

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98101

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			Sample	Descriptive	Statistics			Lab ID
Analysis	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Salinity								
Sat. Paste Moisture	%	38	36.1	64.7	50.5	4.0	8.0	88.2
pH - sp	Unit	46	5.9	8.0	6.50	0.10	1.5	73.8
ECe - sp	dS/m	50	0.10	93.0	0.31	0.03	10.1	70.2
HCO3 - sp	mmolc/L	13	0.8	4.4	2.12	0.52	24.6	100.0
Ca - sp	mmolc/L	36	0.1	28	1.85	0.37	19.7	78.1
Mg - sp	mmolc/L	35	0.1	5	0.70	0.13	18.6	87.1
Na - sp	mmolc/L	37	0.02	2	0.23	0.15	65.9	84.8
SAR - sp	value	30	0.02	4.2	0.20	0.10	50.0	77.8
Cl - sp	mmolc/L	24	0.11	4	0.24	0.12	47.9	75.0
SO4 - sp	mmolc/L	20	0.14	4.5	0.54	0.12	22.3	64.7
B - sp	mg/L	26	0.04	1.07	0.10	0.03	30.0	68.0
Soil EC								
Soil EC (1:1)	(dS/m)	32	0.09	61	0.20	0.04	20.5	73.5
Soil EC (1:2)	(dS/m)	38	0.02	0.6	0.14	0.04	32.4	74.4
Soil pH								
pH (1:1)	Unit	82	5.91	7.20	6.65	0.06	0.9	77.2
pH (1:2)	Unit	28	6.37	7.13	6.78	0.12	1.8	88.9
pH (1:2) 0.01 M CaCl2	Unit	7	5.74	6.22	6.06	0.16	2.6	100.0
Buffer pH								
SMP Buffer pH	Unit	47	6.52	7.16	7.00	0.08	1.1	93.3
Adams-Evans Buf pH	Unit	11	7.45	7.81	7.62	0.08	1.0	100.0
Woodruff Buf. pH	Unit	4	6.70	6.96	6.87	0.06	0.9	75.0
Nitrate (NO3-N)								
Cd. Rd.	mg/kg	50	1.5	37.0	8.6	0.8	9.8	70.8
ISE	mg/kg	26	3.1	16.4	7.1	1.4	19.0	80.8
CTA	mg/kg	8	6.2	10.6	9.4	0.6	5.9	85.7
Ion Chromatography	mg/kg	9	7.0	14.8	9.7	2.2	22.9	100.0
Other	mg/kg	8	5.0	10.0	7.6	1.2	15.2	100.0
NH4 - N (KCl Extr.)	mg/kg	40	1.0	21.0	3.3	1.2	35.8	84.6

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " * * " based on 4 x MAD.
 2 - Percentage (%) of all reported laboratory values within established Warning Limits.

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1st Quarter Results

May 4, 1998

Soil ID - 98101

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Phosphorus and Sulfur								
PO4-P Bray P1 (1:10)	mg/kg	39	10	360	14.3	2.2	15.7	91.9
PO4-P Bray P1 (1:7)	mg/kg	19	3.7	28.7	13.0	2.0	15.4	90.5
PO4-P Olsen/Bicarb	mg/kg	78	0.0	19	8.0	1.0	12.5	72.2
PO4-P AB-DTPA	mg/kg	4	2	37	5.3	3.7	69.6	75.0
PO4-P M. Morgan	mg/kg	8	2	5	3.4	0.5	14.9	75.0
SO4 - S (PO4 Extr.)	mg/kg	47	0	18	4.5	1.5	33.3	88.9
Ammonium Acetate Bases								
K	mg/kg	94	229	743	505	28	5.5	85.2
Ca	mg/kg	87	1376	3440	2570	193	7.5	86.7
Mg	mg/kg	88	117	3030	320	20	6.1	81.7
Na	mg/kg	74	0	163	12	6	50.0	81.7
Mehlich-1 Multi Element								
Soil Scoop Mass	g	8	5	6	5.0	0.00	0.0	
K	mg/kg	9	52	845	308	20	6.4	77.8
PO4-P	mg/kg	9	16	91	22.0	3.0	13.6	77.8
Ca	mg/kg	9	1955	4828	2343	127	5.4	66.7
Mg	mg/kg	9	233	639	275	21.5	7.8	66.7
Zn	mg/kg	8	0	2	1.6	0.2	11.1	62.5
Mehlich-3 Multi-Element								
Soil Scoop Mass	g	29	0.9	10	2.5	0.3	13.1	
P	mg/kg	40	0.5	56	20.3	3.3	16.3	87.2
K	mg/kg	39	56	1299	508	43	8.4	76.9
Ca	mg/kg	39	1300	4943	2766	258	9.3	84.6
Mg	mg/kg	39	220	3300	342	30	8.6	79.5
Na	mg/kg	19	2	357	14.5	7.9	54.1	84.2
Al	mg/kg	13	10.3	180000	689	142	20.6	75.0
Zn	mg/kg	32	0.4	62.0	2.40	0.44	18.3	75.0
Mn	mg/kg	32	19.0	520.0	96.0	13.6	14.2	75.0
Fe	mg/kg	30	0.4	17000	109	13.3	12.2	70.0
Cu	mg/kg	32	0.4	11.0	1.30	0.30	22.8	75.0
B	mg/kg	24	0.7	10.0	1.13	0.23	20.4	79.2

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.
 2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98101

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Cations								
K- Bicarb.	mg/kg	13	350	499	422	28	6.5	91.7
K Modified Morgan	mg/kg	4	291	466	340	25	7.2	75.0
Ca Modified Morgan	mg/kg	2	2640	2830	2730	95	3.5	100.0
Micronutrients								
Zn - DTPA	mg/kg	84	0.75	14.3	1.27	0.14	10.7	92.2
Mn - DTPA	mg/kg	73	4.9	79	23.2	3.3	14.0	88.2
Fe - DTPA	mg/kg	78	7.0	231	32.4	4.4	13.6	90.4
Cu - DTPA	mg/kg	78	0.27	3.9	0.60	0.08	13.3	90.4
Zn - HCl	mg/kg	8	2.0	4	2.28	0.12	5.3	88.9
Mn-H3PO4	mg/kg	7	14	58	22.9	4.2	18.3	80.0
Cl - Ca(NO3)2 Extr.	mg/kg	12	1.0	39	3.9	1.1	28.2	69.2
B - Hot Water	mg/kg	61	0.27	12	0.80	0.21	25.6	83.3
Soil Organic Matter								
Soil Kjeldahl N	%	33	0.08	0.3	0.20	0.016	7.8	81.8
Soil TN (combustion)	%	27	0.17	2.1	0.21	0.012	5.4	80.0
Soil TOC (combustion)	%	20	2.05	2.6	2.24	0.04	1.8	60.0
SOM - Walkley-Black	%	58	2.5	7.3	3.96	0.26	6.4	86.0
SOM - LOI	%	57	2.9	17	4.30	0.50	11.6	80.0
CaCO3 Content	%	16	0.0	5	0.20	0.14	70.0	73.3
Soil CEC	cmol/kg	28	11.4	31.3	20.8	2.1	10.2	88.0
Particle Size Analysis								
Sand 2000 - 50 um	%	47	1.0	51.8	18.0	6.0	33.3	87.0
Silt 50 - 2 um	%	47	19.2	71.4	60.1	4.9	8.2	93.5
Clay 2 - 0 um	%	48	4.0	66.0	21.0	4.0	19.0	85.1

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.

2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

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Soil ID - 98102

Lab ID

Analysis	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Salinity								
Sat. Paste Moisture	%	38	9.2	44.0	31.6	2.2	7.0	82.4
pH - sp	Unit	44	6.7	8.0	7.00	0.11	1.6	82.5
ECe - sp	dS/m	50	0.15	867	4.27	0.76	17.8	83.0
HCO ₃ - sp	mmolc/L	13	0.6	10	4.3	0.9	21.1	91.7
Ca - sp	mmolc/L	36	0.8	369	25.3	4.4	17.4	78.1
Mg - sp	mmolc/L	36	0.7	155	17.4	3.5	19.8	78.1
Na - sp	mmolc/L	38	0.49	197	12.0	1.40	11.7	85.3
SAR - sp	value	32	0.57	22.6	2.6	0.17	6.6	82.8
Cl - sp	mmolc/L	25	0.68	482	17.9	1.9	10.6	85.7
SO ₄ - sp	mmolc/L	21	0.78	480	27.8	3.1	11.1	76.5
B - sp	mg/L	27	0.09	0.72	0.34	0.10	28.1	88.0
Soil EC								
Soil EC (1:1)	(dS/m)	31	0.74	232	1.23	0.33	26.8	87.9
Soil EC (1:2)	(dS/m)	37	0.31	2.9	0.91	0.24	26.4	84.6
Soil pH								
pH (1:1)	Unit	81	6.55	7.50	7.01	0.09	1.2	94.9
pH (1:2)	Unit	27	6.33	7.40	7.10	0.10	1.4	88.5
pH (1:2) 0.01 M CaCl ₂	Unit	7	6.63	6.88	6.76	0.09	1.3	100.0
Buffer pH								
SMP Buffer pH	Unit	37	7.03	7.61	7.42	0.07	0.9	85.7
Adams-Evans Buf pH	Unit	10	7.78	7.95	7.90	0.02	0.3	80.0
Woodruff Buf. pH	Unit	3	7.00	7.02	7.00	0.00	0.0	100.0
Nitrate (NO₃-N)								
Cd. Rd.	mg/kg	49	7.5	210	44.9	3.1	6.9	78.7
ISE	mg/kg	26	18.0	80.1	42.0	5.9	13.9	84.6
CTA	mg/kg	8	30.5	44.5	41.6	1.8	4.3	85.7
Ion Chromatography	mg/kg	9	33.5	77.0	50.0	5.9	11.8	85.7
Other	mg/kg	8	30.0	54.0	40.8	2.4	5.8	75.0
NH ₄ - N (KCl Extr.)	mg/kg	39	1.3	52.0	3.8	1.1	29.3	84.2

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.

2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98102

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²	Lab ID
Phosphorus and Sulfur									
PO4-P Bray P1 (1:10)	mg/kg	36	46	211	143	20	13.6	94.1	
PO4-P Bray P1 (1:7)	mg/kg	18	72	160	126	18	14.3	90.0	
PO4-P Olsen/Bicarb	mg/kg	76	9.0	94	55.3	7.0	12.6	82.9	
PO4-P AB-DTPA	mg/kg	4	50	180	78.5	27.1	34.5	75.0	
PO4-P M. Morgan	mg/kg	8	62	101	79.0	7.1	9.0	87.5	
SO4 - S (PO4 Extr.)	mg/kg	45	4	310	119	21	17.9	74.4	
Ammonium Acetate Bases									
K	mg/kg	92	11	719	80	7.7	9.7	83.7	
Ca	mg/kg	85	476	1770	1140	85	7.5	86.4	
Mg	mg/kg	86	102	2501	280	20	7.1	85.0	
Na	mg/kg	74	28.0	270	130	11.5	8.9	77.1	
Mehlich-1 Multi Element									
Soil Scoop Mass	g	8	5.0	6.8	5.0	0.0	0.0		
K	mg/kg	9	60	184	67	7.0	10.4	66.7	
PO4-P	mg/kg	9	185	503	248	28	11.3	77.8	
Ca	mg/kg	9	1207	3070	1510	150	9.9	77.8	
Mg	mg/kg	9	230	598	291	41	14.1	88.9	
Zn	mg/kg	8	5.9	13.0	7.7	0.6	7.8	62.5	
Mehlich-3 Multi-Element									
Soil Scoop Mass	g	27	1.0	13	2.5	0.5	20.0		
P	mg/kg	38	0.8	292	207	20.5	9.9	73.0	
K	mg/kg	37	56	226	102	12.7	12.4	81.1	
Ca	mg/kg	37	700	3273	1560	184	11.8	81.1	
Mg	mg/kg	37	222	2200	344	38.6	11.2	81.1	
Na	mg/kg	20	84	579	150	18.4	12.3	85.0	
Al	mg/kg	12	4.5	5400	247	58	23.5	72.7	
Zn	mg/kg	30	2.2	48	9.6	1.3	13.0	73.3	
Mn	mg/kg	31	14	170	54	7.0	13.0	74.2	
Fe	mg/kg	29	1.2	12000	246	24.0	9.8	65.5	
Cu	mg/kg	31	0.5	9.0	1.70	0.30	17.6	71.0	
B	mg/kg	22	0.6	4.9	1.06	0.18	17.0	63.6	

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.

2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98102

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²	Lab ID
Cations									
K - Bicarb.	mg/kg	13	27	138	109	12	11.0	83.3	
K Modified Morgan	mg/kg	4	65	82	74	5.5	7.4	100.0	
Ca Modified Morgan	mg/kg	2	1080	1254	1170	87	7.4	100.0	
Micronutrients									
Zn - DTPA	mg/kg	82	1.16	22.0	3.71	0.31	8.2	85.3	
Mn - DTPA	mg/kg	73	2.1	56	10.4	1.0	9.6	83.8	
Fe - DTPA	mg/kg	77	5.3	290	26.5	2.6	9.9	76.4	
Cu - DTPA	mg/kg	76	0.30	8.9	0.74	0.06	8.1	71.8	
Zn - HCl	mg/kg	8	8.0	10	8.7	0.30	3.4	88.9	
Mn-H3PO4	mg/kg	6	10.9	29	25.3	2.9	11.5	75.0	
Cl - Ca(NO3)2 Extr.	mg/kg	11	93	320	215	32	15.0	83.3	
B - Hot Water	mg/kg	60	0.20	7	0.79	0.21	26.6	91.5	
Soil Organic Matter									
Soil Kjeldahl N	%	32	0.04	0.8	0.080	0.010	12.5	78.1	
Soil TN (combustion)	%	28	0.04	0.9	0.083	0.008	9.6	73.1	
Soil TOC (combustion)	%	20	0.47	0.9	0.69	0.040	5.8	75.0	
SOM - Walkley-Black	%	60	0.8	2.5	1.26	0.16	12.3	83.1	
SOM - LOI	%	53	1.0	2.3	1.40	0.20	14.3	84.3	
CaCO3 Content	%	16	0.0	2.9	0.30	0.18	60.0	86.7	
Soil CEC	cmol/kg	28	3.5	15.8	6.7	1.1	15.7	84.0	
Particle Size Analysis									
Sand 2000 - 50 um	%	47	54.1	95.4	82.8	3.2	3.9	78.3	
Silt 50 - 2 um	%	47	4.0	40.9	10.4	2.4	23.1	82.6	
Clay 2 - 0 um	%	48	0.0	15.1	6.1	1.3	20.7	83.0	

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.
2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98103

Lab ID

Analysis	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Salinity								
Sat. Paste Moisture	%	38	4.0	28.0	23.2	1.4	6.2	79.4
pH - sp	Unit	45	4.1	6.9	5.40	0.10	1.9	70.7
ECe - sp	dS/m	50	0.16	153	1.20	0.21	17.2	76.6
HCO ₃ - sp	mmolc/L	13	0.0	6.3	0.51	0.21	41.2	83.3
Ca - sp	mmolc/L	35	0.4	28	1.3	0.30	23.1	81.3
Mg - sp	mmolc/L	36	0.1	18	1.0	0.21	21.0	81.3
Na - sp	mmolc/L	38	0.07	26	1.7	0.20	11.8	79.4
SAR - sp	value	32	0.30	137	1.7	0.25	14.9	75.9
Cl - sp	mmolc/L	23	0.16	27	0.40	0.17	42.5	60.0
SO ₄ - sp	mmolc/L	19	0.06	7.6	0.23	0.10	43.5	81.3
B - sp	mg/L	25	0.00	0.38	0.09	0.07	76.5	95.8
Soil EC								
Soil EC (1:1)	(dS/m)	32	0.11	38	0.30	0.10	33.3	88.2
Soil EC (1:2)	(dS/m)	39	0.03	0.63	0.19	0.06	31.8	82.5
Soil pH								
pH (1:1)	Unit	82	5.10	6.80	5.70	0.10	1.8	84.8
pH (1:2)	Unit	28	5.50	6.76	5.95	0.15	2.5	92.6
pH (1:2) 0.01 M CaCl ₂	Unit	7	4.60	5.07	5.02	0.05	1.0	71.4
Buffer pH								
SMP Buffer pH	Unit	66	6.30	7.75	7.06	0.09	1.2	77.4
Adams-Evans Buf pH	Unit	11	7.65	8.05	7.80	0.03	0.4	63.6
Woodruff Buf. pH	Unit	5	6.70	6.93	6.85	0.07	1.0	100.0
Nitrate (NO₃-N)								
Cd. Rd.	mg/kg	50	1.0	184	32.6	3.9	12.0	75.0
ISE	mg/kg	26	17.0	51.2	33.7	5.9	17.4	92.3
CTA	mg/kg	8	21.5	32.0	30.2	1.4	4.6	85.7
Ion Chromatography	mg/kg	9	24.2	44.3	31.6	1.9	6.0	57.1
Other	mg/kg	8	26.0	42.0	30.8	3.8	12.4	87.5
NH ₄ - N (KCl Extr.)	mg/kg	38	11.3	150	110	12.0	10.9	76.3

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.

2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98103

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Phosphorus and Sulfur								
PO4-P Bray P1 (1:10)	mg/kg	39	30	150	46.5	4.5	9.7	81.1
PO4-P Bray P1 (1:7)	mg/kg	19	22	110	42.0	4.0	9.5	81.0
PO4-P Olsen/Bicarb	mg/kg	77	8.0	39	16.8	1.9	11.3	88.7
PO4-P AB-DTPA	mg/kg	4	11	66	17.2	6.0	34.9	75.0
PO4-P M. Morgan	mg/kg	8	2	42	4.1	0.9	21.0	87.5
SO4 - S (PO4 Extr.)	mg/kg	47	0	21	4.0	2.0	50.0	93.3
Ammonium Acetate Bases								
K	mg/kg	94	18	133	43	7.0	16.3	87.5
Ca	mg/kg	87	90	552	160	30.0	18.8	88.0
Mg	mg/kg	88	10	128	41	7.0	17.3	80.5
Na	mg/kg	75	0.0	209	22	6.0	27.3	81.7
Mehlich-1 Multi Element								
Soil Scoop Mass	g	8	5.0	8.3	5.0	0.00	0.0	
K	mg/kg	9	24.0	108	33.0	5.1	15.5	88.9
PO4-P	mg/kg	9	15.2	102	26.5	5.5	20.8	77.8
Ca	mg/kg	9	94	711	164	23.0	14.0	66.7
Mg	mg/kg	9	26	127	43	9.0	20.9	77.8
Zn	mg/kg	8	0.8	2.8	1.5	0.4	28.3	87.5
Mehlich-3 Multi-Element								
Soil Scoop Mass	g	29	1.0	15	2.6	0.8	28.9	
P	mg/kg	40	0.2	91	50.0	8.3	16.6	87.2
K	mg/kg	39	20.7	141	55	7.0	12.7	76.9
Ca	mg/kg	39	99.0	900	206	41	20.0	82.1
Mg	mg/kg	39	29.2	1500	55	9.6	17.3	82.1
Na	mg/kg	20	3.4	469	30	11.5	39.0	90.0
Al	mg/kg	13	15.7	5800	474	105	22.1	75.0
Zn	mg/kg	31	0.5	4.6	2.09	0.59	28.2	90.3
Mn	mg/kg	32	3.7	140.0	8.9	1.3	14.3	78.1
Fe	mg/kg	30	2.0	12000	136	20.0	14.7	76.7
Cu	mg/kg	31	0.0	5.7	0.70	0.18	25.4	74.2
B	mg/kg	23	0.0	2.1	0.20	0.10	50.0	69.6

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.
2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98103

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Cations								
K- Bicarb.	mg/kg	13	0.0	65	42	8.5	20.2	91.7
K Modified Morgan	mg/kg	4	25	34	31	2.5	8.2	100.0
Ca Modified Morgan	mg/kg	2	141	500	321	179.5	56.0	100.0
Micronutrients								
Zn - DTPA	mg/kg	84	0.45	4.4	0.81	0.15	18.5	90.9
Mn - DTPA	mg/kg	74	0.9	23	5.0	0.9	18.0	85.5
Fe - DTPA	mg/kg	78	6.1	211	32.8	5.3	16.2	87.7
Cu - DTPA	mg/kg	78	0.02	1.9	0.30	0.09	30.0	89.0
Zn - HCl	mg/kg	8	1.0	5	1.4	0.20	14.3	88.9
Mn-H3PO4	mg/kg	7	3.6	8	5.4	1.1	19.6	100.0
Cl - Ca(NO3)2 Extr.	mg/kg	12	1.0	46	5.0	4.0	80.0	76.9
B - Hot Water	mg/kg	59	0.00	6	0.16	0.11	68.8	81.4
Soil Organic Matter								
Soil Kjeldahl N	%	32	0.02	0.2	0.050	0.010	20.0	78.1
Soil TN (combustion)	%	27	0.01	0.5	0.050	0.008	16.0	68.0
Soil TOC (combustion)	%	19	0.08	0.4	0.29	0.020	6.9	73.7
SOM - Walkley-Black	%	58	0.2	1.7	0.60	0.10	16.7	78.9
SOM - LOI	%	57	0.1	2	0.70	0.11	15.9	85.5
CaCO3 Content	%	16	0.0	1	0.16	0.13	80.1	80.0
Soil CEC	cmol/kg	28	1.1	8.2	2.9	0.6	19.3	76.0
Particle Size Analysis								
Sand 2000 - 50 um	%	48	68.7	92.0	83.0	2.0	2.4	85.1
Silt 50 - 2 um	%	48	7.0	25.1	12.9	2.1	16.2	87.2
Clay 2 - 0 um	%	49	0.0	17.6	4.0	1.1	28.5	75.0

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.
2 - Percentage (%) of all reported laboratory values within established Warning Limits.

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1998 Interim North American Proficiency Testing Program
1st Quarter Results

May 4, 1998

Soil ID - 98104

Lab ID

Analysis	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Salinity								
Sat. Paste Moisture	%	38	19.4	39.0	30.5	1.5	4.9	61.8
pH - sp	Unit	44	7.4	8.6	7.80	0.10	1.3	77.5
ECe - sp	dS/m	49	0.17	714	5.1	0.71	13.9	87.0
HCO ₃ - sp	mmolc/L	13	1.4	18.5	6.3	1.12	17.9	75.0
Ca - sp	mmolc/L	36	1.0	227	14.9	2.40	16.1	81.3
Mg - sp	mmolc/L	36	1.2	60	6.9	0.97	14.1	75.0
Na - sp	mmolc/L	38	1.28	522	30.0	3.12	10.4	76.5
SAR - sp	value	32	0.95	65.9	8.9	0.75	8.5	82.8
Cl - sp	mmolc/L	24	0.31	684	29.8	1.70	5.7	65.0
SO ₄ - sp	mmolc/L	20	0.53	145	13.1	1.70	13.0	68.8
B - sp	mg/L	26	0.08	1.40	0.70	0.11	15.7	66.7
Soil EC								
Soil EC (1:1)	(dS/m)	32	0.86	371	1.45	0.39	26.6	85.3
Soil EC (1:2)	(dS/m)	39	0.24	3.4	1.07	0.22	20.7	80.0
Soil pH								
pH (1:1)	Unit	82	7.50	9.10	8.17	0.09	1.1	81.0
pH (1:2)	Unit	28	7.86	8.85	8.40	0.10	1.2	77.8
pH (1:2) 0.01 M CaCl ₂	Unit	7	7.56	7.95	7.70	0.14	1.8	100.0
Buffer pH								
SMP Buffer pH	Unit	35	7.23	7.74	7.60	0.03	0.4	69.7
Adams-Evans Buf pH	Unit	10	7.76	7.94	7.88	0.04	0.4	90.0
Woodruff Buf. pH	Unit	2	7.07	7.08	7.08	0.00	0.1	100.0
Nitrate (NO₃-N)								
Cd. Rd.	mg/kg	50	0.2	178	34.3	2.8	8.2	72.9
ISE	mg/kg	26	12.2	91.3	35.5	5.5	15.5	73.1
CTA	mg/kg	8	23.4	36.0	32.0	1.5	4.7	85.7
Ion Chromatography	mg/kg	9	2.5	49.0	30.6	0.6	2.0	57.1
Other	mg/kg	8	20.0	67.5	33.0	2.8	8.3	62.5
NH ₄ - N (KCl Extr.)	mg/kg	40	2.8	49.0	7.4	1.0	13.5	82.1

1 - Values flagged exceed Warning Limits " " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " " based on 4 x MAD.
2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98104

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Phosphorus and Sulfur								
PO4-P Bray P1 (1:10)	mg/kg	37	1	26	3.0	2.0	66.7	91.4
PO4-P Bray P1 (1:7)	mg/kg	18	0.2	23.6	3.0	2.0	66.7	95.0
PO4-P Olsen/Bicarb	mg/kg	77	7.0	29	17.0	1.8	10.6	81.7
PO4-P AB-DTPA	mg/kg	4	10	26	18.1	6.0	33.1	100.0
PO4-P M. Morgan	mg/kg	8	31	57	49.3	5.0	10.2	75.0
SO4 - S (PO4 Extr.)	mg/kg	47	10	215	61.0	15.0	24.6	75.6
Ammonium Acetate Bases								
K	mg/kg	92	376	1040	697	53	7.6	83.7
Ca	mg/kg	86	915	17770	3660	645	17.6	78.0
Mg	mg/kg	87	86.0	592	284	26	9.0	81.5
Na	mg/kg	74	85.0	518	360	37	10.2	77.1
Mehlich-1 Multi Element								
Soil Scoop Mass	g	8	5.0	7.2	5.0	0.00	0.0	
K	mg/kg	9	322.5	1375	399	26	6.4	55.6
PO4-P	mg/kg	9	8.0	91	16.0	3.5	21.9	66.7
Ca	mg/kg	9	4148	12335	5550	819	14.8	66.7
Mg	mg/kg	9	210	1105	288	19.0	6.6	66.7
Zn	mg/kg	8	0.0	0.6	0.1	0.1	72.2	87.5
Mehlich-3 Multi-Element								
Soil Scoop Mass	g	29	1.0	13	2.5	0.5	20.0	
P	mg/kg	40	0.5	133	41.6	7.6	18.3	87.2
K	mg/kg	39	392.8	1752	801	98.2	12.3	79.5
Ca	mg/kg	38	4838.0	74333	18375	4425	24.1	81.6
Mg	mg/kg	39	328.1	8400	670	93.0	13.9	84.6
Na	mg/kg	21	224.6	824	420	69.3	16.5	76.2
Al	mg/kg	12	7.1	12000	18	8	47.8	63.6
Zn	mg/kg	32	0.1	50.0	1.65	0.37	22.1	75.0
Mn	mg/kg	32	9.4	344.40	31	4.3	13.9	68.8
Fe	mg/kg	29	5.0	18000	11	3.5	31.8	86.2
Cu	mg/kg	32	0.2	22.0	1.10	0.24	21.8	65.6
B	mg/kg	24	1.2	16.0	2.9	0.40	13.8	70.8

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.
 2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98104

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Cations								
K- Bicarb.	mg/kg	13	480	690	567	37	6.5	75.0
K Modified Morgan	mg/kg	4	407	587	557	29	5.1	75.0
Ca Modified Morgan	mg/kg	2	28470	37600	33000	4565	13.8	100.0
Micronutrients								
Zn - DTPA	mg/kg	83	0.33	4.0	0.70	0.10	14.3	84.2
Mn - DTPA	mg/kg	73	0.3	51	9.8	1.3	13.4	85.3
Fe - DTPA	mg/kg	78	0.5	26	2.9	0.6	20.2	89.0
Cu - DTPA	mg/kg	77	0.12	7.0	0.51	0.10	18.6	91.7
Zn - HCl	mg/kg	8	0.1	1	0.25	0.10	40.0	66.7
Mn-H3PO4	mg/kg	7	2.0	8	4.3	1.0	22.3	80.0
Cl - Ca(NO3)2 Extr.	mg/kg	11	120	560	335	86.4	25.8	83.3
B - Hot Water	mg/kg	61	0.80	5	1.50	0.37	24.7	91.7
Soil Organic Matter								
Soil Kjeldahl N	%	32	0.03	0.2	0.070	0.011	15.9	78.1
Soil TN (combustion)	%	27	0.02	0.7	0.066	0.014	20.5	76.9
Soil TOC (combustion)	%	21	0.08	2.1	0.79	0.23	29.1	55.0
SOM - Walkley-Black	%	60	0.7	3.7	1.30	0.18	13.8	91.5
SOM - LOI	%	56	0.9	4	1.50	0.28	18.7	83.3
CaCO3 Content	%	20	8.8	12	10.5	0.57	5.4	88.9
Soil CEC	cmol/kg	28	4.6	27.6	8.7	1.5	17.0	88.0
Particle Size Analysis								
Sand 2000 - 50 um	%	47	18.0	78.0	58.8	3.3	5.5	80.4
Silt 50 - 2 um	%	47	13.0	50.0	27.0	3.0	11.1	82.6
Clay 2 - 0 um	%	48	2.0	32.0	13.0	3.0	23.1	80.9

1 - Values flagged exceed Warning Limits " " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " " based on 4 x MAD.
2 - Percentage (%) of all reported laboratory values within established Warning Limits

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1998 Interim North American Proficiency Testing Program
1st Quarter Results

May 4, 1998

Soil ID - 98105

Lab ID

Analysis	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Salinity								
Sat. Paste Moisture	%	38	44.0	100.0	68.7	6.5	9.4	85.3
pH - sp	Unit	45	6.9	8.4	7.44	0.16	2.2	78.0
ECe - sp	dS/m	48	0.73	482.0	1.30	0.21	15.8	88.9
HCO ₃ - sp	mmolc/L	13	2.3	21.5	8.1	1.60	19.7	83.3
Ca - sp	mmolc/L	36	0.5	40	3.2	0.39	12.2	81.3
Mg - sp	mmolc/L	36	0.8	20	2.6	0.53	20.4	81.3
Na - sp	mmolc/L	38	0.39	42	2.8	0.38	13.7	82.4
SAR - sp	value	32	0.47	9.8	1.6	0.18	11.6	72.4
Cl - sp	mmolc/L	24	0.31	57	1.8	0.30	17.1	70.0
SO ₄ - sp	mmolc/L	21	0.26	36.2	3.7	0.69	18.5	70.6
B - sp	mg/L	26	0.08	1.18	0.30	0.04	13.3	66.7
Soil EC								
Soil EC (1:1)	(dS/m)	32	0.30	347.00	0.90	0.22	24.0	79.4
Soil EC (1:2)	(dS/m)	39	0.15	2.10	0.61	0.10	16.8	77.5
Soil pH								
pH (1:1)	Unit	82	7.25	8.40	7.70	0.10	1.3	93.7
pH (1:2)	Unit	28	7.58	8.31	7.82	0.12	1.5	96.3
pH (1:2) 0.01 M CaCl ₂	Unit	7	7.00	7.36	7.28	0.07	1.0	85.7
Buffer pH								
SMP Buffer pH	Unit	35	6.90	7.50	7.27	0.06	0.9	90.9
Adams-Evans Buf pH	Unit	10	7.60	7.92	7.72	0.06	0.7	90.0
Woodruff Buf. pH	Unit	2	7.08	7.09	7.09	0.00	0.1	100.0
Nitrate (NO₃-N)								
Cd. Rd.	mg/kg	49	0.2	120.0	24.2	2.2	9.1	72.3
ISE	mg/kg	26	8.2	49.3	22.5	5.4	23.8	92.3
CTA	mg/kg	8	17.2	35.0	27.5	0.7	2.6	71.4
Ion Chromatography	mg/kg	9	0.5	39.0	28.1	3.3	11.7	85.7
Other	mg/kg	8	15.0	25.6	23.1	2.2	9.6	87.5
NH ₄ - N (KCl Extr.)	mg/kg	40	2.8	42.0	6.0	1.3	21.7	87.2

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " * * " based on 4 x MAD.
2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98105

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Phosphorus and Sulfur								
PO4-P Bray P1 (1:10)	mg/kg	37	144	1300	502	318	63.3	97.1
PO4-P Bray P1 (1:7)	mg/kg	16	145	852	472	165	35.0	100.0
PO4-P Olsen/Bicarb	mg/kg	75	9.0	1056	530	241	45.4	100.0
PO4-P AB-DTPA	mg/kg	4	86	395	167	70	41.8	75.0
PO4-P M. Morgan	mg/kg	8	223	1357	899	162	18.0	62.5
SO4 - S (PO4 Extr.)	mg/kg	47	7	72	33.0	9.7	29.2	88.9
Ammonium Acetate Bases								
K	mg/kg	90	300	7512	3250	340	10.4	75.3
Ca	mg/kg	85	53	6530	3820	484	12.7	79.3
Mg	mg/kg	86	101	1690	1060	100	9.4	79.0
Na	mg/kg	73	1.5	339	153	18	11.8	80.0
Mehlich-1 Multi Element								
Soil Scoop Mass	g	8	4.7	5.8	5.0	0.00	0.0	
K	mg/kg	9	1324	5127	1590	171	10.8	77.8
PO4-P	mg/kg	9	209	3270	647	297	45.9	77.8
Ca	mg/kg	9	2756	10660	4300	138	3.2	66.7
Mg	mg/kg	9	651	1786	866	135	15.5	77.8
Zn	mg/kg	8	0.7	44.0	2.19	0.97	44.3	87.5
Mehlich-3 Multi-Element								
Soil Scoop Mass	g	29	0.9	11	2.3	0.3	11.6	
P	mg/kg	39	4.4	2244	1566	95	6.1	65.8
K	mg/kg	39	270	8580	3216	266	8.3	76.9
Ca	mg/kg	38	3600	14000	6900	739	10.7	73.7
Mg	mg/kg	39	852	6700	1350	101	7.5	79.5
Na	mg/kg	21	83	715	160	12	7.5	57.1
Al	mg/kg	13	6.9	23000	292	65	22.1	66.7
Zn	mg/kg	32	7.4	160	43.5	4.8	11.0	75.0
Mn	mg/kg	32	25.6	820	72.5	10.1	13.9	84.4
Fe	mg/kg	30	1.3	23000	330	44.4	13.5	76.7
Cu	mg/kg	32	2.1	36.0	5.5	0.50	9.1	75.0
B	mg/kg	24	1.4	15.0	4.9	0.59	12.1	75.0

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.
2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98105

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Cations								
K- Bicarb.	mg/kg	12	560	3000	2535	425	16.8	72.7
K Modified Morgan	mg/kg	4	1220	3086	1760	440	25.0	75.0
Ca Modified Morgan	mg/kg	2	8250	9200	8725	475	5.4	100.0
Micronutrients								
Zn - DTPA	mg/kg	82	0.65	117.0	15.4	1.80	11.7	88.2
Mn - DTPA	mg/kg	73	1.5	80	7.7	2.1	27.3	83.8
Fe - DTPA	mg/kg	77	2.0	720	60.8	10.0	16.4	90.3
Cu - DTPA	mg/kg	77	0.40	28.0	4.10	0.40	9.8	80.6
Zn - HCl	mg/kg	8	2.1	51	39.6	29	73.2	88.9
Mn-H3PO4	mg/kg	7	3.7	31	22.0	9.6	43.6	100.0
Cl - Ca(NO3)2 Extr.	mg/kg	12	16.0	138	36.9	9.0	24.4	76.9
B - Hot Water	mg/kg	61	0.43	8	2.64	1.00	37.9	95.0
Soil Organic Matter								
Soil Kjeldahl N	%	32	0.09	518.0	0.53	0.038	7.2	62.5
Soil TN (combustion)	%	28	0.50	543.0	0.57	0.027	4.7	84.6
Soil TOC (combustion)	%	20	4.37	5.5	5.02	0.18	3.5	80.0
SOM - Walkley-Black	%	57	1.8	12.9	7.80	1.30	16.6	87.5
SOM - LOI	%	56	2.7	16	8.70	0.88	10.1	79.6
CaCO ₃ Content	%	18	0.1	7.6	1.80	0.60	33.3	75.0
Soil CEC	cmol/kg	28	16.1	57.7	39.2	4.8	12.3	84.0
Particle Size Analysis								
Sand 2000 - 50 um	%	48	2.2	56.0	23.7	6.2	26.2	87.2
Silt 50 - 2 um	%	48	25.2	69.0	47.6	5.4	11.3	83.0
Clay 2 - 0 um	%	49	8.0	52.0	28.0	7.0	25.0	93.8

1 - Values flagged exceed Warning Limits " " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " " based on 4 x MAD.
2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98106

Lab ID

Analysis	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Salinity								
Sat. Paste Moisture	%	38	18.4	38.6	29.3	1.7	6.0	79.4
pH - sp	Unit	45	7.1	8.3	7.50	0.11	1.5	87.8
ECe - sp	dS/m	49	0.16	129	0.60	0.08	13.3	80.4
HCO ₃ - sp	mmolc/L	13	1.2	11.8	5.3	1.10	20.6	75.0
Ca - sp	mmolc/L	36	0.2	55	4.4	0.67	15.3	87.5
Mg - sp	mmolc/L	36	0.2	11	1.5	0.27	18.0	87.5
Na - sp	mmolc/L	38	0.03	2	0.26	0.14	52.7	85.3
SAR - sp	value	31	0.03	2.6	0.18	0.12	66.7	85.7
Cl - sp	mmolc/L	24	0.10	66	0.35	0.15	42.9	80.0
SO ₄ - sp	mmolc/L	19	0.15	15.0	0.60	0.21	35.0	81.3
B - sp	mg/L	25	0.07	1.00	0.22	0.03	13.6	62.5
Soil EC								
Soil EC (1:1)	(dS/m)	32	0.10	110	0.20	0.07	32.5	85.3
Soil EC (1:2)	(dS/m)	38	0.04	0.60	0.15	0.05	33.3	85.0
Soil pH								
pH (1:1)	Unit	82	7.06	7.90	7.60	0.10	1.3	94.9
pH (1:2)	Unit	28	7.50	8.01	7.72	0.10	1.3	92.9
pH (1:2) 0.01 M CaCl ₂	Unit	7	6.90	7.12	7.05	0.06	0.9	100.0
Buffer pH								
SMP Buffer pH	Unit	35	7.08	7.64	7.48	0.06	0.8	61.8
Adams-Evans Buf pH	Unit	10	7.79	7.95	7.91	0.04	0.5	80.0
Woodruff Buf. pH	Unit	2	6.80	7.04	6.92	0.12	1.7	100.0
Nitrate (NO₃-N)								
Cd. Rd.	mg/kg	50	4.3	37.0	8.0	1.3	16.3	72.9
ISE	mg/kg	26	2.8	24.1	7.6	2.0	25.7	96.2
CTA	mg/kg	8	5.2	10.0	8.0	0.7	8.8	87.5
Ion Chromatography	mg/kg	9	2.0	13.0	7.6	1.0	13.6	71.4
Other	mg/kg	8	5.0	10.0	7.1	1.4	19.8	100.0
NH ₄ - N (KCl Extr.)	mg/kg	40	0.2	22.0	4.8	1.2	24.5	92.3

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " * * " based on 4 x MAD.

2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98106

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Phosphorus and Sulfur								
PO4-P Bray P1 (1:10)	mg/kg	38	40	149	106	11	10.4	83.3
PO4-P Bray P1 (1:7)	mg/kg	18	57.0	158	92.0	7.0	7.6	71.4
PO4-P Olsen/Bicarb	mg/kg	77	11.0	105	45.1	5.9	13.1	86.1
PO4-P AB-DTPA	mg/kg	4	36	70	53.2	16.9	31.8	100.0
PO4-P M. Morgan	mg/kg	8	73	102	78.7	3.0	3.8	88.9
SO4 - S (PO4 Extr.)	mg/kg	47	0	37	5.5	3.4	61.8	84.8
Ammonium Acetate Bases								
K	mg/kg	93	123	396	240	29	11.9	92.0
Ca	mg/kg	86	490	2380	1410	113	8.0	80.7
Mg	mg/kg	87	40.0	290	132	15	11.4	81.7
Na	mg/kg	73	0.0	1890	13	8.0	61.5	84.5
Mehlich-1 Multi Element								
Soil Scoop Mass	g	8	5.0	7.7	5.0	0.00	0.0	
K	mg/kg	9	167	687	194	19	9.8	77.8
PO4-P	mg/kg	9	110	256	132	21	15.9	77.8
Ca	mg/kg	9	1546	3923	2030	152	7.5	77.8
Mg	mg/kg	9	116	396	153	9	5.9	66.7
Zn	mg/kg	8	2.5	42.0	31.6	6.2	19.6	75.0
Mehlich-3 Multi-Element								
Soil Scoop Mass	g	29	1.0	14	2.5	0.8	30.4	
P	mg/kg	40	0.4	317	156	18	11.2	66.7
K	mg/kg	39	180	3161	289	32	11.0	71.8
Ca	mg/kg	39	800	4056	2237	219	9.8	74.4
Mg	mg/kg	39	123	1500	200	22.0	11.0	76.9
Na	mg/kg	19	2	425	16	8.6	53.5	84.2
Al	mg/kg	13	3	7800	301	71	23.4	75.0
Zn	mg/kg	32	11	79	45	5.4	12.0	71.9
Mn	mg/kg	32	14	150	62	6.8	10.9	71.9
Fe	mg/kg	30	0.7	8300	124	21.7	17.5	70.0
Cu	mg/kg	32	1.9	15.0	5.9	0.68	11.5	75.0
B	mg/kg	24	0.9	6.6	1.52	0.22	14.5	79.2

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " * * " based on 4 x MAD.

2 - Percentage (%) of all reported laboratory values within established Warning Limits.

1998 Interim North American Proficiency Testing Program

1st Quarter Results

May 4, 1998

Soil ID - 98106

Lab ID

Analysis - cont.	Units	No.	Min	Max	Median	MAD ¹	RMD %	% Values < WL ²
Cations								
K - Bicarb.	mg/kg	13	114.0	275	224	32	14.3	92.3
K Modified Morgan	mg/kg	4	180	200	187	7	3.5	100.0
Ca Modified Morgan	mg/kg	2	1698	1720	1710	11	0.6	100.0
Micronutrients								
Zn - DTPA	mg/kg	83	8.60	95.0	16.0	2.00	12.5	88.3
Mn - DTPA	mg/kg	73	2.1	65	10.0	1.4	14.0	88.4
Fe - DTPA	mg/kg	78	2.5	98	11.4	2.3	20.4	86.5
Cu - DTPA	mg/kg	77	1.30	15.0	2.02	0.23	11.4	82.2
Zn - HCl	mg/kg	8	32.5	44	35.1	1.0	2.8	66.7
Mn-H3PO4	mg/kg	8	10.5	34	28.8	3.8	13.1	100.0
Cl - Ca(NO3)2 Extr.	mg/kg	12	1.0	54	4.7	3.0	64.5	71.4
B - Hot Water	mg/kg	61	0.40	4	0.90	0.29	32.2	88.5
Soil Organic Matter								
Soil Kjeldahl N	%	32	0.04	0.5	0.084	0.014	16.7	84.8
Soil TN (combustion)	%	28	0.03	0.9	0.080	0.011	13.8	80.8
Soil TOC (combustion)	%	20	0.80	1.3	0.99	0.055	5.6	75.0
SOM - Walkley-Black	%	60	1.1	3.4	1.80	0.19	10.6	80.0
SOM - LOI	%	56	1.3	3	1.70	0.30	17.6	94.5
CaCO3 Content	%	17	0.0	9	0.48	0.22	46.3	94.1
Soil CEC	cmol/kg	28	3.4	37.0	6.4	0.9	13.4	76.9
Particle Size Analysis								
Sand 2000 - 50 um	%	48	70.1	94.0	85.2	2.8	3.2	85.4
Silt 50 - 2 um	%	48	2.0	21.5	8.9	2.0	22.9	87.5
Clay 2 - 0 um	%	49	1.0	17.5	5.0	2.0	40.0	93.9

1 - Values flagged exceed Warning Limits " * " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " based on 4 x MAD.
2 - Percentage (%) of all reported laboratory values within established Warning Limits.