transportation Engineering Branch

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4499	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6767629m E483472m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
								SURFACING AGGREGATE SILTY GRAVEL with SAND -Brown, damp, dense	1
					125	SM		SILTY SAND with GRAVEL -Dark brown, wet, dense	
								ORGANIC LAYER	2
					126	SM		SILTY SAND with GRAVEL -Light brown, wet to saturated, dense to very dense	3
									4
					127	ML		SANDY SILT with GRAVEL -Brown, saturated, loose	
								END of HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4500	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6767809m E483388m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample Type Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
						SURFACING AGGREGATE	
			128	SM		SILTY SAND with GRAVEL -Light brown, moist, dense to very dense -Medium fast drilling	1
			129	GM		SILTY GRAVEL with SAND -Brown, moist, dense -Steady progress drilling -Grinding indicates cobbles	2
			130	SM		SILTY SAND with GRAVEL -Dark brown, moist, very dense	3
			131	SM		-Brown, loose -Smooth drilling	4
						END of HOLE	

Highways and Public Works
Transportation Engineering Branch

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4501	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6767993m E483306m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
					132	GM		SILTY GRAVEL with SAND -Brown, damp, dense to very dense -Grinding drilling	1
					133	GM		-Light brown, damp to moist, dense -Grinding jerking drilling -Slow	2
					134	SM		SILTY SAND with GRAVEL -Light brown, moist, very dense -Fast drilling -Brown, dense	3
					135	SM			4
								END of HOLE	

Highways and Public Works
Transportation Engineering Branch

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4502	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6768171m E483224m		ELEVATION: m	
SAMPLE TYPE		UNDISTURBED DCPT AUGER BULK SPT CORE			
ELEV. (m) PLASTIC M.C LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ 0 20 40 60 80 100		Sample Type Sample # SOIL SYMBOL DCPT/SPT Blows/30cm	
				SOIL DESCRIPTION	
				SURFACING AGGREGATE	
				SILTY SAND with GRAVEL	
				-Light brown, damp, dense to very dense	
				-Dense	
				SILTY GRAVEL with SAND	
				-Light brown, damp, dense to very dense	
				-Brown, moist, very dense	
				END of HOLE	

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4503	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6768355m E483157m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☒ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
					140	SM		SILTY SAND with GRAVEL -Very light brown, damp, dense to very dense	1	
					141	SM		-Light brown, moist, dense -Steady drilling, no grinding	2	
					142	SM		-Brown, very dense	3	
					143	SM			4	
								END of HOLE		

	Highways and Public Works Transportation Engineering Branch		LOGGED BY: SMH COMPILED BY: R.Stilwell REVIEWED BY: M. Idrees	Termination Depth: 4.5m Complete: 9/26/2013 2:08:00 PM Pit #:
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4504	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6768557m E483117m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
							144	GM		SURFACING AGGREGATE		
										SILTY GRAVEL with SAND -Brown, damp, dense	1	
							145	SM		SILTY SAND with GRAVEL -Light brown, moist, dense		
											2	
							146	SM		Brown, wet, dense to very dense		
											3	
							147	SM		-Dark brown, moist to wet, dense -Slightly Grinding drilling -Cobbles	4	
										END of HOLE		

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4505	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6768745m E483081m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100						
148	●	★ ◆ ■	■	GP-GM	148	GP-GM		SURFACING AGGREGATE POORLY GRADED GRAVEL with SILT and SAND -Brown, humid, dense	
149	●	★ ◆ ■	■	SM	149	SM		SILTY SAND with GRAVEL -Grey, moist, dense	1
150	●	★ ◆ ■	■	ML	150	ML		SANDY SILT with GRAVEL -Dark brown, moist, very dense	2
151	●	★ ◆ ■	■	ML	151	ML		-Grinding digging -Very dark brown, moist to almost wet, very dense	3
								END of HOLE	4

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4506	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6768952m E483034m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
								152	GM		SURFACING AGGREGATE SILTY GRAVEL with SAND -Brown, humid, dense	1
								153	ML		SANDY SILT with GRAVEL -Dark brown, moist, dense	2
								154	SM		SILTY SAND with GRAVEL -Dark brown, moist, dense	3
								155	ML		SANDY SILT with GRAVEL -Brown/grey, moist, very dense	4
											END of HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/26/2013 3:50:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4507	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6769144m E482990m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
								SURFACING AGGREGATE	
					156	GM		SILTY GRAVEL with SAND -Brown, damp, dense	1
					157	ML		SANDY SILT -Light brown, damp, dense	2
					158	ML		SANDY SILT with GRAVEL -Dark brown, moist, very dense -Grinding / very jerky drilling -Cobble destroyed	3
					159	SM		SILTY SAND with GRAVEL -Dark brown, moist, very dense	4
								END of HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/26/2013 4:20:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4508	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6769327m E482912m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
							161	ML		SURFACING AGGREGATE SANDY SILT with GRAVEL -Light brown, humid, dense to very dense	1	
							162	ML		-Grinding drilling -Smooth drilling -Brown, moist to almost wet, dense	2	
							163	ML		-Dark brown, wet	3	
							164	GM		SILTY GRAVEL with SAND -Dark brown, wet, dense	4	
										END of HOLE		

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/26/2013 4:49:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4509	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6769503m E482822m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
					164	GM		SURFACING AGGREGATE SILTY GRAVEL with SAND -Brown, damp, dense -Grinding drilling -Very smooth drilling	1
					165	ML		SANDY SILT with GRAVEL -Dark brown, moist, dense -Smooth drilling - no grinding action at all	2
					165A	GM		SILTY GRAVEL with SAND -Brown, moist, very dense	3
					166	SM		SILTY SAND with GRAVEL -Very dark brown, almost grey, moist, very dense	4
								END of HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4510	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6769700m E482797m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
•	■ ◆ ★				167	SM		SILTY SAND with GRAVEL -Light brown, humid, dense to very dense	1
•	■ ◆ ★				168	SM		-Brown, dense	2
•	■ ◆ ★				169	ML		SANDY SILT -Brown, moist, dense	3
•	■ ◆ ★				170	ML		-Dark brown, wet, very dense	4
								-END of HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4511	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6769899m E482811m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
								SURFACING AGGREGATE	
					171	GM		SILTY GRAVEL with SAND -Light brown, damp, dense	1
								-Grinding Drilling	
					172	SM		SILTY SAND with GRAVEL -Dark brown, moist, very dense	2
								-Smooth steady drilling, odd grind	
					173	ML		SANDY SILT with GRAVEL -Dark brown, moist, very dense	3
					174	GM		SILTY GRAVEL with SAND -Dark grey, moist, very dense	4
								END of HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/27/2013 8:35:00 AM
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4512	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6770097m E482783m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
							SURFACING AGGREGATE	
				175	SM		SILTY SAND with GRAVEL -Light brown, damp, dense to very dense	
							SANDY SILT -Grey, damp, dense -Slight grinding while drilling	1
				176	ML			2
							SANDY SILT with GRAVEL -Brown, moist, very dense	3
				177	ML			
							-Dense	4
				178	ML			
							END of HOLE	

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway	SOURCE/TP#: 807-4513		
Gateway Drilling		Centreline Drilling Project, km 118-143	PROJECT NO: 552-202104-2035-0661-1		
B61 150mm Solid Stem		Coordinates: Z09V N6770292m E482740m	ELEVATION: m		
SAMPLE TYPE	UNDISTURBED DCPT AUGER BULK SPT CORE				
ELEV. (m)	 PLASTIC M.C LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample Type Sample # SOIL SYMBOL DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
				SURFACING AGGREGATE	
			179 ML	SANDY SILT -Light brown, humid, dense to very dense	1
			180 ML	-Dark brown, moist, dense	2
			181 ML	SANDY SILT with GRAVEL -Very dark brown, moist to wet, very dense	3
			182 SM	SILTY SAND with GRAVEL -Very dark brown, moist to wet, very dense -Steady smooth drilling	4
				END of HOLE	

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4514	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6770487m E482698m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100			0 20 40 60 80 100								
							183	GM		SURFACING AGGREGATE SILTY GRAVEL with SAND -Light brown, humid, dense to very dense	1	
							184	ML		SANDY SILT with GRAVEL -Brown, damp, dense	2	
							185	ML		-Dark brown, moist, very dense	3	
							186	ML			4	
										END of HOLE		

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 807-4515	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6770676m E482656m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
							SURFACING AGGREGATE	
				187	SM		SILTY SAND with GRAVEL -Light brown, humid, dense to very dense	1
				188	SM		-Brown, damp	2
				189	SM		-Moist, dense	3
				190	SM		-Light brown	4
							END of HOLE	

Highways and Public Works
Transportation Engineering Branch

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4516	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6770867m E482615m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100								
	0 20 40 60 80 100								
								SURFACING AGGREGATE	
					191	GM		SILTY GRAVEL with SAND -Light brown, damp, dense	
					192	ML		SANDY SILT -Brown, moist, dense to very dense -Easy smooth drilling	1
					193	ML		-Dark brown, dense	2
					194	ML		GRAVELLY SILT with SAND -Very dark brown, very dense	3
								END of HOLE	4

Highways and Public Works
Transportation Engineering Branch

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4517	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6771059m E482557m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
								195	GM	SURFACING AGGREGATE SILTY GRAVEL with SAND -Brown, moist, dense to very dense	1	
								196	ML	SANDY SILT with GRAVEL -Brown, moist, dense	2	
								197	ML	-Wet, dense to very dense	3	
								198	ML	-Very dark brown, very dense	4	
								199	ML	-Refusal - change to cutting bit		
										END of HOLE		

	Highways and Public Works Transportation Engineering Branch		LOGGED BY: SMH	Termination Depth: 4.5m
			COMPILED BY: R.Stilwell	Complete: 9/27/2013 11:50:00 AM
			REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4518	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6771245m E482484m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	20	100				SURFACING AGGREGATE	
1	●	★ ◆ ■		200			WELL GRADED GRAVEL with SILT AND SAND -Brown, damp, dense -Very grindy drilling	1
2	●	★ ◆ ■		201			SILTY SAND with GRAVEL -Brown, moist dense -Some organics -Smooth drilling	2
3	●	★ ◆ ■		202			SANDY SILT with GRAVEL -Dark brown, moist, dense	3
4	●	★ ◆ ■		203			SILTY GRAVEL with SAND -Grey/brown, wet, dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4519	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6771428m E482409m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			204			SURFACING AGGREGATE	
						SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
			205			SANDY SILT with GRAVEL -Dark brown, moist, dense -Grinding at 1.2, really smooth at 1.3	2
			206			-Wet -Trace of organics	3
			207			-Dark brown/almost grey, very dense	4
						END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/27/2013 1:00:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4520	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6771645m E482322m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	20	100				SURFACING AGGREGATE	
1				208			WELL-GRADED GRAVEL with SILT and SAND -Brown, moist, medium dense	
2				209			SILTY SAND with GRAVEL -Dark brown, dense, damp	
3				210			SANDY SILT with GRAVEL -Dark brown, moist, dense	
4				211			-Grey/darkbrown	
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4521	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6771827m E482249m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			212			SURFACING AGGREGATE	
						SILTY SAND with GRAVEL -Brown, moist, medium dense	
			213			Dark brown, dense	1
							2
			214			SANDY SILT	3
							4
			215			-Very dense	
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4522	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6772012m E482174m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	20	100				SURFACING AGGREGATE	
1	0	20	100	216			SILTY GRAVEL with SAND -Light brown, damp, medium dense	1
2	0	20	100	217			SANDY SILT -Brown, damp, medium dense -Black inclusions	2
3	0	20	100	218			SANDY SILT with GRAVEL -Brown, moist, dense	3
4	0	20	100	219			SILTY SAND with GRAVEL -Dark brown, moist, very dense -More rocks	4
							END OF HOLE	



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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4523	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6772198m E482099m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			220			SURFACING AGGREGATE	
						SILTY SAND with GRAVEL -Light brown, humid, dense	
			221			-Brown, damp	1
							2
			222			SANDY SILT with GRAVEL -Dark brown, moist, dense	3
							4
			223			SANDY SILT -Grey and brown	
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
 Complete: 9/27/2013 3:36:00 PM
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4524	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6772377m E482027m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ PLASTIC M.C. LIQUID			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100							
	0 20 40 60 80 100							
				224			SURFACING AGGREGATE	1
				225			SILTY GRAVEL with SAND -Very light brown, humid, medium dense	2
				226			SANDY SILT -Light brown, damp, medium dense	3
				227			SILTY SAND WITH GRAVEL -Brown, damp/moist, dense	4
							-Dark brown, moist -More rocks	
							END OF HOLE	


**Highways and Public Works
Transportation Engineering Branch**

LOGGED BY: SMH	Termination Depth: 4.5m
COMPILED BY: R.Stilwell	Complete: 9/27/2013 4:24:00 PM
REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4525	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6772562m E481949m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
		0	20	40					
								SURFACING AGGREGATE	
					228			SANDY SILT -Very light brown, humid, medium dense	1
					229			SILTY SAND WITH GRAVEL -Brown, damp, dense	2
					230			-Dark brown, moist, very dense	3
					231				4
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/27/2013 5:00:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4526	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6772754m E481872m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
					232			SURFACING AGGREGATE	
					233			SILTY SAND with GRAVEL -Light brown, damp, medium dense -Grindy drilling at 1.0m	1
					234			-Dark brown, moist, dense -steady tough drilling, grinding ended at 1.5m	2
					235			-More rocks	3
								-Steady hard drilling, no griding or jerking	4
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/28/2013 8:30:00 AM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4527	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6772935m E481793m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			236			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, moist, dense	1
			237			-Brown -Slight grindy, tough drilling at 2.3m -Almost free water	2
			238			SILTY GRAVEL with SAND -Light brown, saturated, medium dense to loose -Fast smooth drilling to 4.0m, then tough again	3
			239			SILTY SAND with GRAVEL -Dark grey almost black, wet to saturated, dense	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

Complete: 9/28/2013 9:05:00 AM

Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4528	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6773125m E481712m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	20	100				SURFACING AGGREGATE	
0.7	0	20	100	240			SILTY SAND with GRAVEL -Light brown, damp, medium dense -Changes starting to occur at .7m	1
1.7	0	20	100	241			WELL-GRADED SAND with SILT and GRAVEL -Brown, moist, loose	2
2.7	0	20	100	242			SILTY SAND with GRAVEL -Brown, saturated, medium dense -Change at 4.2m	3
4.2	0	20	100	243			-Dark grey, wet, damp	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
 Complete: 9/28/2013 9:35:00 AM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4529	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6773295m E481625m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ PLASTIC M.C. LIQUID			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100	0 20 40 60 80 100						
							SURFACING AGGREGATE	
				244			SILTY SAND with GRAVEL -Light brown, humid, medium dense -Change occuring at .7m	
				245			SILTY SAND -Grey, wet, loose -Changes occuring at 1.1m	1
				246			SANDY SILT -Brown, wet, dense -Changes occuring at 2.4	
				247			-Dark grey	2
				248			SANDY SILT with GRAVEL -Dark grey, moist, very dense	3
							END OF HOLE	4

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/28/2013 10:35:00 AM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4530	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6773464m E481520m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
					249			SURFACING AGGREGATE	
								SILTY GRAVEL with SAND -Light brown, damp, medium dense	1
					250			SILTY SAND with GRAVEL	2
					251			WELL GRADED SAND with SILT and GRAVEL -Brown, moist, medium dense	3
					252			SILTY SAND -Dark brown, wet-saturated, loose	4
					253			SANDY SILT -Grey, moist, dense	
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/28/2013 11:10:00 AM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4531	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6773632m E481420m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
		0	20	40					
								SURFACING AGGREGATE	
					254			SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
					255			SANDY SILT with GRAVEL -Brown, moist, medium dense -Change at 2.2	2
					256			-Dark brown, dense	3
					257				4
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/28/2013 11:40:00 AM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4532	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6773807m E481316m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			258			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
			259			SANDY SILT --Brown, moist, dense	2
			260			SANDY SILT with GRAVEL -Dark brown, moist, dense -Ground up a rock at 3.4-3.5m	3
			261			-Ground another rock at 4-4.2m	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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 Complete: 9/28/2013 12:20:00 PM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4533	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6773991m E481228m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	20	100				SURFACING AGGREGATE	
1	●	★	◆	262			WELL GRADED SAND with SILT and GRAVEL -Light brown, damp, medium dense -Change at .5m	1
2	●	★	◆	263			SILTY GRAVEL WITH SAND -Brown, moist, dense -easy drilling	2
3	●	★	◆	264			SILTY SAND with GRAVEL -Dark brown, moist, dense	3
4	●	★	◆	265			SANDY SILT -Grey, wet, very dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4534	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6774165m E481144m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100							
	0 20 40 60 80 100							
•	★	◆	■	266			SURFACE AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
•	★	◆	■	267			SILTY GRAVEL with SAND -Brown, moist, dense -1.9m changed to silt	2
•	★	◆	■	268			SANDY SILT with GRAVEL -Dark brown, wet, dense	3
•	★	◆	■	269			SILTY GRAVEL with SAND -Grey, wet, very dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4535	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6774348m E481059m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
		0	20	40					
								SURFACING AGGREGATE	
					270			POORLY GRADED GRAVEL with SILT and SAND -Light brown, damp, medium dense	1
					271			SILTY SAND with GRAVEL -Brown, moist, dense	2
					272			SANDY SILT with GRAVEL -Dark brown, moist-wet, dense -Change at 3.6m	3
					273			-Grey, moist, very dense	4
								-END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
 Complete: 9/28/2013 2:17:00 PM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4536	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6774528m E480967m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☐ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
							SURFACING AGGREGATE		
							SILTY SAND with GRAVEL -Light brown, damp, medium dense -Grinding at .7m		
							-Dark brown, loose -smooth at 1.2m	1	
							-Brown, dense	2	
							-Dark brown, moist	3	
							-Grey and brown, moist-wet, very dense	4	
							-END OF HOLE		

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/28/2013 2:47:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4537	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6774695m E480859m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			279			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, dense -Grindy at .5m-.6m, smooth after that	1
			280			SANDY SILT with GRAVEL -Dark brown, moist, dense	2
			281			-Very dark brown, very dense	3
			282			-Grey and dark brown	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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COMPILED BY: R.Stilwell

REVIEWED BY: M. Idrees

Termination Depth: 4.5m

Complete: 9/28/2013 5:00:00 PM

Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4538	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6774873m E480756m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100	0 20 40 60 80 100					
283			283			SURFACING AGGREGATE SILTY GRAVEL with SAND -Dark brown, damp-moist, dense -grindy drilling at 0.3m -organic layer from 0.8-0.9m	1
284			284			SANDY SILT with GRAVEL -Very dark brown, wet, medium dense -grindy drilling became smooth at 1.2m	2
285			285			-Dense	3
286			286			-Grey, moist, very dense	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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 COMPILED BY: R.Stilwell
 REVIEWED BY: M. Idrees

Termination Depth: 4.5m
 Complete: 9/28/2013 5:40:00 PM
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4539	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6775055m E480702m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
					287			SURFACING AGGREGATE SILTY GRAVEL with SAND -Brown, damp, medium dense	1
					288			SANDY SILT with GRAVEL -Very dark brown, moist, dense	2
					289			SILTY SAND with GRAVEL	3
					290				4
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/29/2013 8:27:00 AM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 808-4540	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6773249m E480640m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			291			SURFACING AGGREGATE SILTY GRAVEL with SAND -Light brown, damp, medium dense	1
			292			SILTY SAND with GRAVEL -Dark brown, moist-wet, dense	2
			293			-More rocks	3
			294			SILTY SAND WITH GRAVEL -Grey, moist, dense -Less rocks	4
						END OF HOLE	

Yukon Highways and Public Works
Transportation Engineering Branch

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COMPILED BY: R.Stilwell

REVIEWED BY: M. Idrees

Termination Depth: 4.5m

Complete: 9/29/2013 8:56:00 AM

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4541	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6775428m E480588m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			295			SURFACING AGGREGATE SILTY GRAVEL with SAND -Light brown/grey, humid, dense	1
			296			SILTY SAND with GRAVEL -Brown, moist, dense	2
			297			-Moist-wet, very dense	3
			298			-Grey, wet, dense	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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COMPILED BY: R.Stilwell

REVIEWED BY: M. Idrees

Termination Depth: 4.5m

Complete: 9/29/2013 9:22:00 AM

Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4542	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6775633m E480575m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☐ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	0	0				SURFACING AGGREGATE	
1	●	★ ◆ ■		299			SILTY GRAVEL with SAND -Brown, damp, dense	1
2	●	■ ◆ ★		300			SANDY SILT with GRAVEL -Very dark brown, moist, dense	2
3	●	■ ◆ ★		301			-Grey, moist-wet	3
4				302			-Very dark grey, very dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

LOGGED BY: SMH

Termination Depth: 4.5m

COMPILED BY: R.Stilwell

Complete: 9/29/2013 9:53:00 AM

REVIEWED BY: M. Idrees

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4543	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6775833m E480586m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
					303			SURFACING AGGREGATE SILTY GRAVEL with SAND -Brown, damp, dense	1
					304			SANDY SILT with GRAVEL -Darker brown, damp-moist, dense -Slight grindy at 2.4-2.6m	2
					305			-Moist	3
					306			-Grey/brown, very dense	4
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/29/2013 10:23:00 AM
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4544	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6776038m E480550m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			307			SURFACING AGGREGATE SILTY SAND WITH GRAVEL -Brown, damp, dense -Slight grinding to 1.2m	1
			308			SILTY SAND with GRAVEL Darker brown	2
			309			SANDY SILT with GRAVEL -Dark brown, moist, dense	3
			310			-Very dark brown, very dense	4
						END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/29/2013 10:55:00 AM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4545	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6776226m E480507m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
						SURFACING AGGREGATE	
			311			SILTY SAND with GRAVEL -Brown, damp, dense -Grindy at 0.5-1.0m	1
			312			-Darker brown, moist -Very grindy at 2.4-2.6m	2
			313			-Very dark brown, moist-wet, very dense -Change at 3.1m, organics	3
			314			-Black, moist, loose -Saturated brown loose sand at 4.0m	4
			315			-Grey, saturated free water, medium dense	
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4546	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6676426m E480463m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			316			SURFACING AGGREGATE SILTY SAND with GRAVEL -Brown, damp, medium dense	1
			317			-Dense -Change at 2.2. m -Steady smooth drilling	2
			318			-Black, moist, loose -organics -Change at 2.9m	3
			319			-Brown, very saturated, medium dense	
			320			-Brown/grey, saturated	4
			321			-Blue/grey, plastic	
						END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/29/2013 12:25:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4547	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6676626m E480419m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			322			SURFACING AGGREGATE	
						SILTY GRAVEL with SAND -Light brown, damp, medium dense -Slightly grindy at 0.5 to 1.0m	1
			323			-Brown, dense	2
			324			-Wet-saturated, medium dense	3
			325			SILTY SAND with GRAVEL -Brown, saturated, dense -Grindy at 4.0-4.5m	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4548	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6776821m E480396m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100	0 20 40 60 80 100					
			326			SURFACING AGGREGATE	
						SILTY SAND with GRAVEL -Light brown, damp, dense	
			327			-Brown, moist	1
							2
			328			SANDY SILT with GRAVEL -Brown, moist, dense -smooth steady drilling	3
							4
			329			SILTY GRAVEL with SAND -Grey, moist, very dense	
						END OF HOLE	

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Transportation Engineering Branch

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4549	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6777001m E480467m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100							
	0 20 40 60 80 100							
•	★	◆	■	330			SURFACING AGGREGATE SILTY GRAVEL with SAND -Light brown, damp, dense	1
•				331			SILTY SAND -Dark brown, moist, dense -Easy drilling	2
•				332			SANDY SILT with GRAVEL -Dark brown, wet, medium dense -Easy drilling	3
•				333			SILTY SAND with GRAVEL -Dark brown, wet, medium dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4550	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6777197m E480458m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
					334			SURFACING AGGREGATE	
					335			SILTY SAND with GRAVEL -Light brown, damp, dense	1
					336			-Brown, damp, dense	2
					337			-Darker brown, moist	3
								-Grey/brown	4
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/29/2013 2:48:00 PM
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4551	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6777387m E480386m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100							
	0 20 40 60 80 100							
338				338			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, very dense -Change in material at 1.1m -Smooth drilling after 1.1m	1
339				339			SANDY SILT -Very light brown, damp, dense	2
340				340			SANDY SILT with GRAVEL -Brown, wet, dense	3
341				341			SILTY SAND with GRAVEL -Brown, wet, dense	4
							END OF HOLE	

Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/29/2013 3:20:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4552	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6777578m E480312m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100 0 20 40 60 80 100							
				342			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, medium dense -Really smooth drilling at 1.0m and after	1
				343			SANDY SILT -Grey, wet, medium dense -Organic layer at 1.5-1.6m	2
				344			SILTY SAND with GRAVEL -Brown, wet dense -Grindy at 2.9m	3
				345				4
				346			SANDY SILT with GRAVEL -Very dark brown, wet, very dense	
							END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4553	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6777764m E480243m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	0	0				SURFACING AGGREGATE	
1	1	1	1	347			SILTY SAND with GRAVEL -Light brown, damp, dense	1
2	2	2	2	348			SANDY SILT with GRAVEL -Brown, moist, dense	2
3	3	3	3	349			SILTY SAND with GRAVEL -Dark brown, moist, very dense -Grindy at 3.5-3.7m -Cobbles	3
4	4	4	4	350			-Grey, moist to wet,	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4554	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6777946m E480172m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			351			SURFACING AGGREGATE SILTY SAND with GRAVEL -Very light brown, damp, dense	1
			352			-Brown	2
			353			-Dark brown, damp-moist	3
			354				4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4555	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6778137m E480101m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100	0 20 40 60 80 100					
						SURFACING AGGREGATE	
			355			SILTY SAND with GRAVEL -Light brown, humid, medium dense -Grinding at 0.5-0.6m then smooth	1
			356			-Brown, damp, dense	2
			357			SILTY SAND -Brown, moist, medium dense	3
			358			SILTY SAND with GRAVEL -Dark brown, moist, very dense -Change at 3.9m -Grindy from 3.7m-3.9m	4
			359				
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
 Complete: 9/30/2013 8:32:00 AM
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4556	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6778325m E480026m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100	0 20 40 60 80 100					
PLASTIC M.C. LIQUID			360			SURFACING AGGREGATE SILTY GRAVEL with SAND -Medium brown, damp, dense -0.9m tough grindy drilling	1
			361			WELL-GRADED SAND with SILT and GRAVEL -Brown, moist, very dense -Change at 1.9m -Smooth at 2.0m odd cobble grind only	2
			362			SILTY SAND with GRAVEL -Dark brown, moist, very dense	3
			363			-Grey	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

Complete: 9/30/2013 9:00:00 AM

Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4557	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6778496m E479922m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			364			SURFACING AGGREGATE SILTY SAND with GRAVEL -Medium brown, damp, dense	1
			365			SILTY GRAVEL with SAND -Brown, damp, dense -Very grindy at 2.5m	2
			366			-Moist, very dense -Smooth drilling again at 2.7m	3
			367			SILTY SAND with GRAVEL -Very dark brown, moist, very dense	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
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 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4558	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6778624m E479767m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	20	100				SURFACING AGGREGATE	
1	●	◆	■	368			SILTY SAND with GRAVEL -Brown, damp, dense -Grindy at 0.9-1.1m	1
2	●	★	◆	369			SILTY GRAVEL with SAND -Medium brown, damp, dense -Grindy 1.6-1.8m	2
3	●	★	◆	370			-Very dense -Very little on auger, too grindy and jerky -Change at 3.3m	3
4	●	★	◆	371			-Brown, very moist, dense -Change again at 4.0m	4
	●	◆	★	372			SILTY SAND with GRAVEL -Medium brown, wet, dense	
							END OF HOLE	

Highways and Public Works
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 REVIEWED BY: M. Idrees

Termination Depth: 4.5m
 Complete: 9/30/2013 10:02:00 AM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4559	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6778770m E479636m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	0	0				SURFACING AGGREGATE	
1	●	★	■	373			SILTY SAND with GRAVEL -Light brown, damp, dense -Free water measured at 1.2m	
2	●	★	■	374			POORLY GRADED GRAVEL with SILT and SAND -Brwn, saturated, dense -Grindy 1.5-2.3m then smooth	
3	●	★	■	375			SILTY SAND with GRAVEL -Darker brown, saturated, dense	
4	●	★	■	376			-Dark brown/grey, free water, medium dense -Like glue on the gloves -Definitely need drainage here	
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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 REVIEWED BY: M. Idrees

Termination Depth: 4.5m
 Complete: 9/30/2013 12:13:00 PM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4560	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6778958m E479564m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	0	0				SURFACING AGGREGATE	
0.7	●	★	◆	377			SILTY SAND with GRAVEL -Brown, moist, dense -Change at 0.7m	1
1.7	●	★	◆	378			SANDY SILT with GRAVEL -Medium brown, moist-wet, dense -Grindy/jerky cobbles and very big rock at 1.7m, broke through at 2.4m	2
2.4	●	★	◆	379			SILTY SAND with GRAVEL -Grey, moist, very dense -Very tough, slow drilling	3
4.5	●	★	◆	380			-Free water, very very dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4561	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6779151m E479498m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
•			★	◆	381			SURFACING AGGREGATE SILTY SAND with GRAVEL -Medium brown, damp, dense	1
•			◆	■	382			SILTY GRAVEL with sand -Brown, moist, dense -Change at 1.7m	2
•			■	★	383			SILTY SAND with GRAVEL -Brown, wet, very dense -cobbles according to driller	3
•			■	◆	384			-Dark brown moist-wet, very dense	4
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/30/2013 1:17:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4562	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6779339m E479432m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
0	0	20	100				SURFACING AGGREGATE	
1	●	★ ◆ ■		385			SILTY GRAVEL with SAND -Medium brown, moist, dense -Really grindy/jerky 0.8m-1.3m	1
2	●	★ ◆ ■		386			-Brown, damp, very dense -Smooth drilling after 1.3m	2
3	●	★ ◆ ■		387			SILTY SAND with GRAVEL -Darker brown, moist, medium dense	3
4	●	★ ◆ ■		388			-Dark brown, dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

COMPILED BY: R.Stilwell

Complete: 9/30/2013 1:57:00 PM

REVIEWED BY: M. Idrees

Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4563	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6779529m E479394m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
					389			SURFACING AGGREGATE	
					390			SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
					391			-Grey, wet -Organics, and grey silt -Mix of organics at 1.3-1.5m	2
					392			SANDY SILT -Brown, moist-wet, dense -Easy drilling with slight grind -3.4-4.5m tough drilling	3
					393			SILTY SAND with GRAVEL -Dark brown, wet, very dense	4
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/30/2013 2:28:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4564	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6779729m E479413m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100							
	0 20 40 60 80 100							
•	■ ◆ ★	394			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, medium dense	1		
•	■ ◆ ★	395			SILTY GRAVEL with SAND -Light brown, damp, dense	2		
•	■ ◆ ★	396			SILTY SAND with GRAVEL -Brown, moist, dense	3		
•	■ ◆ ★	397			-Dark brown, very dense	4		
					END OF HOLE			

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
 Complete: 9/30/2013 2:57:00 PM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 809-4565	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6779912m E479334m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☒ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100							
	0 20 40 60 80 100							
•	■	◆	★	398			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, dense	1
•	■	◆	★	399			SANDY SILT -Light brown, moist, dense	2
•	■	◆	★	400			-Brown, very dense -grindy at 3.0m	3
•	■	◆	★	402			-SILTY SAND with GRAVEL -Dark brown, moist, very dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
 Complete: 9/30/2013 3:24:00 PM
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4566	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6780089m E479237m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
		0	20	40					
								SURFACING AGGREGATE	
					403			SILTY GRAVEL with SAND -Light brown, damp, medium dense	1
					404			SANDY SILT with GRAVEL -Brown, moist, dense	2
					405			SILTY SAND -Darker brown, moist, very dense	3
					406			SILTY SAND with GRAVEL -Dark brown, moist-wet, very dense	4
								END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
 Complete: 9/30/2013 4:00:00 PM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4567	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6780260m E479139m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			407			SURFACING AGGREGATE SANDY SILT -Light brown, damp, medium dense	1
			408			SILTY SAND -Brown, moist, dense	2
			409			-Darker brown, moist-wet, very dense -Rock chips	3
			410			-More rocks	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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 Complete: 9/30/2013 4:25:00 PM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4568	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6780428m E479031m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
	0	20	100				SURFACING AGGREGATE	
				411			SILTY SAND with GRAVEL -Light brown, damp, dense	
				412			-Brown, moist	1
				413			SANDY SILT with GRAVEL -Dark brown, wet, very dense	2
				414			-Very dark brown	3
							END OF HOLE	4

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

Complete: 9/30/2013 4:51:00 PM

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4569	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6780563m E478888m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
						SURFACING AGGREGATE	
			415			SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
			416			-Brown, moist, dense	2
			417			-Dark brown, wet, very dense -Rock chips -Change in material at 3.3m	3
			418			SANDY SILT with GRAVEL -Grey, moist-wet, very dense	4
						END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 9/30/2013 5:35:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4570	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6780692m E478738m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 020406080100	★ Percent Fines ★ 020406080100	Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
							SURFACING AGGREGATE	
				419	SM		SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
				420			-Brown, moist, dense -Wet at 1.9	2
				421	ML		SANDY SILT with GRAVEL -Brown, wet, dense	3
				422	GM		SILTY GRAVEL with SAND -Darker brownm wet, dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
 Complete: 9/30/2013 5:56:00 PM
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4571	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6780826m E478586m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
		0	20	40					
								SURFACING AGGREGATE	
					423			SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
					424			SANDY SILT with GRAVEL -Brown, moist, dense	2
					425			-Dark brown, moist-wet, very dense	3
					425A			SILTY GRAVEL with SAND -More rocks	4
								END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
 Complete: 9/30/2013 6:25:00 PM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4572	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6780959m E478435m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			426			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, humid-damp, medium dense	1
			427			-Damp	2
			428			-Brown, moist, dense -Gravelly silt at 3.1m -Grindy 3.5-4.5m -possible cobbles	3
			429			-Very dark brown, very dense	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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 REVIEWED BY: M. Idrees

Termination Depth: 4.5m
 Complete: 10/1/2013 8:33:00 AM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4573	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6781114m E478304m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
		0	20	40					
								SURFACING AGGREGATE	
					430			SILTY SAND with GRAVEL -Light brown, damp, dense	1
					431			-Brown -Steady, tough drilling , odd grinding	2
					432			-Dark brown, moist, dense to very dense -Tough steady grinding	3
					433			-Very dark brown, very dense	4
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 10/1/2013 9:00:00 AM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4574	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6781278m E478118m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100			★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ 0 20 40 60 80 100			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
						434			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, medium dense	1	
						435			-Brown, moist, dense	2	
						436			-Darker brown, wet -Smooth easy drilling	3	
						437			-Very dark brown,	4	
									END OF HOLE		

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 10/1/2013 9:29:00 AM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4575	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6781457m E478061m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
•			★ ■ ◆		438			SURFACING AGGREGATE	
								SILTY SAND with GRAVEL	
								-Brown, damp, dense	1
					439			-Dark brown, moist	2
•			■ ◆ ★		440				3
									4
•			■ ◆ ★		441			-Wet, dense	
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 10/1/2013 9:58:00 AM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4576	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6781621m E477947m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100	0 20 40 60 80 100					
						SURFACING AGGREGATE	
			442			SILTY SAND with GRAVEL -Brown, damp, medium dense -some grindy drilling	1
			443			-Darker brown, damp-moist	
			444			-Black, wet , loose -Change at 2.4m	2
			445			-Brown, dense -Change at 3.4m	3
			446			-Darker brown, very dense	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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COMPILED BY: R.Stilwell

REVIEWED BY: M. Idrees

Termination Depth: 4.5m

Complete: 10/1/2013 10:27:00 AM

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4577	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6781784m E477834m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100							
	0 20 40 60 80 100							
				447			SILTY GRAVEL with SAND SILTY GRAVEL with SAND -Brown, damp, dense	1
				448			-Moist -Grindy 2.0-3.0m	2
				449			-Change at 3.6m	3
				450			SILTY SAND with GRAVEL -Brown, free water, medium dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

Complete: 10/1/2013 10:55:00 AM

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4578	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6781944m E477723m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)				Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■							
	0	20	100					
	PLASTIC 0 20 40 60 80 100 M.C. 50 LIQUID 100	0 20 40 60 80 100	0 20 40 60 80 100					
				451			SURFACING AGGREGATE	
				452			SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
				453			-Brown, moist, dense	2
				454			-Saturated-free water, medium dense	3
							-Free water	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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REVIEWED BY: M. Idrees

Termination Depth: 4.5m

Complete: 10/1/2013 11:25:00 AM

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4579	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6782111m E477605m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	100					
455	●	■ ◆		455			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
456	●	★ ■ ◆		456			-Brown, moist, dense -Grindy at 1.8-2.2m	2
457	●	■ ◆ ★		457			SILTY SAND -Dark brown, moist, dense	3
458	●	■ ★ ◆		458			SILTY SAND with GRAVEL -Dark brown, wet, dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

COMPILED BY: R.Stilwell

Complete: 10/1/2013 12:05:00 PM

REVIEWED BY: M. Idrees

Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4580	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6782274m E477493m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■ PLASTIC M.C. LIQUID			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100							
	0 20 40 60 80 100							
				459			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, medium dense	
				460			SILTY SAND -Brown, wet, dense	1
				461			SILTY SAND with GRAVEL -Grey, saturated, dense	
				462				2
				463			-Wet-saturated, medium dense	3
				464			-SANDY SILT with GRAVEL -Grey, wet, dense	4
							END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
	COMPILED BY: R.Stilwell	Complete: 10/1/2013 12:30:00 PM
	REVIEWED BY: M. Idrees	Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4581	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6782450m E477396m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☒ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			465			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, damp, medium dense	1
			466			-Medium brown, moist, dense -1.6-1.7m organic layer not sampled	2
			467			-Light brown, moist-saturated	3
			468			SANDY SILT -Brown, wet, dense	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m
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 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4582	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6782639m E477334m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100						
	0 20 40 60 80 100						
•	★	◆	469			SURFACING AGGREGATE SILTY GRAVEL with SAND -Brown, damp, dense -Grindy drilling at .6	1
			470			-moist, very dense -Solid rock at 2.0m, jerky grinding	2
•	★	◆	471			-Light brown, moist-saturated -Rock chips and powder at 2.6m -New bit used after 3.0m -Refusal by driller at 3.1m, second attempt at new hole showed bedrock at 1.6m END OF HOLE	3
							4

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 3m

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Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4583	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6782820m E477255m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100							
	0 20 40 60 80 100							
•	★	◆	■	472			SURFACING AGGREGATE SILTY SAND with GRAVEL -Medium brown, damp, dense -Grindy drilling 0.8-1.3	1
				473			-Brown	2
•	★	◆	■	474			-Light brown, wet -Smooth easy drilling	3
•	★	◆	■	475			-Brown	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4584	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6782996m E477164m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
					476			SURFACING AGGREGATE SILTY SAND with GRAVEL -Brown, moist, dense	1
					477			-almost wet -Easy, fast drilling	2
					478			-Brown/grey, saturated, medium dense -Free water at 3.7m	3
					479			SILTY GRAVEL with SAND -Dark grey, wet-free water, medium dense	4
								END OF HOLE	

 Highways and Public Works Transportation Engineering Branch	LOGGED BY: SMH	Termination Depth: 4.5m
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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4585	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6783154m E477080m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	PLASTIC M.C. LIQUID 0 20 40 60 80 100							
	0 20 40 60 80 100							
480	●	■ ◆ ★		480			SURFACING AGGREGATE SILTY SAND with GRAVEL -Light brown, moist, dense	1
481	●	◆ ★ ■		481			SILTY GRAVEL with SAND -Brown, moist, dense	2
482				482			-Damp, very dense	3
483	●	■ ◆ ★		483			SILTY SAND with GRAVEL -Dark grey, damp, very dense	4
							END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4586	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6783316m E476970m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			484			SURFACING AGGREGATE	
						SILTY SAND with GRAVEL -Medium brown, moist, medium dense	1
			485			-Brown, moist, dense -Change at 2.0m	2
						-Saturated, medium dense	3
			486				4
			487			SILTY GRAVEL with SAND -Brown, moist, very dense	
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4587	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6783482m E476859m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
					488			SURFACING AGGREGATE SILTY GRAVEL with SAND -Light brown, damp, medium dense -Grindy at 1.0-1.2m	1
					489			SILTY SAND with GRAVEL -Light brown, damp. medium dense	2
					490			-Brown, moist-wet, dense	3
					491			-Wet	4
								END OF HOLE	

Yukon Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4588	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6783648m E476748m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
			492			SURFACING AGGREGATE	
			493			SILTY SAND with GRAVEL -Light brown, damp, medium dense -Brown, moist, dense -Organics starting at 1.5m about .1m thick -Change at 2.2m	1
			494			-Saturated, medium dense	2
			495			SILTY GRAVEL with SAND -Dark brown, moist, dense	3
						END OF HOLE	4

Yukon Highways and Public Works
Transportation Engineering Branch

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4589	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6783813m E476636m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100		★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■		Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0 20 40 60 80 100		0 20 40 60 80 100						
					496			SURFACING AGGREGATE	
					497			WELL-GRADED SAND with SILT and GRAVEL -Brown, damp, dense	1
					498			SILTY SAND with GRAVEL -Brown, wet, medium dense	
					499			-Saturated, loose -Organics 2.2-2.7m	2
					500			SANDY SILT -Brown, saturated, medium dense	3
								END OF HOLE	4

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.5m

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 810-4590	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6783977m E476522m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☐ DCPT ☐ AUGER ☒ BULK ☒ SPT ☐ CORE			

ELEV. (m)	PLASTIC M.C. LIQUID 0 20 40 60 80 100	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
						SURFACING AGGREGATE	
			501			SILTY SAND with GRAVEL -Light brown, damp, dense	
			502			-Dark brown, moist, medium dense	1
			503			-Black, wet, dense -Snapped extension adapter, moved back 1.5m may be refusal at 2.2m	2
			504			-Brown	3
			505			-Light brown, saturated	4
						END OF HOLE	

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.6m
 Complete: 10/1/2013 5:32:00 PM
 Pit #:

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SUBSURFACE EXPLORATION AND TEST REPORT		Campbell Highway		SOURCE/TP#: 811-4591	
Gateway Drilling		Centreline Drilling Project, km 118-143		PROJECT NO: 552-202104-2035-0661-1	
B61 150mm Solid Stem		Coordinates: Z09V N6762020m E485070m		ELEVATION: m	
SAMPLE TYPE		☐ UNDISTURBED ☒ DCPT ☐ AUGER ☐ BULK ☒ SPT ☐ CORE			

ELEV. (m)	★ Percent Fines ★ ◆ Percent Sand ◆ ■ Percent Gravel ■			Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
	0	20	40					
0	0	0	0				SURFACING AGGREGATE	
1	●	★	◆	506			WELL GRADED GRAVEL with SILT and SAND -Brown, moist, dense -Grindy, tough drilling -Lots of cobbles	1
2	●	★	◆	507			POORLY GRADED GRAVEL with SILT and SAND -Brown, wet, dense	2
3	●	★	◆	508			SILTY GRAVEL with SAND -Brown, free water, dense	3
4	●	★	◆	509			SILTY SAND with GRAVEL -Brown, saturated, medium dense -Mixed sample due to slough and water! -End of project END OF HOLE	4

Highways and Public Works
Transportation Engineering Branch

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Termination Depth: 4.7m
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 Pit #:

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