

TABLE 1: SOIL CHEMISTRY RESULTS - PETROLEUM HYDROCARBON CONSTITUENTS AND MTBE (mg/kg)

Sample ID	Date	Depth (m)	HSVL (ppmv)	Benzene	Ethylbenzene	Toluene	Xylenes	MTBE	F1 (C6-10)	F2 (C10-16)	F3 (C16-34)	F4 (C34-50+)
TP1-1	29-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP1-2	29-Oct-2013	1.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP1-4	29-Oct-2013	3.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP2-1	29-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP2-2	29-Oct-2013	1.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP2-3	29-Oct-2013	2.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP2-4	29-Oct-2013	3.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP2-5	29-Oct-2013	4.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP3-1	29-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP3-2	29-Oct-2013	1.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP4-1	29-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP5-1	29-Oct-2013	0.5	10	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP6-1	29-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP7-1	29-Oct-2013	0.5	10	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP7-2	29-Oct-2013	1.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
DUP A (Dup TP7-2)	29-Oct-2013	1.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP7-3	29-Oct-2013	2.0	---	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP7-4	29-Oct-2013	3.0	15	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	170	84
TP7-5	29-Oct-2013	4.0	10	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	64	< 50
TP8-1	29-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP8-2	29-Oct-2013	1.0	5	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP8-3	29-Oct-2013	2.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP8-4	29-Oct-2013	3.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP8-5	29-Oct-2013	4.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP10-1	30-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP11-1	30-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP11-2	30-Oct-2013	1.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
DUP B (Dup TP11-2)	30-Oct-2013	1.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP11-3	30-Oct-2013	2.0	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP12-1	30-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP13-1	30-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
TP14-1	30-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
DUP D (Dup TP14-1)	30-Oct-2013	0.5	LTDL	< 0.005	< 0.015	< 0.05	< 0.075	< 0.2	< 10	< 30	< 50	< 50
CCME ALfgs		ns	ns	0.0068	0.018	0.08	2.4	ns	---	---	---	---
CCME ALfg		ns	ns	0.0068	0.018	0.08	2.4	ns	---	---	---	---
CCME ALfvs		ns	ns	---	---	---	---	---	610	3100	ns	ns
CCME ALfvb		ns	ns	---	---	---	---	---	710	3600	ns	ns
CCME ALgwf		ns	ns	---	---	---	---	---	170	230	ns	ns
CCME ALmI		ns	ns	---	---	---	---	---	800	1000	3500	10000
CCME ALescf		ns	ns	---	---	---	---	---	210	150	1300	5600
CCME ALfdc		ns	ns	---	---	---	---	---	12000	6800	15000	21000

Notes:

m - metres

mg/kg - milligrams per kilogram

HSVL (ppmv) - headspace vapour level (parts per million by volume)

LTDL - Less than instrument detection limit

< - less than analytical detection limit indicated

'---' - sample not analyzed for parameter indicated

MTBE - methyl tert-butyl ether

VPHs - volatile petroleum hydrocarbons (C6-10), excluding benzene, ethylbenzene, toluene, xylenes

ns - no standard listed

CCME ALfgs: CCME Canadian Soil Quality Guidelines for BTEX, Agricultural Fine-grained Sub-surface (lowest human and environmental health guidelines)

CCME ALfg: CCME Canadian Soil Quality Guidelines for BTEX, Agricultural Fine-grained Surface (lowest human and environmental health guidelines)

CCME ALfvs: CCME Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil, Tier 1 Levels for PHC fractions(F1-F4) for Agricultural Fine-grained surface soil, Vapour Inhalation (indoor, slab-on-grade)

CCME ALfvb: CCME Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil, Tier 1 Levels for PHC fractions(F1-F4) for Agricultural Fine-grained surface soil, Vapour Inhalation (indoor, basement)

CCME ALgwf: CCME Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil, Tier 1 Levels for PHC fractions(F1-F4) for Agricultural Fine-grained surface soil, Protection of Potable GW

CCME ALmI: CCME Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil, Tier 1 Levels for PHC fractions(F1-F4) for Agricultural Fine-grained surface soil, Management Limit

CCME ALescf: CCME Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil, Tier 1 Levels for PHC fractions(F1-F4) for Agricultural Fine-grained surface soil, Eco Soil Contact

CCME ALfdc: CCME Canada-Wide Standards for Petroleum Hydrocarbons (PHCs) in Soil, Tier 1 Levels for PHC fractions(F1-F4) for Agricultural Fine-grained surface soil, Direct Contact

TABLE 2: SOIL CHEMISTRY RESULTS - PAH PARAMETERS (mg/kg)

Sample ID	Date	Depth (m)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	IACR	Benzo(a)pyrene Equivalency
TP1-1	29-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP1-2	29-Oct-2013	1.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	0.013	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.011	0.16	< 0.02
TP1-4	29-Oct-2013	3.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP2-1	29-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP2-2	29-Oct-2013	1.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP2-3	29-Oct-2013	2.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP2-4	29-Oct-2013	3.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP2-5	29-Oct-2013	4.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP3-1	29-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP3-2	29-Oct-2013	1.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP4-1	29-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP5-1	29-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP6-1	29-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP7-1	29-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP7-2	29-Oct-2013	1.0	< 0.02	< 0.02	< 0.02	< 0.02	0.028	0.037	0.031	< 0.02	0.025	< 0.02	< 0.02	< 0.02	0.021	< 0.02	< 0.02	< 0.02	0.023	0.47	0.046
DUP A (Dup TP7-2)	29-Oct-2013	1.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP7-3	29-Oct-2013	2.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP7-4	29-Oct-2013	3.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	0.015	< 0.01	< 0.01	< 0.01	< 0.005	0.010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.013	0.17	< 0.02
TP7-5	29-Oct-2013	4.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP8-1	29-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	0.011	0.023	< 0.01	< 0.01	0.012	< 0.005	< 0.01	< 0.01	0.011	< 0.01	< 0.01	< 0.01	< 0.01	0.24	< 0.02
TP8-2	29-Oct-2013	1.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP8-3	29-Oct-2013	2.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP8-4	29-Oct-2013	3.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP8-5	29-Oct-2013	4.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP10-1	30-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP11-1	30-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP11-2	30-Oct-2013	1.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
DUP B (Dup TP11-2)	30-Oct-2013	1.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP11-3	30-Oct-2013	2.0	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP12-1	30-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP13-1	30-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
TP14-1	30-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
DUP D (Dup TP14-1)	30-Oct-2013	0.5	< 0.005	< 0.005	< 0.004	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.15	< 0.02
CCME TPE/IACR		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1	5.3
CCME ALpw		ns	ns	ns	ns	see IACR	see IACR	see IACR	see IACR	see IACR	see IACR	see IACR	ns	ns	see IACR	ns	ns	ns	ns	ns	ns
CCME ALdh		ns	ns	ns	ns	see TPE	see TPE	see TPE	see TPE	see TPE	see TPE	see TPE	ns	ns	see TPE	ns	ns	ns	ns	ns	ns
CCME ALsc		ns	ns	ns	2.5	ns	20	ns	ns	ns	ns	ns	50	ns	ns	ns	ns	ns	ns	ns	ns
CCME ALi		ns	21.5	ns	61.5	6.2	0.6	6.2	ns	6.2	6.2	ns	15.4	15.4	ns	ns	8.8	43	7.7	ns	ns
CCME ALfi		ns	0.28	320	ns	ns	8800	ns	ns	ns	ns	ns	ns	0.25	ns	ns	0.013	0.046	ns	ns	ns
CCME ALi		ns	ns	ns	ns	0.1	ns	0.1	ns	0.1	ns	0.1	ns	ns	0.1	ns	ns	0.1	0.1	ns	ns
CCME ALe		ns	ns	ns	2.5	ns	20	ns	ns	ns	ns	ns	50	ns	ns	ns	0.6	ns	ns	ns	ns

Notes:

m - metres

PAH - polycyclic aromatic hydrocarbons

TPE - Total Potency Equivalency (1X10-5).

IACR - Index of Additive Cancer Risk (for the protection of potable water)

mg/kg - milligrams per dry kilogram

< - less than analytical detection limit indicated

'-' - sample not analyzed for parameter indicated

ns - no standard/guideline listed

Exceeds CCME ALpw: CCME Canadian Soil Quality Guidelines for PAH, Agricultural, Human Health guidelines, Protection of Potable Water

Exceeds CCME ALdh: CCME Canadian Soil Quality Guidelines for PAH, Agricultural, Human Health guidelines, Direct Contact

Exceeds CCME ALsc: CCME Canadian Soil Quality Guidelines for PAH, Agricultural, Environmental Health guidelines, Soil Contact

Exceeds CCME ALi: CCME Canadian Soil Quality Guidelines for PAH, Agricultural, Environmental Health guidelines, Soil and Food Ingestion

Exceeds CCME ALfi: CCME Canadian Soil Quality Guidelines for PAH, Agricultural, Environmental Health guidelines, Protection of Freshwater Life

Exceeds CCME ALi: CCME Canadian Soil Quality Guidelines for PAH, Agricultural, Environmental Health guidelines, Interim Soil Quality Criteria (CCME 1991)

Exceeds CCME ALe: CCME Canadian Soil Quality Guidelines for PAH, Agricultural, Environmental Health guidelines, Environmental Health

Exceeds CCME TPE/IACR: CCME Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health - TPE and IACR Calculations

TABLE 3: SOIL CHEMISTRY RESULTS - METALS PARAMETERS (mg/kg)

Sample ID	Date	Depth (m)	pH	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium (+6)	Chromium (total)	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Tin	Uranium	Vanadium	Zinc
TP1-1	29-Oct-2013	0.5	8.84	0.47	6.05	122	0.27	0.140	< 0.1	16.8	8.25	15.4	17.9	0.0196	< 0.5	20.1	< 0.2	< 0.1	< 0.05	2.9	0.803	10.9	65.2
TP1-2	29-Oct-2013	1.0	8.33	0.97	6.23	128	0.28	0.371	---	18.2	9.06	18.4	24.9	0.0199	0.54	22.0	< 0.2	< 0.1	< 0.05	4.5	0.696	11.6	111
TP1-3	29-Oct-2013	2.0	8.46	---	---	---	---	0.073	---	---	---	---	9.34	---	---	18.6	---	---	---	< 2	---	---	42.7
TP1-4	29-Oct-2013	3.0	8.90	0.29	5.78	94.7	0.21	0.054	---	14.1	7.96	13.9	8.10	0.0090	< 0.5	18.4	< 0.2	< 0.1	< 0.05	< 2	0.727	9.35	37.7
TP2-1	29-Oct-2013	0.5	8.57	0.44	6.17	111	0.31	0.163	< 0.1	18.4	8.97	16.1	17.3	0.0163	< 0.5	25.0	< 0.2	< 0.1	< 0.05	< 2	0.636	12.3	70.5
TP2-2	29-Oct-2013	1.0	8.56	0.43	5.88	107	0.25	0.175	---	16.3	8.43	16.5	18.3	0.0166	< 0.5	19.9	< 0.2	< 0.1	< 0.05	< 2	0.569	10.3	69.5
TP2-3	29-Oct-2013	2.0	8.32	1.21	6.58	152	0.30	1.01	---	21.5	9.07	24.4	40.2	0.0190	0.74	21.7	< 0.2	0.11	< 0.05	7.7	0.527	11.3	168
TP2-4	29-Oct-2013	3.0	8.13	0.31	5.85	107	0.25	0.114	---	14.7	8.12	14.3	9.39	0.0119	< 0.5	18.2	< 0.2	< 0.1	< 0.05	< 2	0.360	10.9	43.6
TP2-5	29-Oct-2013	4.0	8.25	1.00	6.96	143	0.24	0.920	---	19.2	8.61	38.3	47.1	0.0208	1.04	21.9	< 0.2	< 0.1	< 0.05	69.4	0.512	11.0	179
TP3-1	29-Oct-2013	0.5	8.86	0.30	5.56	86.6	0.26	0.071	< 0.1	17.3	8.70	14.2	10.3	0.0211	< 0.5	21.4	< 0.2	< 0.1	< 0.05	< 2	0.686	11.1	46.6
TP3-2	29-Oct-2013	1.0	8.64	0.30	5.89	86.5	0.26	0.067	---	17.5	9.47	14.3	9.38	0.0133	0.52	21.5	< 0.2	< 0.1	< 0.05	< 2	0.696	10.8	45.8
TP4-1	29-Oct-2013	0.5	9.01	0.40	5.94	107	0.26	0.107	---	16.6	8.27	14.8	13.0	0.0138	< 0.5	19.8	< 0.2	< 0.1	< 0.05	< 2	0.649	11.0	50.4
TP5-1	29-Oct-2013	0.5	9.16	0.37	7.14	145	0.25	0.064	---	14.4	8.00	15.4	9.37	0.0198	< 0.5	18.7	< 0.2	< 0.1	< 0.05	< 2	0.739	9.70	37.2
TP6-1	29-Oct-2013	0.5	8.67	0.74	5.75	110	0.24	0.101	---	12.1	7.28	14.3	10.6	0.0085	< 0.5	16.6	< 0.2	< 0.1	< 0.05	< 2	0.641	9.04	42.7
TP7-1	29-Oct-2013	0.5	8.88	0.39	6.02	101	0.28	0.127	< 0.1	16.8	8.69	15.2	14.9	0.0162	< 0.5	20.9	< 0.2	< 0.1	< 0.05	< 2	0.610	11.2	96.2
TP7-2	29-Oct-2013	1.0	8.21	1.40	6.49	138	0.27	0.783	---	18.5	9.06	27.5	45.5	0.0220	0.90	70.4	< 0.2	< 0.1	0.053	25.5	0.641	10.8	306
DUP A (Dup TP7-2)	29-Oct-2013	1.0	8.25	1.00	6.04	132	0.28	1.11	---	18.5	8.76	26.6	76.0	0.0243	0.72	72.0	< 0.2	0.14	< 0.05	14.8	0.450	10.0	251
TP7-3	29-Oct-2013	2.0	8.09	2.94	6.97	173	0.30	0.973	---	18.9	8.69	28.1	81.4	0.0302	0.80	21.2	< 0.2	0.16	< 0.05	10.7	0.598	11.7	288
TP7-4	29-Oct-2013	3.0	7.75	1.47	7.10	159	0.24	15.6	---	18.8	8.67	36.8	127	0.0245	1.32	22.3	< 0.2	0.11	< 0.05	13.8	0.452	9.57	493
TP7-5	29-Oct-2013	4.0	8.45	1.06	6.13	112	0.24	0.614	---	17.2	8.53	21.1	42.0	0.0435	0.65	21.9	< 0.2	< 0.1	< 0.05	6.5	0.559	9.96	213
TP8-1	29-Oct-2013	0.5	8.26	0.54	6.16	108	0.25	0.283	< 0.1	17.0	8.42	16.4	14.9	0.0190	< 0.5	20.1	< 0.2	< 0.1	< 0.05	< 2	0.604	10.4	61.0
TP8-2	29-Oct-2013	1.0	8.73	0.48	6.00	105	0.27	0.212	---	16.0	8.43	16.7	17.5	0.0149	< 0.5	19.7	< 0.2	< 0.1	< 0.05	< 2	0.595	10.5	70.9
TP8-3	29-Oct-2013	2.0	8.38	0.90	6.07	138	0.26	0.599	---	17.0	8.25	24.3	41.8	0.0175	0.69	20.2	< 0.2	< 0.1	< 0.05	9.7	0.535	10.4	177
TP8-4	29-Oct-2013	3.0	8.39	0.50	5.97	121	0.25	0.333	---	14.7	7.79	16.9	24.7	0.0238	< 0.5	18.9	< 0.2	< 0.1	< 0.05	2.1	0.491	9.60	86.9
TP8-5	29-Oct-2013	4.0	8.41	0.56	5.93	112	0.24	0.404	---	14.3	7.81	17.2	23.9	0.0261	< 0.5	18.3	< 0.2	< 0.1	< 0.05	3.8	0.510	9.74	158
TP10-1	30-Oct-2013	0.5	8.49	0.36	6.30	85.7	0.29	0.085	---	15.9	8.58	14.9	12.9	0.0129	< 0.5	20.9	< 0.2	< 0.1	< 0.05	< 2	0.472	10.7	46.4
TP11-1	30-Oct-2013	0.5	9.01	0.29	5.70	70.7	0.27	0.075	< 0.1	16.3	8.09	13.5	9.03	0.0086	< 0.5	20.8	< 0.2	< 0.1	< 0.05	< 2	0.417	10.4	42.7
TP11-2	30-Oct-2013	1.0	8.50	0.31	5.76	89.9	0.27	0.064	---	17.3	8.52	14.3	9.92	0.0098	< 0.5	21.1	< 0.2	< 0.1	< 0.05	< 2	0.427	11.2	46.5
DUP B (Dup TP11-2)	30-Oct-2013	1.0	8.50	0.31	5.69	86.7	0.29	0.095	---	17.3	8.67	14.6	12.8	0.0213	< 0.5	21.0	< 0.2	< 0.1	< 0.05	< 2	0.434	11.0	54.6
TP11-3	30-Oct-2013	2.0	9.36	0.31	6.15	86.6	0.27	0.070	---	17.5	8.47	13.7	9.84	0.0085	< 0.5	21.4	< 0.2	< 0.1	< 0.05	< 2	0.670	11.2	44.9
TP12-1	30-Oct-2013	0.5	8.46	0.33	5.79	87.5	0.24	0.071	< 0.1	14.7	7.44	13.6	11.2	0.0156	< 0.5	18.2	< 0.2	< 0.1	< 0.05	< 2	0.478	10.3	43.6
TP13-1	30-Oct-2013	0.5	8.76	0.49	5.88	114	0.25	0.184	< 0.1	15.8	8.16	16.3	19.6	0.0298	< 0.5	19.5	< 0.2	< 0.1	< 0.05	2.9	0.626	10.7	72.5
TP14-1	30-Oct-2013	0.5	8.94	0.31	6.13	69.1	0.29	0.077	---	20.6	9.91	14.9	12.8	0.0250	< 0.5	25.0	< 0.2	< 0.1	< 0.05	< 2	0.707	12.4	58.5
DUP D (Dup TP14-1)	30-Oct-2013	0.5	8.96	0.30	5.91	68.1	0.28	0.066	---	19.8	9.54	14.9	11.1	0.0159	< 0.5	24.0	< 0.2	< 0.1	< 0.05	< 2	0.690	11.7	52.2
CCME AL		ns	>6<8	20	12	750	4	1.4	0.4	64	40	63	70	6.6	5	50	1	20	1	5	23	130	200

Notes:
m - metres
mg/kg - milligrams per dry kilogram
< - less than analytical detection limit indicated
'---' - sample not analyzed for parameter indicated
ns - no standard listed

Exceeds CCME AL: CCME Canadian Environmental Quality Guidelines, Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health, Agricultural

TABLE 4: SITE-SPECIFIC SOIL TARGETS - AREA OF IMPACT 3

Parameter	Site-Specific Soil Target (mg/kg)
Benzene	0.0068
Ethylbenzene	0.018
Toluene	0.08
Xylenes	2.4
MTBE	320
F1 (C6-10)	170
F2 (C10-16)	150
F3 (C16-34)	1300
F4 (C34-50+)	5600
Acenaphthene	0.28
Acenaphthylene	320
Anthracene	2.5
Benzo(a)anthracene	0.1
Benzo(a)pyrene	0.6
Benzo(b)fluoranthene	0.1
Benzo(g,h,i)perylene	ns
Benzo(k)fluoranthene	0.1
Chrysene	6.2
Dibenzo(a,h)anthracene	0.1
Fluoranthene	15.4
Fluorene	0.25
Indeno(1,2,3-c,d)pyrene	0.1
2-Methylnaphthalene	ns
Naphthalene	0.013
Phenanthrene	0.046
Pyrene	0.1
IACR	1
Benzo(a)pyrene Equivalency	5.3
pH	>6<8
Antimony	20
Arsenic	12
Barium	750
Beryllium	4
Cadmium	3.8
Chromium (+6)	0.4
Chromium (total)	64
Cobalt	40
Copper	79
Lead	120
Mercury	6.6
Molybdenum	5
Nickel	50
Selenium	1
Silver	20
Thallium	1
Tin	50
Uranium	23
Vanadium	130
Zinc	200

Notes:

mg/kg - milligrams per kilogram

ns - SSRT not developed

TABLE 5: SOIL CHARACTERIZATION CLASSES FOR DISPOSAL

Parameter	Class A Not Contaminated Classification - CSR Sched 7 Column II	Class B Contaminated Soil < HW Classification	Class C Contaminated Soil > HW Classification
Benzene	≤0.04 mg/kg	≤0.5 mg/L waste extract and/or ≤25 mg/kg soil	>0.5 mg/L waste extract and/or >25 mg/kg soil
Ethylbenzene	≤1 mg/kg	≤0.24 mg/L waste extract and/or ≤250 mg/kg soil	>0.24 mg/L waste extract and/or >250 mg/kg soil
Toluene	≤1.5 mg/kg	≤2.4 mg/L waste extract and/or ≤150 mg/kg soil	>2.4 mg/L waste extract and/or >150 mg/kg soil
Xylenes	≤5 mg/kg	≤30 mg/L waste extract and/or ≤250 mg/kg soil	>30 mg/L waste extract and/or >250 mg/kg soil
Total BTEX	-	≤1000 mg/kg soil	>1000 mg/kg soil
MTBE	≤320 mg/kg	-	-
VPHs	≤200 mg/kg	-	-
EPH(C10-19)	≤1000 mg/kg	-	-
EPH(C19-32)	≤1000 mg/kg	-	-
LEPHs	≤1000 mg/kg	-	-
HEPHs	≤1000 mg/kg	-	-
Total VPHs+LEPHs+HEPHs	-	≤30000 mg/kg soil	>30000 mg/kg soil
Acenaphthene	-	-	-
Acenaphthylene	-	-	-
Anthracene	-	-	-
Benzo(a)anthracene	≤1 mg/kg	-	-
Benzo(a)pyrene	≤1 mg/kg	≤0.001 mg/L waste extract	>0.001 mg/L waste extract
Benzo(b)fluoranthene	≤1 mg/kg	-	-
Benzo(g,h,i)perylene	-	-	-
Benzo(k)fluoranthene	≤1 mg/kg	-	-
Chrysene	-	-	-
Dibenzo(a,h)anthracene	≤1 mg/kg	-	-
Fluoranthene	-	-	-
Fluorene	-	-	-
Indeno(1,2,3-c,d)pyrene	≤1 mg/kg	-	-
2-Methylnaphthalene	-	-	-
Naphthalene	≤5 mg/kg	-	-
Phenanthrene	≤5 mg/kg	-	-
Pyrene	≤10 mg/kg	-	-
PAH TEQ	-	≤100 mg/kg soil	>100 mg/kg soil
pH	>2.0 and < 12.5	>2.0 and < 12.5	> 2.0 and < 12.5
Antimony	≤20 mg/kg	-	-
Arsenic	≤15 mg/kg	≤2.5 mg/L waste extract	>2.5 mg/L waste extract
Barium	≤400 mg/kg	≤100 mg/L waste extract	>100 mg/L waste extract
Beryllium	≤4 mg/kg	-	-
Cadmium	≤1.5 mg/kg	≤0.5 mg/L waste extract	>0.5 mg/L waste extract
Chromium (+3)	≤60 mg/kg	-	-
Chromium (+6)	≤60 mg/kg	-	-
Chromium (total)	≤60 mg/kg	≤5 mg/L waste extract	>5 mg/L waste extract
Cobalt	≤50 mg/kg	-	-
Copper	≤90 mg/kg	≤100 mg/L waste extract	>100 mg/L waste extract
Lead	≤100 mg/kg	≤5 mg/L waste extract	>5 mg/L waste extract
Mercury	≤15 mg/kg	≤0.1 mg/L waste extract	>0.1 mg/L waste extract
Molybdenum	≤10 mg/kg	-	-
Nickel	≤100 mg/kg	-	-
Selenium	≤3 mg/kg	≤1 mg/L waste extract	>1 mg/L waste extract
Silver	≤20 mg/kg	≤5 mg/L waste extract	>5 mg/L waste extract
Thallium	-	-	-
Tin	≤50 mg/kg	-	-
Uranium	≤16 mg/kg	≤10 mg/L waste extract	>10 mg/L waste extract
Vanadium	≤200 mg/kg	-	-
Zinc	≤150 mg/kg	≤500 mg/L waste extract	>500 mg/L waste extract
Flash Point	-	> 75 degrees Celsius	< 75 degrees Celsius
Sulphur, elemental and sulfides (total)	-	≤ 500 mg/kg (total)	> 500 mg/kg (total)
Paint Filter Test	-	PASS	FAIL

Notes:

mg/L - milligrams per litre, refers to Leachate Quality per Hazardous Waste Regulation

mg/kg - milligrams per kilogram

PAH TEQ - polycyclic aromatic hydrocarbon toxicity equivalent value relative to benzo[a]pyrene per Part 1 of the Hazardous Waste Regulation

Soil which meets both the Class A and Class B classifications will be considered to be Class A material.

TABLE 6: SURFACE WATER BASELINE CONDITIONS - TDS AND TSS

Sample ID	Date	Total Dissolved Solids (mg/L)	Total Suspended Solids (mg/L)
2014-SW-1	9-Oct-2014	173	< 3.0
2014-SW-2	9-Oct-2014	171	4.3

Notes:
mg/L - milligrams per litre
< - less than analytical detection limit indicated