



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	SRS1301	24.1 X	29.7	1.33	25.9 - 33.6	0.55	1.3	16
			SRS1302	19.0	21.9	1.83	16.5 - 27.2	0.17	1.3	16
			SRS1303	33.9	36.9	2.08	30.9 - 42.9	0.52	1.4	16
			SRS1304	31.0 X	37.0	1.20	33.5 - 40.4	0.32	1.3	16
			SRS1305	35.3	36.9	1.83	31.5 - 42.2	0.44	1.6	16
102	pH - sp	Unit	SRS1301	6.30	6.46	0.16	5.99 - 6.92	0.57	0.10	15
			SRS1302	5.87	6.11	0.15	5.69 - 6.54	0.60	0.08	15
			SRS1303	4.12	4.15	0.15	3.72 - 4.59	0.06	0.28	15
			SRS1304	7.39	7.37	0.11	7.04 - 7.70	0.20	0.14	15
			SRS1305	4.94	5.04	0.10	4.74 - 5.34	0.27	0.10	15
103	ECe - sp	dS/m	SRS1301	0.56 X	0.45	0.035	0.34 - 0.55	1.26	0.03	17
			SRS1302	0.68	0.56	0.09	0.30 - 0.82	0.53	0.03	17
			SRS1303	4.01	3.29	0.32	2.36 - 4.22	0.60	0.15	17
			SRS1304	0.95 X	0.67	0.06	0.51 - 0.84	1.07	0.04	17
			SRS1305	3.01 X	2.13	0.18	1.59 - 2.66	0.36	0.11	17
126	NO3-N Cd. Rd.	mg/kg	SRS1301	10.4	8.54	1.04	5.52 - 11.55	0.30	0.8	30
			SRS1302	12.4 X	10.8	0.42	9.6 - 12.0	0.21	0.8	30
			SRS1303	187.4	182.7	26.7	105.2 - 260.2	0.68	6.9	30
			SRS1304	22.8 X	18.6	1.30	14.8 - 22.3	0.41	0.8	30
			SRS1305	98.9	97.0	6.48	78.1 - 115.8	0.19	3.8	30
134	PO4-P Olsen/Bicarb (1:20)	mg/kg	SRS1301	40.2	38.9	8.15	15.3 - 62.6	0.13	2.0	28
			SRS1302	8.77	9.68	1.71	4.73 - 14.63	0.14	1.08	28
			SRS1303	20.3	23.7	3.85	12.5 - 34.8	0.21	1.2	28
			SRS1304	13.3	15.7	2.32	8.9 - 22.4	0.81	1.0	28
			SRS1305	18.3	19.9	2.43	12.9 - 26.9	0.68	1.1	28
140	K Ammonium Acetate	mg/kg	SRS1301	49.6 X	29.2	4.17	17.1 - 41.2	1.06	2.5	38
			SRS1302	98.0 X	79.7	5.64	63.3 - 96.0	0.36	5.3	38
			SRS1303	63.1	52.4	7.25	31.4 - 73.4	0.27	4.3	38
			SRS1304	95.7	84.5	5.82	67.6 - 101.4	0.04	3.9	38
			SRS1305	633.9	643.0	42.9	518.7 - 767.3	0.18	16.9	38
141	Ca Ammonium Acetate	mg/kg	SRS1301	753.4	753.4	86.3	503.0 - 1,003.7	0.09	40.9	36
			SRS1302	554.1	541.4	42.5	418.1 - 664.6	0.05	31.1	36
			SRS1303	647.1	655.8	81.8	418.7 - 892.9	0.19	30.4	36
			SRS1304	4,149.7	4,595.4	447.7	3,297.1 - 5,893.6	0.59	247.4	36
			SRS1305	853.9	913.4	74.3	697.8 - 1,129.0	0.29	38.5	36
142	Mg Ammonium Acetate	mg/kg	SRS1301	59.6	62.2	9.67	34.1 - 90.2	0.63	3.4	36
			SRS1302	100.6	93.3	9.00	67.2 - 119.4	0.47	4.3	36
			SRS1303	51.9	55.8	6.30	37.6 - 74.1	0.55	3.0	36
			SRS1304	294.2	288.7	21.3	226.8 - 350.5	0.29	10.6	36
			SRS1305	249.4	246.3	18.7	192.2 - 300.5	0.65	7.1	36
143	Na Ammonium Acetate	mg/kg	SRS1301	20.7 X	11.0	3.33	1.3 - 20.7	0.39	2.5	29
			SRS1302	34.4 X	12.0	3.00	3.3 - 20.7	2.97 X	1.9	29
			SRS1303	42.5 X	12.7	3.33	3.0 - 22.3	3.13 X	2.0	29
			SRS1304	38.6 X	20.0	3.00	11.3 - 28.7	0.31	3.6	29
			SRS1305	66.9 X	12.7	3.45	2.7 - 22.7	0.91	2.3	29
145	K- Bicarb.	mg/kg	SRS1301	34.0	33.3	n/a	n/a	0.72	2.8	3
			SRS1302	93.3	83.6	n/a	n/a	0.81	4.7	3
			SRS1303	59.7	59.6	n/a	n/a	1.33	3.1	3
			SRS1304	70.0	64.1	n/a	n/a	0.95	2.1	3
			SRS1305	739.0	624.3	n/a	n/a	0.82	18.3	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	SRS1301	6.12	4.81	0.82	<b>2.42 - 7.19</b>	0.03	0.41	33
			SRS1302	0.46	0.48	0.08	<b>0.23 - 0.72</b>	0.31	0.10	33
			SRS1303	19.5	19.5	3.20	<b>10.2 - 28.8</b>	0.42	0.8	33
			SRS1304	0.98	1.00	0.20	<b>0.43 - 1.57</b>	0.10	0.14	33
			SRS1305	0.67	0.58	0.11	<b>0.27 - 0.90</b>	0.08	0.05	33
170 Mn - DTPA		mg/kg	SRS1301	10.1	8.06	1.39	<b>4.02 - 12.10</b>	0.17	0.6	25
			SRS1302	138.8	115.2	18.9	<b>60.4 - 170.0</b>	0.80	4.9	25
			SRS1303	12.6	14.7	3.05	<b>5.9 - 23.5</b>	0.37	0.9	25
			SRS1304	3.72	1.67	0.86	<b>0.00 - 4.17</b>	0.45	0.43	25
			SRS1305	29.1	22.0	4.27	<b>9.6 - 34.4</b>	0.81	1.3	25
171 Fe - DTPA		mg/kg	SRS1301	23.0	18.3	3.72	<b>7.5 - 29.1</b>	0.00	2.8	25
			SRS1302	89.7	70.0	17.1	<b>20.3 - 119.7</b>	0.63	11.0	25
			SRS1303	248.8	229.4	53.4	<b>74.5 - 384.4</b>	0.44	13.5	25
			SRS1304	12.1	12.1	3.21	<b>2.8 - 21.4</b>	0.22	1.5	25
			SRS1305	60.2	49.3	7.59	<b>27.3 - 71.3</b>	0.19	3.2	25
172 Cu - DTPA		mg/kg	SRS1301	0.72	0.50	0.09	<b>0.25 - 0.75</b>	0.44	0.04	27
			SRS1302	0.31	0.25	0.06	<b>0.07 - 0.42</b>	0.19	0.03	27
			SRS1303	0.23	0.20	0.05	<b>0.06 - 0.35</b>	0.26	0.03	27
			SRS1304	0.49	0.43	0.09	<b>0.16 - 0.70</b>	0.08	0.04	27
			SRS1305	0.97	0.90	0.21	<b>0.30 - 1.50</b>	0.32	0.07	27

## Agriculture Laboratory Proficiency (ALP) Program

Performance Analysis Report - Test Cycle 20

CTS Lab Code: U6291A

### 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	SRS1301	SRS1302	SRS1303	SRS1304	SRS1305
101	Saturated Paste Moisture	-4.25	-1.55	-1.45	-4.99	-0.84
102	pH - sp	-1.00	-1.64	-0.22	0.21	-1.00
103	ECe - sp	3.31	1.35	2.26	4.96	4.77
126	NO3-N Cd. Rd.	1.82	3.88	0.18	3.25	0.31
134	PO4-P Olsen/Bicarb (1:20)	0.15	-0.53	-0.88	-1.00	-0.67
140	K Ammonium Acetate	4.90	3.26	1.48	1.92	-0.21
141	Ca Ammonium Acetate	0.00	0.30	-0.11	-1.00	-0.80
142	Mg Ammonium Acetate	-0.26	0.82	-0.62	0.26	0.16
143	Na Ammonium Acetate	2.90	7.48	8.96	6.21	15.75
169	Zn - DTPA	1.60	-0.21	0.00	-0.08	0.79
170	Mn - DTPA	1.48	1.25	-0.69	2.37	1.67
171	Fe - DTPA	1.25	1.15	0.36	-0.01	1.43
172	Cu - DTPA	2.53	1.00	0.55	0.73	0.32