Appendix 4a

Site Photos

– Main Base

Site Photographs – Main Base

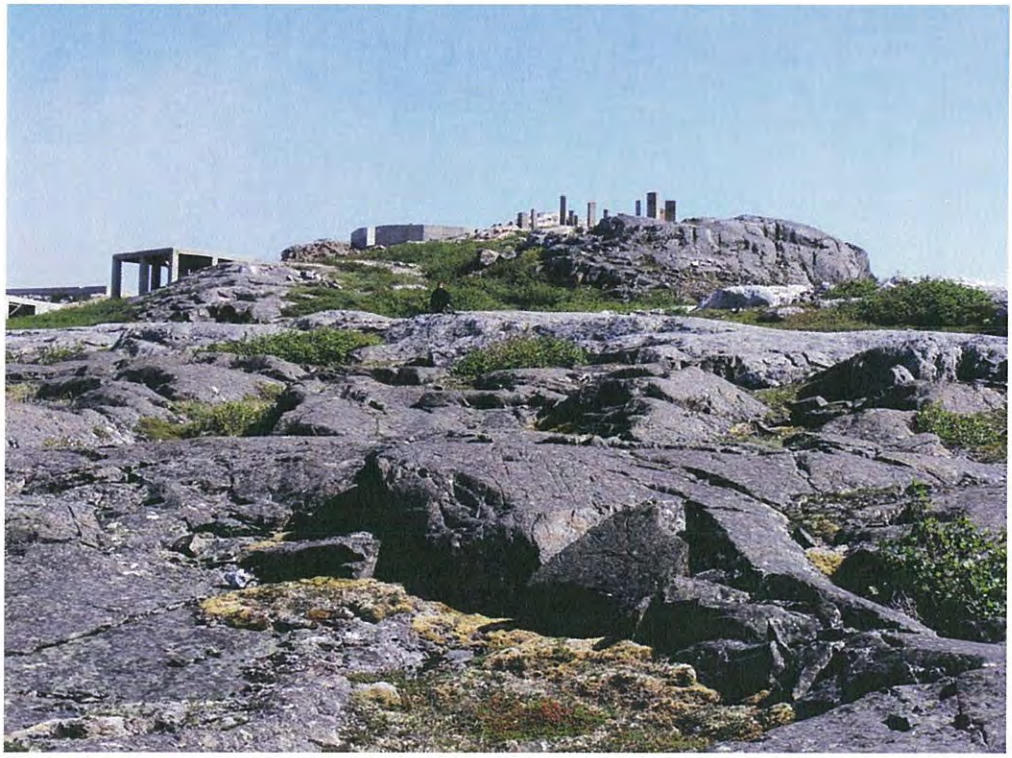

Photo 1 View of Main Base (looking east)

Photo 2 View of Main Base (looking southwest)

Site Photographs – Main Base

Photo 3 View of terrain south of Main Base

Photo 4 View of Main Base (looking west)

Site Photographs – Main Base

Photo 5 View of Main Base overlooking the Residential Subdivision (looking southeast)

Photo 6 View of former tank location at Main Base

Site Photographs – Main Base

Photo 7 View of road at centre of Main Base site (looking south)

Photo 8 View of Main Base

Site Photographs – Main Base

Photo 9 View of PCB-impacted tar on rocks at the Main Base site, with evidence of buring in the debris contained in and around the tar (prior to tar removal)

Photo 10 View of PCB-impacted tar on rocks at the Main Base site (prior to removal)

Site Photographs – Main Base

Photo 11 View of PCB-impacted tar on rocks at the Main Base site (prior to removal)

Photo 12 View of PCB-impacted tar on rocks at the Main Base site (prior to removal)

Site Photographs – Main Base

Photo 13 View of limited remediation of PCB-impacted tar at the Main Base site

Photo 14 View of limited remediation of PCB-impacted tar at the Main Base site

Site Photographs – Main Base

Photo 15 View of PCB-impacted tar removed from the Main Base site

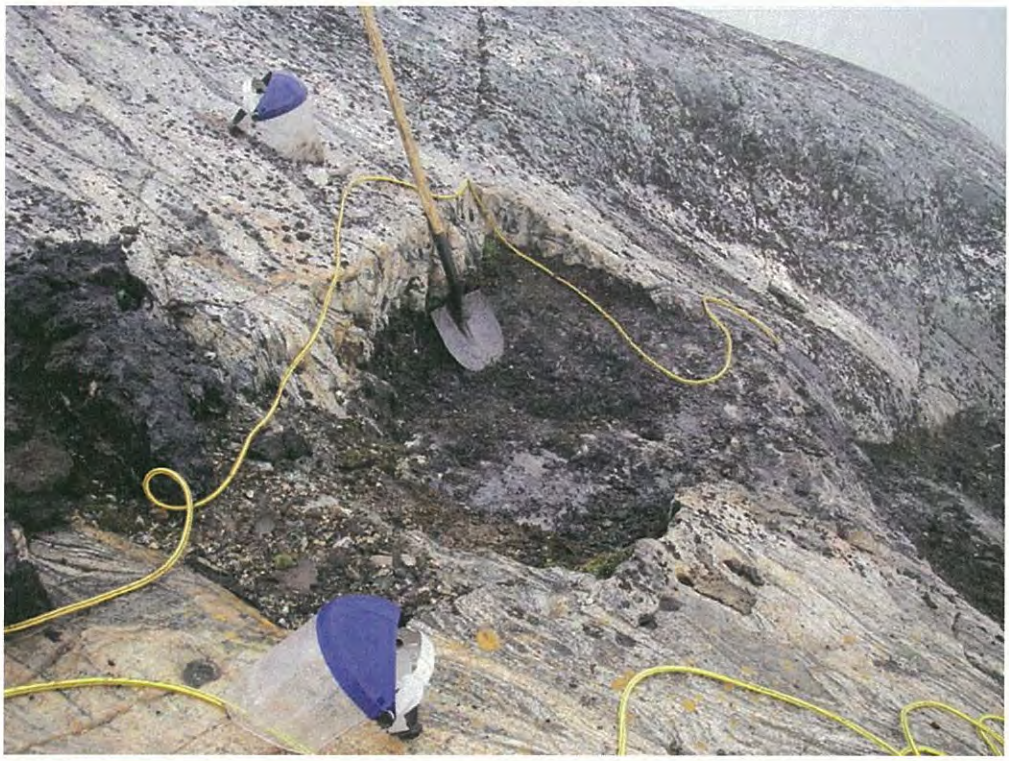

Photo 16 View of limited remediation of PCB-impacted tar at the Main Base site

Site Photographs – Main Base

Photo 17 View of limited remediation of PCB-impacted tar at the Main Base site

Photo 18 View of limited remediation of PCB-impacted tar at the Main Base site

Site Photographs – Main Base

Photo 19 View of limited remediation of PCB-impacted tar at the Main Base site

Photo 20 View of metal debris at the Main Base site

Site Photographs – Main Base

Photo 21 View of test pit depth measurement at the Main Base site

Appendix 4b

Sample Coordinates

– Main Base

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

Sample ID	Coordinates		Notes
	Easting	Northing	
TEST PITS			
TP-1	0675195	6150248	Near foundations
TP-2	0675223	6150215	Near foundations
TP-3	0675203	6150219	Near foundations
TP-4	0675166	6150217	Near foundations
TP-5	0675166	6150227	Near foundations
TP-6	0675181	6150232	Near foundations
TP-7	0675190	6150234	Near foundations
TP-8	0675164	6150248	Near foundations
TP-9	0675175	6150198	Near foundations
TP-10	0675162	6150187	Near foundations
TP-11	0675150	6150187	Near foundations
TP-12	0675154	6150194	
TP-13	0675153	6150203	
TP-14	0675155	6150211	Radome
TP-15	0675152	6150228	Near foundations
TP-16	0675111	6150199	Old Base 2a
TP-17	0675098	6150193	Old Base 2a
TP-18	0675095	6150203	Old Base 2a
TP-19	0675087	6150201	Old Base 2a
TP-20	0675062	6150160	Old Base 2a
TP-21	0675093	6150188	Old Base 2a
TP-22	0675123	6150153	Old Base 2b
TP-23	0675123	6150143	Old Base 2b
TP-24	0675132	6150154	Old Base 2b
TP-25	0675147	6150166	Old Base 2b
TP-26	0675144	6150158	Old Base 2b
TP-27	0675132	6150148	Old Base 2b
TP-28	0675196	6150253	
TP-29	0675189	6150253	
TP-30	0675168	6150256	Near foundations
TP-31	0675176	6150247	Near foundations
TP-32	0675197	6150269	
TP-33	0675198	6150277	
TP-34	0675207	6150278	
TP-35	0675214	6150286	
TP-36	0675231	6150284	Tacan East
TP-37	0675226	6150300	Tacan East
TP-38	0675231	6150315	Tacan East
TP-39	0675220	6150311	Tacan East
TP-40	0675240	6150283	Tacan East
TP-41	0675243	6150269	Tacan East
TP-42	0675231	6150230	
TP-43	0675211	6150252	Near foundations

Sample ID	Coordinates		Notes
	Easting	Northing	
TP-44	0675155	6150267	Near foundations
TP-45	0675170	6150266	
TP-46	0675176	6150277	
TP-47	0675170	6150286	
TP-48	0675158	6150292	
TP-49	0675152	6150280	
TP-50	0675149	6150293	
TP-51	0675167	6150308	
TP-52	0675153	6150309	
TP-53	0675218	6150259	
TP-54	0675220	6150245	Tacan East
TP-55	0675265	6150264	Tacan East
TP-56	0675260	6150273	Tacan East
TP-57	0675243	6150260	Tacan East
TP-58	0675272	6150282	Tacan East
TP-59	0675264	6150303	Tacan East
TP-60	0675261	6150290	Tacan East
TP-61	0675300	6150322	Tacan East
TP-62	0675283	6150323	Tacan East
TP-63	0675240	6150363	Tacan East
TP-64	0675230	6150364	Tacan East
TP-65	0675221	6150362	Tacan East
TP-66	0675096	6150330	North of Main Base
TP-67	0675080	6150334	North of Main Base
TP-68	0675074	6150353	North of Main Base
TP-69	0675059	6150388	North of Main Base
TP-70	0675063	6150364	North of Main Base
TP-71	0675073	6150367	North of Main Base
TP-72	0675088	6150367	North of Main Base
TP-219	0675177	6150384	Area North of Main Base
TP-220	0675221	6150381	Area North of Main Base
TP-221	0675303	6150342	Area East of Main Base
TP-222	0675249	6150238	
TP-223	0675181	6150146	Old Base 2c
TP-224	0675162	6150141	Old Base 2c
TP-225	0675133	6150152	Old Base 2b
SURFACE SAMPLES			
BS43	0675290	6150358	
BS44	0675268	6150319	
BS45	0675265	6150313	
BS46	0675285	6150298	
BS47	0675262	6150302	
BS48	0675275	6150316	
BS49	0675270	6150292	

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

Sample ID	Coordinates		Notes
	Easting	Northing	
BS50	0675252	6150269	
BS51	0675265	6150265	
BS52	0675237	6150275	
BS53	0675244	6150266	
BS54	0675227	6150271	
BS55	0675213	6150242	
BS56	0675221	6150233	
BS57	0675204	6150249	
BS58	0675205	6150254	
BS59	0675176	6150238	
BS60	0675227	6150238	
BS61	0675165	6150211	
BS62	0675164	6150213	
BS63	0675159	6150250	
BS64	0675160	6150236	
BS65	0675179	6150241	
BS66	0675192	6150218	
BS67	0675194	6150213	
BS68	0675136	6150243	
BS69	0675142	6150251	
BS70	0675123	6150272	
BS71	0675123	6150272	
BS72	0675134	6150229	
BS73	0675139	6150191	
BS74	0675141	6150216	
BS75	0675133	6150206	
BS76	0675122	6150239	
BS77	0675154	6150227	
BS78	0675136	6150209	
BS79	0675148	6150197	
BS80	0675139	6150196	
BS81	0675183	6150197	
BS82	0675130	6150180	Old Base 2b
BS83	0675120	6150143	Old Base 2b
BS84	0675115	6150177	Old Base 2b
BS85	0675124	6150197	
BS86	0675120	6150196	
BS87	0675119	6150202	
BS88	0675083	6150179	
BS89	0675075	6150163	
BS90	0675103	6150162	
BS91	0675085	6150143	
BS92	0675076	6150106	Old Base 2b
BS93	0675116	6150160	Old Base 2b

Sample ID	Coordinates		Notes
	Easting	Northing	
BS94	0675118	6150156	Old Base 2b
BS95	0675128	6150174	Old Base 2b
BS96	0675132	6150168	Old Base 2b
BS97	0675143	6150161	Old Base 2b
BS98	0675164	6150150	Old Base 2c
BS99	0675166	6150148	Old Base 2c
BS100	0675155	6150149	Old Base 2c
BS101	0675159	6150134	Old Base 2c
BS102	0675164	6150133	
BS103	0675143	6150129	
BS104	0675154	6150115	
BS105	0675159	6150116	
BS106	0675160	6150115	
BS107	0675148	6150116	
BS108	0675146	6150116	
BS109	0675126	6150110	Old Base 2b
BS110	0675115	6150103	Old Base 2b
BS111	0675082	6150097	
BS112	0675093	6150092	
BS113	0675079	6150079	
BS245	0675209	6150190	Debris burning area
BS246	0675097	6150136	Tar removal area
BS265	0675315	6150343	
MONITOR WELLS			
MW-1	0675276	6150303	
MW-2	0675285	6150317	
MW-3	0675216	6150225	
MW-4	0675172	6150222	
MW-5	0675127	6150154	
MW-6	0675044	6150221	
MW-13	0675169	6150207	Near foundations
MW-14	0675176	6150204	Near foundations
MW-66	0675108	6150305	
MW-67	0675070	6150363	
SEPTIC TANK			
Septic tank	-	-	
VEGETATION			
VEG-8	0675139	6150222	
VEG-9	0675132	6150209	
VEG-10	0675125	6150230	
VEG-11	0675128	6150191	
VEG-12	0675133	6150181	
VEG-13	0675146	6150186	
VEG-14	0675153	6150202	

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

Sample ID	Coordinates		Notes
	Easting	Northing	
VEG-15	0675106	6150219	
VEG-16	0675164	6150233	
VEG-17	0674571	6150055	
VEG-18	0675166	6150228	
VEG-19	0675195	6150218	
VEG-20	0675201	6150213	
VEG-21	0674514	6149924	
VEG-22	0674473	6149940	
VEG-23	0674805	6149870	
VEG-24	0674840	6149899	
VEG-25	0674911	6149926	
VEG-26	0674952	6149959	
VEG-27	0674926	-	
VEG-28	0674938	6150042	
VEG-29	0674928	6150039	
VEG-30	0674909	6150056	
VEG-31	0674931	6150057	
VEG-32	0674940	6150055	
VEG-33	0674943	6150033	
VEG-34	0674932	6150010	
BERRIES			
BERRY-1	0675082	6150254	
BERRY-2	0675025	6150335	
BERRY-3	0675154	6150365	
BERRY-4	0675208	6150340	
BERRY-5	0675275	6150231	
BERRY-6	0675173	6150132	
BERRY-7	0675074	6150124	
BERRY-8	0675095	6150051	
BERRY-9	0675046	6150067	
BERRY-10	0675048	6150094	
BERRIES			
SM-6	0675190	6150335	
SM-7	0675217	6150262	
SM-8	0675230	6150269	
SM-9	0675165	6150249	
SM-10	0675198	6150224	
SM-11	0675170	6150218	
SM-12	0675176	6150189	
SM-13	0675112	6150201	
SM-14	0675226	6150234	
SM-15	0675194	6150262	
SM-21	0675232	6150265	
SM-22	0675234	6150261	

Sample ID	Coordinates		Notes
	Easting	Northing	
SM-23	0675238	6150228	
SM-24	0675153	6150265	
SM-25	0675162	6150248	
SM-26	0675172	6150209	
SM-27	0675075	6150082	
SM-28	0675115	6150138	
SM-39	0675226	6150258	
SM-40	0675229	6150248	
SM-41	0675168	6150241	
SM-42	0675121	6150211	

Notes:
"-" = Coordinates not recorded

Appendix 4c

Test Pit and Monitor Well Records

– Main Base

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856
TEST PIT NO.: TP1
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 19, 09
ELEVATION: _____
DATUM: _____

DEPTH (m) FROM	DEPTH (m) TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.51	loose brown silty sand and gravel	BS1	0.00-0.25			ug @ b.c
			BS2	0.25-0.51			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448516 | JOB NAME: _____ | DATE: July 19, 09
TEST PIT NO.: TP 2 | TEST PIT SIZE: _____ | ELEVATION: _____
MACHINE TYPE: _____ | CONTRACTOR: _____ | DATUM: _____
TEMPERATURE: _____ | WEATHER: _____

DEPTH (m) FROM	DEPTH (m) TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.76	loose dark brown silty sand and gravel	BS1	0.00 - 0.25			Debris: rebar
			BS2	0.25 - 0.76			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: 10448560
TEST PIT NO.: TP3
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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.	0.89	dark brown and black coarse sand and gravel	BS1	0.00-0.25			
			BS2	0.76-0.89			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.89m

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856
TEST PIT NO.: TP 4
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 09
ELEVATION: _____
DATUM: _____

DEPTH (m) FROM	DEPTH (m) TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.25	light brown silty sand and gravel	BS1	0.25			veg @ 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: 1044886 | JOB NAME: _____ | DATE: July 20, 09
TEST PIT NO.: TP5 | 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	brown coarse silty sand and gravel	BS1	0.00 0.25			wtg @ b.c.
			BS2	0.51			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10411556
TEST PIT NO.: TP6
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 2007
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	0.64	brown coarse silty sand and gravel	BS1	0.00-0.13			clay @ b.c
			BS2	0.51-0.64			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1094852a
TEST PIT NO.: TP 7
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.76	dark brown coarse silty sand, trace cobbles	BS1	0.00-0.13			clay @ b.c.
			BS2	0.64-0.76			* fuel odour on soil

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044886
TEST PIT NO.: TP3
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	1.02	light brown coarse silty sand and gravel	BS1	0.00 0.13			very b.r.
			BS2	0.89 1.02			Debris: metal, wood, pipes, metal plates

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 JOB NAME: _____ DATE: July 20, 09
TEST PIT NO.: TP9 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	0.64	brown coarse silty sand and gravel, trace boulders	BS1	0.00-0.13			wet @ 0.4 m
			BS2	0.51-0.64			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10443576
TEST PIT NO.: TP10
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.20	dark brown coarse silty sand and gravel	BS1	0.00 0.20			wg @ 0.20

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.20

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856 JOB NAME: _____ DATE: July 20, 09
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	0.36	moist dark brown fine to coarse silty sand and gravel.	BS1	0.00-0.13			Veg @ b.r
			BS2	0.25-0.36			trace metal debris

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 20, 09
TEST PIT NO.: TP12 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	0.89	grey to brown silty sand and gravel	BS1	0.00-0.13			ug @ 0.6
			BS2	0.76-0.89			

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.: TP13
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 22, 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	1.14	Light brown coarse silty sand and cobbles	BS1 BS2	0.00 0.13 1.02 1.14			wet @ b.o.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 1.14 m

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044358
TEST PIT NO.: TP14
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.38	Light brown fine silty sand and gravel	BS1	0.00-0.13			wet @ b.r.
			BS2	0.25-0.38			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448556
TEST PIT NO.: TP15
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.51	Light brown fine silty sand, gravel, and boulders	BS1	0.00-0.13			clay @ b.c.
			BS2	0.38-0.51			

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.: TP16
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.25	Brown silty sand and gravel	BS1	0.13 + 0.25			Lly. @ 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: 10449576 | JOB NAME: _____ | DATE: July 20, 09
TEST PIT NO.: TP17 | 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	1.00	dark brown silty Sand and boulders	BS1	0.00-0.13			clay @ b.r.
			BS2	0.89-1.00			Debris: metal, wood, plastic, aluminum

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 20, 09
TEST PIT NO.: TP18 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	1.40	brown coarse silty sand	BS1	0.00-0.13			clay @ b.r.
			BS2	1.27-1.40			Debris: large pieces of metal, large metal cylinder

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
TEST PIT NO.: TP19
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	1.37	brown silty sand and gravel	BS1	0.00-0.13			clay @ b.r.
			BS2	1.14-1.37			Debris: trace metal

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 20, 09
TEST PIT NO.: TP20 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	1.27	brown coarse silty sand, gravel, and boulders	BS1	0.00 0.13			veg @ b.r.
			BS2	0.38- 1.27			Debris: metal, aluminum

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414356 | JOB NAME: _____ | DATE: July 20, 09
TEST PIT NO.: TP31 | 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	1.02	brown coarse silty sand.	BS1	0.00-0.15			clay @ b.r.
			BS2	1.15-1.27			Debris: large metal debris, oil drums, gardens, pieces of building structure
			BS3	1.52			

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.: TP32
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.38	brown and grey coarse silty sand and gravel	BS1	0.25-0.38			wet @ b.c.
							Debris: aluminum sheeting, metal ring, piping

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.: TP23
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 30, 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	0.64	brown coarse silty sand and gravel, trace cobbles	BS1	0.00 0.15			veg @ b.c.
			BS2	0.51 0.64			Debris: aluminum sheet, metal wire

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.: TP24
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	1.14	brown silty sand and cobbles	BS1	0.00-0.15			clay @ b.r.
			BS2	1.02-1.14			Debris: wooden boards

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 1.14 m

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10443556
TEST PIT NO.: TP25
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	1.02	dark brown coarse silty sand, gravel, cobbles, and boulders	BS1	0.00-0.15			Ug @ 0.5 m.
			BS2	0.89-1.02			Debris: pieces of tar, sheet metal, pipe, pieces of metal

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10443516
TEST PIT NO.: TP216
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.64	dark brown silty sand and gravel	BS1	0.51-0.64			very @ 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: 1044956
TEST PIT NO.: TP27
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.97	dark brown silty sand, bouldery	BS1 BS2	0.00-0.15 0.89-0.97			wet @ bot

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.: TP28
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.58	brown coarse silty sand and gravel	BS1	0.00-0.15			ref @ b.c.
			BS2	0.51-0.58			

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.: TP29
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.51	brown coarse silty sand and cobbles	BS1	0.38-0.51			ref @ 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
TEST PIT NO.: TP30
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	1.32	light brown and grey silty sand and gravel	BS1 BS2	0.00 0.15 1.32 1.32			dry @ b.r. Debris: metal, aluminum sheets, bars, plastic

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1644856 | JOB NAME: _____ | DATE: July 20, 09
TEST PIT NO.: TP31 | 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	0.89	Light brown silty sand	BS1	0.00-0.15			clay @ b.r.
			BS2	0.76-0.89			Debris: wood, fibreglass, large pieces of metal, wiring, electrical equipment

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.: TP32
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.76	light grey/ish brown silty sand	BS1	0.00-0.15			Wet @ b.r.
			BS2	0.64-0.76			Debris: large amount of metal, metal bars, sheet aluminum Piping, wood, panels, insulation

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1041113526
TEST PIT NO.: TP33
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	1.78	dark brown silty sand and gravel	BS1	0.00 0.13			clay @ bot
			BS2	1.65 1.78			Debris: large amount of metal, water boiler, pipes, piece of furnace, ceramic tiles, building paper, sheet metal, wood, metal beams

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
TEST PIT NO.: TP34
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	1.07	Light brown silty Sand and cobbles	BS1	~~1.03~~ 1.07			clay @ b.r.
							Debris: Large amount of wooden and metal debris, conduit, insulation, aluminum, ceramic tile, furnace parts, piping, tar felt

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.: TP35
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 20, 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	0.71	Light brown and grey coarse silty sand and gravel	BS1	0.64 - 0.71			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: 10448526 JOB NAME: _____ DATE: July 20, 09
TEST PIT NO.: TP36 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	1.52	Light brown fine silty sand	BS1	0.00-0.15			Veg @ b.r.
			BS2	1.14-1.19			Debris: wooden pole, metal, pipe with concrete casing
			BS3	1.52			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448516 JOB NAME: _____ DATE: July 20, 09
TEST PIT NO.: TP37 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	1.4	Light brown coarse silty sand	BS1	0.15			UG @ bit
			BS2	1.4			Debris: metal, piping

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.: TP38
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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	Light brown coarse silty sand and boulders	BS1	0.0-0.1			wet @ b.r.
			BS2	1.0-1.2			Debris:
							trace metal

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10-14856
TEST PIT NO.: TP39
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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	dark brown coarse silty sand and gravel	BS1	0.0-0.1			Wet @ b.c.
			BS2	0.9-1.0			Debris: top end door & stove, insulation

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10149856
TEST PIT NO.: TP40
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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	Light brown coarse silty sand and gravel	BS1	0.0 0.1			wet @ b.c.
			BS2	0.9 1.0			Debris: metal and wooden debris

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.: TP41
MACHINE TYPE:
TEMPERATURE:

JOB NAME:
TEST PIT SIZE:
CONTRACTOR:
WEATHER:

DATE: July 21, 09
ELEVATION:
DATUM:

DEPTH		SOIL DESCRIPTION	SAMPLES		IN SITU DENSITY TEST		REMARKS
FROM	TO		NO.	DEPTH	NO.	DEPTH	
0	0.8	brown and grey silty sand,		0.6-			ref @ b.r.
		gravel, and cobbles	BS1	0.8			
							Debris: trace
							metal and
							wooden debris

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.:
TEST PIT NO.:
ENGINEER:

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448516 | JOB NAME: _____ | DATE: July 21, 09
TEST PIT NO.: TP12 | 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	brown coarse silty sand and cobbles	BS1	0.1-0.2			clay @ b.c.
			BS2	1.3-1.5			Debris: metal, barbed wire, guy wire, casing

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: ________ OF ________

FIELD TEST PIT RECORD

JOB NUMBER: 1049836
TEST PIT NO.: TP43
MACHINE TYPE: ________
TEMPERATURE: ________

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

DATE: July 21, 09
ELEVATION: ________
DATUM: ________

DEPTH		SOIL DESCRIPTION	SAMPLES		IN SITU DENSITY TEST		REMARKS
FROM	TO		NO.	DEPTH	NO.	DEPTH	
0	1.7	dark brown and black coarse		0.0-			wet @ b.c.
		silty sand and cobbles	BS1	0.1			
				1.5-			Debris: metal
		odor present on dark soil	BS2	1.7			debris, plate,
							piping.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: ________
TEST PIT NO.: ________
ENGINEER: ________

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044886
TEST PIT NO.: TP44
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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	1.9	Light brown fine silty sand	BS1	0.0-0.1			Clay @ b.r.
			BS2	1.7-1.9			Debris: large metal pieces of building structure, piping, tank, equipment parts, H-beams, supports, channel, steel + galvanized pipe, conduits

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1064836
TEST PIT NO.: TP45
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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	Light and dark brown coarse silty sand and gravel	BS1	0.6			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: 1044836
TEST PIT NO.: TP 46
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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	1.6	Light brown coarse silty sand and cobbles	BS1	0.0-0.1			Lig @ b.c.
			BS2	1.4-1.6			Debris in large radiator, piping, building structure pieces, insulation, furnace parts, wooden debris

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 21, 09
TEST PIT NO.: TP47 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	Light and dark brown coarse silty sand and gravel	BS1 BS2	0.0 0.1 1.1 1.3			clay @ metal debris, could not get to b.c. Debris: large amount of metal + wooden debris, long beams, long pieces of piping

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 21, 09
TEST PIT NO.: TP48 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	Light brown fine silty sand	BS1	0.1-0.2			Clay @ b.r.
			BS2	1.2-1.3			Debris: piping, girders, rubber, steel, crushed drums, electrical equipment

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.: TP49
MACHINE TYPE: ______
TEMPERATURE: ______

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

DATE: [illegible]
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	light brown fine silty		0.1-			[illegible]
		sand. layer of dark	BS1	0.2			
				0.8-			
		soil with odor in soil.	BS2	1.1			Debris: steel
							girders, piping,
							tar felt,
							insulation

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: ______
TEST PIT NO.: ______
ENGINEER: ______

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448516 JOB NAME: _____ DATE: July 21, 09
TEST PIT NO.: TP50 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	Light brown fine silty sand	BS1	0.1-0.2			wet @ 0.5 m
0.6	1.4	dark brown and black silty sand	BS2	1.3-1.4			Debris: piping, wooden blocks, aluminum, electrical equipment, concrete

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:
gw @ 1.4 m
☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10449856 JOB NAME: _____ DATE: July 21, 09
TEST PIT NO.: TP 51 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 brown fine silty sand	BS1	0.1 - 0.2			clay @ bot.
0.5	1.2	dark brown + black fine silty sand	BS2	1.1 - 1.2			Debris: large steel gusset, pipe, copper wire, radiator

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 21, 09
TEST PIT NO.: TP52 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	Light brown fine silty sand	BS1	0.1 0.2			wet @ 0.1
0.1	0.8	dark brown sand	BS2	0.7 0.8			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: 1044852c
TEST PIT NO.: TP53
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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	dark brown fine silty sand	BS1	0.4 0.6			Ucf @ b.r.
							Debris: trace wooden debris

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.: TP54
MACHINE TYPE: ______
TEMPERATURE: ______

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

DATE: July 21, 09
ELEVATION: ______
DATUM: ______

DEPTH		SOIL DESCRIPTION	SAMPLES		IN SITU DENSITY TEST		REMARKS
FROM	TO		NO.	DEPTH	NO.	DEPTH	
0	1.3	brown coarse sand, gravel,	BS1	0.1-0.2			ref@ b.c.
		and boulders. trace dark		1.2-			
		brown sand	BS2	1.3			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: ______
TEST PIT NO.: ______
ENGINEER: ______

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10414852.0 JOB NAME: _____ DATE: July 21, 09
TEST PIT NO.: TP 55 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	grey coarse silty sand	B51	0.2 0.3			ucf @ b.c.
							Debris: grey wire, 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 21/09
TEST PIT NO.: TP56 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	grey coarse silty sand	BS1	0.3-0.4			Veg @ b.r.
							Debris: tar (felt), aluminum, 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: 10448556 JOB NAME: _____ DATE: July 21, 09
TEST PIT NO.: TP57 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 brown to grey coarse silty sand	BS1	0.4-0.5			Veg @ b.c. Debris: turf felt, steel wire, insulation, wood, brick

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10418556 JOB NAME: _____ DATE: July 21, 09
TEST PIT NO.: TP58 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	brown to grey coarse silty sand, cobbles and boulders	BS1	0.1-0.7			grey @ 0.5 m.
			BS2	0.9-1.0			Debris: tan felt, steel

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 21, 09
TEST PIT NO.: TP59 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	brown to grey medium sand and cobbles	BS1	0.1-0.3			LW @ 0.9 m.
			BS2	0.9-1.0			Debris: styrofoam, metal, plastic, glass

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:
LW @ 0.90m
☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856
TEST PIT NO.: TP60
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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 to grey medium sand and cobbles	BS1	0.1 0.2			veg @ b.r.
			BS2	0.9+ 1.0			

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: 1044852
TEST PIT NO.: TP61
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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	0.4	brown to grey medium sand and cobbles	BS1	0.2 0.4			clay @ b.r.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.3m

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448526
TEST PIT NO.: TP62
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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 to grey coarse silty sand and boulders, trace reddish brown fine silty sand	BS1	0.5 0.6			Logged Debris: aluminum insulation, wood, wire, piping

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 104148526 JOB NAME: _____ DATE: July 21, 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	0.2	grey coarse silty sand and organics	BS1	0.0+ 0.2			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
TEST PIT NO.: TP64
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 21, 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 coarse silty Sand and organics	BS1	0.0 0.3			Wet @ b.r.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 0.3m

☐ Test Pit Dry.

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

SHEET: ____ OF ____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856
TEST PIT NO.: TP65
MACHINE TYPE:
TEMPERATURE:

JOB NAME:
TEST PIT SIZE:
CONTRACTOR:
WEATHER:

DATE: July 21, 09
ELEVATION:
DATUM:

DEPTH		SOIL DESCRIPTION	SAMPLES		IN SITU DENSITY TEST		REMARKS
FROM	TO		NO.	DEPTH	NO.	DEPTH	
0	0.2	grey coarse silty sand and organics	BS1	0.0-0.2			ug @ 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: 10448526 JOB NAME: _____ DATE: July 28, 09
TEST PIT NO.: TP106 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	2.8	light brown to brown coarse silty sand, gravel, and boulders	BS1 BS2	0.2-0.3 2.6-2.8			wet @ b.r. Debris: metal, insulation, wire

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044198526 JOB NAME: _____ DATE: July 22, 09
TEST PIT NO.: TP67 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	Light brown medium silty sand					clay @ b.c.
0.6	3.0	black sand and gravel	BS1	1.0+ 1.3			Debris: cable, steel girders, pipe, aluminum, steel pieces, drums, wire
			BS2	2.7+ 3.0			

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 22, 07
TEST PIT NO.: TP68 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	brown medium silty sand.	BS1	0.2-0.4			Veg @ b.c.
			BS2	0.7-0.8			Debris: 45 gallon drums, concrete, other metal debris

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.: TP109
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 22, 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	brown medium silty sand and gravel	BS1	0.2-0.3			
			BS2	1.3-1.4			Debris: drainage pipe from septic tank

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 1.4 m

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044856
TEST PIT NO.: TP70
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 22/07
ELEVATION: _____
DATUM: _____

DEPTH FROM	DEPTH TO	SOIL DESCRIPTION	SAMPLES NO.	SAMPLES DEPTH	IN SITU DENSITY TEST NO.	IN SITU DENSITY TEST DEPTH	REMARKS
0	1.5	brown medium silty sand	BS1	0.2 0.3			wg @ 1.5m
			BS2	1.4 1.5			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

gw @ 1.5m

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044857c
TEST PIT NO.: TP 71
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 22, 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	1.7	brown medium silty sand	BS1 BS2	0.2 0.3 1.6 1.7			wet @ b.r.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:
gw @ 1.7 m

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448576
TEST PIT NO.: TP72
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: July 22, 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	0.1-0.2			Dig @ 0.7
			BS2	0.7			Debris: large pieces of steel, caisse

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1044851.c
TEST PIT NO.: TP219
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: Aug 2, 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	0.7 0.8			cy @ 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: 1044856 JOB NAME: ____ DATE: Aug 2,09
TEST PIT NO.: TP220? 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
1	1.5	light brown medium	BS1	0.2- 0.3			wet @ 0.1.?
		silty sand + gravel and					
		cobbles	BS2	1.4- 1.5			Debris: large
							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: 10441852e
TEST PIT NO.: TP221
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: Aug 2, 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	1.6	Light to dark brown medium silty sand, gravel and cobbles	BS1	0.2-0.3			Clay @ b.r.
			BS2	1.5-1.6			Debris, piping

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.: TP333
MACHINE TYPE: _____
TEMPERATURE: _____

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

DATE: Aug 3, 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	1.7	light to dark brown medium silty sand, gravel and cobbles	BS1	0.2-0.3			Clay @ b.c.
			BS2	1.6-1.7			Debris: steel pipe, barbed wire

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 10448516 JOB NAME: _____ DATE: Aug 2, 09
TEST PIT NO.: TP223 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	brown medium sandy gravel, trace organics	BS1	0.4-0.5			clay @ b.o.t.

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☐ Test Pit Dry.

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

SHEET: _____ OF _____

FIELD TEST PIT RECORD

JOB NUMBER: 1094185-20 | JOB NAME: _____ | DATE: Aug 2, 09
TEST PIT NO.: TP2209 | 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	brown medium silty sand, trace organics	BS1	0.0 0.2			Ugo 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: 1049852c
TEST PIT NO.: TP225
MACHINE TYPE: ______
TEMPERATURE: ______

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

DATE: Aug 2, 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	dark brown to black fine silty sand. strong odor	BS1	0.2-0.3			Cly@b.c.
0.6	0.9	brown fine silty sand					Debris: tour wooden debris
0.9	1.7	light brown medium silty sand	BS2	1.6-1.7			

LOCATION SKETCH

WATER CONDITIONS IN TEST PIT:

☑ Test Pit Dry.

JOB NO.: ______
TEST PIT NO.: ______
ENGINEER: ______

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MONITOR WELL RECORD

BOREHOLE No. MW01
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 8-31-09 WATER LEVEL 2.62m 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		Concrete floor											
		Brown, silty SAND with gravel (SM); trace cobbles			SS	1	279	69	0		1.6	560	BACKFILL
1		Pink and dark grey, BEDROCK			RC	2	100%		0		-	-	BENTONITE
2		Dark grey and pink, BEDROCK		▼	RC	3	100%		0		-	-	
3		Dark grey and white, BEDROCK			RC	4	100%		0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
4													
5		Dark grey, BEDROCK			RC	5	100%		0		-	-	
		End of Borehole											END CAP
6													
7													
8													
9													
10													

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MONITOR WELL RECORD

BOREHOLE No. MW02
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 9-1-09 WATER LEVEL 1.75m 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 brown, silty SAND (SM)			SS	1	229		1		-	680	BACKFILL
1		Grey, pink and white, BEDROCK		▼	RC	2			0		-	-	BENTONITE
2		Light to dark grey and pink, BEDROCK			RC	3			0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
4		Dark grey and pink, BEDROCK			RC	4			0		-	-	
5		Grey and pink, BEDROCK			RC	5			0		-	-	END CAP
6		End of Borehole											
7													
8													
9													
10													

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MONITOR WELL RECORD

BOREHOLE No. MW03
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 9-1-09 WATER LEVEL 3.13m 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		Brown, silty SAND (SM); trace cobbles			SS	1	229	58/360	1		8.8	990	BACKFILL
		Light to dark grey and pink, BEDROCK			RC	2	100%				-	-	BENTONITE
1													
2					RC	3	100%				-	-	
3				▼									50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
					RC	4	100%				-	-	
		Pink and grey, BEDROCK											
4					RC	5	100%				-	-	
5					RC	6	100%				-	-	END CAP
		End of Borehole											
6													
7													
8													
9													
10													

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MONITOR WELL RECORD

BOREHOLE No. MW04
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 9-1-09 WATER LEVEL 2.31m 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		Dark brown, SAND (SP); trace cobbles			SS	1	305	70/406	0	M	37.3	1	BACKFILL
												500	BENTONITE
		Pink and grey, BEDROCK			RC	2					-	-	
1													
		Light grey and pink, BEDROCK											50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
2				▼	RC	3	80%				-	-	
3					RC	4	100%				-	-	
4													END CAP
		End of Borehole											
5													
6													
7													
8													
9													
10													

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MONITOR WELL RECORD

BOREHOLE No. MW05
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 9-1-09 WATER LEVEL 4.63m 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						0.71 m STICK UP CAST IRON WELL HEAD
0		Brown, silty SAND (SM); trace cobbles			SS	1	229	8/305	0		27.4	4 700	BACKFILL
		Dark grey and pink, BEDROCK											BENTONITE
1					RC	2	100%		0		-	-	
2		Dark and light grey and pink, BEDROCK			RC	3	100%		0		-	-	
		Dark grey and pink, BEDROCK											50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
3					RC	4	100%		0		-	-	
4					RC	5	100%		0		-	-	
				▼									
5					RC	6	100%		0		-	-	
													END CAP
		End of Borehole											
6													
7													
8													
9													
10													

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MONITOR WELL RECORD

BOREHOLE No. MW06
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 WATER LEVEL N/A

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		Dark brown, SAND (SP)			SS	1	<25	6	0		66.9	12 000	BACKFILL
					SS	2	<25	2/150	0		75.9	-	BENTONITE
1		Grey and black, trace pink, BEDROCK			RC	3	100%		0		-	-	
2		Grey and pink, BEDROCK			RC	4	100%		0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
3													
4		Grey with trace pink, BEDROCK			RC	5	87%		0		-	-	END CAP
5		End of Borehole											
6													
7													
8													
9													
10													

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MONITOR WELL RECORD

BOREHOLE No. MW13
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 0.37m 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 grey and pink, BEDROCK		▼									BACKFILL
1					SS	1	72%				-	-	BENTONITE
2					SS	2	100%				-	-	
3		Grey, pink and white, BEDROCK											50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
4					RC	3	100%				-	-	
		End of Borehole											END CAP
5													
6													
7													
8													
9													
10													

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MONITOR WELL RECORD

BOREHOLE No. MW14
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 9-5-09 WATER LEVEL 0.51m 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		Light to dark brown, SAND (SP)		▼	SS	1	356	6	1		22.5	-	BACKFILL BENTONITE
1					SS	2	229	24	2		302.0	-	
					SS	3	76	12/150	3	S	276.0	-	50 mm DIAMETER No. 10 SLOT PVC
		Pink and grey, BEDROCK			RC	4	100%		0		-	-	SCREEN IN No. 2 SILICA SAND PACK
2													
					RC	5	100%		0		-	-	
3													
					RC	6	100%		0		-	-	END CAP
		End of Borehole											
4													
5													
6													
7													
8													
9													
10													

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MONITOR WELL RECORD

BOREHOLE No. MW66
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 10-1-09 WATER LEVEL 3.38m 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						0.76 m STICK UP CAST IRON WELL HEAD
0		Dark brown, SAND (SP); some organics			SS	1	254	24	0	D	-	-	BACKFILL BENTONITE
1		Dark brown, SAND with gravel (SP)			SS	2	203	34	0	D	-	-	
		Grey, GRAVEL with sand (GP); some cobbles			SS	3	152	26	0	D	-	-	
2		Pink and dark grey, BEDROCK			RC	4	100%		0		-	-	
					RC	5	100%		0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
3				▼									
4					RC	6	100%		0		-	-	
5					RC	7	100%		0		-	-	END CAP
		End of Borehole											
6													
7													
8													
9													
10													

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Stantec — MONITOR WELL RECORD

BOREHOLE No. MW67
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 10-1-09 WATER LEVEL 2.31m 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		Dark brown, SAND (SP); trace organics			SS	1	203	4	0	D	-	-	BACKFILL
		Dark brown, SAND (SP)			SS	2	51	54/305	0	D	-	-	BENTONITE
1		Cobbles & boulders -steel debris encountered during drilling - no sample taken											
2		Dark grey and pink, with yellow veining throughout, BEDROCK		▼	SS	3	100%		0		-	-	50 mm DIAMETER No. 10 SLOT PVC SCREEN IN No. 2 SILICA SAND PACK
3		Dark grey and white, trace pink with yellow veining throughout, BEDROCK											
4					RC	4	100%		0		-	-	
		White and light to dark grey, BEDROCK											
5					RC	5	100%		0		-	-	
6													END CAP
		End of Borehole											
7													
8													
9													
10													

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Appendix 4d

Soil Vapour Concentrations

– Main Base

Sample Tipping Results - Main Base
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			
TP1-BS1	0.00 - 0.25	No	3.5
TP1-BS2	0.25 - 0.51	No	-
TP2-BS1	0.00 - 0.25	No	1.9
TP2-BS2	0.25 - 0.76	No	-
TP3-BS1	0.00 - 0.25	No	0.7
TP3-BS2	0.76 - 0.89	No	3.4
TP4-BS1	0.00 - 0.25	No	2.2
TP5-BS1	0.00 - 0.25	No	2.7
TP5-BS2	0.25 - 0.51	No	37.4
TP6-BS1	0.00 - 0.18	No	4.0
TP6-BS2	0.51 - 0.64	No	12.0
TP7-BS1	0.00 - 0.18	Yes	63.0
TP7-BS2	0.64 - 0.76	Yes	-
TP8-BS1	0.00 - 0.13	No	8.6
TP8-BS1	0.89 - 1.02	No	-
TP9-BS1	0.00 - 0.13	No	7.0
TP9-BS2	0.20 - 0.64	No	140
TP10-BS1	0.00 - 0.20	No	-
TP11-BS1	0.00-0.13	No	5.8
TP11-BS2	0.13-0.36	No	3.2
TP12-BS1	0.00-0.13	No	5.2
TP12-BS2	0.76-0.89	No	-
TP13-BS1	0.00-0.13	No	4.5
TP13-BS2	1.02-1.14	No	-
TP14-BS1	0.00-0.13	No	5.7
TP14-BS2	0.25-0.38	No	2.2
TP15-BS1	0.00-0.13	No	1.6
TP15-BS2	0.38-0.51	No	-
TP16-BS1	0.13-0.25	No	-
TP17-BS1	0.00-0.13	No	1.3
TP17-BS2	0.89-1.02	No	-
TP18-BS1	0.00-0.13	No	2.2
TP18-BS2	1.27-1.40	No	-
TP19-BS1	0.00-0.13	No	1.2
TP19-BS2	1.14-1.27	No	1.8
TP20-BS1	0.00-0.13	No	1.8
TP20-BS2	1.14-1.27	No	1.0
TP21-BS1	0.00-0.13	No	1.0
TP21-BS2	0.89-1.02	No	-
TP22-BS1	0.25-0.38	No	3.8
TP23-BS1	0.00-0.13	No	2.2
TP23-BS2	0.51-0.64	No	-
TP24-BS1	0.00-0.13	No	1.8
TP24-BS2	1.02-1.14	No	-
TP25-BS1	0.00-0.13	No	3.0
TP25-BS2	0.89-1.02	No	-
TP26-BS1	0.51-0.64	No	1.6
TP27-BS1	0.00-0.13	No	2.2
TP27-BS2	0.89-0.97	No	2.6
TP28-BS1	0.00-0.13	No	3.3

Sample Tipping Results - Main Base
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)
TP28-BS2	0.51-0.58	No	2.9
TP29-BS1	0.38-0.51	No	3.6
TP30-BS1	0.00-0.13	No	3.4
TP30-BS2	1.22-1.32	No	-
TP31-BS1	0.00-0.13	No	3.4
TP31-BS2	0.76-0.89	No	-
TP32-BS1	0.00-0.13	No	3.7
TP32-BS2	0.64-0.76	No	-
TP33-BS1	0.00-0.13	No	2.4
TP33-BS2	1.65-1.78	No	-
TP34-BS1	1.02-1.07	No	1.5
TP35-BS1	0.64-0.71	No	5.5
TP36-BS1	0.00-0.13	No	3.0
TP36-BS2	1.14-1.27	No	3.1
TP37-BS1	-	No	-
TP37-BS2	-	No	-
TP38-BS1	0.0-0.1	No	3.9
TP38-BS2	1.0-1.2	No	3.1
TP39-BS1	0.0-0.1	No	2.4
TP39-BS2	0.9-1.0	No	-
TP40-BS1	0.0-0.1	No	2.5
TP40-BS2	0.9-1.0	No	3.0
TP41-BS1	0.6-0.8	No	-
TP42-BS1	0.1-0.2	No	2.1
TP42-BS2	1.3-1.5	No	-
TP43-BS1	0.0-0.1	Yes	11.8
TP43-BS2	1.5-1.7	Yes	-
TP44-BS1	0.0-0.1	No	4.1
TP44-BS2	1.7-1.9	No	-
TP45-BS1	0.6	No	1.8
TP46-BS1	0.0-0.1	No	4.8
TP46-BS2	1.4-1.6	No	1.2
TP47-BS1	0.0-0.1	No	4.5
TP47-BS2	1.1-1.3	No	3.0
TP48-BS1	0.1-0.2	No	6.0
TP48-BS2	1.2-1.3	No	4.2
TP49-BS1	0.1-0.2	No	4.6
TP49-BS2	0.8-1.1	No	-
TP50-BS1	0.1-0.2	No	1.6
TP50-BS2	1.3-1.4	No	0.8
TP51-BS1	0.1-0.2	No	1.5
TP51-BS2	1.1-1.2	No	1.5
TP52-BS1	0.1-0.2	No	-
TP52-BS2	0.7-0.8	No	1.3
TP53-BS1	0.4-0.6	No	13.9
TP54-BS1	0.1-0.2	No	3.6
TP54-BS2	1.2-1.3	No	-
TP55-BS1	0.2-0.3	No	2.8
TP56-BS1	0.3-0.4	No	3.9
TP57-BS1	0.4-0.5	No	-
TP58-BS1	0.1-0.2	No	1.5

Sample Tipping Results - Main Base
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)
TP58-BS2	0.9-1.0	No	-
TP59-BS1	0.1-0.2	No	1.4
TP59-BS2	0.9-1.0	No	1.8
TP60-BS1	0.1-0.2	No	1.1
TP60-BS2	0.9-1.0	No	2.8
TP61-BS1	0.2-0.4	No	1.8
TP62-BS1	0.5-0.6	No	-
TP63-BS1	0.0-0.2	No	3.8
TP64-BS1	0.0-0.3	No	7.1
TP65-BS1	0.0-0.2	No	-
TP66-BS1	0.2-0.3	No	2.0
TP66-BS2	2.6-2.8	No	2.6
TP67-BS1	1.0-1.3	No	2.6
TP67-BS2	2.7-3.0	No	2.0
TP68-BS1	0.2-0.4	No	1.6
TP68-BS2	0.7-0.8	No	0.8
TP69-BS1	0.2-0.3	No	4.8
TP69-BS2	1.3-1.4	No	6.2
TP70-BS1	0.2-0.3	No	4.8
TP70-BS2	1.4-1.5	No	3.6
TP71-BS1	0.2-0.3	No	4.9
TP71-BS2	1.6-1.7	No	7.2
TP72-BS1	0.1-0.2	No	5.3
TP72-BS2	0.7	No	2.1
TP219-BS1	0.7-0.8	No	-
TP220-BS1	0.2-0.3	No	-
TP220-BS2	1.4-1.5	No	-
TP221-BS1	0.2-0.3	No	-
TP221-BS2	1.5-1.6	No	-
TP222-BS1	0.2-0.3	No	-
TP222-BS2	1.6-1.7	No	-
TP223-BS1	0.4-0.5	No	-
TP224-BS1	0.0-0.2	No	-
TP225-BS1	0.2-0.3	Mineral oil odour	-
TP225-BS2	1.6-1.7	Mineral oil odour	-
SURFACE SOIL			
BS43	0.00-0.14	No	0.0
BS44	0.00-0.05	No	0.1
BS45	0.00-0.08	No	0.1
BS46	0.00-0.15	No	0.2
BS47	0.00-0.10	No	0.1
BS48	0.00-0.10	No	0.1
BS49	0.00-0.10	No	0.1
BS50	0.00-0.12	No	0.0
BS51	0.00-0.15	No	0.1
BS52	0.00-0.17	No	0.0
BS53	0.00-0.08	No	0.0
BS54	0.00-0.12	No	0.1
BS55	0.00-0.15	No	0.1
BS56	0.00-0.14	No	0.0
BS57	0.00-0.17	No	0.0

Sample Tipping Results - Main Base
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)
BS58	0.00-0.20	No	0.4
BS59	0.00-0.20	No	0.3
BS60	0.00-0.15	No	0.1
BS61	0.00-0.15	No	0.2
BS62	0.00-0.09	No	0.2
BS63	0.00-0.20	No	0.4
BS64	0.00-0.24	No	0.4
BS65	0.00-0.15	No	0.1
BS66	0.00-0.15	No	0.1
BS67	0.00-0.14	No	0.1
BS68	0.00-0.22	No	0.2
BS69	0.00-0.25	No	0.1
BS70	0.00-0.15	No	0.2
BS71	0.00-0.12	No	0.6
BS72	0.00-0.15	No	0.5
BS73	0.00-0.20	No	0.6
BS74	0.00-0.12	No	0.7
BS75	0.00-0.05	No	0.9
BS76	0.00-0.04	No	0.8
BS77	0.00-0.15	No	0.7
BS78	0.00-0.10	No	0.6
BS79	0.00-0.08	No	0.9
BS80	0.00-0.12	No	0.7
BS81	0.00-0.12	No	18.6
BS82	0.00-0.10	No	2.7
BS83	0.00-0.05	No	2.3
BS84	0.00-0.10	No	2.2
BS85	0.00-0.14	No	2.1
BS86	0.00-0.10	No	2.5
BS87	0.00-0.12	No	2.2
BS88	0.00-0.05	No	2.3
BS89	0.00-0.20	No	2.2
BS90	0.00-0.10	No	2.3
BS91	0.00-0.12	No	1.4
BS92	0.00-0.12	No	1.6
BS93	0.00-0.10	No	1.6
BS94	0.00-0.10	No	1.7
BS95	0.00-0.05	No	2.0
BS96	0.00-0.13	No	2.1
BS97	0.00-0.15	No	2.1
BS98	0.00-0.12	No	2.2
BS99	0.00-0.15	No	2.6
BS100	0.00-0.15	No	2.7
BS101	0.00-0.12	No	2.5
BS102	0.00-0.15	No	3.3
BS103	0.00-0.15	No	1.5
BS104	0.00-0.05	No	1.6
BS105	0.00-0.09	No	1.7
BS106	0.00-0.20	No	2.4
BS107	0.00-0.12	No	-
BS108	0.00-0.20	No	0.0

Sample Tipping Results - Main Base
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)
BS109	0.00-0.20	No	0.0
BS110	0.00-0.20	Chemical odor	0.0
BS111	0.00-0.18	No	0.0
BS112	0.00-0.22	No	0.0
BS113	0.00-0.18	No	0.0
BS245	-	-	-
BS246	-	-	2.1
BS265	-	-	-

Notes:
"-" = Value not recorded

Appendix 4e

Laboratory Analytical Results Summary Tables

– Main Base

Table 4.1 Results of Laboratory Analysis of TPH/BTEX in Soil - Main base
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]	Resemblence
	RDL	0.03	0.03	0.03	0.05	3	15	15	20	-
	RDL[3]	0.3	0.3	0.3	0.5	30	15	15	30	-
	RDL[4]	0.03	0.03	0.03	0.05	3	75	15	80	-
	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
	Tier I RBSLs[1]	0.16	14	58	17	-	-	-	140	-
TEST PITS										
TP3-BS2	0.8 - 0.9	<0.03	<0.03	<0.03	<0.05	<3	320	290	600	WFO, LO
TP6-BS2	0.5 - 0.6	<0.03	<0.03	<0.03	<0.05	<3	3,900	270	4,200	WFO, LO
TP7-BS2[3]	0.6 - 0.8	<0.3	<0.3	0.08	11	490	17,000	3,800	22,000	FO, LO
TP10-BS1	0.0 - 0.2	<0.03	<0.03	<0.03	<0.05	<3	2,200	83	2,200	WFO
TP12-BS2	0.8 - 0.9	<0.03	<0.03	<0.03	<0.05	<3	31	81	110	OP F/L
TP15-BS2	0.4 - 0.5	<0.03	<0.03	<0.03	<0.05	<3	28	130	160	LO
TP15-BS2-Lab-Dup	0.4 - 0.5	-	-	-	-	-	27	150	-	-
TP16-BS1	0.1 - 0.3	<0.03	<0.03	<0.03	<0.05	<3	56	110	170	OP F/L
TP18-BS2	1.3 - 1.4	<0.03	<0.03	<0.03	<0.05	<3	170	350	510	OP F/L, LO
TP21-BS2	0.9 - 1.0	<0.03	<0.03	<0.03	<0.05	<3	210	310	520	OP F/L, LO
TP24-BS2	1.0 - 1.1	<0.03	<0.03	<0.03	<0.05	<3	2,400	290	2,700	OP F/L, LO
TP30-BS2	1.2 - 1.3	<0.03	4.7	<0.03	<0.05	<3	29	160	180	LO
TP33-BS2	1.7 - 1.8	<0.03	<0.03	<0.03	<0.05	<3	50	200	250	LO
TP36-BS3	1.4 - 1.5	<0.03	<0.03	<0.03	<0.05	<3	<15	<15	<20	DNR
TP36-BS3-Lab-Dup	1.4 - 1.5	<0.03	<0.03	<0.03	<0.05	<3	-	-	-	-
TP37-BS1	0.0 - 0.2	<0.03	0.07	<0.03	<0.05	<3	36	360	400	LO
TP41-BS1	0.6 - 0.8	<0.03	<0.03	<0.03	<0.05	<3	45	380	420	OP F, LO
TP42-BS2	1.3 - 1.5	<0.03	<0.03	<0.03	<0.05	<3	170	450	620	OP F/L, LO
TP43-BS2[4]	1.5 - 1.7	<0.3	<0.3	<0.3	<0.5	800	22,000	2,300	25,000	FO, LO
TP44-BS2	1.7 - 1.9	<0.03	<0.03	<0.03	<0.05	<3	<15	<15	<20	DNR
TP52-BS1	0.1 - 0.2	<0.03	<0.03	<0.03	<0.05	<3	<15	20	20	Possible LO
TP53-BS1	0.4 - 0.6	<0.03	<0.03	<0.03	<0.05	<3	390	410	800	WFO, LO
TP54-BS2	1.2 - 1.3	<0.03	<0.03	<0.03	<0.05	<3	50	160	210	OP F, LO
TP54-BS2-Lab-Dup	1.2 - 1.3	-	-	-	-	-	46	160	-	-
TP58-BS2	0.9 - 1.0	<0.03	<0.03	<0.03	<0.05	<3	180	1,200	1,400	OP F/L, LO
TP62-BS1	0.5 - 0.6	<0.03	<0.03	<0.03	<0.05	<3	48	160	210	OP F/L, LO
TP65-BS1	0.0 - 0.2	<0.03	<0.03	<0.03	<0.05	<3	20	69	89	Possible LO
TP68-BS2	0.7 - 0.9	<0.03	<0.03	<0.03	<0.05	<3	<15	44	44	DNR
TP69-BS2	1.3 - 1.4	<0.03	<0.03	<0.03	<0.05	<3	<15	50	50	Possible LO
TP214-BS1	0.6 - 0.7	<0.03	<0.03	<0.03	<0.05	<3	20	72	92	WFO, LO
TP214-BS1 Lab-Dup	0.6 - 0.7	<0.03	<0.03	<0.03	<0.05	<3	-	-	-	-
TP220-BS2	1.4 - 1.5	<0.03	<0.03	<0.03	<0.05	<3	22	110	130	LO
TP221-BS2	1.5 - 1.6	<0.03	<0.03	<0.03	<0.05	<3	580	2,000	2,500	LO
TP221-BS2-Lab-Dup	1.5 - 1.6	-	-	-	-	-	610	2,100	-	-
TP222-BS2	1.6 - 1.7	<0.03	<0.03	<0.03	<0.05	<3	60	300	360	LO
TP223-BS1	0.4 - 0.5	<0.03	<0.03	<0.03	<0.05	<3	<15	49	49	DNR
TP224-BS1	0.0 - 0.2	<0.03	<0.03	<0.03	<0.05	<3	160	32	200	WFO
TP225-BS2	1.6 - 1.7	<0.03	0.17	0.04	0.23	230	8,300	180	8,700	WFO

Table 4.1 Results of Laboratory Analysis of TPH/BTEX in Soil - Main base
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]	Resemblence
	RDL	0.03	0.03	0.03	0.05	3	15	15	20	-
	RDL[3]	0.3	0.3	0.3	0.5	30	15	15	30	-
	RDL[4]	0.03	0.03	0.03	0.05	3	75	15	80	-
	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
	Tier I RBSLs[1]	0.16	14	58	17	-	-	-	140	-
SURFACE SAMPLES										
BS48	0.00 - 0.10	<0.03	<0.03	<0.03	<0.05	<3	62	490	550	LO, Unidentified compound(s) in LO range
BS58	0.00 - 0.20	<0.03	<0.03	<0.03	<0.05	<3	<15	<15	<20	DNR
BS81	0.00 - 0.12	<0.03	<0.03	<0.03	<0.05	9	1,900	260	2,200	WFO, Possible LO
BS97	0.00 - 0.15	<0.03	<0.03	<0.03	<0.05	<3	33	320	360	LO
BS104	0.00 - 0.05	0.04	0.14	<0.03	<0.05	<3	60	290	350	OP F/L, LO
BS110[4]	0.00 - 0.20	<0.03	<0.03	<0.03	<0.05	<3	67,000	3,700	71,000	WFO, Possible LO
BS112	0.00 - 0.22	<0.03	<0.03	<0.03	<0.05	<3	9,900	2,100	12,000	WFO
BS265	Not recorded	<0.03	<0.03	<0.03	<0.05	<3	76	670	750	LO
MONITOR WELLS										
MW1-SS1	0.00 - 0.30	<0.03	<0.03	<0.03	<0.05	<3	270	290	560	OP F/L, LO
MW2-SS1	0.00 - 0.46	<0.03	<0.03	<0.03	<0.05	<3	180	500	680	OP F/L, LO
MW3-SS1	0.00 - 0.36	<0.03	<0.03	<0.03	<0.05	<3	400	590	990	WFO, LO
MW4-SS1	0.00 - 0.41	<0.03	<0.03	<0.03	<0.05	5	1,400	51	1,500	WFO, Possible LO
MW5-SS1	0.00 - 0.30	<0.03	<0.03	<0.03	<0.05	4	4,400	330	4,700	WFO, LO
MW6-SS1	0.00 - 0.61	<0.03	<0.03	<0.03	<0.05	40	12,000	460	12,000	WFO, LO
OTHER										
Septic Tank[4]	0.00 - 0.10	<0.03	15	<0.03	0.34	21	3,700	6,700	10,000	OP F/L, U F/L

Notes:

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

2 = Modified TPH - Tier I does not include BTEX

3,4 = 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; WFO = Weathered fuel oil; LO = Lube oil; DNR = Does not resemble gasoline or diesel; OP F=One product in fuel oil range; OP F/L=One product in fuel/lube range

U F/L = Unidentified compounds in the fuel/lube range

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

Table 4.2 Results of Laboratory Analysis of TPH fractionation in Soil - Main Base
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]	MONITOR WELLS
				MW14-SS3
			Sample Depth (m)	1.21 - 1.37
Benzene	0.03	mg/L	0.16	<0.03
Toluene	0.03	mg/L	14	<0.03
Ethylbenzene	0.03	mg/L	58	0.09
Xylenes	0.05	mg/L	17	0.18
Modified TPH - Tier II[2]	20	mg/L	140	2,000
> C8-C10 Aromatic	0.1	mg/L	-	9.3
> C10-C12 Aromatic	4.0	mg/L	-	89
> C12-C16 Aromatic	15	mg/L	-	230
> C16-C21 Aromatic	15	mg/L	-	38
> C21-C32 Aromatic	15	mg/L	-	24
> C6-C8 Aliphatic	0.1	mg/L	-	18
> C8-C10 Aliphatic	0.9	mg/L	-	250
> C10-C12 Aliphatic	8	mg/L	-	420
> C12-C16 Aliphatic	15	mg/L	-	790
> C16-C21 Aliphatic	15	mg/L	-	72
> C21-C32 Aliphatic	15	mg/L	-	17
Resemblence	-	-	-	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 non-potable groundwater and coarse grained soil, gas/fuel oil/lube 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

OP G/F= One product in gas/fuel oil range.

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

Table 4.3 Results of Laboratory Analysis of PCBs in Soil - Main Base
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
TEST PITS		
TP7-BS2	0.6 - 0.8	<0.05
TP13-BS2	1.0 - 1.1	2.3
TP16-BS1	0.1 - 0.3	<0.05
TP20-BS2	0.4 - 1.3	6.2
TP21-BS2	0.9 - 1.0	3.2
TP24-BS2	1.0 - 1.1	<0.05
TP31-BS2	0.8 - 0.9	<0.05
TP37-BS1	0.0 - 0.2	<0.05
TP41-BS1	0.6 - 0.8	0.95
TP43-BS2	1.5 - 1.7	<0.05
TP52-BS1	0.1 - 0.2	<0.05
TP62-BS1	0.5 - 0.6	0.59
TP62-BS1-Lab-Dup	0.5 - 0.6	0.56
TP68-BS2	0.7 - 0.8	<0.05
TP69-BS2	1.3 - 1.4	0.51
TP214-BS1	0.6 - 0.7	<0.05
TP220-BS2	1.4 - 1.5	3.4
TP221-BS2	1.5 - 1.6	0.24
TP222-BS2	1.6 - 1.7	0.37
TP223-BS1	0.4 - 0.5	<0.05
TP224-BS1	0.0 - 0.2	<0.05
SURFACE SAMPLES		
BS43	0.00 - 0.14	1.7
BS44	0.00 - 0.05	2.2
BS46	0.00 - 0.15	0.73
BS53	0.00 - 0.08	1.3
BS57	0.00 - 0.17	0.77
BS61	0.00 - 0.15	<0.05
BS65	0.00 - 0.15	0.38
BS68	0.00 - 0.22	<0.05
BS72	0.00 - 0.15	<0.05
BS75	0.00 - 0.05	0.30
BS76	0.00 - 0.04	0.09
BS78	0.00 - 0.10	0.06
BS81	0.00 - 0.12	1.7
BS84	0.00 - 0.10	0.81
BS91	0.00 - 0.12	1.3
BS95	0.00 - 0.05	2.3
BS95-Lab-Dup	0.00 - 0.05	1.8
BS100	0.00 - 0.15	5.5
BS110	0.00 - 0.20	53
BS113	0.00 - 0.18	1.4
BS265	Not recorded	1.1
MONITOR WELLS		
MW1-SS1	0.15 - 0.76	<0.05
MW14-SS3	1.21 - 1.37	<0.05
OTHER		
Septic Tank	0.00 - 0.10	72

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

Parameters	RDL (Test Pits)	RDL (Monitor Wells)	Units	Criteria[1,3]	Criteria[2,3]	TEST PITS							
						TP7-BS2	TP8-BS2	TP13-BS2	TP17-BS2	TP21-BS2	TP24-BS2	TP24-BS2 Lab-Dup	TP25-BS2
Non-carcinogenic PAHs													
1-Methylnaphthalene	0.01	0.005	mg/kg	-	-	29	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.11
2-Methylnaphthalene	0.01/0.05[5]	0.005	mg/kg	-	-	41[5]	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	0.08
Acenaphthene	0.01	0.005	mg/kg	-	-	7.8	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	0.89
Acenaphthylene	0.01	0.005	mg/kg	-	-	0.91	<0.01	<0.01	<0.01	0.03	0.06	0.05	0.10
Anthracene	0.01/0.04[5]/0.03[5]	0.005	mg/kg	2.5	-	2	<0.01	0.02	0.04	0.13	<0.04[5]	<0.03[5]	0.59
Fluoranthene	0.01	0.005	mg/kg	50	-	7	<0.01	0.06	0.01	2.3	<0.01	<0.01	4.1
Fluorene	0.01	0.005	mg/kg	-	-	7.3	<0.01	<0.01	<0.01	0.06	<0.01	<0.01	0.77
Naphthalene	0.01	0.005	mg/kg	-	-	21	<0.01	<0.01	<0.01	0.07	<0.01	<0.01	0.03
Perylene	0.01	0.005	mg/kg	-	-	0.1	<0.01	<0.01	<0.01	0.07	<0.01	<0.01	0.66
Phenanthrene	0.01	0.005	mg/kg	-	-	16	<0.01	0.04	0.01	0.93	<0.01	<0.01	3.2
Pyrene	0.01	0.005	mg/kg	-	-	5.2	<0.01	0.06	0.02	1.7	<0.01	<0.01	2.8
Carcinogenic PAHs													
Benzo(a)anthracene	0.01	0.005	mg/kg	-		1.1	<0.01	0.03	0.01	0.45	<0.01	<0.01	2.0
Benzo(a)pyrene	0.01	0.005	mg/kg	20	-	0.27	<0.01	0.03	0.01	0.24	<0.01	<0.01	2.2
Benzo(b)fluoranthene	0.01	0.005	mg/kg	-	-	0.4	<0.01	0.03	0.02	0.24	<0.01	<0.01	2.0
Benzo(k)fluoranthene	0.01	0.005	mg/kg	-	-	0.4	<0.01	0.03	0.02	0.24	<0.01	<0.01	2.0
Benzo(g,h,i)perylene	0.01	0.005	mg/kg	-	-	0.09	<0.01	0.03	0.05	0.20	<0.01	<0.01	1.8
Chrysene	0.01	0.005	mg/kg	-	-	1.4	<0.01	0.04	0.02	0.53	<0.01	<0.01	2.3
Dibenz(a,h,)anthracene	0.01	0.005	mg/kg	-	-	0.03	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	0.50
Indeno(1,2,3-c,d) pyrene	0.01	0.005	mg/kg	-	-	0.12	<0.01	0.03	0.04	0.17	<0.01	<0.01	2.1
		Benzo (a)pyrene TPE[4]		-	5.3	0.517	0.012	0.048	0.025	0.407	0.012	0.012	3.55

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

Parameters	RDL (Test Pits)	RDL (Monitor Wells)	Units	Criteria[1,3]	Criteria[2,3]	TEST PITS					MONITOR WELLS		OTHER
						TP37-BS1	TP43-BS2	TP49-BS2	TP57-BS1	TP58-BS2	MW14-SS3	MW14-SS3 Lab-Dup	Septic Tank
Non-carcinogenic PAHs													
1-Methylnaphthalene	0.01	0.005	mg/kg	-	-	<0.01	0.27	<0.01	<0.01	<0.01	2.6	2.9	1.7
2-Methylnaphthalene	0.01/0.05[5]	0.005	mg/kg	-	-	<0.01	0.58	<0.01	<0.01	<0.01	1.8	2.0	2.2
Acenaphthene	0.01	0.005	mg/kg	-	-	<0.01	6.5	<0.01	<0.01	<0.01	0.15	0.16	0.4
Acenaphthylene	0.01	0.005	mg/kg	-	-	0.02	0.31	0.03	<0.01	<0.01	<0.005	<0.005	<0.3
Anthracene	0.01/0.04[5]/0.03[5]	0.005	mg/kg	2.5	-	0.03	2.4	0.06	<0.01	0.02	<0.005	<0.005	1.3
Fluoranthene	0.01	0.005	mg/kg	50	-	0.04	33	0.02	0.05	0.05	<0.005	<0.005	8.6
Fluorene	0.01	0.005	mg/kg	-	-	<0.01	0.06	<0.01	<0.01	<0.01	0.13	0.14	0.5
Naphthalene	0.01	0.005	mg/kg	-	-	0.02	0.09	<0.01	<0.01	<0.01	0.89	1.1	2.0
Perylene	0.01	0.005	mg/kg	-	-	0.05	4.6	0.04	<0.01	<0.01	<0.005	<0.005	<0.3
Phenanthrene	0.01	0.005	mg/kg	-	-	0.03	2.4	<0.01	<0.01	0.02	0.068	0.077	2.9
Pyrene	0.01	0.005	mg/kg	-	-	0.16	42	0.03	0.05	0.04	<0.005	<0.005	5.0
Carcinogenic PAHs													
Benzo(a)anthracene	0.01	0.005	mg/kg	-		0.04	17	0.02	<0.01	0.03	<0.005	<0.005	2.0
Benzo(a)pyrene	0.01	0.005	mg/kg	20	-	0.17	18	0.08	<0.01	0.02	<0.005	<0.005	0.9
Benzo(b)fluoranthene	0.01	0.005	mg/kg	-	-	0.14	17	0.08	0.0	0.02	<0.005	<0.005	0.7
Benzo(k)fluoranthene	0.01	0.005	mg/kg	-	-	0.14	17	0.09	0.0	0.02	<0.005	<0.005	0.8
Benzo(g,h,i)perylene	0.01	0.005	mg/kg	-	-	0.18	11	0.07	0.02	0.05	<0.005	<0.005	0.5
Chrysene	0.01	0.005	mg/kg	-	-	0.23	18	0.07	0.05	0.03	<0.005	<0.005	1.9
Dibenz(a,h,)anthracene	0.01	0.005	mg/kg	-	-	0.06	3.6	0.02	<0.01	<0.01	<0.005	<0.005	<0.3
Indeno(1,2,3-c,d) pyrene	0.01	0.005	mg/kg	-	-	0.14	12	0.08	0.02	0.02	<0.005	<0.005	0.4
		Benzo (a)pyrene TPE[4]		-	5.3	0.280	28.2	0.128	0.019	0.035	0.006	0.006	1.46

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 4.5 Results of Laboratory Analysis of VOCs in Soil - Main Base
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]	Criteria[2]	TEST PITS		OTHER
					TP43-BS2	TP43-BS2 Lab-Dup	Septic Tank
1,1,1-Trichloroethane	30	µg/kg	-	-	<30	<30	<30
1,1,2,2-Tetrachloroethane	30/60[3]	µg/kg	-	-	160	150	<60[3]
1,1,2-Trichloroethane	30/4,000[3]	µg/kg	-	-	<4,000[3]	<4,000[3]	<30
1,1-Dichloroethane	30	µg/kg	-	-	<30	<30	<30
1,1-Dichloroethylene	30	µg/kg	-	-	<30	<30	<30
1,2-Dichlorobenzene	30	µg/kg	-	1,000	<30	<30	<30
1,2-Dichloroethane	30	µg/kg	-	-	<30	<30	<30
1,2-Dichloropropane	30	µg/kg	-	-	<30	<30	<30
1,3-Dichlorobenzene	30/200[3]	µg/kg	-	1,000	<30	<200[3]	<30
1,4-Dichlorobenzene	30	µg/kg	-	1,000	<30	140[4]	6,400
Benzene	30	µg/kg	30/11	-	<30	<30	<30
Bromodichloromethane	30/40[3]	µg/kg	-	-	<40[3]	<40[3]	<30
Bromoform	30	µg/kg	-	-	<30	<30	<30
Bromomethane	200	µg/kg	-	-	<200	<200	<200
Carbon Tetrachloride	30	µg/kg	-	-	<30	<30	<30
Chlorobenzene	30	µg/kg	-	2,000	<30	<30	<30
Chloroform	30	µg/kg	-	-	<30	<30	<30
Chloromethane	30	µg/kg	-	-	<30	<30	<30
cis-1,2-Dichloroethylene	30	µg/kg	-	-	<30	<30	<30
cis-1,3-Dichloropropene	30	µg/kg	-	-	<30	<30	<30
Dibromochloromethane	30	µg/kg	-	-	<30	<30	<30
Ethylbenzene	30	µg/kg	82	-	<30	<30	<30
Ethylene Dibromide	30	µg/kg	-	-	<30	<30	<30
Methylene Chloride(Dichloromethane)	30	µg/kg	-	-	<30	<30	<30
o-Xylene	30	µg/kg	-	-	<30	<30	200
p+m-Xylene	30/40[3]	µg/kg	-	-	<40[3]	<30	340
Styrene	30	µg/kg	-	-	<30	<30	<30
Tetrachloroethylene	30	µg/kg	200	-	<30	<30	500
Toluene	30/300[3]	µg/kg	370	-	<30	<30	25,000[3]
trans-1,2-Dichloroethylene	30	µg/kg	-	-	<30	<30	<30
trans-1,3-Dichloropropene	30	µg/kg	-	-	<30	<30	<30
Trichloroethylene	30	µg/kg	-	-	<30	<30	<30
Trichlorofluoromethane (FREON 11)	30	µg/kg	10	-	<30	<30	<30
Vinyl Chloride	30	µg/kg	-	-	<30	<30	<30

Notes:
1 = CCME Canadian Soil Quality Guidelines for a Residential/Parkland site, subsoil (2007)
2 = CCME Interim remediation criteria for soil that have not beem replaced by Canadian Soil Quality Guidelines (1991)
3 = Elevated RDL due to matrix interface
4 = Duplicate sample results are within 5x RDL
RDL = Reportable Detection Limit for routine analysis
Lab-dup = Laboratory duplicate sample
< # = Not detected above RDL noted
Shaded = Value exceeds applicable criteria

Table 4.6 Results of Laboratory Analysis of Available Metals in Soil - Main Base
Phase II/III ESA, HHERA and RAP/RMP
Project No. 121410103
Stantec Consulting Ltd. Project No. 121410103

Parameters	RDL	Units	Criteria[1]	TEST PITS									
				TP1-BS2	TP1-BS2 Lab-Dup	TP2-BS2	TP7-BS2	TP8-BS2	TP10-BS1	TP12-BS2	TP13-BS2	TP16-BS1	TP17-BS2
Aluminum	10	mg/kg	-	7,500	7,300	7,600	6,800	7,400	6,500	7,400	6,500	6,600	9,000
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	40	38	29	30	15	45	33	27	43	39
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	6	<5
Cadmium	0.3	mg/kg	10	<0.3	<0.3	<0.3	<0.3	0.9	<0.3	<0.3	1.0	0.3	<0.3
Chromium	2	mg/kg	64	62	57	32	30	14	55	29	19	20	35
Cobalt	1	mg/kg	50	7	6	4	6	5	9	6	6	5	8
Copper	2	mg/kg	63	23	25	12	21	17	26	26	18	15	31
Iron	50	mg/kg	-	11,000	12,000	8,600	10,000	8,900	13,000	12,000	10,000	9,200	15,000
Lead	0.5	mg/kg	140	9.3	9.1	7.1	26	23	15	11	70	18	11
Lithium	2	mg/kg	-	10	9	8	7	5	10	9	8	6	9
Manganese	2	mg/kg	-	160	160	84	130	110	170	130	140	150	220
Mercury	0.1/0.2[2]	mg/kg	6.6	0.2	0.2	<0.1	0.1	<0.1	0.1	<0.1	<0.1	0.2	0
Molybdenum	2	mg/kg	10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nickel	2	mg/kg	50	34	31	19	19	14	28	16	15	16	23
Rubidium	2	mg/kg	-	12	10	8	8	3	15	12	8	5	11
Selenium	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	-	37	41	9	16	8	13	9	8	15	28
Thallium	0.1	mg/kg	1	0.1	0.1	0.2	<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	0.2	0.2	0.4	0.4	0.4	0.5	0.4	0.3	0.4	0.5
Vanadium	2	mg/kg	130	20	19	23	18	17	23	26	18	18	29
Zinc	5	mg/kg	200	44	39	44	45	81	140	44	170	120	120

Notes:
1 = CCME Canadian Soil Quality Guidelines for a Residential/Parkland Site (2007)
2 = Elevated RDL due to matrix interfaces
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 4.6 Results of Laboratory Analysis of Available Metals in Soil - Main Base
Phase II/III ESA, HHERA and RAP/RMP
Project No. 121410103
Stantec Consulting Ltd. Project No. 121410103

Parameters	RDL	Units	Criteria[1]	TEST PITS									
				TP18-BS2	TP21-BS2	TP23-BS2	TP30-BS2	TP37-BS2	TP41-BS1	TP42-BS2	TP43-BS2	TP44-BS2	TP49-BS2
Aluminum	10	mg/kg	-	9,000	8,800	7,100	6,600	5,400	7,100	7,300	8,000	6,000	8,800
Antimony	2	mg/kg	20	3	4	<2	<2	3	10	<2	<2	<2	<2
Arsenic	2	mg/kg	12	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Barium	5	mg/kg	500	68	93	25	29	26	61	43	44	14	28
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	-	10	13	<5	7	8	10	<5	14	<5	<5
Cadmium	0.3	mg/kg	10	0.8	1.4	0.6	1.5	<0.3	0.5	<0.3	2.9	<0.3	<0.3
Chromium	2	mg/kg	64	33	28	21	19	15	22	36	34	10	65
Cobalt	1	mg/kg	50	7	6	5	5	4	4	6	5	4	7
Copper	2	mg/kg	63	36	48	23	31	14	77	26	24	10	38
Iron	50	mg/kg	-	13,000	12,000	11,000	10,000	8,300	9,600	12,000	12,000	7,500	12,000
Lead	0.5	mg/kg	140	63	120	9.7	30	28	580	14	25	2.1	7.8
Lithium	2	mg/kg	-	11	10	9	7	6	9	10	8	5	7
Manganese	2	mg/kg	-	220	230	130	140	130	260	150	140	95	230
Mercury	0.1/0.2[2]	mg/kg	6.6	0.2	0.1	0.2	0.2	<0.1	0.1	<0.1	0.7	<0.1	0.1
Molybdenum	2	mg/kg	10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nickel	2	mg/kg	50	22	19	13	14	15	13	21	21	10	34
Rubidium	2	mg/kg	-	13	13	8	7	5	7	14	9	4	5
Selenium	2	mg/kg	1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Silver	0.5	mg/kg	20	<0.5	<0.5	6.0	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Strontium	5	mg/kg	-	38	56	14	10	16	28	16	14	7	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	0.5	0.5	0.5	0.4	0.3	0.6	0.3	0.5	0.5	0.7
Vanadium	2	mg/kg	130	27	25	21	17	27	25	22	19	12	21
Zinc	5	mg/kg	200	400	550	98	160	100	170	46	180	26	34

Notes:

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

2 = Elevated RDL due to matrix interfaces

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

Parameters	RDL	Units	Criteria[1]	TEST PITS					SURFACE SAMPLES				
				TP57-BS1	TP58-BS2	TP62-BS1	TP65-BS1	TP69-BS2	BS47	BS47 Lab-Dup	BS58	BS59	BS65
Aluminum	10	mg/kg	-	7,700	13,000	4,800	7,300	5,700	8,200	7,900	5,600	5,600	4,600
Antimony	2	mg/kg	20	<2	8	4	4	7	4	4	<2	<2	<2
Arsenic	2	mg/kg	12	<2	<2	76	<2	<2	<2	<2	<2	<2	<2
Barium	5	mg/kg	500	42	110	2,700	230	26	140	130	17	13	24
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	-	15	5	26	<5	<5	35	28	<5	<5	6
Cadmium	0.3	mg/kg	10	0.7	1.3	2.7	0.4	0.6	1.1	1.0	<0.3	<0.3	1.9
Chromium	2	mg/kg	64	18	34	13	22	17	30	29	14	13	21
Cobalt	1	mg/kg	50	6	9	11	5	4	5	5	5	4	6
Copper	2	mg/kg	63	100	66	130	22	35	30	38	13	12	54
Iron	50	mg/kg	-	13,000	17,000	27,000	10,000	11,000	11,000	14,000	8,400	7,800	10,000
Lead	0.5	mg/kg	140	120	210	840	31	23	320	130	2.5	4.1	120
Lithium	2	mg/kg	-	8	16	3	7	4	12	13	7	6	7
Manganese	2	mg/kg	-	190	230	2,500	190	140	260	290	120	100	170
Mercury	0.1/0.2[2]	mg/kg	6.6	0.1	0.2	0.2	0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.2[2]
Molybdenum	2	mg/kg	10	<2	<2	3	<2	<2	<2	<2	<2	<2	<2
Nickel	2	mg/kg	50	14	23	18	15	12	19	18	16	12	18
Rubidium	2	mg/kg	-	6	19	4	9	3	11	11	5	4	4
Selenium	2	mg/kg	1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Silver	0.5	mg/kg	20	<0.5	<0.5	5.8	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5
Strontium	5	mg/kg	-	19	25	74	19	15	27	27	8	7	7
Thallium	0.1	mg/kg	1	<0.1	0.2	0.5	<0.1	<0.1	0.1	0.1	<0.1	<0.1	<0.1
Tin	2	mg/kg	50	6	9	3	<2	13	3	2	<2	<2	13
Uranium	0.1	mg/kg	23	0.4	0.5	0.9	0.6	0.2	0.5	0.6	0.5	0.5	0.2
Vanadium	2	mg/kg	130	26	30	18	19	15	19	18	15	14	14
Zinc	5	mg/kg	200	150	270	310	87	350	190	200	23	21	820

Notes:
1 = CCME Canadian Soil Quality Guidelines for a Residential/Parkland Site (2007)
2 = Elevated RDL due to matrix interfaces
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 4.6 Results of Laboratory Analysis of Available Metals in Soil - Main Base
Phase II/III ESA, HHERA and RAP/RMP
Project No. 121410103
Stantec Consulting Ltd. Project No. 121410103

Parameters	RDL	Units	Criteria[1]	SURFACE SAMPLES						MONITOR WELLS		OTHER
				BS78	BS84	BS92	BS101	BS103	BS265	MW2-SS1	MW4-SS1	Septic Tank
Aluminum	10	mg/kg	-	5,700	12,000	6,300	4,800	8,200	6,400	7,400	9,100	5,400
Antimony	2	mg/kg	20	<2	5	<2	<2	<2	<2	3	<2	25
Arsenic	2	mg/kg	12	<2	<2	<2	<2	<2	<2	<2	<2	<2
Barium	5	mg/kg	500	36	85	10	18	16	90	240	24	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	7
Boron	5	mg/kg	-	<5	40	<5	<5	<5	6	<5	<5	6
Cadmium	0.3	mg/kg	10	<0.3	1.8	1.8	0.3	0.6	<0.3	0.4	<0.3	5
Chromium	2	mg/kg	64	15	40	15	24	15	22	19	24	29
Cobalt	1	mg/kg	50	5	8	2	3	3	5	5	7	3
Copper	2	mg/kg	63	18	2,200	12	11	17	41	15	20	87
Iron	50	mg/kg	-	12,000	15,000	9,200	9,300	6,300	8,600	13,000	14,000	6,900
Lead	0.5	mg/kg	140	21	82	4.4	10	5.1	50	86	11	87
Lithium	2	mg/kg	-	7	15	3	5	5	5	14	9	5
Manganese	2	mg/kg	-	160	380	45	84	71	120	190	200	80
Mercury	0.1/0.2[2]	mg/kg	6.6	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	0.1	<0.1	1.8
Molybdenum	2	mg/kg	10	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nickel	2	mg/kg	50	13	26	5	12	11	13	10	25	15
Rubidium	2	mg/kg	-	5	18	2	7	3	8	28	4	4
Selenium	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	21
Strontium	5	mg/kg	-	29	33	7	11	13	40	14	15	15
Thallium	0.1	mg/kg	1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	0.2	<0.1	<0.1
Tin	2	mg/kg	50	<2	6	<2	<2	<2	<2	<2	<2	250
Uranium	0.1	mg/kg	23	0.4	1.3	0.4	0.7	0.6	0.4	0.2	0.2	0.6
Vanadium	2	mg/kg	130	17	40	24	21	17	15	25	24	11
Zinc	5	mg/kg	200	210	800	28	42	35	42	71	42	1,500

Notes:
1 = CCME Canadian Soil Quality Guidelines for a Residential/Parkland Site (2007)
2 = Elevated RDL due to matrix interfaces
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 4.7 Results of Laboratory Analysis of TPH/BTEX in Groundwater - Main Base
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	0.01	0.05	0.1	0.1	-
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-
Criteria[1]	1	20	20	20	-	-	-	20	-
MONITOR WELLS									
MW2	<0.001	0.006	0.001	0.005	<0.01	0.2	0.2	0.4	WFO
MW3	0.001	0.017	0.013	0.091	0.26	1.8	0.3	2.4	WFO, LO
MW4	<0.001	<0.001	<0.001	<0.002	0.02	5.1	0.4	5.6	WFO
MW4 Field-Dup	<0.001	0.005	0.002	0.012	0.35	3.0	0.2	3.5	WFO, UFO
MW5	<0.001	0.003	<0.001	0.002	<0.01	1.1	0.3	1.5	WFO
MW6	0.002	0.007	0.003	0.017	0.07	2.2	0.2	2.5	WFO
MW14	0.003	0.009	0.034	0.039	0.48	4.3	0.2	5	OP G/F
MW66	<0.001	0.007	0.001	0.006	<0.01	0.15	<0.1	0.1	WFO
MW67	<0.001	0.007	0.001	0.006	<0.01	<0.05	<0.1	<0.1	-

Notes:
1 = Partnership in RBCA (Risk-Based Corrective Action) Implementation (PIRI) Tier I Risk Based Screening Levels (RBSLs) for a residential site with non-potable groundwater and coarse grained soil, fuel oil impacts (September, 2003)
2 = Modified TPH - Tier I does not include BTEX
Field-Dup = Field duplicate sample
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; LO=Lube oil fraction; OP G/F=One product in the gas/fuel oil range; UFO=Unidentified compound in the fuel oil range

Table 4.8 Results of Laboratory Analysis of PCBs in Groundwater Main Base
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Location	Polychlorinated Biphenyls (PCBs)
RDL	0.05
Units	ug/L
Criteria[1]	0.2
MONITOR WELLS	
MW1	<0.05
MW2	<0.05
MW13	<0.05
MW14	<0.05
MW66	<0.05
MW67	<0.05

Notes:
1 = OMOE Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*, Non-Potable Groundwater (2004)
RDL = Reportable Detection Limit
na = No applicable guideline
< # = Not detected above RDL noted

Table 4.9 Results of Laboratory Analysis of PAHs in Groundwater - Main Base
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Parameter	RDL	Units	Criteria[1]	MONITOR WELLS
				MW67
1-Methylnaphthalene	0.05	ug/L	13,000	<0.05
2-Methylnaphthalene	0.05	ug/L	13,000	<0.05
Acenaphthene	0.01	ug/L	1,700	<0.01
Acenaphthylene	0.01	ug/L	2,000	<0.01
Anthracene	0.05	ug/L	12	<0.05
Benz[a]anthracene	0.01	ug/L	5.0	<0.01
Benzo[a]pyrene	0.01	ug/L	1.9	<0.01
Benzo[b]fluoranthene	0.01	ug/L	7.0	<0.01
Benzo[ghi]perylene	0.01	ug/L	0.2	<0.01
Benzo[k]fluoranthene	0.01	ug/L	0.4	<0.01
Chrysene	0.01	ug/L	3.0	<0.01
Dibenzo[a,h]anthracene	0.01	ug/L	0.25	<0.01
Fluoranthene	0.01	ug/L	130	<0.01
Fluorene	0.01	ug/L	290	<0.01
Indeno[1,2,3-cd]pyrene	0.01	ug/L	0.27	<0.01
Naphthalene	0.2	ug/L	5,900	<0.2
Perylene	0.01	ug/L	-	<0.01
Phenanthrene	0.01	ug/L	63	<0.01
Pyrene	0.01	ug/L	40	<0.01
Quinoline	0.05	ug/L	-	<0.05

Notes:
1 = OMOE Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*, Non-Potable Groundwater (2004)
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
Shaded = Value exceeds applicable criteria

Table 4.10 Results of Laboratory Analysis of VOCs in Groundwater - Main Base
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
				MW67
1,2-Dichlorobenzene	0.5	ug/L	7,600	<0.5
1,3-Dichlorobenzene	1	ug/L	7,600	<1
1,4-Dichlorobenzene	1	ug/L	7,600	<1
Chlorobenzene	1	ug/L	500	<1
1,1,1-Trichloroethane	1	ug/L	200	<1
1,1,2,2-Tetrachloroethane	1	ug/L	22	<1
1,1,2-Trichloroethane	1	ug/L	16,000	<1
1,1-Dichloroethane	2	ug/L	9,000	<2
1,1-Dichloroethylene	0.5	ug/L	0.66	<0.5
1,2-Dichloroethane	1	ug/L	17	<1
1,2-Dichloropropane	1	ug/L	9.3	<1
Benzene	1	ug/L	1,900	<1
Bromodichloromethane	1	ug/L	50,000	<1
Bromoform	1	ug/L	840	<1
Bromomethane	3	ug/L	3.7	<3
Carbon Tetrachloride	1	ug/L	17	<1
Chloroethane	8	ug/L	-	<8
Chloroform	1	ug/L	430	8
Chloromethane	8	ug/L	-	<8
cis-1,2-Dichloroethylene	2	ug/L	70	<2
cis-1,3-Dichloropropene	2	ug/L	3.8	<2
Dibromochloromethane	1	ug/L	50,000	<1
Ethylbenzene	1	ug/L	28,000	1
Ethylene Dibromide	1	ug/L	3.3	<1
Methylene Chloride(Dichloromethane)	3	ug/L	-	<3
o-Xylene	1	ug/L	-	1
p+m-Xylene	2	ug/L	-	4
Styrene	1	ug/L	940	<1
Tetrachloroethylene	1	ug/L	5.0	<1
Toluene	1	ug/L	5900	6
trans-1,2-Dichloroethylene	2	ug/L	100	<2
trans-1,3-Dichloropropene	1	ug/L	-	<1
Trichloroethylene	1	ug/L	21	<1
Trichlorofluoromethane (FREON 11)	8	ug/L	50	<8
Vinyl Chloride	0.5	ug/L	0.5	<0.5

Notes:

1 = OMOE Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*, Non-Potable Groundwater (2004)

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

Shaded = Value exceeds applicable criteria

Table 4.11 Lab Analysis of Availables Metals in Groundwater - Main Base
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Parameters	RDL	RDL[2]	Units	Criteria[1]	MONITOR WELLS								
					MW1	MW1 Lab-Dup	MW2	MW4	MW4 Field-Dup	MW6	MW14[2]	MW66	MW67
Aluminum	5	50	ug/L	-	53.5	53.5	45.8	84.7	45.4	338	397	22.8	54.8
Antimony	2	20	ug/L	16,000	6.9	6.9	10.5	8.9	4.3	<2.0	<20	4.5	4.7
Arsenic	2	20	ug/L	480	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0
Barium	5	50	ug/L	23,000	31.6	32	49	83.3	70.9	22	<50	47.6	28.2
Beryllium	2	20	ug/L	53	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0
Bismuth	2	20	ug/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0
Boron	5	50	ug/L	50,000	50.7	48.3	45.8	116	153	42.5	<50	264	427
Cadmium	0.017	0.17	ug/L	11	0.032	0.046	0.068	0.031	0.02	0.023	1.23	0.039	0.292
Chromium	1	10	ug/L	2,000	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<10	<1.0	<1.0
Cobalt	0.4	4	ug/L	100	0.86	0.81	2.13	3.75	2.19	1.2	<4.0	0.51	0.74
Copper	2	20	ug/L	23	22.1	21.1	76.8	8.6	5.3	11.8	34	10.2	19
Iron	50	500	ug/L	-	57	<50	<50	838	1,060	759	1,350	<50	<50
Lead	0.5	5	ug/L	32	<0.50	<0.50	0.6	<0.50	<0.50	0.55	<5.0	<0.50	<0.50
Manganese	2	20	ug/L	-	129	130	187	848	862	129	231	94.4	32.9
Molybdenum	2	20	ug/L	7,300	7.8	7.9	3.3	2.8	<2.0	8.5	575	<2.0	<2.0
Nickel	2	20	ug/L	1,600	5.3	4.7	77	16.3	8	5.9	<20	5.4	5.6
Selenium	1	10	ug/L	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
Silver	0.1	1	ug/L	1.2	<0.10	0.11	<0.10	<0.10	<0.10	0.28	<1.0	<0.10	<0.10
Strontium	5	50	ug/L	-	180	181	151	184	185	79.3	151	151	140
Thallium	0.1	1	ug/L	400	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<1.0	<0.10	<0.10
Tin	2	20	ug/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0
Titanium	2	20	ug/L	-	3	3.2	2.3	2.3	<2.0	10.6	<20	<2.0	<2.0
Uranium	0.1	1	ug/L	-	1.85	1.86	1.3	1.78	1.63	2.09	1.1	0.82	0.15
Vanadium	2	20	ug/L	200	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<20	<2.0	<2.0
Zinc	5	50	ug/L	1,100	5.8	5.6	150	18.2	9.7	14.5	<50	32.6	302

Notes:
1 = OMOE Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*, Non-Potable Groundwater (2004)
2 = Elevated RDLs
RDL = Reportable Detection Limit for routine analysis
Lab-Dup = Laboratory duplicate sample
Field-Dup = Field duplicate sample
< # = Not detected above RDL noted
"-" = indicates value is not available or does not apply
Shaded = Value exceeds applicable criteria

Table 4.12 Results of Laboratory Analysis of PCBs in Vegetation - Main Base
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	0.05/0.3[1]
Units	mg/kg
VEGETATION	
VEG-8	<0.3[1]
VEG-9	1.1[1]
VEG-10	1.3[1]
VEG-10 Lab Dup	1[1]
VEG-12	<0.3[1]
VEG-13	<0.3[1]
VEG-15	1.6
VEG-18	0.90
VEG-21	0.5[1]
VEG-27	0.43
VEG-31	<0.3[1]
VEG-32	<0.3[1]
VEG-33	0.13
VEG-34	<0.05

Notes:
1 = Elevated RDL
RDL = Reportable Detection Limit for routine analysis
< # = Not detected above RDL noted

Table 4.13 Results of Lab Analysis of Available Metals in Vegetation - Main Base
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-11	VEG-16	VEG-17	VEG-17-Lab-Dup	VEG-19	VEG-20	VEG-22	VEG-23	VEG-24	VEG-25	VEG-26	VEG-28	VEG-29	VEG-30
Aluminum	10	mg/kg	3,800	3,100	2,300	2,200	210	160	1,700	460	340	47	220	91	820	230
Antimony	2	mg/kg	<2	<2	7	8	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic	2	mg/kg	<2	<2	<2	<2	<2	<2	3	<2	<2	<2	<2	<2	<2	<2
Barium	5	mg/kg	16	27	110	100	27	20	38	29	32	18	21	77	250	91
Beryllium	2	mg/kg	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Boron	5	mg/kg	7	6	47	50	36	23	34	13	14	11	19	19	54	18
Cadmium	0.3	mg/kg	0.3	1.7	3.0	3.0	1.0	0.7	1.0	0.6	1.3	0.9	0.9	8.7	0.5	0.5
Chromium	2	mg/kg	8	10	15	15	<2	<2	6	<2	2	<2	<2	<2	3	<2
Cobalt	1	mg/kg	4	3	4	4	<1	<1	4	<1	<1	<1	<1	<1	<1	<1
Copper	2	mg/kg	13	13	35	97	13	10	18	17	16	10	11	12	15	9
Iron	50	mg/kg	5,600	4,500	3,400	3,200	340	380	1,800	680	450	84	260	170	1,200	310
Lead	0.5	mg/kg	4.4	19	71	69	3.3	2.6	120	5.5	7.7	0.9	3.0	4.1	110	24
Manganese	2	mg/kg	95	81	84	86	19	240	66	51	38	27	42	65	54	66
Molybdenum	2	mg/kg	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nickel	2	mg/kg	8	8	7	7	<2	<2	5	<2	<2	<2	<2	<2	3	<2
Selenium	2	mg/kg	<2	<2	<2	<2	<2	<2	<2	<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	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Strontium	5	mg/kg	38	15	79	71	37	36	21	30	14	23	27	30	33	32
Thallium	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	0.1	mg/kg	0.2	0.2	0.1	0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vanadium	2	mg/kg	9	7	5	5	<2	<2	5	<2	<2	<2	<2	<2	<2	<2
Zinc	5	mg/kg	45	90	350	370	180	140	380	220	200	81	140	350	140	220

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

Table 4.14 Results of Laboratory Analysis of PCBs in Berries - Main Base
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
BERRIES	
BERRY-1	<0.05
BERRY-2	<0.05
BERRY-3	<0.05
BERRY-4	<0.05
BERRY-5	<0.05
BERRY-6	<0.05
BERRY-7	<0.05
BERRY-7 Lab Dup	<0.05
BERRY-8	<0.05
BERRY-9	<0.05
BERRY-10	<0.05

Notes:
RDL = Reportable Detection Limit for routine analysis
Lab-Dup = Laboratory duplicate sample
< # = Not detected above RDL noted

Table 4.15 Results of Laboratory Analysis of Available Metals in Berries - Main Base
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-4
Aluminum	2.5	mg/kg	<2.5
Antimony	0.5	mg/kg	<0.50
Arsenic	0.5	mg/kg	<0.50
Barium	1.5	mg/kg	<1.5
Beryllium	0.5	mg/kg	<0.50
Boron	1.5	mg/kg	<1.5
Cadmium	0.05	mg/kg	<0.050
Chromium	0.5	mg/kg	<0.50
Cobalt	0.2	mg/kg	<0.20
Copper	0.5	mg/kg	0.72
Iron	15	mg/kg	<15
Lead	0.18	mg/kg	<0.18
Lithium	0.5	mg/kg	<0.50
Manganese	0.5	mg/kg	5.98
Molybdenum	0.5	mg/kg	<0.50
Nickel	0.5	mg/kg	<0.50
Selenium	0.5	mg/kg	<0.50
Silver	0.12	mg/kg	<0.12
Strontium	1.5	mg/kg	<1.5
Thallium	0.02	mg/kg	<0.020
Tin	0.5	mg/kg	<0.50
Uranium	0.02	mg/kg	<0.020
Vanadium	0.5	mg/kg	<0.50
Zinc	1.5	mg/kg	1.8

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

Table 4.16 Results of Laboratory Analysis of PCBs in Small Mammals - Main Base
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-6	2.1
SM-7	1.1
SM-8	6.8
SM-9	0.35
SM-10	1.2
SM-11	5.4
SM-12	5.3
SM-13	19
SM-14	1.8
SM-15	14
SM-21	0.37
SM-22	9.8
SM-23	0.22
SM-24	0.27
SM-25	1.9
SM-26	2.9
SM-27	3.1
SM-28	<0.05
SM-28 Lab-Dup	<0.05
SM-39	0.31
SM-40	3.9
SM-41	0.2
SM-42	<0.05
SM-42 Lab-Dup	<0.05

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

Table 4.17 Results of Laboratory Analysis of Available Metals in Small Mammals - Main Base
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-8	SM-8 Lab-Dup	SM-10	SM-13	SM-26	SM-27	SM-41
Aluminum	2.5	mg/kg	14.9	17.6	65.2	6.7	8.7	12.9	18.4
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	2.6	2.4	2.8	<1.5	<1.5	<1.5	4.6
Beryllium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Boron	1.5	mg/kg	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	2
Cadmium	0.05	mg/kg	<0.050	0.059	0.388	0.135	0.28	0.17	<0.050
Chromium	0.5	mg/kg	<0.50	<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	<0.20
Copper	0.5	mg/kg	3.11	3.13	3.69	3.26	2.52	3.28	2.54
Iron	15	mg/kg	72	81	171	90	42	71	84
Lead	0.18	mg/kg	0.63	0.57	1.51	2.25	0.56	0.66	0.42
Lithium	0.5	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Manganese	0.5	mg/kg	1.26	1.95	3.5	2.25	6.62	1.51	1.64
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	6.2	5.3	5.7	3.1	3	5.7	8.3
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	<0.020	<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	27.3	28.6	32.6	28.4	26.1	27.0	36.7

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

Table 4.18 Results of Laboratory Identification of Free Product in Tar - Main Base
Phase II/III ESA, HHERA and RAP/RMP
Former US Military Site and Residential Subdivision, Hopedale, NL
Project No. 121410103

Sample ID	Product Identification
Tar-2	No product could be identified within the analysis ranges

Table 4.19 Results of Laboratory Analysis of PCBs in Tar - Main Base
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	1
Units	mg/kg
Tar	
Tar-2	<1