



Agriculture Laboratory Proficiency (ALP) Program

Fall 2012

Performance Analysis Report - Test Cycle 19

CTS Lab Code: U6291A

Web Code: CRM2HZ for Analysis #801

Analysis # 801: Soil Properties

Test Code	Analysis	Units	Samples	Lab Mean	Grand Median	MAD	95% Conf Interval	WithinLab Performance, k	WithinLab Avg STD	Labs Rpt
101	Saturated Paste Moisture	Percent	SRS1211	40.0	44.7	3.20	35.4 - 54.0	0.18	1.4	16
			SRS1212	32.8	35.6	2.29	28.9 - 42.2	0.58	1.2	16
			SRS1213	29.5	31.6	2.07	25.6 - 37.6	0.47	1.1	16
			SRS1214	44.8	45.8	3.98	34.2 - 57.3	0.10	2.9	16
			SRS1215	37.2	41.9	2.83	33.7 - 50.1	0.08	2.1	16
102	pH - sp	Unit	SRS1211	4.77	5.07	0.33	4.10 - 6.03	0.04	0.06	14
			SRS1212	7.33	7.32	0.15	6.90 - 7.75	0.41	0.10	14
			SRS1213	7.44	7.41	0.12	7.08 - 7.75	0.52	0.08	14
			SRS1214	5.80	6.13	0.26	5.36 - 6.89	0.13	0.14	14
			SRS1215	4.98	5.07	0.16	4.61 - 5.54	0.08	0.16	14
103	ECe - sp	dS/m	SRS1211	1.68	1.43	0.18	0.91 - 1.94	1.73	0.08	17
			SRS1212	1.00	0.97	0.06	0.80 - 1.14	1.91	0.05	17
			SRS1213	4.96	4.32	0.53	2.79 - 5.85	0.15	0.23	17
			SRS1214	0.40	0.45	0.033	0.35 - 0.54	0.45	0.04	17
			SRS1215	1.36	1.26	0.10	0.98 - 1.54	0.73	0.06	17
126	NO3-N Cd. Rd.	mg/kg	SRS1211	70.8	63.8	9.56	36.1 - 91.6	1.05	2.5	30
			SRS1212	27.2	27.7	1.91	22.1 - 33.2	0.32	1.6	30
			SRS1213	48.7	46.3	2.06	40.3 - 52.3	0.26	1.9	30
			SRS1214	14.1	14.2	1.05	11.1 - 17.2	0.21	0.7	30
			SRS1215	64.1	69.6	5.40	53.9 - 85.2	0.35	2.7	30
134	PO4-P Olsen/Bicarb (1:20)	mg/kg	SRS1211	11.6	16.6	3.70	5.9 - 27.4	0.15	1.6	27
			SRS1212	15.7	19.0	2.80	10.9 - 27.1	0.13	1.3	27
			SRS1213	23.1	25.3	2.33	18.6 - 32.1	0.31	1.5	27
			SRS1214	10.7	12.7	1.00	9.8 - 15.6	0.36	1.3	27
			SRS1215	2.03	3.00	1.33	0.00 - 6.87	0.36	0.79	27
140	K Ammonium Acetate	mg/kg	SRS1211	99.3	142.3	35.3	39.9 - 244.8	0.25	12.7	37
			SRS1212	212.0	234.7	18.8	180.1 - 289.2	0.15	15.2	37
			SRS1213	183.6	196.3	10.3	166.4 - 226.3	0.11	16.5	37
			SRS1214	247.7	293.6	35.0	192.2 - 395.0	0.23	13.6	37
			SRS1215	83.4	92.5	10.4	62.4 - 122.5	0.05	4.0	37
141	Ca Ammonium Acetate	mg/kg	SRS1211	837.6	907.6	117.4	567.1 - 1,248.1	0.15	55.1	33
			SRS1212	2,091.3	2,284.1	290.1	1,442.9 - 3,125.3	0.30	97.7	33
			SRS1213	3,107.3	3,107.3	307.0	2,217.0 - 3,997.6	0.64	153.0	33
			SRS1214	1,602.3 X	2,264.5	227.8	1,603.9 - 2,925.2	0.39	81.6	33
			SRS1215	1,602.3	1,747.5	201.2	1,164.1 - 2,330.8	0.52	61.1	33
142	Mg Ammonium Acetate	mg/kg	SRS1211	160.8	157.7	22.1	93.5 - 221.9	0.20	9.5	33
			SRS1212	219.1	225.0	17.0	175.7 - 274.3	0.47	9.5	33
			SRS1213	333.3	311.3	18.7	257.2 - 365.5	0.75	11.5	33
			SRS1214	400.4	417.0	35.6	313.8 - 520.2	0.35	16.2	33
			SRS1215	185.8	190.7	23.3	123.0 - 258.3	0.79	6.6	33
143	Na Ammonium Acetate	mg/kg	SRS1211	2.68 X	15.8	3.34	6.1 - 25.5	0.70	4.16	28
			SRS1212	4.44 X	20.4	2.52	13.1 - 27.7	0.50	5.92	28
			SRS1213	384.6	401.7	24.0	332.2 - 471.2	0.60	21.8	28
			SRS1214	4.99	13.2	3.67	2.6 - 23.9	0.79	6.15	28
			SRS1215	3.72 X	19.5	2.67	11.7 - 27.2	0.18	5.66	28
145	K- Bicarb.	mg/kg	SRS1211	91.3	116.7	n/a	n/a	0.88	4.0	3
			SRS1212	225.0	207.3	n/a	n/a	1.15	4.6	3
			SRS1213	202.7	161.7	n/a	n/a	0.65	3.9	3
			SRS1214	264.0	244.0	n/a	n/a	0.60	7.6	3
			SRS1215	74.7	70.6	n/a	n/a	1.53	3.3	3



Analysis # 801: Soil Properties

Test Code	Analysis	Units	Samples	Lab Mean	Grand Median	MAD	95% Conf Interval	WithinLab Performance, k	WithinLab Avg STD	Labs Rpt
169 Zn - DTPA		mg/kg	SRS1211	0.84	1.73	0.81	0.00 - 4.07	0.05	0.85	36
			SRS1212	0.64	0.63	0.10	0.34 - 0.93	0.65	0.06	36
			SRS1213	1.59	1.53	0.20	0.96 - 2.09	0.32	0.11	36
			SRS1214	0.58	0.60	0.10	0.31 - 0.89	0.04	0.06	36
			SRS1215	2.28	2.00	0.37	0.93 - 3.07	0.72	0.12	36
170 Mn - DTPA		mg/kg	SRS1211	17.8	22.9	3.59	12.5 - 33.4	1.64	1.0	26
			SRS1212	2.33	1.85	0.67	0.00 - 3.78	0.88	0.26	26
			SRS1213	9.15	8.37	1.13	5.10 - 11.64	0.90	0.49	26
			SRS1214	49.1	47.8	6.07	30.2 - 65.4	0.97	1.8	26
			SRS1215	10.3	11.6	1.22	8.1 - 15.2	1.31	0.6	26
171 Fe - DTPA		mg/kg	SRS1211	65.1	80.3	16.6	32.1 - 128.5	0.40	6.8	27
			SRS1212	16.6	16.6	3.89	5.4 - 27.9	0.43	1.7	27
			SRS1213	9.15	7.25	1.30	3.50 - 11.01	0.51	0.87	27
			SRS1214	24.8	23.3	3.85	12.1 - 34.5	0.67	1.2	27
			SRS1215	56.7	58.3	12.7	21.5 - 95.2	0.56	3.7	27
172 Cu - DTPA		mg/kg	SRS1211	1.02	1.31	0.45	0.00 - 2.62	0.57	0.17	26
			SRS1212	0.71	0.65	0.13	0.28 - 1.01	0.58	0.06	26
			SRS1213	1.45	1.29	0.12	0.94 - 1.64	0.71	0.09	26
			SRS1214	0.99	1.10	0.11	0.80 - 1.41	0.50	0.06	26
			SRS1215	24.8	23.7	3.84	12.5 - 34.8	0.95	1.2	26



Agriculture Laboratory Proficiency (ALP) Program

Performance Analysis Report - Test Cycle 19

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Laboratory Performance Summary - Soil Properties

Performance Review of Laboratory-Sample Biases

z-scores calculated using Lab Median and mean average deviation
(numbers closer to zero indicate closer agreement with other laboratories and
scores outside limits in red)

Test Code	Analysis	SRS1211	SRS1212	SRS1213	SRS1214	SRS1215
101	Saturated Paste Moisture	-1.47	-1.22	-0.99	-0.24	-1.65
102	pH - sp	-0.88	0.03	0.26	-1.24	-0.54
103	ECe - sp	1.43	0.64	1.21	-1.32	1.00
126	NO3-N Cd. Rd.	0.73	-0.28	1.16	-0.09	-1.02
134	PO4-P Olsen/Bicarb (1:20)	-1.35	-1.18	-0.96	-2.00	-0.73
140	K Ammonium Acetate	-1.22	-1.21	-1.24	-1.31	-0.87
141	Ca Ammonium Acetate	-0.60	-0.66	0.00	-2.91	-0.72
142	Mg Ammonium Acetate	0.14	-0.35	1.18	-0.47	-0.21
143	Na Ammonium Acetate	-3.93	-6.35	-0.71	-2.24	-5.90
169	Zn - DTPA	-1.10	0.09	0.32	-0.21	0.74
170	Mn - DTPA	-1.42	0.72	0.69	0.22	-1.10
171	Fe - DTPA	-0.92	0.00	1.46	0.38	-0.13
172	Cu - DTPA	-0.63	0.50	1.32	-1.05	0.30