

SUBSURFACE EXPLORATION AND TEST REPORT Silver Trail SOURCE/TP#: 886-5580

Midnight Sun Drilling Auger Drilling, km 95.4 PROJECT NO:

MARL M4CT Coordinates: Z Nm Em ELEVATION: m

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE

ELEV. (m)	PLASTIC 0 20 40 60 80 100 M.C. LIQUID	★ Percent Fines★ ◆ Percent Sand◆ ■ Percent Gravel■	Sample Type	Sample #	SOIL SYMBOL	DCPT/SPT Blows/30cm	SOIL DESCRIPTION	Depth (m)
0								
0.5	●	■ ★ ◆		001	SM		SILTY SAND with GRAVEL(SM)	0.5
1.0	●	■ ★ ◆	⊕	002	SM		-Brown, damp, very dense -Possible cobbles -Some grinding	1.0
2.0							-Cobbles, hard drilling	2.0
3.0	●	■ ★ ◆	⊕	003	SM		-Moist, rounded	3.0
4.0	●	■ ★ ◆	⊕	004	SM			4.0
5.0	●	■ ★ ◆	⊕	005	SM		-Dark brown, dense, angular	5.0
6.0							END OF HOLE	6.0
7.0							-Refusal, possible cobble or boulder	7.0
8.0								8.0
9.0								9.0
10.0								10.0



Highways and Public Works
Transportation Engineering Branch

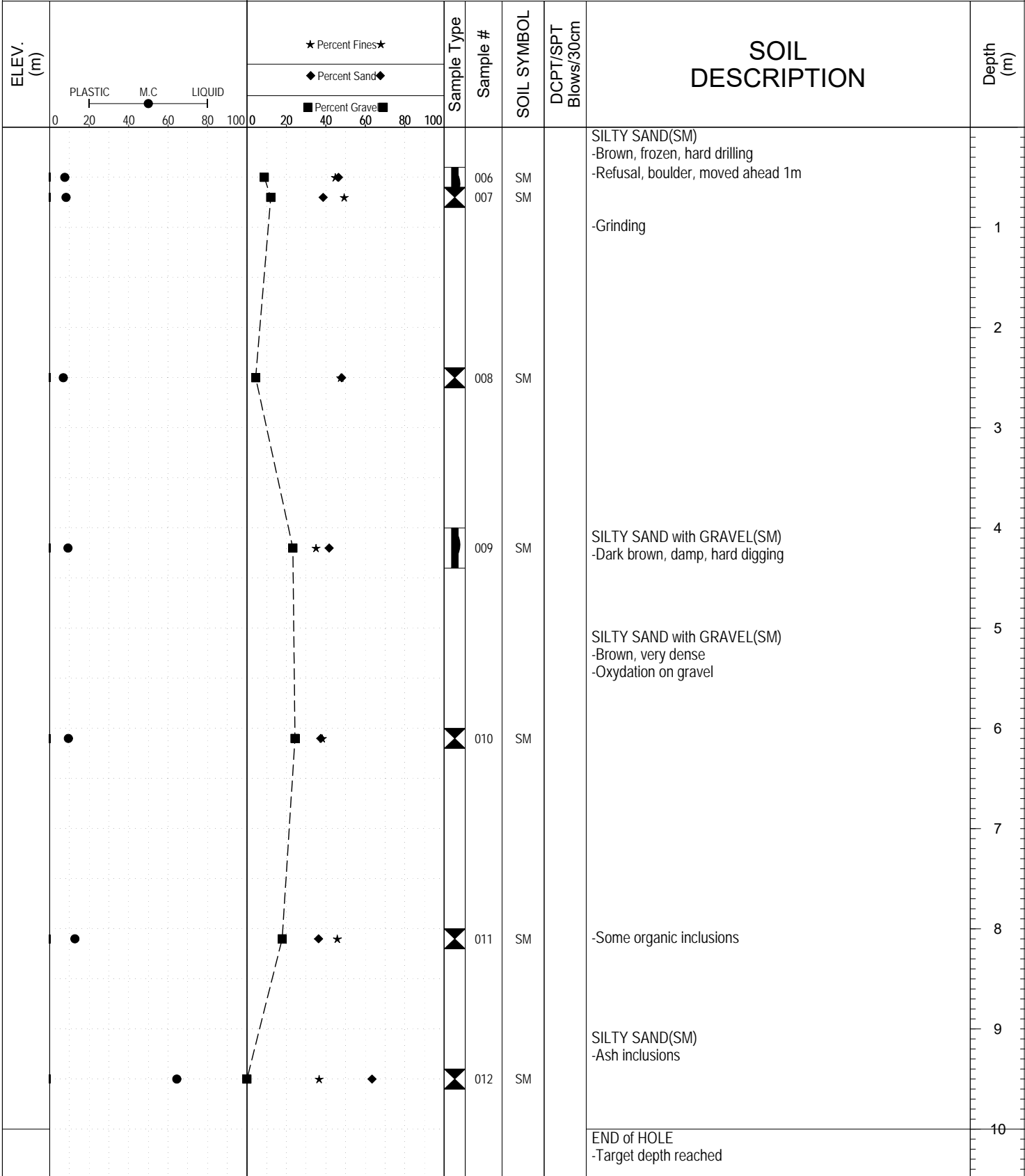
LOGGED BY: K.Elmer Termination Depth: 6.1m
 COMPILED BY: R.Stilwell Complete: 3/23/2016 11:30:00 AM
 REVIEWED BY: Pit #: Page 1 of 1

SUBSURFACE EXPLORATION AND TEST REPORT Silver Trail SOURCE/TP#: 886-5581

Midnight Sun Drilling Auger Drilling, km 95.4 PROJECT NO:

MARL M4CT Coordinates: Z Nm Em ELEVATION: m

SAMPLE TYPE UNDISTURBED DCPT AUGER BULK SPT CORE



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: K.Elmer Termination Depth: 10m
 COMPILED BY: R.Stilwell Complete: 3/24/2016 5:30:00 PM
 REVIEWED BY: Pit #: Page 1 of 1

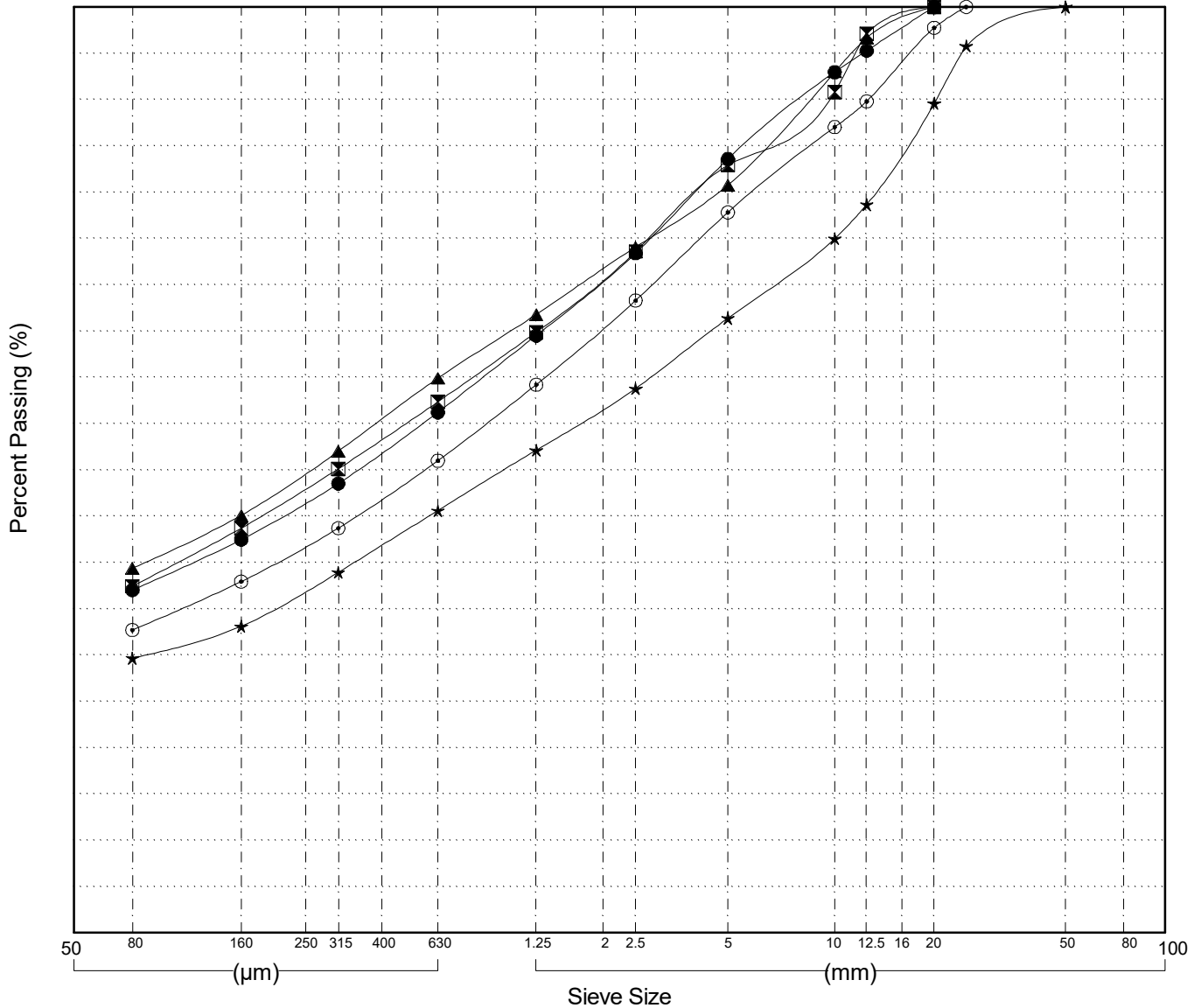
GRAIN SIZE ANALYSIS	Auger Drilling	SOURCE/TP#: 886-5580
Midnigh Sun Drilling	km 95.4	PROJECT NO:
MARL M4CT	Coordinates:Z Nm Em	ELEVATION: m

Master Revised July 2013

Field#	Lab#	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 001	2016-873	0.6 to 0.8	SILTY SAND with GRAVEL(SM)	6.1	NP	NP	NP		
☒ 002	2016-874	0.8 to 1.0	SILTY SAND with GRAVEL(SM)	5.4	NP	NP	NP		
▲ 003	2016-875	2.2 to 2.4	SILTY SAND with GRAVEL(SM)	6.6	NP	NP	NP		
★ 004	2016-876	3.6 to 3.8	SILTY SAND with GRAVEL(SM)	6.7	NP	NP	NP		
⊙ 005	2016-877	4.2 to 4.4	SILTY SAND with GRAVEL(SM)	5.0	NP	NP	NP		

Field#	Lab#	% PASSING	% Breakdown																
			100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	Gravel	Sand	Silt
● 001	2016-873	100.0	100.0	100.0	100.0	100.0	95.3	93.0	83.6	73.4	64.5	56.2	48.5	42.5	37.0	16.4	46.6	37.0	
☒ 002	2016-874	100.0	100.0	100.0	100.0	100.0	97.1	90.8	82.9	73.6	64.8	57.3	50.1	43.7	37.4	17.1	45.5	37.4	
▲ 003	2016-875	100.0	100.0	100.0	100.0	100.0	96.6	93.0	80.7	74.1	66.8	59.9	52.0	45.1	39.4	19.3	41.4	39.4	
★ 004	2016-876	100.0	100.0	100.0	95.8	89.6	78.7	75.0	66.4	58.8	52.1	45.6	38.9	33.1	29.7	33.6	36.7	29.7	
⊙ 005	2016-877	100.0	100.0	100.0	100.0	97.7	89.8	87.0	77.8	68.3	59.2	51.0	43.7	37.9	32.7	22.2	45.1	32.7	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



Highways and Public Works
Transportation Engineering Branch

LOGGED BY: K.Elmer
COMPILED BY: R.Stilwell
REVIEWED BY:

Pit #
Complete: 3/23/2016 11:30:00 AM

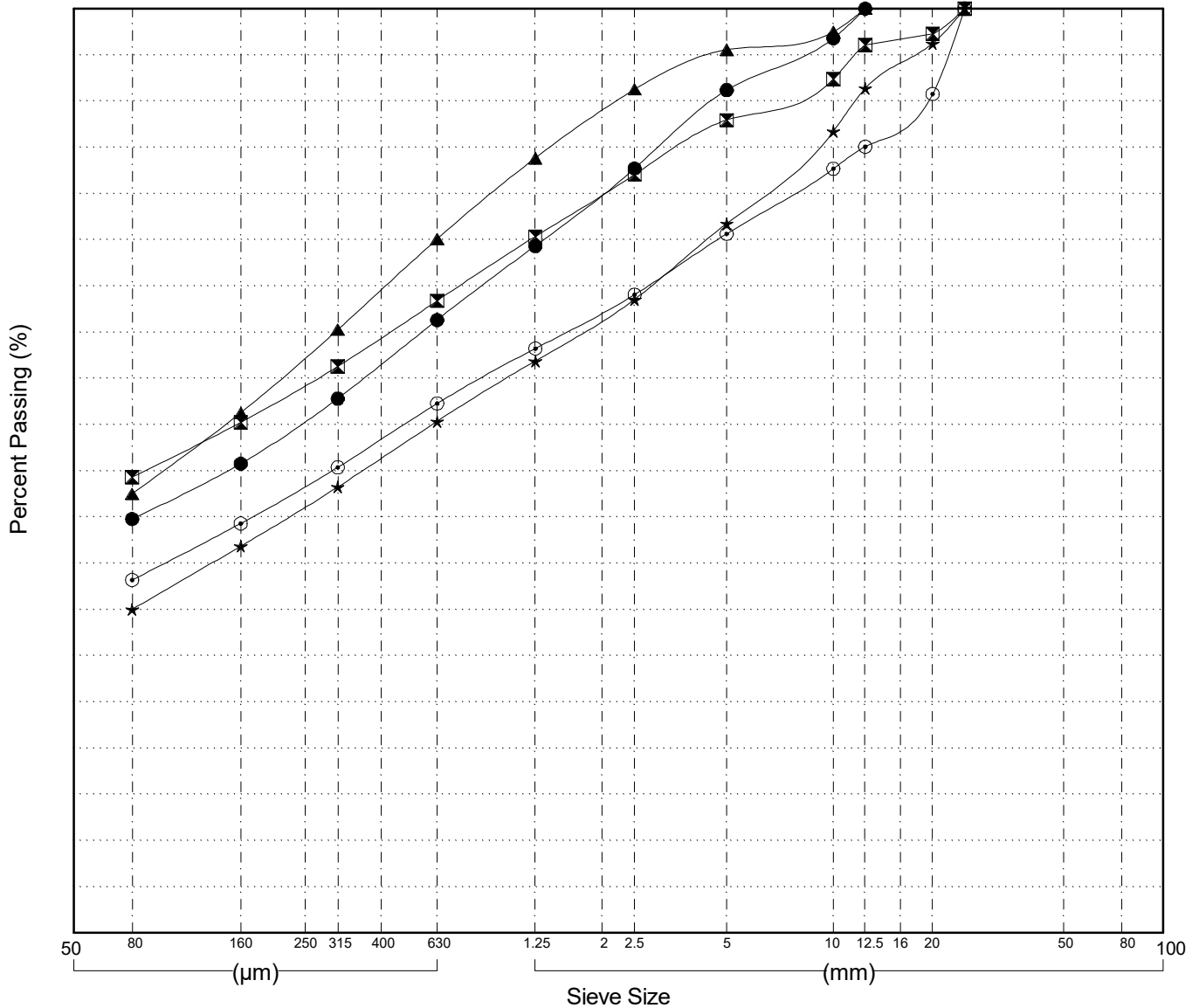
GRAIN SIZE ANALYSIS	Auger Drilling	SOURCE/TP#: 886-5581
Midnigh Sun Drilling	km 95.4	PROJECT NO:
MARL M4CT	Coordinates:Z Nm Em	ELEVATION: m

Master Revised July 2013

Field#	Lab#	Depth	Classification	%H ₂ O	LL	PL	PI	C _c	C _u
● 006	2016-878	0.4 to 0.6	SILTY SAND(SM)	7.6	NP	NP	NP		
☒ 007	2016-879	0.6 to 0.8	SILTY SAND(SM)	8.3	NP	NP	NP		
▲ 008	2016-880	2.4 to 2.6	SILTY SAND(SM)	6.9	NP	NP	NP		
★ 009	2016-881	4.0 to 4.4	SILTY SAND with GRAVEL(SM)	9.3	NP	NP	NP		
⊙ 010	2016-882	6.0 to 6.2	SILTY SAND with GRAVEL(SM)	9.5	NP	NP	NP		

Field#	Lab#	100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	%Breakdown			
		%PASSING														Gravel	Sand	Silt	Clay
● 006	2016-878	100.0	100.0	100.0	100.0	100.0	100.0	96.8	91.2	82.7	74.3	66.3	57.8	50.8	44.8	8.8	46.4	44.8	
☒ 007	2016-879	100.0	100.0	100.0	100.0	97.3	96.1	92.4	87.9	82.1	75.3	68.4	61.3	55.2	49.3	12.1	38.6	49.3	
▲ 008	2016-880	100.0	100.0	100.0	100.0	100.0	100.0	97.5	95.6	91.3	83.8	75.1	65.3	56.3	47.5	4.4	48.0	47.5	
★ 009	2016-881	100.0	100.0	100.0	100.0	96.2	91.4	86.7	76.7	68.5	61.9	55.3	48.3	41.8	35.0	23.3	41.7	35.0	
⊙ 010	2016-882	100.0	100.0	100.0	100.0	90.8	85.1	82.7	75.6	69.1	63.2	57.3	50.4	44.3	38.2	24.4	37.5	38.2	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse



GRAIN SIZE ANALYSIS	Auger Drilling	SOURCE/TP#: 886-5581
Midnight Sun Drilling	km 95.4	PROJECT NO:
MARL M4CT	Coordinates: Z Nm Em	ELEVATION: m

Master Revised July 2013

Field#	Lab#	Depth	Classification	%H2O	LL	PL	PI	Cc	Cu
● 011	2016-883	8.0 to 8.2	SILTY SAND with GRAVEL(SM)	12.8	NP	NP	NP		
☒ 012	2016-884	9.4 to 9.6	SILTY SAND(SM)	64.4	NP	NP	NP		

Field#	Lab#	100.0	80.0	50.0	25.0	20.0	12.5	10.0	5.0	2.5	1.25	0.630	0.315	0.160	0.080	% Breakdown			
																Gravel	Sand	Silt	Clay
● 011	2016-883	100.0	100.0	100.0	100.0	95.4	90.5	87.9	82.1	76.7	70.9	65.4	58.1	51.2	45.8	17.9	36.3	45.8	
☒ 012	2016-884	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	84.6	36.6	0.0	63.4	36.6	

Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse

