Appendix 2a

Site Photos

– BMEWS

Site Photographs – BMEWS

Photo 1 View of the BMEWS site (looking west from Old Base 1)

Photo 2 View of antennae bases at the BMEWS site (looking west)

Site Photographs – BMEWS

Photo 3 View of antennae bases at the BMEWS site (looking east)

Photo 4 View of PCB-impacted tar at the BMEWS site

Site Photographs – BMEWS

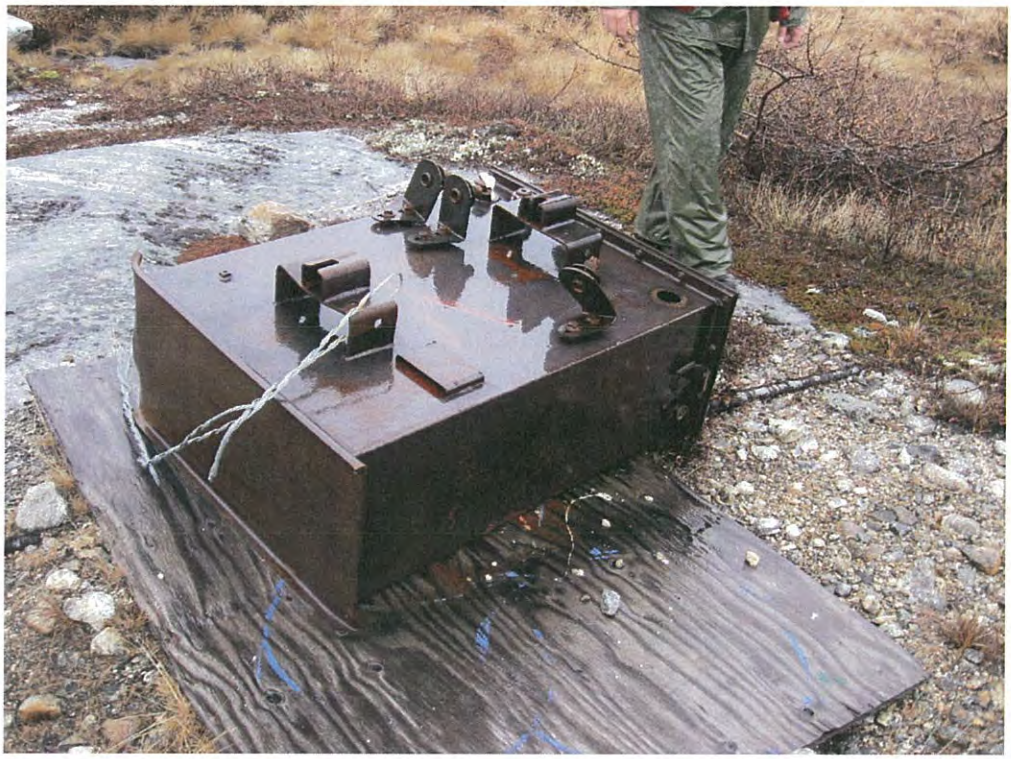

Photo 5 View of transformer carcass removed from the BMEWS site

Appendix 2b

Sample Coordinates

– BMEWS

Sample Coordinates - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Coordinates	
	Easting	Northing
TEST PITS		
TP-73	0674459	6150030
TP-74	0674464	6150034
TP-75	0674443	6150041
TP-76	0674455	6150050
TP-77	0674455	6150059
TP-78	0674467	6150060
TP-79	0674458	6150072
TP-80	0674502	6150023
TP-81	0674524	6150025
TP-82	0674523	6149978
TP-83	0674520	6149974
TP-84	0674518	6149972
TP-85	0674525	6149969
TP-86	0674526	6149974
TP-87	0674518	6149953
TP-88	0674507	6149949
TP-89	0674489	6149960
TP-90	0674496	6149970
TP-91	0674491	6149974
TP-92	0674470	6150003
TP-93	0674418	6149979
TP-94	0674410	6149985
TP-95	0674396	6149972
TP-96	0674403	6149967
TP-97	0674403	6149950
TP-98	0674406	6149950
TP-99	0674390	6149967
TP-100	0674389	6149985
TP-101	0674402	6149987
TP-102	0674376	6149976
TP-103	0674398	6149941
TP-104	0674443	6150007
TP-105	0674487	6150055
TP-106	0674490	6150057
TP-107	0674495	6150060
TP-108	0674503	6150056
TP-109	0674566	6150013
TP-110	0674567	6150023
TP-111	0674564	6150041
TP-112	0674559	6150049
TP-113	0674552	6150063
TP-114	0674547	6150049
TP-115	0674542	6150043

Sample ID	Coordinates	
	Easting	Northing
TP-116	0674530	6150041
TP-117	0674468	6149952
TP-118	0674479	6149952
TP-119	0674481	6149951
TP-120	0674483	6149938
TP-121	0674543	6149953
TP-122	0674562	6149953
TP-123	0674557	6149967
TP-124	0674552	6149973
TP-125	0674570	6149967
TP-126	0674570	6149979
TP-127	0674593	6149983
TP-128	0674576	6150008
TP-129	0674574	6150015
TP-130	0674561	6150010
TP-131	0674552	6150002
TP-132	0674569	6150056
TP-133	0674439	6149892
TP-134	0674438	6149897
TP-135	0674453	6149886
TP-136	0674456	6149890
TP-137	0674555	6149862
TP-138	0674574	6149854
TP-139	-	-
SURFACE SAMPLES		
BS1	0674438	6150001
BS2	0674440	6150007
BS3	0674436	6150032
BS4	0674441	6149981
BS5	0674454	6149998
BS6	0674465	6149995
BS7	0674496	6150001
BS8	0674489	6150016
BS9	0674484	6150026
BS10	0674503	6150034
BS11	0674508	6150037
BS12	0674488	6150051
BS13	0674474	6150042
BS14	0674462	6150033
BS15	0674526	6150021
BS16	0674515	6150095
BS17	0674471	6150051
BS18	0674514	6150113
BS19	0674505	6150115

Sample Coordinates - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Coordinates	
	Easting	Northing
BS20	0674512	6150087
BS21	0674546	6149996
BS22	0674487	6149937
BS23	0674481	6149953
BS24	0674486	6149965
BS25	0674466	6149964
BS26	0674461	6149969
BS27	0674537	6150054
BS28	0674486	6149971
BS29	0674428	6149964
BS30	0674318	6149939
BS31	0674318	6150005
BS32	0674312	6150023
BS33	0674312	6150039
BS34	0674279	6150051
BS35	0674181	6150083
BS36	0674156	6150099
BS37	0674165	6150139
BS38	0674479	6150168
MONITOR WELLS		
MW-8	0674492	6149941
MW-9	0674478	6150030
MW-10	0674463	6150081
MW-11	0674491	6150063
MW-12	0674551	6150055
MW-63	0674505	6150071
MW-64	0674373	6149992
MW-65	0674391	6149941
VEGETATION		
VEG-36	0674493	6149943
VEG-37	0674508	6149933
VEG-38	0674480	6149983
VEG-39	0674533	6149953
VEG-40	0674487	6150047
VEG-41	0674415	6149999
BERRIES		
BERRY-28	0674497	6149946
BERRY-29	0674497	6149930
BERRY-30	0674518	6149951
BERRY-31	0674490	6150068
BERRY-32	0674415	6149999
SMALL MAMMALS		
SM-1	0674576	6150062
SM-2	0674575	6150062

Sample ID	Coordinates	
	Easting	Northing
SM-3	0674563	6150078
SM-4	0674511	6150012
SM-5	0674490	6150071
SM-16	0674550	6150047
SM-17	0674543	6150074
SM-18	0674512	6150030
SM-19	0674533	6149945
SM-20	0674553	6149748

Notes:
"-" = Coordinates not recorded

Appendix 2c

Test Pit and Monitor Well Records

– BMEWS

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10461356
TEST PIT NO.: TP13
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.9	brown fine silty sand, gravel, and organics	BS1	0.2-0.3			wet @ b.c.
			BS2	0.8-0.9			Debris: tarp, metal and wood

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856
TEST PIT NO.: TP74
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.9	brown fine silty sand, gravel, and organics	BS1	0.2 0.3			Veg @ b.f.
			BS2	0.8 0.9			Debris: pipe, cable, rebar, aluminum, steel and wood

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414856 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP 75 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.7	brown fine silty sand, gravel and organics	BS1	0.2 0.3			wtr @ b.r.
			BS2	0.6 0.7			Debris: rubber, wire, wood

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:
gw @ 0.7 m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448556
TEST PIT NO.: TP76
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.6	brown fine silty sandy gravel and organics	BS1	0.2 0.3			wet @ b.c.
			BS2	0.5 0.6			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

wet @ 0.6

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10148526
TEST PIT NO.: TP77
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.8	brown fine silty sandy gravel and organics	BS1	0.2			Veg @ b.c.
				0.3			
			BS2	0.7			
				0.8			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448526
TEST PIT NO.: TP78
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.2	Brown fine silty sand, gravel and organics	BS1	0.1-0.2			
			BS2	1.0-1.2			Debris - steel girders, wire, steel

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.9m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414856 | JOB NAME: _____ | DATE: July 23, 09
TEST PIT NO.: TP79 | TEST PIT SIZE: _____ | ELEVATION: _____
MACHINE TYPE: _____ | CONTRACTOR: _____ | DATUM: _____
TEMPERATURE: _____ | WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.2	dark brown organics, trace brown sand	BS1	0.2			clay @ b.o.t.
				0.3			
			BS2	1.1			Debris: plastic
				1.2			noise

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448526 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP80 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.0	gravel and cobbles, trace brown coarse silty sand	BS1	0.2			150 ø concrete seals
			BS2	1.0			
							Debris: 45 gallon oil wheel drum, plastic, wood

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414826
TEST PIT NO.: TP81
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.7	brown to grey coarse silty sand, trace gravel	BS1 BS2	0.1 0.2 0.6 0.7			wet @ 0.7

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.7m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10141857c
TEST PIT NO.: TP02
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.2	brown to grey coarse silty sand and gravel	BS1	0.1-0.2			Lay @ b.r.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414856
TEST PIT NO.: TP83
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.2	brown to grey coarse silty sand	BS1	0.1 - 0.2			wet @ b.s.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP84 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.4	dark brown to black organics, trace brown silty sand	BS1	0.3 0.4			wet @ b.c.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10143526
TEST PIT NO.: TP85
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.7	brown medium silty sand	BS1	0.0-0.3			Lightly w.r.
0.7	0.9	brown to grey coarse silty sand	BS2	0.8-0.9			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.9 m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10443560
TEST PIT NO.: TP86
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.3	Black organics, trace brown sand	BS1	0.2-0.3			Veg @ b.c

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1041852c
TEST PIT NO.: TP3-7
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.5	black organics, shale brown Sand	BS1	0.4-0.5			clay @ b.r.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044852c
TEST PIT NO.: TP88
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.3	Black organics, trace brown sand	BS1	0.2 0.3			Wet @ b.r.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

g.w @ 0.3m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10418570
TEST PIT NO.: TP89
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.2	brown silty sand	BS1	0.1-0.2			wet @ b.c.
0.2	0.7	grey fine silty sand	BS2	0.6-0.7			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414856 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP90 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.3	black organics & light brown medium silty sand	BS1	0.2-0.3			Ug @ b.c.
0.3	1.6	light brown to grey fine silty sand	BS2	1.5-1.6			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10461852 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP91 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.8	dark brown to black coarse	BS1	0.2-0.3			wet @ b.c.
		Silty Sand and organics					
		with some gravel	BS2	0.7-0.8			Debris: wood, ~~wire~~ rebar

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

wet @ 0.8m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856
TEST PIT NO.: TP92
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.7	dark brown coarse silty sand and organics with some gravel	BS1	0.6-0.7			clay @ b.c.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856 JOB NAME: _____ DATE: June 23, 09
TEST PIT NO.: TP03 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.0	light to dark brown medium silty sand with gravel and boulders	BS1	0.2-0.3			wet @ 0.5m
			BS2	0.9-1.0			Debris, steel girders, wood

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 1.0m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1041185Z6
TEST PIT NO.: TP94
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	2.0	light to dark brown medium silty sand with gravel and boulders	BS1	0.2-0.3			wet @ w.t.
			BS2	1.9-2.0			Debris - pipes, wire, steel girders, concrete, rebar, aluminum, compress air containers

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414856
TEST PIT NO.: TP95
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.4	Light to dark brown medium silty sand, gravel and boulders	BS1 BS2	0.2 0.3 1.3 1.4			Lg @ b.o.t. Debris: large steel girders, crushed steel, culverts, cables

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448576
TEST PIT NO.: TP96
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.1	brown medium silty sand, gravel and boulders	BS1	0.2-0.3			dry @ b.c.
			BS2	1.0-1.1			Debris: steel pieces, wood

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10494856
TEST PIT NO.: TP97
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 07
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.8	brown medium silty sand gravel and boulders	BS1 BS2	0.2 0.3 0.7 0.8			clay @ b.o.t. Debris: steel girders, heavy cable, crushed 45 gallon drums, wood

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10411856
TEST PIT NO.: TP18
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.1	brown medium silty sand, gravel and boulders	BS1 BS2	0.2 0.3 1.0 1.1			wet @ 0.9 Debris - steel girders, rebar pieces of steel

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:
gw @ 0.9 m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414850
TEST PIT NO.: TP99
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.0	brown silty sand, gravel, boulders trace organics	BS1	0.2-0.3			Light b.r.
			BS2	0.9-1.0			Debris: steel bar,

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044836 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP100 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.3	brown medium silty sand, gravel, boulders and organics	BS1	0.2 - 0.3			Ugy@b.c.
			BS2	1.2 - 1.3			Debris: steel, cable, chunks of concrete

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10411852e
TEST PIT NO.: TP101
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.5	dark brown to black medium silty sand and gravel, some organics	BS1	0.2 - 0.3			UG @ steel debris
			BS2	1.4 - 1.5			Debris: large pieces of steel panels and girders

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044836
TEST PIT NO.: TP10-2
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 07
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.1	Light to dark brown medium sand, gravel, and organics	BS1	0 0.1			LL/@ b.c.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414856
TEST PIT NO.: TP103
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.3	grey to light brown medium silty sand	BS1	0.2-0.3			wet @ b.c.
0.3	1.0	dark brown to black fine silty sand	BS2	0.9-1.0			Debris: shredded cable

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.7 m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10114852c
TEST PIT NO.: TP104
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.3	Brown medium silty sand and gravel	BS1	0.2 0.3			Lig @ b.r. Debris: rubber and wood

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP105 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.8	Light brown medium silty sand and gravel	BS1	0.2 0.3			
			BS2	0.2 0.8			
							Debris: wood chips

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 104485le
TEST PIT NO.: TP106
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: _____
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.9	light brown medium silty sand and gravel	BS1	0.2 0.3			reef @ b.r.
			BS2	0.8 0.9			Debris: metal and concrete

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.8m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10449856 JOB NAME: _____ DATE: July 23, 07
TEST PIT NO.: TP107 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.0	Light brown medium silty sand	BS1 BS2	0.2-0.3 0.9-1.0			ucy@b.c. Debris - wood, cable, steel girders, rough pieces of crushed steel, compressed tank cylinders

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044352 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP108 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.9	Light brown medium silty sand	BS1	0.2 0.3			wet @ w.t.
			BS2	0.8 0.9			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.9m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448520 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP109 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.3	Light brown medium silty sand	BS1	0.2 0.3			Lig @ b.o.t.
0.3	1.7	dark brown to black medium silty sand and gravel	BS2	1.6 1.7			Debris: steel pipe

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856
TEST PIT NO.: TP110
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 24, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.3	Light to dark brown medium silty sand	BS1	0.2+ 0.3			Clay @ b.c.
			BS2	1.2+ 1.3			Debris: cable, steel

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856 JOB NAME: _____ DATE: July 23, 09 24
TEST PIT NO.: TP11 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.3	brown medium silty sand	BS1	0.2 0.3			Lay @ large piece of steel debris
0.3	1.2	dark brown to black medium silty sand and gravel	BS2	1.1 1.2			Debris - large steel pieces, cable, pipe

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1049856 JOB NAME: _____ DATE: July 23, 24, 09
TEST PIT NO.: TP112 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.4	Light brown medium silty sand	BS1	0.2 0.3			Clay @ b.c.
0.4	2.0	brown medium silty sand, cobbles, and boulders	BS2	1.9 2.0			Debris: large steel gradient panels, pipe

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10441856
TEST PIT NO.: TP113
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 24, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	2.1	Light brown to reddish brown medium silty sand	BS1	0.2 0.3			Lily @ b.c.
			BS2	2.0 2.1			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1041852e
TEST PIT NO.: TP114
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 23, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.4	Light brown to reddish brown medium silty sand	BS1	0.2 0.3			LL @ b.c.
			BS2	1.3 1.4			Debris: [illegible]
							trace steel

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044356 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP115 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.2	Light brown medium silty sand and gravel	BS1	0.0 0.2			LL/PL @ 0.2

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10418526 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP116 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.7	Light brown medium silty sand, gravel, cobbles and boulders	BS1	0.2 - 0.3			Lily @ b.c.
			BS2	1.6 - 1.7			Debris: Cage steel girders and panels

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414826 | JOB NAME: _____ | DATE: July 23, 09
TEST PIT NO.: TP117 | TEST PIT SIZE: _____ | ELEVATION: _____
MACHINE TYPE: _____ | CONTRACTOR: _____ | DATUM: _____
TEMPERATURE: _____ | WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.1	Light brown to brown medium silty sand with gravel and boulders	BS1	0.2 0.3			
1.1	1.4	dark brown to black sand with strong [redacted] odor	BS2	1.3 1.4			test pit cave caved on concrete pad, possible former transformer location

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414856 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP118 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.8	Light to dark brown medium silty sand, gravel and boulders strong odor	BS1 BS2	0.2 0.3 1.7 1.8			Clay @ b.r.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10441556 JOB NAME: _____ DATE: July 24 2009
TEST PIT NO.: TP119 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.9	Light to dark brown medium silty sand, [redacted] gravel and boulders. Strong odor	BS1	0.7 0.3			Clay @ b.c.
			BS2	0.8 0.9			Test pit dug under concrete slab

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ ~~Test Pit Dry.~~

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414856 | JOB NAME: _____ | DATE: July 24, 09
TEST PIT NO.: TP120 | TEST PIT SIZE: _____ | ELEVATION: _____
MACHINE TYPE: _____ | CONTRACTOR: _____ | DATUM: _____
TEMPERATURE: _____ | WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.5	Light to dark brown silty sand and gravel strata	BS1	0.2 0.3			ug @ b.o.
			BS2	0.4 0.5			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1049852e
TEST PIT NO.: TP121
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 24 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.4	dense brown to black organics with fine gravel	BS1	0.3+ 0.4			wy @ b.c.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10441856 JOB NAME: _____ DATE: July 23, 09 24

TEST PIT NO.: TP122 TEST PIT SIZE: _____ ELEVATION: _____

MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____

TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.3	dark brown to black organics and gravel	BS1	0.2 0.3			Hy@b.c.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____

TEST PIT NO.: _____

ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10461570 JOB NAME: _____ DATE: July 24, 07
TEST PIT NO.: TP123 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.1	dark brown to black organics with some brown medium silty sand	BS1	0.2? 0.3			Wet @ 0.3m
			BS2	1.0? 1.1			Debris: steel girders, corrugated metal panels

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:
Wet @ 0.3m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10441856 JOB NAME: _____ DATE: July 24, 09
TEST PIT NO.: TP124 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.6	Dark brown to black organic with some brown medium silty sand	BS1	0.4 0.6			Upper

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1094852 JOB NAME: _____ DATE: July 24, 09
TEST PIT NO.: TP125 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.8	dark brown to black organics, trace cobbles	BS1	0.2-0.3			clay @ b.c.
			BS2	0.7-0.8			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.8m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10474352C
TEST PIT NO.: TP12C
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 24, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.8	Light brown to brown medium silty sand	BS1	0.6 0.8			wet @ b.r.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044852 JOB NAME: _____ DATE: July 24, 09
TEST PIT NO.: TP127 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.8	dark brown to black organics with some light brown fine silty sand	BS1 BS2	0.2 0.3 0.7 0.8			LCG @ b.c.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.8m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856 JOB NAME: _____ DATE: July 29, 09
TEST PIT NO.: TP128 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.9	Light brown to brown medium silty sand, trace organics	BS1	0.8-0.9			Lily @ b.c.
							Debris: trace steel and concrete

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414826 JOB NAME: _____ DATE: July 24, 09
TEST PIT NO.: TP129 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.5	Light to dark brown medium silty sand	BS1	0.2-0.3			clay @ b.c.
			BS2	1.4-1.5			Debris: steel girders, steel siding

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10419852c
TEST PIT NO.: TP130
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 24 04
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.3	Light brown moist silty sand	BS1	0.2 0.3			clay @ b.c.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414852c
TEST PIT NO.: TP131
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 24, 09
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.8	Light brown medium silty sand, gravel and cobbles	BS1	0.2 0.3			Lcy @ b.c.
			BS2	0.7 0.8			Debris: corrugated steel, gyclad, panels

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10-1483-10 JOB NAME: _____ DATE: July 24, 09
TEST PIT NO.: TP 132 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.7	dark brown to black fine silty sand	BS1	0.6-0.7			wet @ b.c.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

wet @ 0.7m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10441856 JOB NAME: _____ DATE: July 23, 09
TEST PIT NO.: TP13-3 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.2	dark brown to black organics	BS1	0.0 0.2			Lig @ b.v.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414826 JOB NAME: _____ DATE: July 25, 09
TEST PIT NO.: TP134 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.1	dark brown to black organics	BS1	0.8+ 0.9			Lig @ b.r
0.1	0.9	Light brown medium silty sand.					

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10948516 JOB NAME: _____ DATE: July 25, 09
TEST PIT NO.: TP135 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.1	dark brown organics					CL/@ b.c
0.1	0.7	light brown medium silty sand	BS1	0.6 0.7			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044852
TEST PIT NO.: TP13C
MACHINE TYPE: _____
TEMPERATURE: _____

JOB NAME: _____
TEST PIT SIZE: _____
CONTRACTOR: _____
WEATHER: _____

DATE: July 25, 07
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.1	dark brown organics					Light G.C.
0.1	0.6	light brown medium silty sand	BS1	0.5 / 0.6			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10111552 JOB NAME: _____ DATE: Aug 25, 09
TEST PIT NO.: TP137 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.4	dark brown organic with some brown medium silty sand and gravel	BS1	0.3 0.4			Lay @ b.r

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414856 JOB NAME: _____ DATE: July 25, 07
TEST PIT NO.: TP138 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.1	dark brown to black organics					Lig @ base
0.1	0.6	brown mottled silty sand and gravel	BS1	0.2 0.3			
0.6	0.7	Light brown fine silty sand	BS2	0.6 0.7			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:
gw @ 0.7m

☐ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414856 JOB NAME: _____ DATE: July 26, 07
TEST PIT NO.: TP139 TEST PIT SIZE: _____ ELEVATION: _____
MACHINE TYPE: _____ CONTRACTOR: _____ DATUM: _____
TEMPERATURE: _____ WEATHER: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.8	dark brown to black organics	BS1	0.2+ 0.3			Veg @ b.r.
0.8	1.1	brown medium silty sand	BS2	1.0+ 1.1			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: _____
TEST PIT NO.: _____
ENGINEER: _____

Stantec

MONITOR WELL RECORD

BOREHOLE No. MW08
PAGE 1 of 1
PROJECT No. 121410103
DRILLING METHOD
SIZE
DATUM N/A

CLIENT Newfoundland and Labrador Department of Environment and Conservation
PROJECT Phase II/III ESAs, HHERA and RAP/RMP
LOCATION Former U.S. Military Site and Residential Subdivision, Hopedale, NL
DATES (mm-dd-yy): BORING 9-2-09 to 9-3-09 WATER LEVEL 3.17m 10-15-09

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY	SAMPLES N-VALUE OR RQD %	HYDROCARBON ODOUR	APPARENT MOISTURE CONTENT	PID (ppm)	TPH (ppm)	WELL CONSTRUCTION DETAILS
							mm						FLUSH MOUNTED WELL HEAD ENCLOSURE
0		Light to dark brown, SAND (SP)			SS	1	330	3	0		1.5	-	
		Brown, silty SAND (SM); trace cobbles			SS	2	76	9/127	0		9.0	-	BACKFILL
1		Light to dark grey and pink, BEDROCK			RC	3	100%		0		-	-	BENTONITE
2					RC	4	100%		0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND
3				▼	RC	5	100%		0		-	-	PACK
4					RC	6	100%		0		-	-	END CAP
		End of Borehole											
5													
6													
7													
8													
9													
10													

DRAFT

Stantec

MONITOR WELL RECORD

BOREHOLE No. MW09
PAGE 1 of 1
PROJECT No. 121410103
DRILLING METHOD
SIZE
DATUM N/A

CLIENT Newfoundland and Labrador Department of Environment and Conservation
PROJECT Phase II/III ESAs, HHERA and RAP/RMP
LOCATION Former U.S. Military Site and Residential Subdivision, Hopedale, NL
DATES (mm-dd-yy): BORING 9-3-09 WATER LEVEL 0.52m 10-15-09

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY	SAMPLES N-VALUE OR RQD %	HYDROCARBON ODOUR	APPARENT MOISTURE CONTENT	PID (ppm)	TPH (ppm)	WELL CONSTRUCTION DETAILS
							mm						0.61 m STICK UP CAST IRON WELL HEAD
0		Brown, SAND (SP); some cobbles		▼	SS	1	330	8	0		2.7	-	BACKFILL BENTONITE
1					SS	2	279	16	0		3.9	-	
					SS	3	356	18	0		4.1	<20	
2		Brown, SAND (SP); some cobbles and boulders			SS	4	305	115/305	0		3.8	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
		Pink and grey, BEDROCK			RC	5	58%		0		-	-	
3													
4					RC	6	100%		0		-	-	
					RC	7	100%		0		-	-	END CAP
		End of Borehole											
5													
6													
7													
8													
9													
10													

DRAFT

Stantec

MONITOR WELL RECORD

BOREHOLE No. MW10
PAGE 1 of 1
PROJECT No. 121410103
DRILLING METHOD
SIZE
DATUM N/A

CLIENT Newfoundland and Labrador Department of Environment and Conservation
PROJECT Phase II/III ESAs, HHERA and RAP/RMP
LOCATION Former U.S. Military Site and Residential Subdivision, Hopedale, NL
DATES (mm-dd-yy): BORING 9-3-09 WATER LEVEL 2.53m 10-15-09

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY	SAMPLES N-VALUE OR RQD %	HYDROCARBON ODOUR	APPARENT MOISTURE CONTENT	PID (ppm)	TPH (ppm)	WELL CONSTRUCTION DETAILS
							mm						0.61 m STICK UP CAST IRON WELL HEAD
0		Dark brown, Organic Soil (OL); trace sand and cobbles			SS	1	330	8	0		5.0	72	BACKFILL BENTONITE
1		Grey and pink, BEDROCK			SS	2	279	16	0		-	-	
2				▼	SS	3	356	18	0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
3					SS	4	305	115/305	0		-	-	
4					RC	5	58%		0		-	-	END CAP
		End of Borehole											
5													
6													
7													
8													
9													
10													

DRAFT

Stantec

MONITOR WELL RECORD

BOREHOLE No. MW11
PAGE 1 of 1
PROJECT No. 121410103
DRILLING METHOD
SIZE
DATUM N/A

CLIENT Newfoundland and Labrador Department of Environment and Conservation
PROJECT Phase II/III ESAs, HHERA and RAP/RMP
LOCATION Former U.S. Military Site and Residential Subdivision, Hopedale, NL
DATES (mm-dd-yy): BORING 9-3-09 WATER LEVEL 1.92m 10-15-09

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY	SAMPLES N-VALUE OR RQD %	HYDROCARBON ODOUR	APPARENT MOISTURE CONTENT	PID (ppm)	TPH (ppm)	WELL CONSTRUCTION DETAILS
							mm						0.61 m STICK UP CAST IRON WELL HEAD
0		Dark brown, SAND (SP)			SS	1	203	12/305	0		1.6	490	BACKFILL BENTONITE
1		Pink and grey, BEDROCK			RC	2	100%		0		-	-	
2				▼	RC	3	100%		0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
3													
4					RC	4	100%		0		-	-	END CAP
		End of Borehole											
5													
6													
7													
8													
9													
10													

DRAFT

Stantec

MONITOR WELL RECORD

BOREHOLE No. MW12
PAGE 1 of 1
PROJECT No. 121410103
DRILLING METHOD
SIZE
DATUM N/A

CLIENT Newfoundland and Labrador Department of Environment and Conservation
PROJECT Phase II/III ESAs, HHERA and RAP/RMP
LOCATION Former U.S. Military Site and Residential Subdivision, Hopedale, NL
DATES (mm-dd-yy): BORING 9-4-09 WATER LEVEL 1.49m 10-15-09

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY	SAMPLES N-VALUE OR RQD %	HYDROCARBON ODOUR	APPARENT MOISTURE CONTENT	PID (ppm)	TPH (ppm)	WELL CONSTRUCTION DETAILS (0.61 m STICK UP)
							mm						CAST IRON WELL HEAD
0		Light to dark brown, SAND (SP); trace cobbles			SS	1	330	8	0		3.1	-	BACKFILL
1		Brown, SAND (SP); some cobbles			SS	2	279	20	0		4.4	-	BENTONITE
				▼	SS	3	356	27	0		7.2	-	
2		Pink, grey and green, BEDROCK			RC	4	100%		0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
3					RC	5	100%		0		-	-	
4					RC	6	100%		0		-	-	
					RC	7	100%		0		-	-	END CAP
5		End of Borehole											
6													
7													
8													
9													
10													

DRAFT

Stantec

MONITOR WELL RECORD

BOREHOLE No. MW63
PAGE 1 of 1
PROJECT No. 121410103
DRILLING METHOD
SIZE
DATUM N/A

CLIENT Newfoundland and Labrador Department of Environment and Conservation
PROJECT Phase II/III ESAs, HHERA and RAP/RMP
LOCATION Former U.S. Military Site and Residential Subdivision, Hopedale, NL
DATES (mm-dd-yy): BORING 9-29-09 WATER LEVEL 1.09m 10-15-09

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY	SAMPLES N-VALUE OR RQD %	HYDROCARBON ODOUR	APPARENT MOISTURE CONTENT	PID (ppm)	TPH (ppm)	WELL CONSTRUCTION DETAILS
							mm						0.61 m STICK UP CAST IRON WELL HEAD
0		Dark brown, SAND (SP); some organics			SS	1	178	4/305	0	M	-	250	BACKFILL
1		Dark grey, pink and white, BEDROCK		▼	RC	2	94%		0		-	-	BENTONITE
2					RC	3	90%		0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
3		Dark and light grey, trace pink, BEDROCK			RC	4	100%		0		-	-	
4		End of Borehole											END CAP
5													
6													
7													
8													
9													
10													

DRAFT

Stantec

MONITOR WELL RECORD

BOREHOLE No. MW64
PAGE 1 of 1
PROJECT No. 121410103
DRILLING METHOD
SIZE
DATUM N/A

CLIENT Newfoundland and Labrador Department of Environment and Conservation
PROJECT Phase II/III ESAs, HHERA and RAP/RMP
LOCATION Former U.S. Military Site and Residential Subdivision, Hopedale, NL
DATES (mm-dd-yy): BORING 9-29-09 WATER LEVEL 7.66m 10-15-09

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY	SAMPLES N-VALUE OR RQD %	HYDROCARBON ODOUR	APPARENT MOISTURE CONTENT	PID (ppm)	TPH (ppm)	WELL CONSTRUCTION DETAILS
							mm						0.61 m STICK UP CAST IRON WELL HEAD
0		Dark brown, SAND (SP); trace gravel and organics			SS	1	152	12/460	0	M	-	28 000	
1		Dark grey, white and pink, BEDROCK			RC	2	100%		0		-	-	
2					RC	3	100%		0		-	-	BACKFILL
3													
4					RC	4	100%		0		-	-	BENTONITE
5		Dark and light grey, trace pink, BEDROCK			RC	5	100%		0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
6		Dark grey and white, BEDROCK											
7				▼	RC	6	100%		0		-	-	
8		End of Borehole											END CAP
9													
10													

DRAFT

Stantec — MONITOR WELL RECORD

BOREHOLE No. MW65
PAGE 1 of 1
PROJECT No. 121410103
DRILLING METHOD
SIZE
DATUM N/A

CLIENT Newfoundland and Labrador Department of Environment and Conservation
PROJECT Phase II/III ESAs, HHERA and RAP/RMP
LOCATION Former U.S. Military Site and Residential Subdivision, Hopedale, NL
DATES (mm-dd-yy): BORING 9-29-09 to 9-30-09 WATER LEVEL 7.29m 10-15-09

DEPTH (m)	ELEVATION (m)	DESCRIPTION	STRATA PLOT	WATER LEVEL	SAMPLES TYPE	SAMPLES NUMBER	SAMPLES RECOVERY	SAMPLES N-VALUE OR RQD %	HYDROCARBON ODOUR	APPARENT MOISTURE CONTENT	PID (ppm)	TPH (ppm)	WELL CONSTRUCTION DETAILS
							mm						0.61 m STICK UP CAST IRON WELL HEAD
0		Dark brown, SAND (SP); some organics			SS	1	152	10	0	M	-	-	
		Dark brown, SAND (SP)			SS	2	100%	16/305	0	W	-	2	
1		Dark grey and pink, trace black, BEDROCK			RC	3	100%				-	100 -	
2		Dark grey and pink, trace white, BEDROCK			RC	4	100%				-	-	BACKFILL
3		Dark grey and white, trace black, with yellow veining throughout, BEDROCK			RC	5	100%				-	-	BENTONITE
4		Dark and light grey, BEDROCK			RC	6	100%				-	-	
5		Dark grey and white, some pink, BEDROCK			RC	7	100%				-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
6		Black and light grey, trace pink, BEDROCK			RC	8	100%				-	-	
7				▼									END CAP
8		End of Borehole											
9													
10													

DRAFT

Appendix 2d

Soil Vapour Concentrations

– BMEWS

Sample Tipping Results - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Sample Depth (mbgs)	Hydrocarbon Odour	Soil Vapour Concentration (ppm)
TEST PITS			
TP73-BS1	0.2-0.3	No	6.1
TP73-BS2	0.8-0.9	No	22.5
TP74-BS1	0.2-0.3	No	4.7
TP74-BS2	0.8-0.9	No	3.2
TP75-BS1	0.2-0.3	No	7.1
TP75-BS2	0.6-0.7	No	2.5
TP76-BS1	0.2-0.3	No	6.6
TP76-BS2	0.5-0.6	No	3.4
TP77-BS1	0.2-0.3	No	4.8
TP77-BS2	0.7-0.8	No	4.2
TP78-BS1	0.1-0.2	No	3.6
TP78-BS2	1.0-1.2	No	1.1
TP79-BS1	0.2-0.3	No	4.4
TP79-BS2	1.1-1.2	No	3.0
TP80-BS1	0.2-1.0	No	5.1
TP80-BS2	0.2-1.0	No	4.5
TP81-BS1	0.1-0.2	No	2.8
TP81-BS2	0.6-0.7	No	2.7
TP82-BS1	0.1-0.2	No	82.7
TP83-BS1	0.1-0.2	No	-
TP84-BS1	0.3-0.4	No	5.2
TP85-BS1	0.2-0.3	No	5.2
TP85-BS2	0.8-0.9	No	6.6
TP86-BS1	0.2-0.3	No	3.0
TP87-BS1	0.4-0.5	No	2.4
TP88-BS1	0.2-0.3	No	3.4
TP89-BS1	0.1-0.2	No	9.6
TP89-BS2	0.6-0.7	No	5.2
TP90-BS1	0.2-0.3	No	3.3
TP90-BS2	1.5-1.6	No	8.3
TP91-BS1	0.2-0.3	No	9.7
TP91-BS2	0.7-0.8	No	24.1
TP92-BS1	0.6-0.7	No	2.8
TP93-BS1	0.2-0.3	No	1.6
TP93-BS2	0.9-1.0	No	2.7
TP94-BS1	0.2-0.3	No	3.8
TP94-BS2	1.9-2.0	No	2.0
TP95-BS1	0.2-0.3	No	1.7
TP95-BS2	1.3-1.4	No	2.6
TP96-BS1	0.2-0.3	No	1.8
TP96-BS2	1.0-1.1	No	2.2
TP97-BS1	0.2-0.3	No	3.2
TP97-BS2	0.7-0.8	No	2.8
TP98-BS1	0.2-0.3	No	2.9
TP98-BS2	1.0-1.1	No	2.7
TP99-BS1	0.2-0.3	No	1.5
TP99-BS2	0.9-1.0	No	22.5
TP100-BS1	0.2-0.3	No	2.1
TP100-BS2	1.2-1.3	No	3.4
TP101-BS1	0.2-0.3	No	1.3
TP101-BS2	1.4-1.5	No	1.6

Sample Tipping Results - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Sample Depth (mbgs)	Hydrocarbon Odour	Soil Vapour Concentration (ppm)
TP102-BS1	0.0-0.1	No	67.0
TP103-BS1	0.2-0.3	No	4.8
TP103-BS2	0.9-1.0	No	44.5
TP104-BS1	0.2-0.3	No	5.9
TP105-BS1	0.2-0.3	No	4.2
TP105-BS2	0.7-0.8	No	11.0
TP106-BS1	0.2-0.3	No	5.1
TP106-BS2	0.8-0.9	No	4.6
TP107-BS1	0.2-0.3	No	5.0
TP107-BS2	0.9-1.0	No	2.5
TP108-BS1	0.2-0.3	No	3.5
TP108-BS2	0.8-0.9	No	2.8
TP109-BS1	0.2-0.3	No	1.2
TP109-BS2	1.6-1.7	No	1.5
TP110-BS1	0.2-0.3	No	1.1
TP110-BS2	1.2-1.3	No	1.7
TP111-BS1	0.2-0.3	No	0.8
TP111-BS2	1.1-1.2	No	0.9
TP112-BS1	0.2-0.3	No	1.5
TP112-BS2	1.9-2.0	No	1.6
TP113-BS1	0.2-0.3	No	0.9
TP113-BS2	2.0-2.1	No	3.9
TP114-BS1	0.2-0.3	No	1.3
TP114-BS2	1.3-1.4	No	3.2
TP115-BS1	0.0-0.2	No	1.4
TP116-BS1	0.2-0.3	No	1.5
TP116-BS2	1.6-1.7	No	1.5
TP117-BS1	0.2-0.3	Mineral oil odour	80.3
TP117-BS2	0.3-1.4	Mineral oil odour	191
TP118-BS1	0.2-0.3	Mineral oil odour	5.6
TP118-BS2	1.7-1.8	Mineral oil odour	62.0
TP119-BS1	0.2-0.3	Mineral oil odour	6.1
TP119-BS2	0.8-0.9	Mineral oil odour	5.3
TP120-BS1	0.2-0.3	Mineral oil odour	3.9
TP120-BS2	0.4-0.5	Mineral oil odour	2.5
TP121-BS1	0.3-0.4	No	2.4
TP122-BS1	0.2-0.3	No	1.2
TP123-BS1	0.2-0.3	No	1.5
TP123-BS2	1.0-1.1	No	1.3
TP124-BS1	0.4-0.6	No	1.7
TP125-BS1	0.2-0.3	No	2.6
TP125-BS2	0.7-0.8	No	2.2
TP126-BS1	0.6-0.8	No	1.9
TP127-BS1	0.2-0.3	No	1.2
TP127-BS2	0.7-0.8	No	1.2
TP128-BS1	0.8-0.9	No	0.8
TP129-BS1	0.2-0.3	No	1.0
TP129-BS2	1.4-1.5	No	2.5
TP130-BS1	0.2-0.3	No	1.3
TP130-BS2	0.2-0.3	No	-
TP131-BS1	0.2-0.3	No	1.2
TP131-BS2	0.7-0.8	No	1.1

Sample Tipping Results - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Sample Depth (mbgs)	Hydrocarbon Odour	Soil Vapour Concentration (ppm)
TP132-BS1	0.6-0.7	No	2.8
TP133-BS1	0.0-0.2	No	0.1
TP134-BS1	0.8-0.9	No	1.1
TP135-BS1	0.6-0.7	No	1.1
TP136-BS1	0.5-0.6	No	0.7
TP137-BS1	0.3-0.4	No	0.4
TP138-BS1	0.2-0.3	No	2.1
TP138-BS2	0.6-0.7	No	0.7
TP139-BS1	0.2-0.3	No	0.1
TP139-BS2	1.0-1.1	No	45.5
SURFACE SOIL			
BS1	0.00-0.20	No	2.3
BS2	0.00-0.24	No	2.0
BS3	0.00-0.20	No	1.6
BS4	0.00-0.09	No	2.0
BS5	0.00-0.10	No	1.3
BS6	0.00-0.22	No	1.4
BS7	0.00-0.12	No	4.0
BS8	0.00-0.30	No	1.7
BS9	0.00-0.20	No	0.6
BS10	0.00-0.25	No	1.3
BS11	0.00-0.24	No	0.6
BS12	0.00-0.20	No	4.2
BS13	0.00-0.25	No	3.6
BS14	0.00-0.15	No	2.0
BS15	0.00-0.20	No	0.0
BS16	0.00-0.12	Chemical odor	0.4
BS17	0.00-0.20	No	0.1
BS18	0.00-0.18	No	0.0
BS19	0.00-0.25	No	0.3
BS20	0.00-0.25	Chemical odor	49.4
BS21	0.00-0.13	No	1.5
BS22	0.00-0.15	No	0.9
BS23	0.00-0.20	No	0.2
BS24	0.00-0.15	No	0.3
BS25	0.00-0.15	No	0.3
BS26	0.00-0.15	No	0.5
BS27	0.00-0.20	No	0.1
BS28	0.00-0.20	No	0.0
BS29	0.00-0.13	No	0.1
BS30	0.00-0.15	Chemical odor	0.5
BS31	0.00-0.22	No	0.6
BS32	0.00-0.20	No	1.7
BS33	0.00-0.13	No	3.6
BS34	0.00-0.20	No	1.2
BS35	0.00-0.15	No	0.7
BS36	0.00-0.10	No	1.2
BS37	0.00-0.07	No	0.4
BS38	0.00-0.07	No	0.4

Notes:
"-" = Value not recorded

Appendix 2e

Laboratory Analytical Results Summary Tables

– BMEWS

Table 2.1 Results of Laboratory Analysis of TPH/BTEX in Soil - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Sample Depth (m)	Benzene	Toluene	Ethylbenzene	Xylenes	C_6-C_{10} (Gas Range)	C_{10}-C_{21} (Fuel Range)	C_{21}-C_{32} (Lube Range)	Modified TPH - Tier I[2]	Resemblance
	RDL	0.03	0.03	0.03	0.05	3	15	15	20	-
	RDL[3]	0.1	0.1	0.1	0.3	10	150	15	200	-
	RDL[4]	0.03	0.03	0.03	0.05	3	75	15	80	-
	RDL[5]	0.03	0.03	0.03	0.05	3	150	15	200	-
	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
	Tier I RBSLs[1]	0.03	0.38	0.08	11	-	-	-	140	-
SURFACE SAMPLES										
BS19	0.00 - 0.25	<0.03	<0.03	<0.03	<0.05	<3	110	280	390	OP F/L
BS20[3]	0.00 - 0.25	<0.1	<0.1	<0.1	<0.3	<10	93,000	1,300	94,000	FO
BS20 - Lab-Dup[3]	0.00 - 0.25	-	-	-	-	-	95,000	1,500	-	-
BS30	0.00 - 0.15	<0.03	<0.03	<0.03	<0.05	<3	<15	<15	<20	-
BS35	0.00 - 0.15	<0.03	<0.03	<0.03	<0.05	<3	33	88	120	Possible LO, (1)
TEST PITS										
TP79-BS2	1.1 - 1.2	<0.03	<0.03	<0.03	<0.05	<3	260	2,100	2,400	OP F/L, (1)
TP82-BS1	0.1 - 0.2	<0.03	<0.03	<0.03	<0.05	89	5,600	50	5,800	FO
TP91-BS2	0.7 - 0.8	<0.03	<0.03	<0.03	<0.05	<3	55	59	110	OP F, Possible LO
TP96-BS2	1.0 - 1.1	<0.03	0.04	<0.03	<0.05	<3	20	110	130	LO
TP101-BS2	1.4 - 1.5	<0.03	<0.03	<0.03	<0.05	<3	40	120	160	WFO, LO
TP102-BS1[4]	0.0 - 0.1	<0.03	<0.03	<0.03	0.20	57	27,000	300	28,000	FO
TP103-BS2	0.9 - 1.0	<0.03	0.06	<0.03	<0.05	40	7,200	360	7,600	FO
TP107-BS2	0.9 - 1.0	<0.03	<0.03	<0.03	<0.05	<3	120	210	320	OP F, OP F/L
TP118-BS2	1.7 - 1.8	<0.03	<0.03	<0.03	<0.05	130	5,700	32	5,800	FO
TP123-BS2	1.0 - 1.1	<0.03	<0.03	<0.03	<0.05	<3	80	230	310	OP F/L
TP127-BS2	0.7 - 0.8	<0.03	<0.03	<0.03	<0.05	<3	<15	49	49	Possible LO
TP139-BS2[4]	1.0 - 1.1	<0.03	<0.03	<0.03	<0.05	280	9,100	<15	9,400	OP G/F, FO
MONITOR WELLS										
MW9-SS3	1.21 - 1.83	<0.03	<0.03	<0.03	<0.05	<3	<15	<15	<20	-
MW10-SS1	0.00 - 0.15	<0.03	<0.03	<0.03	<0.05	<3	20	52	72	DNR
MW11-SS1	0.00 - 0.30	<0.03	<0.03	<0.03	<0.05	<3	110	380	490	WFO, LO
MW63-SS1	0.00 - 0.30	<0.03	<0.03	<0.03	<0.05	<3	64	190	250	OP F/L
MW64-SS1[5]	0.00 - 0.46	<0.03	<0.03	<0.03	0.09	120	27,000	390	28,000	FO
MW65-SS2	0.61 - 0.91	<0.03	<0.03	<0.03	0.13	65	1,800	220	2,100	FO, Possible LO

Notes:

1 = Partnership in RBCA (Risk-Based Corrective Action) Implementation (PIRI) Tier I Risk Based Screening Levels (RBSLs) for a residential site with potable groundwater and coarse grained soil, fuel oil impacts (September, 2003)

2 = Modified TPH - Tier I does not include BTEX

3,4,5 = Elevated RDL(s) due to sample dilution

RDL = Reportable Detection Limit for routine analysis

Lab-dup = laboratory duplicate sample

< # = Not detected above RDL noted

"-" = indicates value is not available or does not apply

FO = Fuel oil fraction; WFO = Weathered fuel oil; LO = Lube oil fraction; DNR = Does not resemble gasoline or diesel; OP (F; F/L; F; G/F) = One product in (fuel, fuel/lube; fuel; gas/fuel) oil range

(1) = Unidentified compound(s) in (lube; fuel/lube) oil range

Shaded = Value exceeds generic criteria for a residential site with potable groundwater, coarse grained soil and fuel oil impacts

Table 2.2 Results of Laboratory Analysis of TPH fractionation in Soil - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Parameters	RDL	Units	Tier I RBSLs[1]	TEST PITS
				TP117-BS2
			Sample Depth (mbgs)	1.3 - 1.4
Benzene	0.03	mg/L	0.03	<0.03
Toluene	0.03	mg/L	0.38	0.11
Ethylbenzene	0.03	mg/L	0.08	0.40
Xylenes	0.05	mg/L	11	12
Modified TPH - Tier II[2]	200	mg/L	140	22,000
> C8-C10 Aromatic	1	mg/L	-	170
> C10-C12 Aromatic	14[3]	mg/L	-	1,500
> C12-C16 Aromatic	15	mg/L	-	2,200
> C16-C21 Aromatic	15	mg/L	-	260
> C21-C32 Aromatic	15	mg/L	-	130
> C6-C8 Aliphatic	2[3]	mg/L	-	45
> C8-C10 Aliphatic	4	mg/L	-	990
> C10-C12 Aliphatic	80[4]	mg/L	-	5,500
> C12-C16 Aliphatic	150[4]	mg/L	-	10,000
> C16-C21 Aliphatic	15	mg/L	-	630
> C21-C32 Aliphatic	15	mg/L	-	420
Resemblence	-	-	-	FO, LO

Notes:

1 = Partnership in RBCA (Risk-Based Corrective Action) Implementation (PIRI) Tier I Risk Based Screening Levels (RBSLs) for a residential site with potable groundwater and coarse grained soil, fuel oil impacts (September, 2003)

2 = Modified TPH - Tier II does not include BTEX

3 = Elevated RDL due to detected levels in the method blank

4 = Elevated RDL due to sample dilution

RDL = Reportable Detection Limit for routine analysis

< # = Not detected above RDL noted

"-" = indicates value is not available or does not apply

FO= Fuel oil fraction; LO=Lube oil fraction.

Shaded = Value exceeds generic criteria for a residential site with potable groundwater, coarse grained soil and fuel oil impacts

Table 2.3 Results of Laboratory Analysis of PCBs in Soil - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Sample Depth (m)	Polychlorinated Biphenyls (PCBs)
	RDL	0.05
	Units	mg/kg
	Criteria[1]	1.3
SURFACE SAMPLES		
BS3	0.00 - 0.20	1.6
BS5	0.00 - 0.10	24
BS9	0.00 - 0.20	21
BS10	0.00 - 0.25	<0.05
BS12	0.00 - 0.20	2.7
BS13	0.00 - 0.25	3.1
BS14	0.00 - 0.15	100
BS19	0.00 - 0.25	<0.05
BS20	0.00 - 0.25	<0.05
BS24	0.00 - 0.15	0.66
BS27	0.00 - 0.20	0.97
BS28	0.00 - 0.20	0.36
BS28-Lab-Dup	0.00 - 0.20	0.28
BS29	0.00 - 0.13	1.7
BS30	0.00 - 0.15	0.41
BS32	0.00 - 0.20	0.46
BS34	0.00 - 0.20	<0.05
BS37	0.00 - 0.07	<0.05
BS38	0.00 - 0.07	<0.05
TEST PITS		
TP75-BS2	0.6 - 0.7	0.42
TP79-BS2	1.1 - 1.2	0.34
TP96-BS2	1.0 - 1.1	0.13
TP101-BS2	1.4 - 1.5	0.18
TP103-BS2	0.9 - 1.0	<0.05
TP107-BS2	0.9 - 1.0	3.4
TP109-BS2	1.6 - 1.7	<0.05
TP111-BS2	1.1 - 1.2	<0.05
TP117-BS2	1.3 - 1.4	<0.05
TP123-BS2	1.0 - 1.1	<0.05
TP127-BS2	0.7 - 0.8	<0.05
MONITOR WELLS		
MW8-SS1	0.00 - 0.61	<0.05
MW9-SS1	0.00 - 0.61	<0.05
MW12-SS2	0.61 - 1.22	<0.05
MW63-SS1	0.00 - 0.30	0.49
MW65-SS2	0.30 - 1.52	0.2

Notes:
1 = CCME Canadian Soil Quality Guidelines for a Residential/Parkland Site (2007)
RDL = Reportable Detection Limit for routine analysis
Lab-dup = Laboratory duplicate sample
< # = Not detected above RDL noted
Shaded = Value exceeds applicable criteria

Table 2.4 Results of Laboratory Analysis of PAHs in Soil - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Parameters	RDL	Units	Criteria[1,3]	Criteria[2,3]	TEST PITS
					TP117-BS2
Non-carcinogenic PAHs					
1-Methylnaphthalene	0.1[5]	mg/kg	-	-	43
2-Methylnaphthalene	0.1[5]	mg/kg	-	-	49
Acenaphthene	0.005	mg/kg	-	-	0.17
Acenaphthylene	0.1[5]	mg/kg	-	-	<0.1
Anthracene	0.005	mg/kg	2.5	-	0.034
Fluoranthene	0.005	mg/kg	50	-	0.064
Fluorene	0.005	mg/kg	-	-	1.3
Naphthalene	0.1[5]	mg/kg	-	-	5.4
Perylene	0.005	mg/kg	-	-	0.007
Phenanthrene	0.005	mg/kg	-	-	0.66
Pyrene	0.005	mg/kg	-	-	0.057
Carcinogenic PAHs					
Benzo(a)anthracene	0.005	mg/kg	-		0.009
Benzo(a)pyrene	0.005	mg/kg	20	-	0.007
Benzo(b)fluoranthene	0.005	mg/kg	-	-	0.007
Benzo(k)fluoranthene	0.005	mg/kg	-	-	0.006
Benzo(g,h,i)perylene	0.005	mg/kg	-	-	0.007
Chrysene	0.005	mg/kg	-	-	0.020
Dibenz(a,h,)anthracene	0.005	mg/kg	-	-	<0.005
Indeno(1,2,3-c,d) pyrene	0.005	mg/kg	-	-	0.007
Benzo (a)pyrene TPE[4]			-	5.3	0.013

Notes:

1 = CCME Canadian Soil Quality Guidelines for the Protection of Environmental Health at a Residential/Parkland Site (2008)

2 = CCME Canadian Soil Quality Guidelines for Protection of Human Health for a Residential Site (Direct Soil Contact) (2008)

3 = As per CCME recommendations, soil samples are compared against the SQG for the protection of human health and environmental health separately

4 = Carcinogenic PAHs Assessed as Benzo(a)pyrene Total Potency Equivalent (TPE)

5 - Elevated RDL(s) due to sample dilution

RDL = Reportable Detection Limit for routine analysis

< # = Not detected above RDL noted

"-" = indicates value is not available or does not apply

Shaded = Value exceeds applicable criteria

Table 2.5 Results of Laboratory Analysis of Available Metals in Soil -
Phase II/III ESA, HHERA and RAP/RMP
Phase II/III ESAs, HHERA and RAP/RMP
Project No. 121410103
Stantec Consulting Ltd. Project No. 121410103

Parameters	RDL	Units	Criteria[1]	SURFACE SAMPLES								
				BS1	BS2	BS4	BS6	BS7	BS8	BS11	BS15	BS19
Aluminum	10	mg/kg	-	7,300	9,900	7,700	7,700	11,000	6,900	7,800	6,700	8,300
Antimony	2	mg/kg	20	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic	2	mg/kg	12	<2	<2	<2	3	<2	<2	<2	<2	<2
Barium	5	mg/kg	500	62	76	47	57	120	15	34	23	37
Beryllium	2	mg/kg	4	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bismuth	2	mg/kg	-	<2	<2	<2	<2	<2	<2	<2	<2	<2
Boron	5	mg/kg	-	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cadmium	0.3	mg/kg	10	15	<0.3	0.3	1.9	11	<0.3	1.2	1.2	<0.3
Chromium	2	mg/kg	64	49	46	38	24	43	15	19	22	13
Cobalt	1	mg/kg	50	6	6	6	6	6	5	6	5	2
Copper	2	mg/kg	63	30	21	17	40	46	13	13	17	14
Iron	50	mg/kg	-	11,000	12,000	10,000	11,000	14,000	8,500	11,000	10,000	5,100
Lead	0.5	mg/kg	140	58	6.8	13	30	23	2.4	4.1	15	8.8
Lithium	2	mg/kg	-	12	14	11	8	8	5	8	8	<2
Manganese	2	mg/kg	-	160	200	140	210	220	84	170	130	55
Mercury	0.1 / 0.2[2]	mg/kg	6.6	<0.2[2]	<0.1	<0.1	<0.1	<0.2[2]	<0.1	<0.1	<0.1	0.2
Molybdenum	2	mg/kg	10	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nickel	2	mg/kg	50	29	19	23	18	24	12	15	16	5
Rubidium	2	mg/kg	-	23	26	18	10	19	3	4	8	2
Selenium	2 / 5[2]	mg/kg	1	<2	<2	<2	<2	<2	<2	<2	<2	<2
Silver	0.5	mg/kg	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Strontium	5	mg/kg	-	19	45	23	33	110	12	18	12	29
Thallium	0.1	mg/kg	1	0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1
Tin	2	mg/kg	50	17	<2	<2	3	<2	<2	<2	<2	<2
Uranium	0.1	mg/kg	23	0.2	0.5	0.2	0.3	0.4	0.2	0.3	0.3	2.5
Vanadium	2	mg/kg	130	27	26	23	31	40	19	25	21	8
Zinc	5	mg/kg	200	4,800	56	77	460	1,100	16	140	260	13

Notes:

1 = CCME Canadian Soil Quality Guidelines for a Residential/Parkland Site (2007)

2 = Elevated RDL due to sample matrix

RDL = Reportable Detection Limit for routine analysis

< # = Not detected above RDL noted

"-" = indicates value is not available or does not apply

Shaded = Value exceeds applicable criteria

Table 2.5 Results of Laboratory Analysis of Available Metals in Soil -
Phase II/III ESA, HHERA and RAP/RMP
Phase II/III ESAs, HHERA and RAP/RMP
Project No. 121410103
Stantec Consulting Ltd. Project No. 121410103

Parameters	RDL	Units	Criteria[1]	SURFACE SAMPLES					
				BS21	BS22	BS25	BS26	BS32	BS34
Aluminum	10	mg/kg	-	5,100	6,500	5,800	4,900	10,000	7,100
Antimony	2	mg/kg	20	<2	5	<2	<2	<2	<2
Arsenic	2	mg/kg	12	<2	<2	<2	<2	<2	<2
Barium	5	mg/kg	500	21	12	7	8	47	19
Beryllium	2	mg/kg	4	<2	<2	<2	<2	<2	<2
Bismuth	2	mg/kg	-	<2	<2	<2	<2	<2	<2
Boron	5	mg/kg	-	<5	<5	<5	<5	<5	<5
Cadmium	0.3	mg/kg	10	0.4	1.1	<0.3	0.7	0.3	<0.3
Chromium	2	mg/kg	64	15	27	17	15	17	16
Cobalt	1	mg/kg	50	4	7	4	5	2	2
Copper	2	mg/kg	63	16	57	10	10	46	19
Iron	50	mg/kg	-	8,700	8,900	7,900	7,700	14,000	3,500
Lead	0.5	mg/kg	140	9.2	84	2.6	6.4	12	3.6
Lithium	2	mg/kg	-	7	5	4	4	4	4
Manganese	2	mg/kg	-	120	120	85	110	55	31
Mercury	0.1 / 0.2[2]	mg/kg	6.6	<0.1	0.4	<0.1	<0.1	0.2	0.1
Molybdenum	2	mg/kg	10	<2	<2	<2	<2	<2	<2
Nickel	2	mg/kg	50	11	37	16	12	11	7
Rubidium	2	mg/kg	-	6	3	<2	<2	<2	<2
Selenium	2 / 5[2]	mg/kg	1	<2	<2	<2	<2	<5[2]	<2
Silver	0.5	mg/kg	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Strontium	5	mg/kg	-	10	17	10	8	28	14
Thallium	0.1	mg/kg	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	2	mg/kg	50	<2	<2	<2	<2	7	<2
Uranium	0.1	mg/kg	23	0.1	0.3	0.1	0.2	2.0	2.4
Vanadium	2	mg/kg	130	15	16	16	14	21	15
Zinc	5	mg/kg	200	120	240	64	180	350	10

Notes:
1 = CCME Canadian Soil Quality Guidelines for a Residential/Parkland Site (2007)
2 = Elevated RDL due to sample matrix
RDL = Reportable Detection Limit for routine analysis
< # = Not detected above RDL noted
"-" = indicates value is not available or does not apply
Shaded = Value exceeds applicable criteria

Table 2.5 Results of Laboratory Analysis of Available Metals in Soil -
Phase II/III ESA, HHERA and RAP/RMP
Phase II/III ESAs, HHERA and RAP/RMP
Project No. 121410103
Stantec Consulting Ltd. Project No. 121410103

Parameters	RDL	Units	Criteria[1]	TEST PITS									
				TP75-BS2	TP79-BS2	TP92-BS1	TP96-BS2	TP101-BS2	TP107-BS2	TP109-BS2	TP111-BS2	TP127-BS2	TP131-BS2
Aluminum	10	mg/kg	-	7,100	12,000	3,500	7,800	6,200	7,100	7,700	8,000	11,000	5,800
Antimony	2	mg/kg	20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic	2	mg/kg	12	<2	<2	<2	>2	<2	<2	<2	<2	<2	<2
Barium	5	mg/kg	500	25	12	36	17	13	26	14	13	8	29
Beryllium	2	mg/kg	4	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Bismuth	2	mg/kg	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Boron	5	mg/kg	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cadmium	0.3	mg/kg	10	<0.3	<0.3	<0.3	<0.3	0.4	0.6	<0.3	<0.3	<0.3	<0.3
Chromium	2	mg/kg	64	22	13	11	21	16	20	18	16	17	18
Cobalt	1	mg/kg	50	5	2	3	7	4	4	4	4	3	4
Copper	2	mg/kg	63	19	23	7	18	22	33	12	12	10	13
Iron	50	mg/kg	-	9,300	4,300	7,800	10,000	8,700	8,200	9,500	9,100	11,000	8,700
Lead	0.5	mg/kg	140	9.3	2.5	3.2	9.3	6.4	20	3.7	3.3	2.5	22
Lithium	2	mg/kg	-	6	3	4	6	5	6	6	4	4	7
Manganese	2	mg/kg	-	110	49	86	130	80	94	95	86	73	120
Mercury	0.1 / 0.2[2]	mg/kg	6.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	2	mg/kg	10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nickel	2	mg/kg	50	13	8	8	20	11	17	12	18	9	12
Rubidium	2	mg/kg	-	6	<2	8	5	3	4	3	2	<2	8
Selenium	2 / 5[2]	mg/kg	1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Silver	0.5	mg/kg	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Strontium	5	mg/kg	-	12	8	8	13	9	17	14	13	8	19
Thallium	0.1	mg/kg	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	2	mg/kg	50	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Uranium	0.1	mg/kg	23	0.4	1.6	0.2	0.3	0.5	0.4	0.3	0.3	0.4	0.2
Vanadium	2	mg/kg	130	25	23	14	21	19	22	23	21	23	19
Zinc	5	mg/kg	200	210	11	19	140	560	590	27	350	13	120

Notes:

1 = CCME Canadian Soil Quality Guidelines for a Residential/Parkland Site (2007)

2 = Elevated RDL due to sample matrix

RDL = Reportable Detection Limit for routine analysis

< # = Not detected above RDL noted

"-" = indicates value is not available or does not apply

Shaded = Value exceeds applicable criteria

Table 2.5 Results of Laboratory Analysis of Available Metals in Soil -
Phase II/III ESA, HHERA and RAP/RMP
Phase II/III ESAs, HHERA and RAP/RMP
Project No. 121410103
Stantec Consulting Ltd. Project No. 121410103

Parameters	RDL	Units	Criteria[1]	MONITOR WELLS				
				MW8-SS1	MW9-SS3	MW10-SS1	MW11-SS1	MW12-SS2
Aluminum	10	mg/kg	-	5,500	4,400	3,700	8,100	5,800
Antimony	2	mg/kg	20	<2	<2	<2	<2	<2
Arsenic	2	mg/kg	12	<2	<2	<2	<2	<2
Barium	5	mg/kg	500	7	8	10	31	11
Beryllium	2	mg/kg	4	<2	<2	<2	<2	<2
Bismuth	2	mg/kg	-	<2	<2	<2	<2	<2
Boron	5	mg/kg	-	<5	<5	<5	<5	<5
Cadmium	0.3	mg/kg	10	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	2	mg/kg	64	11	10	17	23	14
Cobalt	1	mg/kg	50	4	4	3	5	5
Copper	2	mg/kg	63	14	7	5	21	19
Iron	50	mg/kg	-	6,300	6,900	9,400	10,000	7,800
Lead	0.5	mg/kg	140	1.4	1.4	2	34	1.8
Lithium	2	mg/kg	-	3	4	4	7	4
Manganese	2	mg/kg	-	66	73	110	140	78
Mercury	0.1 / 0.2[2]	mg/kg	6.6	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	2	mg/kg	10	<2	<2	2	<2	<2
Nickel	2	mg/kg	50	10	11	4	15	13
Rubidium	2	mg/kg	-	<2	<2	3	6	<2
Selenium	2 / 5[2]	mg/kg	1	<2	<2	<2	<2	<2
Silver	0.5	mg/kg	20	<0.5	<0.5	<0.5	<0.5	<0.5
Strontium	5	mg/kg	-	9	9	6	22	12
Thallium	0.1	mg/kg	1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	2	mg/kg	50	<2	<2	<2	<2	<2
Uranium	0.1	mg/kg	23	0.1	0.1	0.2	0.4	0.2
Vanadium	2	mg/kg	130	14	14	12	25	19
Zinc	5	mg/kg	200	9	13	250	79	17

Notes:

1 = CCME Canadian Soil Quality Guidelines for a Residential/Parkland Site (2007)

2 = Elevated RDL due to sample matrix

RDL = Reportable Detection Limit for routine analysis

< # = Not detected above RDL noted

"-" = indicates value is not available or does not apply

Shaded = Value exceeds applicable criteria

Table 2.6 Results of Laboratory Analysis of TPH/BTEX in Ground Water - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Benzene	Toluene	Ethylbenzene	Xylenes	C_6-C_{10} (Gas Range)	C_{11}-C_{20} (Fuel Range)	C_{21}-C_{32} (Lube Range)	Modified TPH - Tier I[2]	Resemblence
RDL	0.001	0.001	0.001	0.002 / 0.003[3]	0.01	0.05 / 0.06[3]	0.1	0.1	-
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-
Criteria[1]	0.005	0.024	0.024	0.3	-	-	-	3.2	-
MONITOR WELLS									
MW8	<0.001	0.003	<0.001	0.005	0.18	1.8[3]	<0.1	2	WFO
MW10	<0.001	0.002	<0.001	<0.002	<0.01	<0.05	<0.1	<0.1	DNR
MW63	<0.001	0.006	0.001	0.007[4]	<0.01	<0.05	<0.1	<0.1	DNR
MW64	<0.001	0.006	0.002	0.009	0.03	0.24	<0.1	0.3	WFO
MW64 Lab-Dup	<0.001	0.005	0.001	0.005	<0.01	0.25	<0.1	-	-
MW65	0.003	0.018	0.01	0.037	0.11	0.19	<0.1	0.3	OP G/F

Notes:

1 = Partnership in RBCA (Risk-Based Corrective Action) Implementation (PIRI) Tier I Risk Based Screening Levels (RBSLs) for a residential site with potable groundwater and coarse grained soil, fuel oil impacts (September, 2003)

2 = Modified TPH - Tier I does not include BTEX

3 = Elevated RDL

RDL = Reportable Detection Limit for routine analysis

< # = Not detected above RDL noted

"-" = indicates value is not available or does not apply

WFO=Weathered fuel oil fraction; OP G/F=One product in gas/fuel oil range

Table 2.7 Results of Laboratory Analysis of TPH fractionation in Groundwater - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Parameters	RDL	Units	Criteria[1]	MONITOR WELLS
				MW11
Benzene	0.001	mg/L	0.005	<0.001
Toluene	0.001	mg/L	0.024	0.004
Ethylbenzene	0.001	mg/L	0.024	<0.001
Xylenes	0.002	mg/L	0.3	0.002
Modified TPH - Tier II[3]	0.1	mg/L	3.2	0.2
> C8-C10 Aromatic	0.01	mg/L	-	<0.01
> C10-C12 Aromatic	0.01	mg/L	-	<0.01
> C12-C16 Aromatic	0.05	mg/L	-	<0.05
> C16-C21 Aromatic	0.05	mg/L	-	<0.05
> C21-C32 Aromatic	0.1	mg/L	-	<0.1
> C6-C8 Aliphatic	0.01	mg/L	-	<0.01
> C8-C10 Aliphatic	0.01	mg/L	-	<0.01
> C10-C12 Aliphatic	0.01	mg/L	-	<0.01
> C12-C16 Aliphatic	0.05	mg/L	-	<0.05
> C16-C21 Aliphatic	0.05	mg/L	-	<0.05
> C21-C32 Aliphatic	0.1	mg/L	-	0.2
Resemblance	-	-	-	LO

Notes:
1 = Partnership in RBCA (Risk-Based Corrective Action) Implementation (PIRI) Tier I Risk Based Screening Levels (RBSLs) for a residential site with potable groundwater and coarse grained soil, fuel oil impacts (September, 2003)
2 = Modified TPH - Tier II does not include BTEX
RDL = Reportable Detection Limit for routine analysis
< # = Not detected above RDL noted
"-" = indicates value is not available or does not apply
LO = Lube oil fraction

Table 2.8 Results of Laboratory Analysis of PCBs in Groundwater - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Polychlorinated Biphenyls (PCBs)
RDL	0.05
Units	ug/L
Criteria[1]	na
MONITOR WELLS	
MW8	<0.05
MW9	<0.05
MW12	<0.05
MW63	<0.05

Notes:
1 = Health Canada Guidelines for Canadian Drinking Water Quality (2008)
RDL = Reportable Detection Limit
na = No applicable guideline
< # = Not detected above RDL noted

Table 2.9 Lab Analysis of Available Metals in Groundwater - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Parameters	RDL	Units	Criteria[1]	MONITOR WELLS		
				MW12	MW63	MW65
Aluminum	5	µg/L	200	109	47	250
Antimony	2	µg/L	6	<2.0	<2.0	<2.0
Arsenic	2	µg/L	10	<2.0	<2.0	<2.0
Barium	5	µg/L	1,000	36.7	32.1	22.4
Beryllium	2	µg/L	-	<2.0	<2.0	<2.0
Bismuth	2	µg/L	-	<2.0	<2.0	<2.0
Boron	5	µg/L	5,000	16.8	9.3	22.6
Cadmium	0.017	µg/L	5	3.72	0.07	0.054
Chromium	1	µg/L	50	<1.0	<1.0	1.6
Cobalt	0.4	µg/L	-	6.95	5.77	0.44
Copper	2	µg/L	1,000[AO]	27.5	23.3	20.8
Iron	50 / 200[2]	µg/L	300[AO]	<200[2]	66	147
Lead	0.5	µg/L	10	<0.50	<0.50	<0.50
Manganese	2	µg/L	50[AO]	312	158	5.2
Molybdenum	2	µg/L	-	1120	3.6	5.2
Nickel	2	µg/L	-	32.8	75.9	3.7
Selenium	1	µg/L	10	2	1.2	1.5
Silver	0.1	µg/L	-	<0.10	<0.10	0.13
Strontium	5	µg/L	-	94.1	133	162
Thallium	0.1	µg/L	-	<0.10	<0.10	<0.10
Tin	2	µg/L	-	<2.0	<2.0	<2.0
Titanium	2	µg/L	-	3.4	<2.0	11.9
Uranium	0.1	µg/L	20	0.22	0.86	2.32
Vanadium	2	µg/L	-	<2.0	<2.0	<2.0
Zinc	5	µg/L	5000[AO]	404	198	45.8

Notes:

1 = Health Canada Guidelines for Canadian Drinking Water Quality (2008)

2 = Elevated RDL due to due to poor isotope agreement

RDL = Reportable Detection Limit for routine analysis

< # = Not detected above RDL noted

AO = guideline based on aesthetic criteria

"-" = indicates value is not available or does not apply

Shaded = Value exceeds applicable criteria

Table 2.10 Results of Lab Analysis of Available Metals in Vegetation - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Parameters	RDL	Units	VEGETATION						
			VEG-36	VEG-37	VEG-38	VEG-38 Lab-Dup	VEG-39	VEG-40	VEG-41
Aluminum	10	mg/kg	4,700	2,200	4,100	4,000	2,800	29	880
Antimony	2	mg/kg	<2	<2	<2	<2	4	<2	<2
Arsenic	2	mg/kg	<2	<2	<2	<2	<2	<2	<2
Barium	5	mg/kg	19	24	23	25	23	6	16
Beryllium	2	mg/kg	<2	<2	<2	<2	<2	<2	<2
Boron	5	mg/kg	8	9	5	6	<5	18	7
Cadmium	0.3	mg/kg	0.9	5.1	0.8	1.1	1.7	1.5	0.7
Chromium	2	mg/kg	8	9	9	11	8	<2	2
Cobalt	1	mg/kg	2	2	3	3	3	<1	<1
Copper	2	mg/kg	19	25	42	62	69	10	12
Iron	50	mg/kg	4,000	3,600	5,500	5,700	3,700	74	1,200
Lead	0.5	mg/kg	19	13	15	21	84	1.3	8.0
Manganese	2	mg/kg	95	140	87	89	76	34	32
Molybdenum	2	mg/kg	<2	2	<2	<2	<2	<2	<2
Nickel	2	mg/kg	6	6	13	15	6	<2	2
Selenium	2	mg/kg	<2	<2	<2	<2	<2	<2	<2
Silver	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Strontium	5	mg/kg	13	17	9	9	13	30	15
Thallium	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	0.1	mg/kg	0.1	0.1	0.2	0.2	0.1	<0.1	<0.1
Vanadium	2	mg/kg	6	7	9	10	8	<2	3
Zinc	5	mg/kg	170	160	92	110	210	260	310

Notes:
RDL = Reportable Detection Limit
Lab-dup = laboratory duplicate sample
< # = Not detected above RDL noted

Table 2.11 Results of Laboratory Analysis of Available Metals in Berries - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Parameters	RDL	Units	BERRIES					
			BERRY-28	BERRY-29	BERRY-29 Lab-Dup	BERRY-30	BERRY-31	BERRY-32
Aluminum	2.5	mg/kg	3.9	<2.5	<2.5	2.7	<2.5	<2.5
Antimony	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Arsenic	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Barium	1.5	mg/kg	2.6	<1.5	<1.5	2.1	<1.5	1.5
Beryllium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Boron	1.5	mg/kg	1.9	<1.5	<1.5	<1.5	3.1	<1.5
Cadmium	0.05	mg/kg	<0.050	<0.050	<0.050	0.132	<0.050	<0.050
Chromium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cobalt	0.2	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Copper	0.5	mg/kg	0.71	0.59	0.59	0.81	0.67	<0.50
Iron	15	mg/kg	<15	<15	<15	<15	<15	<15
Lead	0.18	mg/kg	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Lithium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Manganese	0.5	mg/kg	10.2	9.29	17.2	9.93	1.47	2.66
Molybdenum	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Selenium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.12	mg/kg	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Strontium	1.5	mg/kg	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Thallium	0.02	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Tin	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	0.02	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Vanadium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Zinc	1.5	mg/kg	2.7	1.8	1.7	3	<1.5	1.9

Notes:
RDL = Reportable Detection Limit
Lab-dup = laboratory duplicate sample
< # = Not detected above RDL noted

Table 2.12 Results of Laboratory Analysis of PCBs in Small Mammals - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Polychlorinated Biphenyls (PCBs)
RDL	0.05
Units	mg/kg
SMALL MAMMALS	
SM-2	<0.05
SM-3	<0.05
SM-4	0.51
SM-5	0.34
SM-16	0.15
SM-17	0.08
SM-20	0.23

Notes:
RDL = Reportable Detection Limit
< # = Not detected above RDL noted

Table 2.13 Results of Laboratory Analysis of Available Metals in Small Mammals - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Parameters	RDL	Units	SMALL MAMMALS						
			SM-2	SM-3	SM-4	SM-5	SM-16	SM-17	SM-20
Aluminum	2.5	mg/kg	25.9	17.5	17.8	4.6	<2.5	88	3.3
Antimony	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Arsenic	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Barium	1.5	mg/kg	<1.5	1.7	3.6	4.1	1.9	3.3	6.8
Beryllium	0.5	mg/kg	<0.050	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Boron	1.5	mg/kg	<0.05	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Cadmium	0.05	mg/kg	<0.050	<0.050	0.06	<0.050	<0.050	<0.050	<0.050
Chromium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.71	<0.50
Cobalt	0.2	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Copper	0.5	mg/kg	3.04	2.4	2.76	3.24	3.55	3.66	2.60
Iron	15	mg/kg	68	64	72	62	72	192	39
Lead	0.18	mg/kg	0.26	<0.18	0.26	0.30	0.18	<0.18	0.34
Lithium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Manganese	0.5	mg/kg	17	6.43	1.77	1.61	1.70	7.84	1.7
Molybdenum	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Selenium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.12	mg/kg	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Strontium	1.5	mg/kg	<1.5	2.7	5.4	6.8	8.6	3.1	8.6
Thallium	0.02	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Tin	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	0.02	mg/kg	0.052	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Vanadium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Zinc	1.5	mg/kg	17.9	21.5	25.8	25.7	27.7	23.9	29.3

Notes:
RDL = Reportable Detection Limit
< # = Not detected above RDL noted

Table 2.14 Results of Laboratory Analysis of PCBs in Swab Sample - BMEWS
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Polychlorinated Biphenyls (PCBs)
RDL	5
Units	µg/100 cm^2
Criteria[1]	10
Transformer carcass	
PCB SWAB-1	<5

Notes:
1 = CCME Transformer Decontamination Standards and Protocols (December 1995)
RDL = Reportable Detection Limit
< # = Not detected above RDL noted