

ANNEX V: APPENDIX A

SOILS DATA

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Table A-1 Summary of Soil and Terrain Data Collected, 2013

Site Name	GPS Location		Surface Expression	Landform	Slope Position	Percent Slope	Slope Length (m)	Peat/LFH Depth (cm)	Topsoil Depth (cm)	Soil Texture	Drainage	Parent Material ^(a)	Subgroup Code ^(b)	Depth to Bedrock (m)	Sampled
	Easting	Northing													
DJS001	546878	7167494	Undulating	Upland/wetland transition	Lower	>2 - 5	<70	6	0	Loamy sand	Poor	TILL	R.G	80	No
DJS002	546905	7167118	Nearly level	Other wetland	Level	0 - 0.5	<70	40	0	Mesic/loam	Poor	TILL	GL.SCpt	N/A	No
DJS003	546747	7166578	Undulating	Upland	Mid	>5 - 10	<70	10	0	Loamy sand	Rapid	TILL	O.R	42	No
DJS004	540369	7166543	Undulating	Upland	Crest	0 - 0.5	N/A	5	0	Loamy sand	Rapid	TILL	O.DYB	15	Yes
DJS005	540362	7166493	Undulating	Upland	Upper	0 - 0.5	<70	5	0	Loamy sand	Well	TILL	O.DYB	17	Yes
DJS006	540396	7166345	Undulating	Upland	Mid	>2 - 5	<70	5	0	Loamy sand	Rapid	TILL	O.DYBct	65	Yes
DJS007	540472	7166199	Undulating	Upland	Lower	>2 - 5	<70	7	0	Loamy sand	Rapid	TILL	O.DYBct	56	Yes
DJS008	540465	7166038	Undulating	Other wetland	Depression	0 - 0.5	N/A	38	0	Fibric/silt	Poor	TILL	GL.SCpt	N/A	Yes
DJS009	540142	7165815	Undulating	Upland	Crest	>2 - 5	N/A	7	0	Sandy loam	Rapid	TILL	OD.TC	22	Yes
DJS010	540202	7165272	Nearly level	Other wetland	Depression	>0.5 - 2	N/A	15	0	Fibric/fine sandy loam	Poor	TILL	GL.SCpt	N/A	Yes
DJS011	540070	7165151	Nearly level	Other wetland	Depression	>0.5 - 2	N/A	8	0	Sandy loam	Very poor	TILL	R.Gct	N/A	Yes
DJS012	539660	7164912	Undulating	Upland	Mid	>5 - 10	>70	5	0	Loamy sand	Well	TILL	O.R	35	Yes
DJS013	539317	7165021	Undulating	Upland	Upper	>5 - 10	>70	3	0	Loamy sand	Well	TILL	OD.TC	31	Yes
DJS014	539101	7165095	Undulating	Upland	Lower	>2 - 5	<70	3	0	Loamy sand	Poor	TILL	R.TC	N/A	Yes
DJS015	538670	7165116	Ridge	Upland	Crest	0 - 0.5	N/A	0	16	Coarse sand	Well	GLFL	O.HR	N/A	Yes
DJS016	540772	7163181	Undulating	Upland	Mid	>10 - 15	>70	9	0	Loamy sand	Well	TILL	R.TC	53	Yes
DJS017	540812	7163094	Undulating	Upland	Crest	0 - 0.5	N/A	5	0	Loamy sand	Well	TILL	R.TC	28	Yes
DJS018	541051	7163118	Undulating	Upland	Lower	>5 - 10	>70	15	0	Fibric/loamy sand	Well	TILL	O.Rpt	23	Yes
DJS019	541308	7163169	Depression	Other wetland	Depression	0 - 0.5	N/A	6	0	Loamy sand	Poor	TILL	R.G	N/A	Yes
DJS020	541439	7163212	Undulating	Upland	Mid	>5 - 10	>70	6	0	Loamy sand	Well	TILL	O.DYB	48	Yes
DJS021	541778	7163330	Undulating	Other wetland	Lower	>5 - 10	>70	62	0	Fibric/loamy sand	Very poor	O/TILL	T.F	N/A	Yes
DJS022	541994	7163405	Undulating	Upland	Upper	>0.5 - 2	>70	9	0	Loamy sand	Rapid	TILL	O.DYB	30	Yes
DJS023	542255	7163532	Inclined	Other wetland	Lower	>0.5 - 2	>70	6	0	Loamy sand	Poor	TILL	R.G	N/A	Yes
DJS024	542679	7163813	Inclined	Other wetland	Toe	>2 - 5	<70	48	0	Fibric/mesic	Imperfect	O	T.M	48	Yes
DJS025	542414	7164059	Inclined	Upland	Toe	>2 - 5	<70	29	0	Mesic/loamy sand	Imperfect	TILL	O.Rpt	7	No
DJS026	536733	7170857	Inclined	Other wetland	Lower	>0.5 - 2	<70	35	0	Mesic/sandy loam/loamy sand	Poor	TILL	GL.SCpt	N/A	No
DJS027	536607	7170816	Undulating	Upland	Mid	>0.5 - 2	>70	3	0	Loamy sand	Rapid	TILL	O.R	48	No
DJS028	536560	7170808	Undulating	Upland	Mid	>2 - 5	>70	4	0	Loamy sand	Rapid	TILL	OD.TC	70	No
DJS029	536829	7171242	Ridge	Upland	Toe	>30 - 45	<70	35	0	Mesic/coarse sand	Very rapid	GLFL	O.Rpt	5	No
DJS030	539471	7170214	Undulating	Upland	Mid	>5 - 10	>70	6	0	Loamy sand	Rapid	TILL	OD.TC	20	No
DJS031	539291	7170047	Undulating	Other wetland	Depression	0 - 0.5	N/A	24	0	Mesic/fine sandy loam	Very poor	TILL	GL.TCpt	53	No
DJS032	539533	7170213	Undulating	Upland	Crest	0 - 0.5	N/A	0	0	Loamy sand	Well	TILL	OD.TC	36	No

Table A-1 Summary of Soil and Terrain Data Collected, 2013

Site Name	GPS Location		Surface Expression	Landform	Slope Position	Percent Slope	Slope Length (m)	Peat/LFH Depth (cm)	Topsoil Depth (cm)	Soil Texture	Drainage	Parent Material ^(a)	Subgroup Code ^(b)	Depth to Bedrock (m)	Sampled
	Easting	Northing													
DJS033	538378	7165087	Ridge	Upland	Crest	>2 - 5	<70	0	16	Coarse sand	Very rapid	GLFL	O.HR	N/A	Yes
DJS034	538132	7164932	Undulating	Upland	Crest	0 - 0.5	N/A	6	0	Loamy sand	Rapid	TILL	OD.TC	30	Yes
DJS035	537728	7164769	Undulating	Upland	Upper	>2 - 5	>70	6	0	Loamy sand	Rapid	TILL	OD.TC	36	Yes
DJS036	537591	7164500	Undulating	Other wetland	Lower	>2 - 5	<70	28	0	Fibric/loam	Poor	TILL	GL.TCpt	N/A	Yes
DJS037	536788	7163869	Undulating	Upland	Mid	>15 - 30	>70	5	0	Loamy sand	Well	TILL	O.DYBct	N/A	Yes
DJS038	536053	7163513	Inclined	Other wetland	Depression	0 - 0.5	N/A	17	0	Fibric/loamy sand	Imperfect	TILL	GL.SCpt	N/A	Yes
DJS039	536528	7163674	Undulating	Upland	Crest	0 - 0.5	N/A	3	0	Loamy sand	Well	TILL	R.TC	76	Yes
DJS040	545113	7161390	Inclined	Other wetland	Lower	>5 - 10	<70	37	0	Folic	Imperfect	O	HE.FO	26	No
DJS041	546200	7164201	Inclined	Riparian shoreline	Toe	>2 - 5	<70	16	0	Fibric/loamy sand/coarse sandy loam	Imperfect	TILL	O.Gpt	45	No
DJS042	539545	7168490	Inclined	Upland	Toe	>5 - 10	>70	14	0	Folic	Imperfect	O	HE.FO	14	No
DJS043	538568	7159064	Undulating	Upland	Crest	0 - 0.5	N/A	4	0	N/a	Rapid	R	non-soil/rock	N/A	No
DJS044	538551	7159076	Undulating	Upland	Upper	>2 - 5	<70	4	0	Loamy sand	Rapid	TILL	O.DYB	13	No
DJS045	538743	7159203	Undulating	Upland	Lower	>0.5 - 2	<70	6	0	Loamy sand	Rapid	TILL	OD.TC	19	No
DJS046	538835	7159317	Undulating	Other wetland	Depression	0 - 0.5	N/A	31	0	Fibric	Poor	TILL	GL.TCpt	N/A	No
DJS047	538821	7159654	Undulating	Upland	Mid	>2 - 5	<70	7	0	Loamy sand	Rapid	TILL	R.TC	8	No
DJS048	538341	7160034	Undulating	Upland	Mid	>5 - 10	>70	3	0	Loamy sand	Rapid	TILL	OD.TC	30	No
DJS049	538241	7160250	Undulating	Upland	Upper	>0.5 - 2	>70	4	0	Loamy sand	Rapid	TILL	R.TC	43	No

Note: GPS locations in NAD 83 Zone 12W.

a) GLFL = glaciofluvial; TILL = glacial till; O = Organic; R = Rock.

b) See Table A-2a for Soil Subgroup code descriptions.

GPS = global positioning system; NAD = North American Datum; LFH = leaf folic humic; m = metre; cm = centimetre; > = greater than; < = less than; N/A = not applicable.

Table A-2a Soil Subgroup Code Descriptions

Order	Subgroup Code	Full Subgroup Name
Cryosolic	GL.TCpt	Peaty Gleyed Turbic Cryosol
	GL.SCpt	Peaty Gleyed Static Cryosol
	OD.TC	Orthic Dystric Turbic Cryosol
	R.TC	Regosolic Turbic Cryosol
Brunisolic	O.DYB	Orthic Dystric Brunisol
	O.DYBct	Cryoturbated Orthic Dystric Brunisol
Gleysolic	O.Gpt	Peaty Orthic Gleysol
	R.G	Rego Gleysol
	R.Gct	Cryoturbated Rego Gleysol
Organic	HE.FO	Hemic Folisol
	T.F	Terric Fibrisol
	T.M	Terric Mesisol
Regosolic	O.HR	Orthic Humic Regosol
	O.R	Orthic Regosol
	O.Rpt	Peaty Orthic Regosol

Table A-2b Soil Horizon Symbol Definitions

Symbol	Definition
Major Mineral Horizon Symbol^(a)	
A	This mineral horizon forms at or near the surface in the zone of leaching or eluviation of materials in solution or suspension, or of maximum in situ accumulation of organic matter or both.
B	This mineral horizon is characterized by enrichment in organic matter, sesquioxides, or clay; or, by the development of soil structure; or, by a change of colour denoting hydrolysis, reduction, or oxidation.
C	This mineral horizon is comparatively unaffected by the pedogenic processes operating in A and B horizons.
Lowercase Mineral Horizon Suffix	
g	A horizon characterized by gray colours, or prominent mottling, or both, indicating permanent or periodic intense reduction.
h	A horizon enriched with organic matter.
j	A modifier used to denote an expression of, but failure to meet, the specified limits of the suffix it modifies.
m	A horizon slightly altered by hydrolysis, oxidation, or solution, or all three to give a change in colour or structure, or both.
y	A horizon affected by cryoturbation as shown by disrupted and broken horizons, incorporation of materials from other horizons, and mechanical sorting in at least half of the cross section of the pedon.
z	A frozen layer.
1	Uppermost subdivision is indicated by the numeral 1; each successive subdivision with depth is indicated by the next numeral.
2	A second subdivision is indicated by the numeral 2; each successive subdivision with depth is indicated by the next numeral.
Major Organic Horizon Symbol^(b)	
O	Organic horizon developed mainly from mosses, rushes, and woody materials, and divided into the following subhorizons.
Organic Subhorizon Code	
Of	This O horizon consists largely of fibric materials that are readily identifiable as to botanical origin. A fibric horizon has 40% or more of rubbed fiber by volume and a pyrophosphate index of 5 or more. Fibric material usually is classified on the von Post scale of decomposition as class 1 to class 4.
Om	This O horizon consists of mesic material, which is at a stage of decomposition intermediate between fibric and humic materials. The material is partly altered both physically and biochemically. It has a rubbed fiber content ranging from 10% to less than 40%, and has a pyrophosphate index of >3 and <5. Mesic material usually is classified on the von Post scale of decomposition as class 5 or 6.

Source: SCWG (1998).

a) Mineral horizons contain 17% or less organic carbon (about 30% organic matter) by weight.

b) Organic horizons occur in organic soils and commonly at the surface of mineral soils. They may occur at any depth beneath the surface in buried soils or overlying geologic deposits. They contain more than 17% organic carbon (about 30% or more organic matter) by weight. Two groups of these horizons are recognized, the O horizons (peat materials) and the L, F, and H horizons (folic materials).

% = percent; < = less than; > = greater than.

Table A-3 Results of Soil Chemistry and Other Soil Properties for Determining Reclamation Suitability of Brunisolic Soils (Upland) within the Baseline Study Area
Part A

Parameter	Unit	Detection Limit	DJS004 (O.DYB)		DJS005 (O.DYB)		DJS006 (O.DYBct)			DJS007 (O.DYBct)			DJS020 (O.DYB)		
			Of	Bm	Of	Bm	Of	Bm	Cy	Of	Bmy	C	Of	Bm	C
			5 - 0 cm	0 - 15 cm	5 - 0 cm	0 - 17 cm	5 - 0 cm	0 - 28 cm	28 - 65 cm	7 - 0 cm	0 - 24 cm	24 - 56 cm	6 - 0 cm	0 - 31 cm	31 - 48 cm
pH ^(e)	pH units	0.10	4.32	5.40	4.05	4.43	4.08	5.46	5.11	4.24	5.30	5.14	4.31	5.13	5.52
Chloride (Cl)	mg/L	2.0	5.5	2.8	11.8	3.4	7.5	6.0	6.5	7.8	2.9	3.1	11.6	3.5	3.6
Sulphur (as SO ₄)	mg/L	5.0	14.4	<5.0	31.7	5.6	22.1	<5.0	<5.0	21.5	<5.0	5.8	50.4	26.2	61.6
Calcium(Ca)	mg/L	0.50	0.57	<0.50	1.45	<0.50	1.70	<0.50	<0.50	1.88	<0.50	<0.50	4.83	<0.50	0.80
Potassium (K)	mg/L	0.50	<0.50	<0.50	0.54	<0.50	<0.50	<0.50	<0.50	0.59	<0.50	<0.50	1.03	<0.50	<0.50
Magnesium (Mg)	mg/L	0.50	<0.50	<0.50	0.75	<0.50	0.69	<0.50	<0.50	1.14	<0.50	<0.50	4.75	<0.50	0.71
Sodium (Na)	mg/L	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Salinity (electrical conductivity)	dS/m	0.10	<0.10	<0.10	0.18	<0.10	0.18	<0.10	<0.10	0.18	<0.10	<0.10	0.29	<0.10	0.18
Sodium adsorption ratio (SAR) ^(f)	SAR	0.10 - 0.70	<0.60	Incalculable	<0.20	Incalculable	<0.30	Incalculable	Incalculable	<0.30	Incalculable	<0.70	<0.20	0.31	0.38
Percent saturation	%	1.0	88.1	31.6	200	41.4	126	28.4	29.7	207	26.1	27.6	261	25.6	23.9
Cation exchange capacity	meq/100g	0.80	25.7	5.63	43.9	12.3	28.0	4.38	5.22	34.2	2.68	3.30	36.3	2.55	2.44
Inorganic carbon	%	0.10	0.14	<0.10	0.21	0.11	0.18	0.11	0.11	0.21	0.11	<0.10	0.22	0.11	<0.10
Calcium carbonate (CaCO ₃) equivalent	%	0.80	1.16	<0.80	1.77	0.87	1.48	0.90	0.88	1.77	0.95	<0.80	1.85	0.88	<0.80
Stoniness class ^(g)	-	N/A	S5	--	S5	--	S5	--	--	S5	--	--	S3	--	--
Stone content	%	N/A	0	5	0	0	0	5	3	0	3	1	0	8	5
Moist consistency	-	N/A	N/A	Very friable	N/A	Very friable	N/A	Very friable	Very friable	N/A	Very friable	Very friable	N/A	Very friable	Very friable
Texture ^(h)	-	N/A	N/A	Loamy sand	N/A	Loamy sand	N/A	Loamy sand	Loamy sand	N/A	Loamy sand	Loamy sand	N/A	Loamy sand	Loamy sand

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) See Part B.

b) See Part B.

c) See Part B.

d) See Part B.

e) Brunisolic soils were classified to the great group level based on the adjusted soil pH of the B horizon determined using saturated paste pH, which is approximately 0.5 units higher than the generally accepted CaCl₂ pH (Minasny et al. 2011).

f) Sodium adsorption ratio is incalculable where sodium (Na) concentrations are below detection limits.

g) Stoniness class is the estimation of the average severity of surface stones where: S0 = non-stony (<0.01%); S1 = slightly stony (0.01 to 0.1%); S2 = moderately stony (0.1 to 3%); S3 = very stony (3 to 15%); S5 = exceedingly stony (15 to 50%); S6 = excessively stony (>50%).

h) From field observations.

pH = potential of hydrogen, provides measure of the acidity or alkalinity of a solution on a scale of 0 to 14; cm = centimetre; mg/L = milligrams per litre; dS/m = decisiemens per metre; meq/100 g = milliequivalents of ammonium cation (NH₄⁺) adsorbed by 100 grams of dry soil; % = percent; < = below detection limit of; N/A = not applicable; - = no unit; -- = not measured.

Table A-3 Results of Soil Chemistry and Other Soil Properties for Determining Reclamation Suitability of Brunisolic Soils (Upland) within the Baseline Study Area
Part B

Parameter	Unit	Detection Limit	DJS022 (O.DYB)			DJS037 (O.DYBct)			Brunisolic - Baseline Summary (n=7)											
			Of	Bm	C ^(a)	Of	Bmyj	C ^(b)	O (n=7)				B (n=7)				C (n=3)			
			9 - 0 cm	0 - 26 cm	26 - 30 cm	5 - 0 cm	0 - 25 cm	25 - 38 cm	Min	Max	Mean, Range or Dominant ^{(c)(d)}	SD ^(d)	Min	Max	Mean, Range or Dominant ^{(c)(d)}	SD ^(d)	Min	Max	Mean, Range or Dominant ^{(c)(d)}	SD ^(d)
pH ^(e)	pH units	0.10	4.44	4.98	--	4.31	5.01	--	4.05	4.44	4.25	0.14	4.43	5.46	5.10	0.35	5.11	5.52	5.26	0.23
Chloride (Cl)	mg/L	2.0	9.5	3.6	--	14.6	2.3	--	5.5	14.6	9.8	3.1	2.3	6.0	3.5	1.2	3.1	6.5	4.4	1.8
Sulphur (as SO ₄)	mg/L	5.0	30.3	5.1	--	42.8	7.0	--	14.4	50.4	30.5	12.6	<5.0	26.2	7.3	8.5	<5.0	61.6	23.3	33.2
Calcium(Ca)	mg/L	0.50	4.51	<0.50	--	6.25	<0.50	--	0.57	6.25	3.03	2.14	<0.50	<0.50	<0.50	--	<0.50	0.80	<0.50	--
Potassium (K)	mg/L	0.50	0.77	<0.50	--	1.42	<0.50	--	0.54	1.42	0.87	0.36	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50	--
Magnesium (Mg)	mg/L	0.50	1.91	<0.50	--	4.04	<0.50	--	0.69	4.75	2.21	1.76	<0.50	<0.50	<0.50	--	<0.50	0.71	<0.50	--
Sodium (Na)	mg/L	0.50	<0.50	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50	--
Salinity (electrical conductivity)	dS/m	0.10	0.24	<0.10	--	0.31	<0.10	--	0.18	0.31	0.23	0.06	<0.10	<0.10	<0.10	--	<0.10	0.18	<0.10	--
Sodium adsorption ratio (SAR) ^(f)	SAR	0.10 - 0.70	<0.20	Incalculable	--	0.23	<0.70	--	<0.20	0.23	--	--	Incalculable	0.31	--	--	<0.20	0.38	<0.20	--
Percent saturation	%	1.0	146	31.9	--	299	35.1	--	88.1	299.0	189.6	75.0	25.6	41.4	31.4	5.5	23.9	29.7	27.1	2.9
Cation exchange capacity	meq/100g	0.80	31.2	5.62	--	52.0	4.37	--	25.70	52.00	35.90	9.26	2.55	12.30	5.36	3.30	2.44	5.22	3.65	1.42
Inorganic carbon	%	0.10	0.18	0.10	--	0.16	0.18	--	0.14	0.22	0.19	0.03	<0.10	0.18	0.11	0.04	<0.10	0.11	<0.10	--
Calcium carbonate (CaCO ₃) equivalent	%	0.80	1.51	0.84	--	1.34	1.52	--	1.16	1.85	1.55	0.25	<0.80	1.52	0.99	0.26	<0.80	0.88	<0.80	--
Stoniness class ^(g)	-	N/A	S5	--	--	S4	--	--	--	--	S3 to S5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stone content	%	N/A	0	15	15	0	10	10	N/A	N/A	N/A	N/A	0	15	7	5	1	15	7	2
Moist consistency	-	N/A	N/A	Loose	Loose	N/A	Very friable	Very friable	N/A	N/A	N/A	N/A	--	--	Very friable and loose	N/A	--	--	Very friable and loose	N/A
Texture ^(h)	-	N/A	N/A	Loamy sand	Loamy sand	N/A	Loamy sand	Loamy sand	N/A	N/A	N/A	N/A	--	--	Loamy sand	N/A	--	--	Loamy sand	N/A

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) Horizons less than 5 cm deep were not sampled.

b) Horizon not sampled because of high coarse fragment.

c) Range is identified for stoniness class; dominant value is identified for moist consistency and texture; mean is identified for all other parameters.

d) The standard, accepted approach used for cases where 50% or less of the data were below detection limits was to use half of the detection limit value in calculations of mean and standard deviation.

e) Brunisolic soils were classified to the great group level based on the adjusted soil pH of the B horizon determined using saturated paste pH, which is approximately 0.5 units higher than the generally accepted CaCl₂ pH (Minasny et al. 2011).

f) Sodium adsorption ratio is incalculable where sodium (Na) concentrations are below detection limits.

g) Stoniness class is the estimation of the average severity of surface stones where: S0 = non-stony (<0.01%); S1 = slightly stony (0.01 to 0.1%); S2 = moderately stony (0.1 to 3%); S3 = very stony (3 to 15%); S5 = exceedingly stony (15 to 50%); S6 = excessively stony (>50%).

h) From field observations.

pH = potential of hydrogen, provides measure of the acidity or alkalinity of a solution on a scale of 0 to 14; Min = minimum; Max = maximum; SD = standard deviation; n = number of sampled; cm = centimetre; mg/L = milligrams per litre; dS/m = decisiemens per metre; meq/100 g = milliequivalents of ammonium cation (NH₄⁺) adsorbed by 100 grams of dry soil; % = percent; < = below detection limit of; N/A = not applicable; - = no unit; -- = not measured.

Table A-4 Results of Soil Chemistry and Other Soil Properties for Determining Reclamation Suitability of Regosolic Soils (Uplands) in the Baseline Study Area

Parameter	Unit	Detection Limit	DJS012 (O.R)		DJS018 (O.Rpt)		DJS015 (O.HR)		DJS033 (O.HR)		Regosolic - Baseline Summary (n=4)									
			Of	C	Of	C	Ah	C	Ah	C	O (n=2)			A (n=2)			C (n=4)			
			5 - 0 cm	0 - 35 cm	15 - 0 cm	0 - 23 cm	0 - 16 cm	16 - 60 cm	0 - 16 cm	16 - 58 cm	Min	Max	Mean, Range or Dominant ^{(a)(b)}	Min	Max	Mean, Range or Dominant ^{(a)(b)}	Min	Max	Mean, Range or Dominant ^{(a)(b)}	SD ^(b)
pH	pH units	0.10	4.29	5.39	4.59	4.75	5.27	6.04	6.07	5.92	4.29	4.59	--	5.27	6.07	--	4.75	6.04	5.53	0.59
Chloride (Cl)	mg/L	2.0	9.6	4.0	6.3	3.7	3.0	2.3	2.6	<2.0	6.3	9.6	--	2.6	3.0	--	<2.0	4.0	3.3	0.91
Sulphur (as SO ₄)	mg/L	5.0	15.2	<5.0	21.7	15.9	<5.0	<5.0	6.1	<5.0	15.2	21.7	--	<5.0	6.1	--	<5.0	15.9	<5.0	--
Calcium (Ca)	mg/L	0.50	3.00	<0.50	9.77	<0.50	<0.50	<0.50	0.93	<0.50	3.00	9.77	--	<0.50	0.93	--	<0.50	<0.50	<0.50	--
Potassium (K)	mg/L	0.50	0.64	<0.50	1.49	<0.50	<0.50	<0.50	<0.50	<0.50	0.64	1.49	--	<0.50	<0.50	--	<0.50	<0.50	<0.50	--
Magnesium (Mg)	mg/L	0.50	2.81	<0.50	9.90	<0.50	<0.50	<0.50	<0.50	<0.50	2.81	9.9	--	<0.50	<0.50	--	<0.50	<0.50	<0.50	--
Sodium (Na)	mg/L	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50	--
Salinity (Electrical Conductivity)	dS/m	0.10	0.18	<0.10	0.16	<0.10	<0.10	<0.10	<0.10	<0.10	0.16	0.18	--	<0.10	<0.10	--	<0.10	<0.10	<0.10	--
Sodium Adsorption Ratio (SAR) ^(c)	SAR	0.10 - 0.80	<0.30	<0.80	<0.30	<0.40	Incalculable	Incalculable	<0.40	Incalculable	<0.30	<0.30	--	Incalculable	<0.40	Incalculable	Incalculable	<0.80	Incalculable	--
Percent Saturation	%	1.0	348	23.7	586	37.9	30.4	28.6	29.6	28.8	348	586	--	29.6	30.4	--	23.7	37.9	29.8	5.9
Cation Exchange Capacity	meq/100g	0.80	43.2	3.27	67.3	5.51	4.24	1.48	4.02	<0.80	43.2	67.3	--	4.02	4.24	--	<0.80	5.51	2.67	2.24
Inorganic Carbon	%	0.10	0.22	<0.10	0.25	0.11	0.11	<0.10	<0.10	<0.10	0.22	0.25	--	0.11	0.11	--	<0.10	0.11	<0.10	--
Calcium Carbonate (CaCO ₃) Equivalent	%	0.80	1.79	0.81	2.06	0.94	0.90	<0.80	<0.80	<0.80	1.79	2.06	--	0.90	0.90	--	<0.80	0.94	0.64	0.28
Stoniness Class ^(d)	-	N/A	S4	--	S5	--	S5	--	S5	--	S4	S5	S4 to S5	--	--	S5	N/A	N/A	N/A	N/A
Stone Content	%	N/A	0	7	0	18	50	50	2	0	0	0	--	2	50	26	0	50	19	22
Moist Consistency	-	N/A	N/A	Very friable	N/A	Loose	Loose	Loose	Loose	Loose	N/A	N/A	N/A	--	--	Loose	--	--	Loose and very friable	N/A
Texture ^(e)	-	N/A	N/A	Loamy sand	N/A	Loamy sand	Coarse sand	Coarse sand	Coarse sand	Coarse sand	N/A	N/A	N/A	--	--	Coarse sand	--	--	Loamy sand and coarse sand	N/A

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) Range is identified for stoniness class; dominant value is identified for moist consistency and texture; mean is identified for all other parameters.

b) The standard, accepted approach used for cases where 50% or less of the data were below detection limits was to use half of the detection limit value in calculations of mean and standard deviation.

c) Sodium adsorption ratio is incalculable where sodium (Na) concentrations are below detection limits.

d) Stoniness class is the estimation of the average severity of surface stones where: S0 = non-stony (<0.01%); S1 = slightly stony (0.01 to 0.1%); S2 = moderately stony (0.1 to 3%); S3 = very stony (3 to 15%); S5 = exceedingly stony (15 to 50%); S6 = excessively stony (>50%).

e) From field observations.

pH = potential of hydrogen, provides measure of the acidity or alkalinity of a solution on a scale of 0 to 14; Min = minimum; Max = maximum; SD = standard deviation; n = number of sampled; cm = centimetre; mg/L = milligrams per litre; dS/m = decisiemens per metre; meq/100 g = milliequivalents of ammonium cation (NH₄⁺) adsorbed by 100 grams of dry soil; % = percent; < = below detection limit of; N/A = not applicable; - = no unit; -- = not measured.

Table A-5 Results of Soil Chemistry and Other Soil Properties for Determining Reclamation Suitability of Cryosolic Soils (Uplands) in the Baseline Study Area
Part A

Parameter	Unit	Detection Limit	DJS009 (OD.TC)		DJS013 (OD.TC)		DJS034 (OD.TC)		DJS035 (OD.TC)			DJS039 (R.TC)		DJS014 (R.TC)		DJS016 (R.TC)		DJS017 (R.TC)	
			Of	Bmy	Of ^(a)	Bmy	Of	Bmy	Of	Bmy ^(a)	C	Of ^(a)	Cy	Of ^(a)	Cgy	Of	Cy	Of	Cy
			7 - 0 cm	0 - 22 cm	3 - 0 cm	0 - 31 cm	6 - 0 cm	0 - 30 cm	6 - 0 cm	0 - 5 cm	5 - 36 cm	3 - 0 cm	0 - 76 cm	3 - 0 cm	0 - 60 cm	9 - 0 cm	0- 53 cm	5 - 0 cm	0 - 28 cm
pH	pH units	0.10	4.04	4.26	--	4.57	4.15	4.77	4.36	--	4.36	--	4.65	--	3.80	4.48	5.69	4.25	6.14
Chloride (Cl)	mg/L	2.0	9.4	2.5	--	3.7	11.5	<2.0	18.7	--	8.3	--	10.7	--	2.1	8.5	7.1	5.3	7.8
Sulphur (as SO ₄)	mg/L	5.0	23.1	<5.0	--	<5.0	31.2	<5.0	63.2	--	15.4	--	17.1	--	<5.0	23.6	12.0	13.0	11.7
Calcium (Ca)	mg/L	0.50	4.53	<0.50	--	<0.50	2.18	<0.50	3.66	--	<0.50	--	21.3	--	<0.50	7.55	1.09	17.9	0.84
Potassium (K)	mg/L	0.50	1.14	<0.50	--	<0.50	0.70	<0.50	1.03	--	<0.50	--	1.60	--	<0.50	1.76	<0.50	2.26	<0.50
Magnesium (Mg)	mg/L	0.50	2.36	<0.50	--	<0.50	3.34	<0.50	2.53	--	<0.50	--	13.1	--	<0.50	14.0	3.76	13.7	5.45
Sodium (Na)	mg/L	0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	0.97	--	<0.50	<0.50	<0.50	1.42	<0.50
Salinity (electrical conductivity)	dS/m	0.10	0.17	<0.10	--	<0.10	0.22	<0.10	0.43	--	<0.10	--	0.13	--	<0.10	0.28	0.12	0.12	0.15
Sodium adsorption ratio (SAR) ^(d)	SAR	0.10 - 0.40	<0.40	Incalculable	--	Incalculable	<0.20	Incalculable	0.18	--	0.58	--	0.39	--	Incalculable	<0.30	<0.20	<0.30	0.23
Percent saturation	%	1.0	390	36.4	--	30.0	200	38.5	186	--	30.5	--	2,780 ^(g)	--	38.4	289	26.3	2,760	25.0
Cation exchange capacity	meq/100g	0.80	77.8	7.09	--	9.11	48.0	5.94	30.0	--	2.64	--	109	--	4.68	60.3	4.55	107	6.40
Inorganic carbon	%	0.10	0.23	0.11	--	<0.10	0.25	0.10	0.19	--	<0.10	--	0.22	--	0.12	0.21	0.10	0.21	<0.10
Calcium carbonate (CaCO ₃) equivalent	%	0.80	1.94	0.94	--	0.80	2.06	0.83	1.62	--	<0.80	--	1.86	--	1.01	1.79	0.84	1.71	0.81
Stoniness class ^(e)	-	N/A	S5	--	S3	--	S5	--	S3	--	--	S4	--	S3	--	S4	--	S4	--
Stone content	%	N/A	0	10	0	5	0	0	0	5	5	0	5	0	0	0	10	0	10
Moist consistency	-	N/A	N/A	Very friable	N/A	Very friable	N/A	Very friable	N/A	Very friable	Very friable	N/A	Very friable	N/A	Non-sticky	N/A	Very friable	N/A	Loose
Texture ^(f)	-	N/A	N/A	Sandy loam	N/A	Loamy sand	N/A	Loamy sand	N/A	Loamy sand	Loamy sand	N/A	Loamy sand	N/A	Loamy sand	N/A	Loamy sand	N/A	Loamy sand

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) Horizons equal to or less than 5 cm deep were not sampled.

b) See Part B.

c) See Part B.

d) Sodium adsorption ratio is incalculable where sodium (Na) concentrations are below detection limits.

e) Stoniness class is the estimation of the average severity of surface stones where: S0 = non-stony (<0.01%); S1 = slightly stony (0.01% to 0.1%); S2 = moderately stony (0.1% to 3%); S3 = very stony (3% to 15%); S5 = exceedingly stony (15% to 50%); S6 = excessively stony (>50%).

f) From field observations.

g) The Cy horizon sample from DJS039 was non-modal and was excluded from the mean and standard deviation calculations.

pH = potential of hydrogen, provides measure of the acidity or alkalinity of a solution on a scale of 0 to 14; SD = standard deviation; n = number sampled; cm = centimetre; mg/L = milligrams per litre; dS/m = decisiemens per metre; meq/100 g = milliequivalents of ammonium cation (NH₄⁺) adsorbed by 100 grams of dry soil; % = percent; < = below detection limit of; N/A = not applicable; - = no unit; -- = not measured.

Table A-5
Results of Soil Chemistry and Other Soil Properties for Determining Reclamation Suitability of Cryosolic Soils (Uplands) in the Baseline Study Area

Part B

Parameter	Unit	Detection Limit	Upland Cryosolic - Baseline Summary (n=7)											
			O (n=5)				B (n=3)				C (n=3)			
			Min	Max	Mean, Range or Dominant ^{(b)(c)}	SD ^(c)	Min	Max	Mean, Range or Dominant ^{(b)(c)}	SD ^(c)	Min	Max	Mean, Range or Dominant ^{(b)(c)}	SD ^(c)
pH	pH units	0.10	4.04	4.48	4.26	0.17	4.26	4.77	4.53	0.26	3.80	6.14	4.93	0.96
Chloride (Cl)	mg/L	2.0	5.3	18.7	10.7	5.0	1.0	3.7	3.1	0.8	2.1	10.7	7.2	3.2
Sulphur (as SO ₄)	mg/L	5.0	13.0	63.2	30.8	19.2	<5.0	<5.0	<5.0	--	11.7	17.1	11.7	5.6
Calcium (Ca)	mg/L	0.50	2.18	17.90	7.16	6.31	<0.50	<0.50	<0.50	--	0.84	21.30	5.87	10.29
Potassium (K)	mg/L	0.50	0.70	2.26	1.38	0.62	<0.50	<0.50	<0.50	--	<0.50	1.60	<0.50	--
Magnesium (Mg)	mg/L	0.50	2.36	14.00	7.19	6.10	<0.50	<0.50	<0.50	--	3.76	13.10	4.56	5.28
Sodium (Na)	mg/L	0.50	<0.50	1.42	--	--	<0.50	<0.50	<0.50	--	<0.50	0.97	<0.50	--
Salinity (electrical conductivity)	dS/m	0.10	0.12	0.43	0.24	0.12	<0.10	<0.10	<0.10	--	<0.10	0.15	0.10	0.02
Sodium adsorption ratio (SAR) ^(d)	SAR	0.10 - 0.40	<0.20	0.18	--	--	Incalculable	Incalculable	Incalculable	--	<0.20	0.58	0.33	0.21
Percent saturation	%	1.0	186	2,760.0	765.0	1,118.2	30.0	38.5	35.0	4.4	25.0	2,780.0	30.1 ^(g)	6.0 ^(g)
Cation exchange capacity	meq/100g	0.80	30.00	107.00	64.62	29.42	5.94	9.11	7.38	1.60	2.64	109.00	25.45	46.72
inorganic carbon	%	0.10	0.19	0.25	0.22	0.02	<0.10	0.11	0.09	0.03	<0.10	0.22	0.11	0.20
calcium carbonate (CaCO ₃) equivalent	%	0.80	1.62	2.06	1.82	0.18	0.80	0.94	0.86	0.07	<0.8	1.86	0.98	0.54
Stoniness class ^(e)	-	N/A	--	--	S3 to S5	--	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
stone content	%	N/A	--	--	0	0	0	10	5	5	0	10	6	4
Moist consistency	-	N/A	N/A	N/A	N/A	N/A	--	--	Very friable	N/A	--	--	Very friable and non-sticky	N/A
Texture ^(f)	-	N/A	N/A	N/A	N/A	N/A	--	--	Sandy loam and loamy sand	N/A	--	--	Loamy sand	N/A

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) See Part A.

b) Range is identified for stoniness class; dominant value is identified for moist consistency and texture; mean is identified for all other parameters.

c) The standard, accepted approach for cases where 50% or less of the data were below detection limits was to use half of the detection limit value in calculations of mean and standard deviation.

d) Sodium adsorption ratio is incalculable where sodium (Na) concentrations are below detection limits.

e) Stoniness class is the estimation of the average severity of surface stones where: S0 = non-stony (<0.01%); S1 = slightly stony (0.01% to 0.1%); S2 = moderately stony (0.1% to 3%); S3 = very stony (3% to 15%); S5 = exceedingly stony (15% to 50%); S6 = excessively stony (>50%).

f) From field observations.

g) The Cy horizon sample from DJS039 was non-modal and was excluded from the mean and standard deviation calculations.

pH = potential of hydrogen, provides measure of the acidity or alkalinity of a solution on a scale of 0 to 14; Min = minimum; Max = maximum; SD = standard deviation; n = number sampled; cm = centimetre; mg/L = milligrams per litre; dS/m = decisiemens per metre; meq/100 g = milliequivalents of ammonium cation (NH₄⁺) adsorbed by 100 grams of dry soil; % = percent; < = below detection limit of; N/A = not applicable; - = no unit; -- = not measured.

Table A-6 Results of Soil Chemistry and Other Soil Properties for Determining Reclamation Suitability of Peaty Cryosolic Soils and Organic (Wetlands) in the Baseline Study Area
Part A

Parameter	Unit	Detection Limit	DJS008 (GL.SCpt)		DJS010 (GL.SCpt)				DJS036 (GL.TCpt)			DJS038 (GL.SCpt)			DJS021 (T.F)			DJS024 (T.M)	
			Of	Cgz ^(a)	Of	Cg1	Cg2	Cgz	Of	Cgy	Cgz	Of	Cg	Cgz	Of	Cg	Cgz	Of	Om
			38 - 0 cm	0 - 10 cm	15 - 0 cm	0 - 15 cm	15 - 50 cm	50 + cm	28 - 0 cm	0 - 15 cm	15 + cm	17 - 0 cm	0 - 52 cm	52 + cm	0 - 62 cm	62 - 65 cm	65 + cm	0 - 8 cm	8 - 48 cm
pH	pH units	0.10	4.25	--	4.43	5.36	5.48	--	4.54	5.25	--	5.14	5.13	--	5.28	--	--	3.77	
Chloride (Cl)	mg/L	2.0	2.9	--	6.7	2.1	3.7	--	2.8	5.1	--	2.1	11.4	--	3.3	--	--	3.5	
Sulphur (as SO ₄)	mg/L	5.0	<5.0	--	6.7	<5.0	<5.0	--	11.0	71.3	--	7.6	26.3	--	12.7	--	--	<5.0	
Calcium (Ca)	mg/L	0.50	11.3	--	6.70	0.59	0.65	--	0.71	0.56	--	1.01	6.60	--	6.90	--	--	5.60	
Potassium (K)	mg/L	0.50	0.53	--	0.84	<0.50	<0.50	--	<0.50	<0.50	--	<0.50	1.30	--	<0.50	--	--	1.15	
Magnesium (Mg)	mg/L	0.50	7.22	--	4.47	<0.50	<0.50	--	0.51	<0.50	--	0.70	13.9	--	4.55	--	--	7.85	
Sodium (Na)	mg/L	0.50	<0.50	--	<0.50	<0.50	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	--	<0.50	--	--	0.51	
Salinity (electrical conductivity)	dS/m	0.10	<0.10	--	<0.10	<0.10	<0.10	--	<0.10	0.20	--	<0.10	0.28	--	<0.10	--	--	0.13	
Sodium adsorption ratio (SAR) ^(d)	SAR	0.10 - 0.70	<0.70	--	<0.40	<0.70	0.42	--	<0.40	0.47	--	0.69	<0.10	--	<0.70	--	--	<0.50	
percent saturation	%	1.0	2,980	--	876	41.5	36.4	--	64.0	329	--	47.1	205	--	1,200	--	--	1,280	
Cation exchange capacity	meq/100g	0.80	105	--	90.3	3.76	4.08	--	14.8	2.36	--	6.28	33.8	--	49.5	--	--	102	
Inorganic carbon	%	0.10	0.18	--	0.26	<0.10	0.11	--	0.14	<0.10	--	0.12	0.15	--	0.25	--	--	0.22	
Calcium carbonate (CaCO ₃) equivalent	%	0.80	1.47	--	2.18	<0.80	0.95	--	1.18	<0.80	--	1.03	1.24	--	2.05	--	--	1.84	
Stoniness class ^(e)	-	N/A	S0	--	S0	--	--	--	S2	--	--	S0	--	--	S0	--	--	S3	--
stone content	%	N/A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moist consistency	-	N/A	N/A	Slightly sticky	N/A	Non-sticky	Very friable	N/A	N/A	Friable	N/A	N/A	Very friable	N/A	N/A	Non-sticky	N/A	N/A	N/A
Texture ^(f)	-	N/A	N/A	Silt	N/A	Fine sandy loam	Fine sandy loam	N/A	N/A	Loam	N/A	N/A	Loamy sand	N/A	N/A	Loamy sand	N/A	N/A	N/A

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) Cgz horizon was frozen and a sufficient quantity of sample could not be collected.

b) See Part B.

c) See Part B.

d) Sodium adsorption ratio is incalculable where sodium (Na) concentrations are below detection limits.

e) Stoniness class is the estimation of the average severity of surface stones where: S0 = non-stony (<0.01%); S1 = slightly stony (0.01% to 0.1%); S2 = moderately stony (0.1% to 3%); S3 = very stony (3% to 15%); S5 = exceedingly stony (15% to 50%); S6 = excessively stony (>50%).

f) From field observations.

pH = potential of hydrogen, provides measure of the acidity or alkalinity of a solution on a scale of 0 to 14; SD = standard deviation; n = number sampled; cm = centimetre; mg/L = milligrams per litre; dS/m = decisiemens per metre; meq/100 g = milliequivalents of ammonium cation (NH₄⁺) adsorbed by 100 grams of dry soil; % = percent; < = below detection limit of; N/A = not applicable; - = no unit; -- = not measured.

Table A-6 Results of Soil Chemistry and Other Soil Properties for Determining Reclamation Suitability of Peaty Cryosolic Soils and Organic (Wetlands) in the Baseline Study Area
Part B

Parameter	Unit	Detection Limit	Peaty Cryosolic and Organic – Baseline Summary (n=6)							
			O (n=6)				C (n=4)			
			Min	Max	Mean, Range or Dominant ^{(b)(c)}	SD ^(c)	Min	Max	Mean, Range or Dominant ^{(b)(c)}	SD ^(c)
pH	pH units	0.10	3.77	5.28	4.57	0.56	5.13	5.48	5.31	0.15
Chloride (Cl)	mg/L	2.0	2.1	6.7	3.6	1.6	2.1	11.4	5.6	4.1
Sulphur (as SO ₄)	mg/L	5.0	<5.0	12.7	7.2	4.2	<5.0	71.3	33.4	31.8
Calcium (Ca)	mg/L	0.50	0.71	11.30	5.37	4.00	0.56	6.60	2.10	3.00
Potassium (K)	mg/L	0.50	<0.50	1.15	0.55	0.38	<0.50	1.30	<0.50	--
Magnesium (Mg)	mg/L	0.50	0.51	7.85	4.22	3.11	<0.50	13.90	<0.50	--
Sodium (Na)	mg/L	0.50	<0.50	0.51	<0.50	--	<0.50	<0.50	<0.50	--
Salinity (electrical conductivity)	dS/m	0.10	<0.10	0.13	<0.10	--	<0.10	0.28	0.18	0.16
Sodium adsorption ratio (SAR) ^(d)	SAR	0.10 - 0.70	<0.40	0.69	<0.40	--	<0.10	0.47	<0.10	--
percent saturation	%	1.0	47	2,980	1,075	1,077	36	329	153	141
Cation exchange capacity	meq/100g	0.80	6.3	105.0	61.3	44.1	2.4	33.8	11.0	15.2
Inorganic carbon	%	0.10	0.12	0.26	0.20	0.06	<0.10	0.15	<0.10	--
Calcium carbonate (CaCO ₃) equivalent	%	0.80	1.03	2.18	1.63	0.47	<0.80	1.24	0.75	0.42
Stoniness class ^(e)	-	N/A	S0	--	S0 to S3	--	N/A	N/A	N/A	N/A
Stone content	%	N/A	0	0	0	0	0	0	0	0
Moist consistency	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Non sticky, very friable, and friable	N/A
Texture ^(f)	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Fine sandy loam, loam and loamy sand	N/A

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) See Part A.

b) Range is identified for stoniness class; dominant value is identified for moist consistency and texture; mean is identified for all other parameters.

c) The standard, accepted approach used for cases where 50% or less of the data were below detection limits was to use half of the detection limit value in calculations of mean and standard deviation.

d) Sodium adsorption ratio is incalculable where sodium (Na) concentrations are below detection limits.

e) Stoniness class is the estimation of the average severity of surface stones where: S0 = non-stony (<0.01%); S1 = slightly stony (0.01% to 0.1%); S2 = moderately stony (0.1% to 3%); S3 = very stony (3% to 15%); S5 = exceedingly stony (15% to 50%); S6 = excessively stony (>50%).

f) From field observations.

pH = potential of hydrogen, provides measure of the acidity or alkalinity of a solution on a scale of 0 to 14; Min = minimum; Max = maximum; SD = standard deviation; n = number sampled; cm = centimetre; mg/L = milligrams per litre; dS/m = deciSemens per metre; meq/100 g = milliequivalents of ammonium cation (NH₄⁺) adsorbed by 100 grams of dry soil; % = percent; < = below detection limit of; N/A = not applicable; - = no unit; -- = not measured.

Table A-7 Results of Soil Chemistry and Other Soil Properties for Determining Reclamation Suitability of Gleysolic Soils (Wetland) in the Baseline Study Area

Parameter	Unit	Detection Limit	DJS011 (R.Gct)			DJS019 (R.G)		DJS023 (R.G)		Gleysolic - Baseline Summary (n=3)							
			Of	Cgy ^(a)	Cg ^(a)	Of	Cg	Of	Cg	O (n=3)				C (n=3)			
			8 - 0 cm	0 - 35 cm	35 - 53 cm	6 - 0 cm	0 - 100 cm	6 - 0 cm	0- 64 cm	Min	Max	Mean, Range or Dominant ^{(b)(c)}	SD ^(c)	Min	Max	Mean, Range or Dominant ^{(b)(c)}	SD ^(c)
pH	pH units	0.10	5.18	5.22	--	5.08	5.22	4.61	5.22	4.61	5.18	4.96	0.30	5.22	5.22	5.22	0.00
Chloride (Cl)	mg/L	2.0	3.4	<2.0	--	11.9	5.6	6.8	5.6	3.4	11.9	7.4	4.3	<2.0	5.6	4.1	0.0
Sulphur (as SO ₄)	mg/L	5.0	<5.0	<5.0	--	29.2	12.2	17.5	9.2	<5.0	29.2	16.4	13.4	<5.0	12.2	8.0	5.0
Calcium (Ca)	mg/L	0.50	0.93	<0.50	--	14.1	<0.50	3.25	<0.50	0.93	14.10	6.09	7.03	<0.50	<0.50	<0.50	--
Potassium (K)	mg/L	0.50	<0.50	<0.50	--	4.99	<0.50	0.81	<0.50	0.81	<0.50	2.90	2.96	<0.50	<0.50	<0.50	--
Magnesium (Mg)	mg/L	0.50	0.53	<0.50	--	12.4	<0.50	2.95	<0.50	0.53	12.40	5.29	6.27	<0.50	<0.50	<0.50	--
Sodium (Na)	mg/L	0.50	<0.50	<0.50	--	1.45	<0.50	<0.50	<0.50	<0.50	1.45	<0.50	--	<0.50	<0.50	<0.50	--
Salinity (electrical conductivity)	dS/m	0.10	<0.10	<0.10	--	0.18	<0.10	0.17	<0.10	0.17	0.18	0.13	0.01	<0.10	<0.11	<0.10	--
Sodium adsorption ratio (SAR) ^(d)	SAR	0.10 - 0.40	Incalculable	Incalculable	--	<0.40	0.59	<0.30	0.47	<0.30	<0.40	<0.40	--	Incalculable	0.59	0.53	0.08
percent saturation	%	1.0	283	43.2	--	3,550	24.5	247	24.3	247.0	3,550	1,360	1,896	24.3	43.2	30.7	10.9
Cation exchange capacity	meq/100g	0.80	39.8	2.97	--	91.9	2.64	27.7	3.75	27.70	91.90	53.13	34.11	2.64	3.75	3.12	0.57
inorganic carbon	%	0.10	0.24	0.13	--	0.21	0.10	0.24	<0.10	0.21	0.24	0.23	0.02	<0.10	0.13	0.09	0.04
Calcium carbonate (CaCO ₃) equivalent	%	0.80	2.02	1.07	--	1.74	0.84	2.02	0.82	1.74	2.02	1.93	0.16	0.82	1.07	0.91	0.14
Stoniness class ^(e)	-	N/A	S0	--	--	S0	--	S3	--	S0	S3	S0 to s3	--	N/A	N/A	N/A	N/A
Stone content	%	N/A	0	0	0	0	0	0	10	0	0	0	0	0	10	3	6
Moist consistency	-	N/A	N/A	Loose	Loose	N/A	Non-sticky	N/A	Non-sticky	N/A	N/A	N/A	N/A	N/A	N/A	Loose and non-sticky	N/A
Texture ^(f)	-	N/A	N/A	Sandy loam	Sandy loam	N/A	Loamy sand	N/A	Loamy sand	N/A	N/A	N/A	N/A	N/A	N/A	Loamy sand and sandy loam	N/A

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) The Cgy horizon was sampled to represent C horizon chemistry at DJS011. The Cg horizon was too saturated to sample.

b) Range is identified for stoniness class; dominant value is identified for moist consistency and texture; mean is identified for all other parameters.

c) The standard, accepted approach used for cases where 50% or less of the data were below detection limits was to use half of the detection limit value in calculations of mean and standard.

d) Sodium adsorption ratio is incalculable where sodium (Na) concentrations are below detection limits.

e) Stoniness class is the estimation of the average severity of surface stones where: S0 = non-stony (<0.01%); S1 = slightly stony (0.01% to 0.1%); S2 = moderately stony (0.1% to 3%); S3 = very stony (3% to 15%); S5 = exceedingly stony (15% to 50%); S6 = excessively stony (>50%).

f) From field observations.

pH = potential of hydrogen, provides measure of the acidity or alkalinity of a solution on a scale of 0 to 14; Min = minimum; Max = maximum; SD = standard deviation; n = number sampled; cm = centimetre; mg/L = milligrams per litre; dS/m = decisiemens per metre; meq/100 g = milliequivalents of ammonium cation (NH₄⁺) adsorbed by 100 grams of dry soil; % = percent; < = below detection limit of; N/A = not applicable; - = no unit; -- = not measured.

Table A-8 Baseline Metal (Including Metalloids and Non-Metals) Chemistry for Brunisolic Soils Sampled, 2013

Analyte	Unit ^(a)	Detection Limit	CSQG ^(b)	DJS004 (O.DYB)	DJS005 (O.DYB)	DJS006 (O.DYBct)	DJS007 (O.DYBct)	DJS020 (O.DYB)	DJS022 (O.DYB)	DJS037 (O.DYBct)	Baseline Summary (n=7)			
				Bm	Bm	Bm	Bmy	Bm	Bm	Bmyj				
				0 - 15 cm	0 - 17 cm	0 - 28 cm	0 - 24 cm	0 - 31 cm	0 - 26 cm	0 - 25 cm	Min	Max	Mean ^(c)	SD ^(c)
Aluminum	mg/kg	50	N/A	10,200	9,170	9,910	9,380	14,700	13,200	11,100	9,170	14,700	11,094	2,093
Antimony	mg/kg	0.1	20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-
Arsenic	mg/kg	0.1	12	4.21	4.19	5.51	4.52	9.77	13.60	9.01	4.19	13.60	7.26	3.63
Barium	mg/kg	1.0	500	35.3	35.7	62.4	66.6	133	106	77.2	35.3	133	74	36
Beryllium	mg/kg	0.50	4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-
Bismuth	mg/kg	1.0	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
Cadmium	mg/kg	0.10	10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-
Calcium	mg/kg	100	N/A	1160	740	1,380	1,500	1,290	1,190	1,370	740	1,500	1,233	247
Chromium	mg/kg	0.50	64	28.6	27.5	37.7	40.1	56.4	55.2	57.9	27.5	57.9	43.3	13.1
Cobalt	mg/kg	1.0	50	3.6	3.0	5.2	5.0	9.9	7.7	6.6	3.0	9.9	5.9	2.4
Copper	mg/kg	1.0	63	14.6	8.4	10.6	10.0	22.3	17.8	16.7	8.4	22.3	14.3	5.0
Iron	mg/kg	50	N/A	11,900	11,000	12,900	12,300	18,800	18,500	12,300	11,000	18,800	13,957	3,258
Lead	mg/kg	1.0	140	4.3	4.3	4.5	3.0	3.1	3.2	3.4	3.0	4.5	3.7	0.7
Lithium	mg/kg	2.0	N/A	19.6	13.3	23.4	23.7	37.9	34.0	29.5	13.3	37.9	25.9	8.5
Magnesium	mg/kg	100	N/A	3,480	3,060	4,290	4,460	7,070	5,990	5,190	3,060	7,070	4,791	1,406
Manganese	mg/kg	1.0	N/A	95.2	78.3	128	124	183	151	146	78.3	183.0	129.4	35.2
Mercury	mg/kg	0.0050	6.6	0.0152	0.0274	0.0101	<0.0050	0.0323	0.0098	0.0078	<0.0050	0.0323	0.0150	0.0109
Molybdenum	mg/kg	1.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
Nickel	mg/kg	1.0	50	11.4	9.7	18.1	18.6	29.4	29.1	29.7	9.7	29.7	20.9	8.6
Phosphorus	mg/kg	50	N/A	346	248	466	472	500	486	399	248	500	417	92
Potassium	mg/kg	100	N/A	1,130	1,260	2,360	2,480	4,940	3,530	2,860	1,130	4,940	2,651	1,318
Selenium	mg/kg	0.20	1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	-
Silver	mg/kg	0.20	20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	-
Sodium	mg/kg	100	N/A	100	<100	140	120	160	140	130	<100	160	120	36
Strontium	mg/kg	1.0	N/A	7.3	6.3	6.0	6.1	5.3	4.7	6.7	4.7	7.3	6.1	0.9
Thallium	mg/kg	0.10	1	<0.10	<0.10	0.14	0.13	0.19	0.16	0.15	<0.10	0.19	0.12	0.05
Tin	mg/kg	2.0	50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-
Titanium	mg/kg	5.0	N/A	586	569	658	651	874	813	711	569	874	695	113
Uranium	mg/kg	0.10	23	2.41	1.62	1.66	1.37	1.01	1.09	1.23	1.01	2.41	1.48	0.48
Vanadium	mg/kg	1.0	130	27.3	25.3	29.4	28.3	44.4	43.5	34.3	25.3	44.4	33.2	7.8
Zinc	mg/kg	5.0	200	23.1	17.7	29.7	27.7	38.3	34.0	32.3	17.7	38.3	29.0	6.9

Note: Values in **bold** are those that exceed Canadian Soil Quality Guidelines (CCME 2013).

See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) Per kilogram of dry weight.

b) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health for Residential/Parkland Areas (CCME 2013).

c) The standard, accepted approach used for cases where 50% or less of the data were below detection limits was to use half of the detection limit value in calculations of mean and standard deviation.

CSQG = Canadian Soil Quality Guideline; Min = minimum; Max = maximum; n = number sampled; SD = standard deviation; cm = centimetre; mg/kg = milligrams per kilogram; N/A = not applicable; < = below detection limit of; - = not calculated.

Table A-9 Baseline Metal (Including Metalloids and Non-Metals) Chemistry for Cryosolic Soils Sampled, 2013

Analyte	Unit ^(a)	Detection Limit	CSQG ^(b)	DJS009 (OD.TC)	DJS013 (OD.TC)	DJS034 (OD.TC)	DJS035 (OD.TC)	DJS010 (GL.SCpt)	DJS036 (GL.TCpt)	DJS038 (GL.SCpt)	DJS014 (R.TC)	DJS016 (R.TC)	DJS017 (R.TC)	DJS039 (R.TC)	Baseline Summary (n=11)			
				Bmy	Bmy	Bmy	C ^(c)	Cg	Cgy	Cg	Cgy	Cy	Cy	Cy				
				0 - 22 cm	0 - 31 cm	0 - 30 cm	5 - 36 cm	0 - 15 cm	0 - 15 cm	0 - 52 cm	0 - 60 cm	0 - 53 cm	0 - 28 cm	0 - 76 cm	Min	Max	Mean ^(d)	SD ^(d)
Aluminum	mg/kg	50 - 100	N/A	10,700	10,200	10,200	10,100	15,000	9,680	12,000	9,020	13,300	13,900	3,100	3,100	15,000	10,655	3,157
Antimony	mg/kg	0.10 - 0.20	20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10	<0.20	-	-
Arsenic	mg/kg	0.10 - 0.20	12	4.78	7.27	6.45	6.11	3.71	6.84	2.88	5.16	7.51	8.78	2.68	2.68	8.78	5.65	1.99
Barium	mg/kg	1.0 - 2.0	500	71.0	74.8	75.9	71.5	128	63.6	74.9	83.3	121	141	133	63.6	141	94	30
Beryllium	mg/kg	0.50 - 1.0	4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	-	-
Bismuth	mg/kg	1.0 - 2.0	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	-	-
Cadmium	mg/kg	0.10 - 0.20	10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.35	<0.10	0.35	-	-
Calcium	mg/kg	100 - 200	N/A	970	910	960	1,580	1,610	1,610	1,560	900	1,510	1,120	4,590	900	4,590	1,575	1,046
Chromium	mg/kg	0.50 - 1.0	64	44.2	38.2	41.3	41.0	55.4	41.2	40.9	32.7	59.6	77.6	15.1	15.1	77.6	44.3	15.9
Cobalt	mg/kg	1.0 - 2.0	50	4.7	5.2	5.6	6.4	8.1	6.0	5.9	4.2	10.8	13.7	8.9	4.2	13.7	7.2	2.9
Copper	mg/kg	1.0 - 2.0	63	10.5	11.5	10.9	12.9	15.2	13.9	12.5	6.9	13.1	24.5	14.7	6.9	24.5	13.3	4.4
Iron	mg/kg	50 - 100	N/A	11,800	13,300	13,500	13,700	15,700	12,800	14,000	11,900	17,600	19,200	9,230	9,230	19,200	13,885	2,775
Lead	mg/kg	1.0 - 2.0	140	3.3	3.1	3.1	2.7	2.9	2.7	2.8	2.5	3.1	3.0	2.1	2.1	3.3	2.8	0.3
Lithium	mg/kg	2.0 - 4.0	N/A	20.4	20.3	25.8	27.3	34.0	23.7	27.4	20.8	30.1	31.6	<4.0	<4.0	34.0	23.9	8.6
Magnesium	mg/kg	100 - 200	N/A	4,400	4,690	4,380	5,120	7,720	4,430	5,270	4,160	8,450	9,520	1,870	1,870	9,520	5,455	2,218
Manganese	mg/kg	1.0 - 2.0	N/A	114	138	117	139	186	127	132	102	186	207	68.3	68.3	207.0	137.8	40.9
Mercury	mg/kg	0.0050 - 0.050	6.6	0.0118	0.0373	0.0116	0.0054	0.0177	<0.0050	0.0085	0.0056	0.0056	0.0060	0.100	0.0054	0.1000	0.0210	0.0294
Molybdenum	mg/kg	1.0 - 2.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	-	-
Nickel	mg/kg	1.0 - 2.0	50	19.2	20.5	20.2	21.3	26.5	21.8	19.8	12.6	43.3	71.6	18.2	12.6	71.6	26.8	16.7
Phosphorus	mg/kg	50 - 100	N/A	406	366	364	409	429	450	298	362	433	304	630	298	630	405	90
Potassium	mg/kg	100 - 200	N/A	2,780	2,490	2,510	2,840	3,990	2,370	1,630	2,940	3,730	4,120	820	820	4,120	2,747	983
Selenium	mg/kg	0.20 - 0.40	1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.40	<0.20	<0.40	-	-
Silver	mg/kg	0.20 - 0.40	20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.40	<0.20	<0.40	-	-
Sodium	mg/kg	100 - 200	N/A	110	110	<100	130	220	130	150	110	160	170	<100	<100	220	131	44
Strontium	mg/kg	1.0 - 2.0	N/A	4.6	4.5	4.7	7.3	7.8	7.2	8.9	3.7	9.3	6.9	46.3	3.7	46.3	10.1	12.1
Thallium	mg/kg	0.10 - 0.20	1	0.13	0.12	0.12	0.14	0.18	0.12	0.16	0.12	0.18	0.20	<0.20	<0.20	0.20	0.14	0.03
Tin	mg/kg	2.0 - 4.0	50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<4.0	-	-
Titanium	mg/kg	5.0 - 10	N/A	713	683	673	731	1,070	665	819	631	861	936	76	076	1,070	714	251
Uranium	mg/kg	0.10 - 0.20	23	1.23	1.02	1.09	1.21	1.48	1.16	1.23	0.91	0.93	1.06	0.74	0.74	1.48	1.10	0.20
Vanadium	mg/kg	1.0 - 2.0	130	32.4	32.0	31.8	31.7	46.2	28.7	33.4	30.0	41.6	44.4	4.2	4.2	46.2	32.4	11.1
Zinc	mg/kg	5.0 - 10	200	25.5	23.5	25.1	29.0	49.1	27.1	30.9	22.2	37.0	38.8	33	22.2	49.1	31.0	8.0

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) Per kilogram of dry weight.

b) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health for Residential/Parkland Areas (CCME 2013).

c) The C horizon was sampled because the B horizon was too rocky and shallow to sample.

d) The standard, accepted approach used for cases where 50% or less of the data were below detection limits was to use half of the detection limit value in calculations of mean and standard deviation.

CSQG = Canadian Soil Quality Guideline; Min = minimum; Max = maximum; n = number sampled; SD = standard deviation; cm = centimetre; mg/kg = milligrams per kilogram; N/A = not applicable; < = below detection limit of; - = not calculated.

Table A-10 Baseline Metal (Including Metalloids and Non-Metals) Chemistry for Regosolic Soils Sampled, 2013

Analyte	Unit ^(a)	Detection Limit	CSQG ^(b)	DJS012 (O.R)	DJS018 (O.Rpt)	DJS015 (O.HR)	DJS033 (O.HR)	Baseline Summary (n=4)			
				C	C	Ah	Ah				
				0 - 35 cm	0 - 23 cm	0 - 16 cm	0 - 16 cm	Min	Max	Mean ^(c)	SD ^(c)
Aluminum	mg/kg	50	N/A	11,600	12,300	11,800	13,300	11,600	13,300	12,250	759
Antimony	mg/kg	0.10	20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-
Arsenic	mg/kg	0.10	12	9.82	7.92	9.01	7.63	7.63	9.82	8.60	1.01
Barium	mg/kg	1.0	500	107	108	85.0	104	85.0	108	101	11
Beryllium	mg/kg	0.50	4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-
Bismuth	mg/kg	1.0	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
Cadmium	mg/kg	0.10	10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-
Calcium	mg/kg	100	N/A	1,530	920	940	1,350	920	1,530	1,185	304
Chromium	mg/kg	0.50	64	46.6	62.4	44.2	57.9	44.2	62.4	52.8	8.8
Cobalt	mg/kg	1.0	50	9.1	7.2	7.4	8.3	7.2	9.1	8.0	0.9
Copper	mg/kg	1.0	63	13.9	14.2	17.3	19.5	13.9	19.5	16.2	2.7
Iron	mg/kg	50	N/A	16,200	16,700	15,200	17,300	15,200	17,300	16,350	889
Lead	mg/kg	1.0	140	3.5	2.6	3.6	3.4	2.6	3.6	3.3	0.5
Lithium	mg/kg	2.0	N/A	30.2	32.3	31.3	38.0	30.2	38.0	33.0	3.5
Magnesium	mg/kg	100	N/A	6,570	5,980	5,510	6,440	5,510	6,570	6,125	482
Manganese	mg/kg	1.0	N/A	187	146	180	215	146.0	215.0	182.0	28.4
Mercury	mg/kg	0.0050	6.6	<0.0050	0.0130	0.0171	0.0082	<0.0050	0.0171	0.0102	0.0063
Molybdenum	mg/kg	1.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
Nickel	mg/kg	1.0	50	30.4	30.7	25.2	29.7	25.2	30.7	29.0	2.6
Phosphorus	mg/kg	50	N/A	530	308	375	456	308	530	417	96
Potassium	mg/kg	100	N/A	3,780	3,920	2,990	3,610	2,990	3,920	3,575	410
Selenium	mg/kg	0.20	1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	-
Silver	mg/kg	0.20	20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	-
Sodium	mg/kg	100	N/A	140	130	110	110	110	140	123	15
Strontium	mg/kg	1.0	N/A	6.2	4.9	4.6	6.3	4.6	6.3	5.5	0.9
Thallium	mg/kg	0.10	1	0.14	0.16	0.13	0.16	0.13	0.16	0.15	0.02
Tin	mg/kg	2.0	50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-
Titanium	mg/kg	5.0	N/A	811	794	649	715	649	811	742	75
Uranium	mg/kg	0.10	23	1.24	0.84	0.89	1.06	0.84	1.24	1.01	0.18
Vanadium	mg/kg	1.0	130	38.1	38.6	34.9	40.1	34.9	40.1	37.9	2.2
Zinc	mg/kg	5.0	200	37.5	35.0	31.4	37.2	31.4	37.5	35.3	2.8

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) Per kilogram of dry weight.

b) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health for Residential/Parkland Areas (CCME 2013).

c) The standard, accepted approach used for cases where 50% or less of the data were below detection limits was to use half of the detection limit value in calculations of mean and standard deviation.

CSQG = Canadian Soil Quality Guideline; Min = minimum; Max = maximum; n = number sampled; SD = standard deviation; cm = centimetre; mg/kg = milligrams per kilogram; N/A = not applicable; < = below detection limit of; - = not calculated.

Table A-11 Baseline Metal (Including Metalloids and Non-Metals) Chemistry for Gleysolic Soils Sampled, 2013

Analyte	Unit ^(a)	Detection Limit	CSQG ^(b)	DJS011 (R.Gct)	DJS019 (R.G)	DJS023 (R.G)	Baseline Summary (n=3)			
				Cgy	Cg	Cg				
				0 - 35 cm	0 - 100 cm	0- 64 cm	Min	Max	Mean ^(c)	SD ^(c)
Aluminum	mg/kg	50	N/A	7,490	10,500	13,100	7,490	13,100	10,363	2,807
Antimony	mg/kg	0.10	20	<0.10	<0.10	<0.10	<0.10	<0.10	-	-
Arsenic	mg/kg	0.10	12	0.90	5.72	8.33	0.90	8.33	4.98	3.77
Barium	mg/kg	1.0	500	57.5	74.5	114	57.5	114	82	29
Beryllium	mg/kg	0.50	4	<0.50	<0.50	<0.50	<0.50	<0.50	-	-
Bismuth	mg/kg	1.0	N/A	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
Cadmium	mg/kg	0.10	10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-
Calcium	mg/kg	100	N/A	550	1,440	1,410	550	1,440	1,133	505
Chromium	mg/kg	0.50	64	28.0	36.2	56.1	28.0	56.1	40.1	14.5
Cobalt	mg/kg	1.0	50	3.4	5.7	7.4	3.4	7.4	5.5	2.0
Copper	mg/kg	1.0	63	3.3	17.3	22.5	3.3	22.5	14.4	9.9
Iron	mg/kg	50	N/A	8,120	13,000	17,300	8,120	17,300	12,807	4,593
Lead	mg/kg	1.0	140	1.4	2.3	3.3	1.4	3.3	2.3	1.0
Lithium	mg/kg	2.0	N/A	21.7	24.9	29.1	21.7	29.1	25.2	3.7
Magnesium	mg/kg	100	N/A	3,610	4,730	6,230	3,610	6,230	4,857	1,315
Manganese	mg/kg	1.0	N/A	78.3	120	154	78.3	154.0	117.4	37.9
Mercury	mg/kg	0.0050	6.6	<0.0050	0.0071	<0.0050	<0.0050	<0.0050	-	-
Molybdenum	mg/kg	1.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	-	-
Nickel	mg/kg	1.0	50	12.0	18.8	27.6	12.0	27.6	19.5	7.8
Phosphorus	mg/kg	50	N/A	175	418	438	175	438	344	146
Potassium	mg/kg	100	N/A	1,830	2,760	4,360	1,830	4,360	2,983	1,280
Selenium	mg/kg	0.20	1	<0.20	<0.20	<0.20	<0.20	<0.20	-	-
Silver	mg/kg	0.20	20	<0.20	<0.20	<0.20	<0.20	<0.20	-	-
Sodium	mg/kg	100	N/A	<100	120	150	<100	150	107	51
Strontium	mg/kg	1.0	N/A	2.6	5.9	5.5	2.6	5.9	4.7	1.8
Thallium	mg/kg	0.10	1	<0.10	0.15	0.17	<0.10	0.17	0.12	0.06
Tin	mg/kg	2.0	50	<2.0	<2.0	<2.0	<2.0	<2.0	-	-
Titanium	mg/kg	5.0	N/A	522	655	878	522	878	685	180
Uranium	mg/kg	0.10	23	0.54	1.27	1.26	0.54	1.27	1.02	0.42
Vanadium	mg/kg	1.0	130	20.8	29.9	42.4	20.8	42.4	31.0	10.8
Zinc	mg/kg	5.0	200	21.2	28.8	36.1	21.2	36.1	28.7	7.5

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) Per kilogram of dry weight.

b) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health for Residential/Parkland Areas (CCME 2013).

c) The standard, accepted approach used for cases where 50% or less of the data were below detection limits was to use half of the detection limit value in calculations of mean and standard deviation.

CSQG = Canadian Soil Quality Guideline; Min = minimum; Max = maximum; n = number sampled; SD = standard deviation; cm = centimetre; SD = standard deviation; mg/kg = milligrams per kilogram; N/A = not applicable; < = below detection limit of; - = not calculated.

Table A-12 Baseline Metal (Including Metalloid and Non-Metal) Chemistry for Organic Materials Sampled, 2013

Analyte	Unit ^(a)	Detection Limit	CSQG ^(b)	DJS021 (T.F)	DJS024 (T.M)	DJS008 (GL.SCpt)	Baseline Summary (n=3)			
				Of	Of/Om	Of				
				0 - 62 cm	0 - 48 cm	38 - 0 cm	Min	Max	Mean ^(c)	SD ^(c)
Aluminum	mg/kg	100 - 250	N/A	6,810	440	1,450	440	6,810	2,900	3,424
Antimony	mg/kg	0.20 - 0.50	20	<0.20	<0.20	<0.50	<0.20	<0.50	-	-
Arsenic	mg/kg	0.20 - 0.50	12	10.1	0.44	0.73	0.44	10.10	3.76	5.50
Barium	mg/kg	2.0 - 5.0	500	53.3	16.0	77.0	16.0	77	49	31
Beryllium	mg/kg	1.0 - 2.5	4	<1.0	<1.0	<2.5	<1.0	<2.5	-	-
Bismuth	mg/kg	2.0 - 5.0	N/A	<2.0	<2.0	<5.0	<2.0	<5.0	-	-
Cadmium	mg/kg	0.20 - 0.50	10	0.25	<0.20	<0.50	<0.20	<0.50	-	-
Calcium	mg/kg	200 - 500	N/A	1,830	1,440	2,690	1,440	2,690	1,987	640
Chromium	mg/kg	1.0 - 2.5	64	19.8	3.2	3.9	3.2	19.8	9.0	9.4
Cobalt	mg/kg	2.0 - 5.0	50	3.5	<2.0	<5.0	<2.0	<5.0	-	-
Copper	mg/kg	2.0 - 5.0	63	41.0	4.2	7.6	4.2	41.0	17.6	20.3
Iron	mg/kg	100 - 250	N/A	6,440	460	1,670	460	6,440	2,857	3,162
Lead	mg/kg	2.0 - 5.0	140	2.4	<2.0	<5.0	<2.0	<5.0	-	-
Lithium	mg/kg	4.0 - 10	N/A	7.7	<4.0	<10	<4.0	<10	-	-
Magnesium	mg/kg	200 - 500	N/A	1,950	980	950	950	1,950	1,293	569
Manganese	mg/kg	2.0 - 5.0	N/A	48.8	7.5	15.0	7.5	48.8	23.8	22.0
Mercury	mg/kg	0.010 - 0.050	6.6	0.035	0.155	0.067	<0.0050	0.1550	0.0857	0.0621
Molybdenum	mg/kg	2.0 - 5.0	10	<2.0	<2.0	<5.0	<2.0	<5.0	-	-
Nickel	mg/kg	2.0 - 5.0	50	17.5	3.9	6.0	3.9	17.5	9.1	7.3
Phosphorus	mg/kg	100 - 250	N/A	620	530	370	370	620	507	127
Potassium	mg/kg	200 - 500	N/A	440	470	<500	440	470	387	119
Selenium	mg/kg	0.40 - 1.0	1	<0.40	<0.40	<1.0	<0.40	<1.0	-	-
Silver	mg/kg	0.40 - 1.0	20	<0.40	<0.40	<1.0	<0.40	<1.0	-	-
Sodium	mg/kg	200 - 500	N/A	<200	<200	<500	<200	<500	-	-
Strontium	mg/kg	2.0 - 5.0	N/A	13.9	8.2	17.9	8.2	17.9	13.3	4.9
Thallium	mg/kg	0.20 - 0.50	1	<0.20	<0.20	<0.50	<0.20	<0.50	-	-
Tin	mg/kg	4.0 - 10	50	<4.0	<4.0	<10	<4.0	<10	-	-
Titanium	mg/kg	10 - 25	N/A	249	16	29	16	249	98	131
Uranium	mg/kg	0.20 - 0.50	23	1.73	<0.20	<0.50	<0.20	1.73	-	-
Vanadium	mg/kg	2.0 - 5.0	130	26.1	<2.0	<5.0	<2.0	26.1	-	-
Zinc	mg/kg	10 - 25	200	13	26	33	13	33	24	10

Note: See Table A-2a for Soil Subgroup Code Descriptions and Table A-2b for Soil Horizon Symbol Definitions.

a) Per kilogram of dry weight.

b) Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health for Residential/Parkland Areas (CCME 2013).

c) The standard, accepted approach used for cases where 50% or less of the data were below detection limits was to use half of the detection limit value in calculations of mean and standard deviation.

CSQG = Canadian Soil Quality Guideline; Min = minimum; Max = maximum; n = number sampled; SD = standard deviation; cm = centimetre; SD = standard deviation; mg/kg = milligrams per kilogram; N/A = not applicable; < = below detection limit of; - = not calculated.

A1 REFERENCES

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