NAPT Program
North American Proficiency Testing

Soil Science Society of America

2025 North American Proficiency Testing Program
Quarter 2 Report - 8/21/2025

Laboratory ID

PAP certification requirments: All 20 soil and/or 12 plant samples have to have data submitted with an average score >60% for each method to be certified, as well as an overall of all methods >80%.

Overall PAP Score for this Year

#DIV/0!

Soil			Soil 2025-106			Soil 2025-107			Soil 2025-108			Soil 2025-109			Soil 2025-110			Current
Analysis - Modus Code	**Units**	***n***	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**PAP Score**
Saturated Paste																		
Moisture - sp	%	15	**46.5**	4.87		**47.4**	3.74		**49.1**	4.60		**44.4**	3.75		**31.0**	3.96		
pH - sp	Unit	19	**7.40**	0.15		**6.80**	0.14		**7.76**	0.16		**6.06**	0.12		**5.44**	0.11		
ECe - sp	dS/m	22	**1.29**	0.14		**1.16**	0.085		**0.91**	0.13		**0.36**	0.045		**0.30**	0.045		
HCO3 - sp	mmolc/L	13	**5.39**	2.28		**6.95**	1.85		**5.39**	1.85		**1.42**	0.58		**1.20**	0.24		
Ca - sp	mmolc/L	16	**6.50**	0.47		**7.91**	0.93		**6.00**	0.46		**2.14**	0.31		**1.30**	0.21		
Mg - sp	mmolc/L	18	**2.34**	0.22		**3.32**	0.43		**2.57**	0.34		**1.43**	0.13		**0.92**	0.11		
Na - sp	mmolc/L	19	**3.54**	0.46		**0.89**	0.091		**1.17**	0.13		**0.10**	0.020		**0.13**	0.045		
SAR - sp	value	16	**1.64**	0.13		**0.39**	0.034		**0.59**	0.050		**0.090**	0.020		**0.12**	0.030		
Cl - sp	mmolc/L	13	**2.33**	0.49		**0.64**	0.16		**0.60**	0.18		**0.42**	0.12		**0.23**	0.095		
SO4 - sp	mmolc/L	12	**2.33**	0.30		**2.55**	0.42		**1.82**	0.29		**1.00**	0.12		**0.66**	0.13		
NO3 - sp	mmolc/L	9	**2.54**	1.74		**2.82**	1.89		**1.36**	1.31		**0.42**	0.35		**0.050**	0.048		
B - sp	mg/L	11	**0.14**	0.050		**0.10**	0.030		**0.32**	0.090		**0.13**	0.035		**0.10**	0.047		
pH & EC (1:1 or 1:2)																		
EC (1:1)	(dS/m)	31	**0.60**	0.049		**0.57**	0.042		**0.60**	0.039		**0.17**	0.020		**0.10**	0.020		
EC (1:2)	(dS/m)	34	**0.40**	0.029		**0.39**	0.028		**0.34**	0.037		**0.12**	0.020		**0.070**	0.020		
pH (1:1) Water	Unit	77	**7.58**	0.15		**6.80**	0.14		**8.00**	0.16		**6.14**	0.12		**5.53**	0.11		
pH (1:2) Water	Unit	17	**7.70**	0.15		**6.94**	0.14		**8.11**	0.16		**6.29**	0.13		**5.67**	0.11		
pH (1:1) 0.01M CaCl2	Unit	20	**7.23**	0.14		**6.50**	0.13		**7.64**	0.15		**5.61**	0.11		**4.88**	0.097		
pH (1:2) 0.01M CaCl2	Unit	8	**7.21**	0.14		**6.61**	0.13		**7.66**	0.15		**5.60**	0.11		**4.88**	0.097		
Lime Req.																		
SMP Buffer pH	Unit	14	**7.32**	0.15		**7.01**	0.14		**7.48**	0.15		**6.60**	0.20		**6.74**	0.14		
Adams-Evans Buf pH	Unit	7	**7.73**	0.16		**7.56**	0.15		**7.74**	0.16		**7.48**	0.15		**7.60**	0.15		
Woodruff Buf. pH	Unit	18	**7.08**	0.14		**6.82**	0.14		**7.16**	0.14		**6.52**	0.13		**6.53**	0.13		
Mehlich Buffer pH	Unit	7	**6.76**	0.14		**6.44**	0.13		**6.87**	0.14		**6.12**	0.12		**6.10**	0.12		
Sikora Buffer pH	Unit	32	**7.38**	0.15		**7.06**	0.14		**7.53**	0.15		**6.76**	0.14		**6.83**	0.14		
Titratable Acidity	cmol/kg																	
Inorganic Nitrogen (NO3-N & NH4-N)																		
NO3-N Cd. Rd.	mg/kg	61	**25.0**	1.11		**31.6**	1.74		**31.0**	1.10		**9.15**	0.70		**1.41**	0.27		
NO3-N ISE	mg/kg	5	**26.3**	N/A		**32.5**	N/A		**37.2**	N/A		**10.2**	N/A		**2.39**	N/A		
NO3-N CTA	mg/kg	1	**22.5**	N/A		**27.7**	N/A		**28.0**	N/A		**8.90**	N/A		**2.60**	N/A		
NO3-N Ion Chr.	mg/kg																	
NO3-N Other	mg/kg	8	**25.8**	0.80		**31.6**	2.00		**30.1**	1.25		**8.70**	0.32		**1.57**	0.91		
NH4 - N (KCl Extr.)	mg/kg	42	**78.3**	2.68		**44.9**	2.55		**11.0**	0.70		**18.0**	0.92		**13.4**	1.09		
Phosphorus and Sulfur																		
PO4-P Bray P (1:10)	mg/kg	38	**123.0**	7.95		**110.0**	8.00		**24.8**	6.75		**95.0**	5.67		**50.8**	3.06		
PO4-P Bray P1 (1:7)	mg/kg	6	**102.0**	N/A		**85.6**	5.29		**21.2**	1.98		**84.1**	N/A		**46.2**	N/A		
PO4-P Olsen/Bicarb	mg/kg	50	**79.6**	4.56		**52.0**	3.00		**32.5**	2.68		**32.9**	2.00		**15.8**	1.40		
PO4-P AB-DTPA	mg/kg	1	**44.8**	N/A		**30.0**	N/A		**18.0**	N/A		**20.6**	N/A		**14.2**	N/A		
PO4-P Modified Morgan	mg/kg	5	**48.7**	N/A		**20.7**	N/A		**71.1**	N/A		**8.66**	N/A		**2.50**	N/A		
PO4-P True Morgan	mg/kg	6	**53.0**	5.99		**22.9**	N/A		**68.4**	7.82		**9.30**	N/A		**3.00**	N/A		
PO4-P Mod. Kelowna	mg/kg	2	**88.0**	N/A		**76.3**	N/A		**61.6**	N/A		**73.3**	N/A		**33.4**	N/A		
PO4-P Stong Bray (1:10)	mg/kg	14	**411.0**	37.5		**227.0**	7.85		**264.0**	45.8		**134.0**	3.74		**61.5**	7.05		
PO4-P Water Soluble	mg/kg																	
SO4 - S (PO4 Extr.)	mg/kg	24	**17.0**	0.86		**19.5**	1.19		**15.4**	0.89		**7.75**	1.68		**6.35**	1.44		
Bases																		

K NH4OAc	mg/kg	61	**675.0**	20.5	**368.0**	14.7	**675.0**	18.8	**165.0**	10.0	**78.5**	5.03
Ca NH4OAc	mg/kg	61	**2760.0**	102.0	**2920.0**	154.0	**5110.0**	470.0	**1800.0**	97.2	**333.0**	33.0
Mg NH4OAc	mg/kg	58	**396.0**	17.2	**415.0**	22.2	**672.0**	24.3	**365.0**	16.3	**78.2**	5.73
Na NH4OAc	mg/kg	47	**110.0**	5.29	**29.7**	2.72	**46.5**	1.76	**7.81**	2.88	**7.00**	2.28
Bray Extractable K	mg/kg	4	**448.0**	N/A	**277.0**	N/A	**426.0**	N/A	**116.0**	N/A	**79.8**	N/A
K- Bicarb.	mg/kg	3	**440.0**	N/A	**270.0**	N/A	**490.0**	N/A	**130.0**	N/A	**71.0**	N/A
K - Modified Morgan	mg/kg	4	**673.0**	N/A	**363.0**	N/A	**625.0**	N/A	**167.0**	N/A	**68.0**	N/A
K - True Morgan	mg/kg	4	**384.0**	N/A	**234.0**	N/A	**359.0**	N/A	**116.0**	N/A	**65.4**	N/A
Ca Modified Morgan	mg/kg	3	**2740.0**	N/A	**3210.0**	N/A	**14400.0**	N/A	**1760.0**	N/A	**330.0**	N/A
Aluminum KCL Extr.	mg/kg	3	**1.00**	N/A	**0.90**	N/A	**0.70**	N/A	**1.80**	N/A	**4.50**	N/A
Mehlich-1 Multi Element												
Scoop Soil Mass	g											
P	mg/kg	10	**278.0**	16.9	**94.4**	11.0	**50.5**	3.37	**46.5**	1.60	**16.2**	1.15
K	mg/kg	11	**386.0**	22.7	**228.0**	8.63	**246.0**	19.2	**112.0**	4.54	**62.0**	3.01
Ca	mg/kg	11	**2980.0**	207.0	**3230.0**	294.0	**5020.0**	533.0	**2120.0**	42.4	**365.0**	9.03
Mg	mg/kg	10	**382.0**	25.4	**394.0**	30.9	**494.0**	23.4	**372.0**	20.2	**76.0**	2.30
Mn	mg/kg	8	**220.0**	16.7	**135.0**	8.22	**6.48**	1.27	**67.5**	1.50	**60.0**	1.67
Zn	mg/kg	6	**5.40**	0.49	**4.64**	1.04	**0.10**	0.020	**0.90**	0.070	**3.38**	0.090
Mehlich-3 Multi-Element												
Scoop Soil Mass	g											
Assumed Density	g/cm3											
Volume of Scoop	cm3											
Extractrant Volume mL	mL											
P Colorimetric	mg/kg	8	**163.0**	5.50	**120.0**	5.75	**102.0**	2.04	**92.5**	7.94	**42.8**	3.14
P ICP-AES	mg/kg	50	**177.0**	7.61	**132.0**	6.33	**113.0**	4.22	**122.0**	6.36	**56.5**	2.37
K	mg/kg	53	**702.0**	30.5	**380.0**	18.4	**696.0**	27.0	**163.0**	9.66	**79.0**	3.86
Ca	mg/kg	47	**3080.0**	119.0	**3480.0**	179.0	**6630.0**	304.0	**2090.0**	99.0	**388.0**	18.9
Mg	mg/kg	51	**445.0**	19.6	**452.0**	22.8	**805.0**	32.7	**409.0**	13.5	**87.4**	5.62
Na	mg/kg	41	**112.0**	6.70	**30.4**	3.01	**49.2**	2.76	**9.00**	1.53	**7.95**	1.41
S	mg/kg	43	**25.4**	1.42	**33.1**	1.40	**37.0**	1.60	**16.0**	1.00	**12.9**	1.12
Al	mg/kg	30	**559.0**	26.0	**939.0**	79.9	**238.0**	23.2	**826.0**	48.1	**796.0**	66.2
Zn	mg/kg	48	**7.43**	0.23	**5.49**	0.30	**5.00**	0.32	**1.13**	0.083	**4.00**	0.20
Mn	mg/kg	41	**268.0**	10.0	**171.0**	9.28	**121.0**	4.44	**69.0**	3.69	**63.5**	4.55
Fe	mg/kg	44	**310.0**	20.8	**221.0**	14.8	**46.2**	4.29	**285.0**	16.2	**97.6**	6.51
Cu	mg/kg	43	**4.46**	0.20	**3.20**	0.21	**3.05**	0.14	**1.77**	0.10	**1.04**	0.050
B	mg/kg	39	**1.45**	0.10	**1.00**	0.050	**3.61**	0.20	**0.98**	0.070	**0.25**	0.050
Micronutrients												
Zn - DTPA	mg/kg	53	**3.72**	0.21	**3.00**	0.21	**1.89**	0.11	**0.75**	0.050	**2.47**	0.16
Mn - DTPA	mg/kg	46	**180.0**	8.98	**102.0**	4.55	**21.8**	1.19	**73.2**	4.19	**53.2**	2.70
Fe - DTPA	mg/kg	49	**69.5**	8.14	**74.8**	9.85	**5.01**	0.55	**142.0**	16.6	**44.4**	8.35
Cu - DTPA	mg/kg	48	**3.38**	0.20	**2.20**	0.19	**1.36**	0.065	**0.94**	0.064	**0.64**	0.053
Zn - HCl	mg/kg		**8.02**	N/A	**6.00**	N/A			**1.24**	N/A	**3.68**	N/A
Mn-H3PO4	mg/kg	8	**186.0**	5.67	**96.3**	3.50	**10.5**	1.38	**61.0**	1.22	**52.0**	2.45
Cl - Ca(NO3)2 Extr.	mg/kg	11	**40.8**	2.64	**9.66**	1.29	**10.1**	1.03	**5.10**	0.91	**3.40**	0.76
B - Hot Wat.	mg/kg	14	**0.94**	0.12	**0.65**	0.085	**1.80**	0.59	**1.08**	0.32	**0.23**	0.10
B - DTPA/Sorbitol	mg/kg	19	**0.79**	0.054	**0.46**	0.035	**2.12**	0.15	**0.40**	0.050	**0.11**	0.032
N & C												
Total N - Kjeldahl	%	7	**0.18**	0.020	**0.19**	0.020	**0.19**	0.020	**0.21**	0.020	**0.12**	0.020
Total N - combustion	%	37	**0.17**	0.020	**0.20**	0.020	**0.18**	0.020	**0.21**	0.020	**0.11**	0.020
TOC - combustion	%	22	**1.64**	0.045	**2.06**	0.049	**1.55**	0.064	**2.68**	0.070	**1.25**	0.036
Total C - combustion	%	37	**1.66**	0.040	**2.08**	0.061	**2.18**	0.044	**2.67**	0.053	**1.28**	0.050
OM - Walkley-Black	%	15	**2.88**	0.16	**3.51**	0.24	**2.67**	0.055	**4.46**	0.26	**2.29**	0.26
OM - LOI (% Wt loss)	%	63	**3.19**	0.095	**3.91**	0.16	**3.14**	0.12	**4.68**	0.12	**3.78**	0.13
Miscellaneous												

CaCO3 Content	%	11	**0.36**	0.23	**0.70**	0.28	**5.57**	0.33	**0.35**	0.24	**0.30**	0.043
CEC - Cation Displacement	cmol/kg	6	**20.7**	2.32	**18.7**	1.01	**22.2**	1.85	**17.5**	N/A	**6.41**	N/A
CEC - Estimation	cmol/kg	10	**19.9**	1.45	**21.7**	1.70	**33.7**	0.67	**16.5**	2.37	**4.50**	1.75
Soil Density (Scoop)	g/cc											
Particle Size Analysis - Hydrometer												
Sand 2000 - 50 um	%	28	**24.4**	5.05	**31.7**	3.25	**34.8**	2.50	**22.0**	3.98	**65.0**	2.45
Silt 50 - 2 um	%	23	**54.0**	6.30	**45.3**	1.55	**31.2**	1.54	**50.5**	2.80	**16.1**	2.05
Clay 2 - 0 um	%	29	**21.6**	2.00	**23.0**	2.05	**33.5**	2.50	**26.5**	3.50	**18.8**	1.20
Particle Size Analysis - Pipette												
Sand 2000 - 50 um	%	5	**25.0**	N/A	**30.0**	N/A	**35.5**	N/A	**18.0**	N/A	**66.0**	N/A
Silt 50 - 2 um	%	5	**55.0**	N/A	**48.0**	N/A	**29.4**	N/A	**57.0**	N/A	**15.7**	N/A
Clay 2 - 0 um	%	5	**22.0**	N/A	**25.0**	N/A	**35.0**	N/A	**27.0**	N/A	**18.0**	N/A
Soil Health												
Autoclave-Citrate Extractable (ACE) protein	mg/g	3	**3.99**	N/A	**4.29**	N/A	**2.34**	N/A	**4.08**	N/A	**3.72**	N/A
Microbial CO2 respiration (1 day incubation-ST	mg/g	8	**0.072**	0.024	**0.19**	0.062	**0.071**	0.020	**0.082**	0.026	**0.073**	0.020
Microbial CO2 respiration (4 day incubation-ST	mg/g	1	**0.10**	N/A	**0.17**	N/A	**0.12**	N/A	**0.080**	N/A	**0.090**	N/A
Microbial enzyme activity - As	mg PNP/kg soil h											
Microbial enzyme activity - Beta Glucosidase (E	mg PNP/kg soil h											
Microbial enzyme activity - NAG	mg PNP/kg soil h											
Microbial enzyme activity - Pase	mg PNP/kg soil h											
PMN 7 day anaerobic	mg/kg											
Reactive carbon - permanganate oxidizable (PC	mg/kg	5	**641.0**	N/A	**520.0**	N/A	**450.0**	N/A	**518.0**	N/A	**415.0**	N/A

Plant			Plant 2025-204			Plant 2025-205			Plant 2025-206			PAP Score
Analysis - Modus Code	**Units**	**n**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	#DIV/0!
Dry Matter & Non-Digest Nutrients												
Dry Matter	%	18	**93.0**	1.86		**95.7**	1.91		**92.7**	1.86		
NO3 - N Cd Rd.	mg/kg	22	**11.3**	12.8		**9.00**	5.70		**2420.0**	166.0		
NO3 - N ISE	mg/kg	3	**78.6**	N/A		**272.0**	N/A		**2850.0**	N/A		
NO3 - N Other	mg/kg	3	**56.3**	N/A		**178.0**	N/A		**2440.0**	N/A		
NH4 - N	mg/kg	2	**35.0**	N/A		**45.5**	N/A		**283.0**	N/A		
PO4 - P	mg/kg	8	**227.0**	76.7		**1400.0**	28.0		**1850.0**	103.0		
SO4 - S	mg/kg	3	**601.0**	N/A		**673.0**	N/A		**6610.0**	N/A		
Cl	%	14	**0.11**	0.020		**0.14**	0.023		**1.50**	0.079		
Total Nâ€“Kjeldahl	%	7	**2.34**	0.065		**1.83**	0.037		**3.72**	0.085		
Total N-combustion	%	61	**2.43**	0.049		**1.90**	0.052		**3.87**	0.078		
Total S-combustion	%	7	**0.18**	0.020		**0.17**	0.020		**0.91**	0.037		
Total C-combustion	%	15	**42.2**	0.85		**42.0**	0.84		**37.1**	0.74		
Wet Digest												
P	%	56	**0.31**	0.020		**0.26**	0.020		**0.32**	0.020		
K	%	60	**0.41**	0.021		**1.99**	0.061		**2.38**	0.11		
Ca	%	54	**0.050**	0.020		**0.40**	0.020		**2.86**	0.077		
Mg	%	59	**0.14**	0.020		**0.20**	0.020		**1.58**	0.070		
S	%	58	**0.16**	0.020		**0.16**	0.020		**0.82**	0.049		
Na	%	44	**0.007**	0.020		**0.005**	0.020		**0.18**	0.020		
B	mg/kg	58	**1.62**	0.54		**6.88**	0.26		**93.9**	4.76		
Cu	mg/kg	56	**5.39**	0.47		**7.93**	0.58		**15.8**	0.60		
Fe	mg/kg	60	**35.0**	3.59		**79.6**	3.80		**296.0**	27.5		
Mn	mg/kg	59	**42.2**	1.45		**75.3**	2.69		**89.2**	4.05		
Mo	mg/kg	20	**0.56**	0.072		**1.02**	0.12		**0.77**	0.099		
Zn	mg/kg	61	**38.2**	2.93		**18.3**	1.38		**44.6**	5.56		
Al	mg/kg	37	**5.22**	2.42		**21.2**	4.39		**179.0**	48.2		
Ba	mg/kg	4	**5.22**	N/A		**7.26**	N/A		**91.8**	N/A		
Cd	mg/kg	4	**0.11**	N/A		**0.13**	N/A		**0.76**	N/A		
Co	mg/kg	6	**0.014**	N/A		**0.052**	N/A		**0.35**	0.085		
Cr	mg/kg	5	**0.062**	N/A		**0.092**	N/A		**0.82**	N/A		
Ni	mg/kg	5	**0.23**	N/A		**0.66**	N/A		**6.99**	N/A		
Pb	mg/kg	3	**0.39**	N/A		**7.80**	N/A		**0.29**	N/A		
Se	mg/kg	4	**0.032**	N/A		**0.18**	N/A		**0.84**	N/A		
Sr	mg/kg	3	**3.01**	N/A		**9.67**	N/A		**225.0**	N/A		
V	mg/kg	3	**0.13**	N/A		**0.17**	N/A		**0.97**	N/A		
Dry Ash												
P	%	10	**0.30**	0.020		**0.25**	0.020		**0.32**	0.020		
K	%	10	**0.39**	0.030		**1.83**	0.055		**2.22**	0.15		
Ca	%	9	**0.050**	0.020		**0.36**	0.025		**2.79**	0.070		
Mg	%	9	**0.14**	0.020		**0.18**	0.020		**1.39**	0.090		
Na	%	8	**0.010**	0.020		**0.010**	0.020		**0.18**	0.020		
B	mg/kg	9	**2.17**	1.90		**6.51**	0.97		**93.0**	11.8		
Cu	mg/kg	9	**5.56**	0.66		**5.50**	3.04		**14.5**	0.54		
Fe	mg/kg	10	**38.0**	11.3		**79.0**	6.80		**242.0**	44.8		
Mn	mg/kg	10	**43.6**	5.04		**74.0**	6.67		**88.6**	9.08		
Mo	mg/kg	2	**0.71**	N/A		**1.05**	N/A		**1.00**	N/A		
Zn	mg/kg	11	**36.8**	2.56		**19.4**	2.49		**46.4**	7.97		
Al	mg/kg	2	**14.3**	N/A		**168.0**	N/A		**122.0**	N/A		
Ba	mg/kg											
Cd	mg/kg											
Co	mg/kg											
Cr	mg/kg											
Ni	mg/kg											
Pb	mg/kg											
Se	mg/kg											
Sr	mg/kg											
V	mg/kg											

Water			Water 2025-304			Water 2025-305			Water 2025-306		
Analysis - Modus Code	**Units**	***n***	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**
pH & EC											
pH		27	**8.10**	0.16		**8.16**	0.16		**8.12**	0.16	
EC	dS/m	23	**0.40**	0.020		**0.42**	0.020		**0.44**	0.020	
Cations											
Ca	mmolc/L	25	**2.46**	0.087		**2.59**	0.12		**2.65**	0.12	
Mg	mmolc/L	24	**1.37**	0.068		**1.40**	0.068		**1.46**	0.075	
Na	mmolc/L	24	**0.37**	0.020		**0.45**	0.020		**0.45**	0.020	
K	mmolc/L	23	**0.050**	0.020		**0.040**	0.020		**0.10**	0.020	
NH4-N	mmolc/L	7	**0.007**	0.020		**0.010**	0.020		**0.007**	0.020	
Sum Cations	mmolc/L	11	**4.38**	0.088		**4.55**	0.13		**4.73**	0.095	
SAR	---	10	**0.27**	0.020		**0.32**	0.020		**0.31**	0.020	
Adj-SAR	---	4	**0.52**	N/A		**0.63**	N/A		**0.64**	N/A	
Anions											
HCO3	mmolc/L	18	**3.29**	0.14		**3.40**	0.17		**3.59**	0.19	
CO3	mmolc/L	4	**0.25**	N/A		**0.28**	N/A		**0.17**	N/A	
Cl	mmolc/L	19	**0.29**	0.032		**0.32**	0.033		**0.34**	0.028	
NO3	mmolc/L	14	**0.076**	0.020		**0.12**	0.020		**0.055**	0.020	
SO4	mmolc/L	17	**0.59**	0.031		**0.71**	0.040		**0.89**	0.070	
Sum Anions	mmolc/L	8	**4.20**	0.11		**4.51**	0.15		**4.69**	0.094	
Cation-Anion Difference	---	3	**0.29**	N/A		**0.022**	N/A		**0.070**	N/A	
Miscellaneous											
Boron	mg/L	14	**0.020**	0.020		**0.020**	0.020		**0.026**	0.020	
PO4-P Phosphorus - Spec	mg/L	5	**0.040**	N/A		**0.040**	N/A		**0.080**	N/A	
Phosphorus - ICP (Total)	mg/L	10	**0.070**	0.020		**0.070**	0.020		**0.12**	0.020	
TKN	mg/L	1				**1.33**	N/A		**2.10**	N/A	
Nitrogen Combustion (Total)	mg/L										
Total Organic Carbon	mg/L	2	**3.00**	N/A		**5.44**	N/A		**9.38**	N/A	

Environmental			Soil 2025-106			Soil 2025-107			Soil 2025-108			Soil 2025-109			Soil 2025-110		
Soil Analyses - Modus Code	**Units**	***n***	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**	**Median**	**MAD**	**Lab Result**
Metals																	
Ag	mg/kg	1	**5.13**	N/A		**5.04**	N/A		**5.07**	N/A		**5.04**	N/A		**4.95**	N/A	
Al	mg/kg	6	**14000.0**	771.0		**12300.0**	1030.0		**14500.0**	1380.0		**13200.0**	314.0		**20200.0**	483.0	
As	mg/kg	7	**4.11**	0.77		**7.36**	0.15		**5.92**	0.61		**1.95**	0.18		**2.66**	0.33	
Ba	mg/kg	3	**140.0**	N/A		**158.0**	N/A		**126.0**	N/A		**114.0**	N/A		**31.0**	N/A	
Be	mg/kg																
Bi	mg/kg																
B	mg/kg	6	**10.1**	1.94		**5.00**	N/A		**13.2**	N/A		**5.62**	1.40		**3.00**	N/A	
Ca	mg/kg	7	**5420.0**	313.0		**5130.0**	343.0		**24100.0**	1220.0		**3180.0**	63.3		**538.0**	79.2	
Cd	mg/kg	4	**0.66**	0.047		**0.35**	N/A		**0.54**	0.049		**0.11**	N/A		**0.12**	N/A	
Co	mg/kg	8	**6.49**	0.70		**8.67**	0.53		**6.32**	0.55		**3.53**	0.58		**1.12**	0.28	
Cr	mg/kg	6	**18.2**	2.73		**17.9**	3.24		**15.9**	2.93		**21.0**	0.65		**26.2**	2.42	
Cu	mg/kg	7	**15.5**	0.87		**17.0**	1.95		**16.7**	0.65		**7.53**	0.98		**6.26**	0.16	
Fe	mg/kg	8	**15900.0**	1340.0		**17900.0**	1310.0		**17400.0**	724.0		**8600.0**	596.0		**18600.0**	1100.0	
K	mg/kg	7	**4010.0**	218.0		**2150.0**	42.9		**4530.0**	366.0		**1390.0**	171.0		**302.0**	29.6	
Li	mg/kg																
Mg	mg/kg	7	**4410.0**	145.0		**3510.0**	128.0		**8610.0**	173.0		**2490.0**	74.9		**290.0**	24.7	
Mn	mg/kg	7	**576.0**	21.4		**678.0**	137.0		**354.0**	13.6		**180.0**	5.70		**128.0**	7.65	
Mo	mg/kg	5	**0.37**	N/A		**0.49**	N/A		**1.00**	N/A		**0.060**	N/A		**0.38**	N/A	
Na	mg/kg	6	**262.0**	27.8		**86.8**	8.07		**140.0**	22.6		**32.8**	0.85		**27.3**	N/A	
Ni	mg/kg	8	**14.8**	1.33		**18.0**	2.19		**14.9**	1.62		**7.04**	1.58		**3.42**	1.23	
P	mg/kg	7	**1040.0**	48.1		**818.0**	39.1		**966.0**	34.4		**606.0**	14.5		**437.0**	10.4	
Pb	mg/kg	8	**11.5**	2.33		**16.5**	2.55		**12.0**	2.09		**13.1**	1.54		**15.0**	2.66	
S	mg/kg	7	**244.0**	4.83		**290.0**	15.2		**383.0**	10.2		**304.0**	10.2		**154.0**	4.90	
Sb	mg/kg					**3.26**	N/A		**9.09**	N/A					**7.60**	N/A	
Se	mg/kg	4	**1.93**	N/A		**2.13**	N/A		**2.51**	N/A		**1.41**	N/A		**2.08**	N/A	
Sn	mg/kg																
Sr	mg/kg	1	**30.9**	N/A		**24.5**	N/A		**107.0**	N/A		**6.62**	N/A		**1.86**	N/A	
V	mg/kg	2	**26.4**	N/A		**35.7**	N/A		**44.3**	N/A		**23.1**	N/A		**36.4**	N/A	
Zn	mg/kg	7	**72.7**	4.04		**61.4**	3.11		**69.7**	1.77		**20.5**	1.93		**21.8**	1.55	
Hg (US-EPA 7470 or 7471)	mg/kg	1	**0.019**	N/A		**0.035**	N/A		**0.014**	N/A		**0.024**	N/A		**0.040**	N/A	

n = Number of labs submtting results
MAD = Median Average Deviation
N/A = Not applicable as there are too few labs submitting data for this test to run statistics
H = High - Outside 2.5* +/- MAD VH = Very High - Outside 4* +/- MAD
L = Low - Outside 2.5* +/- MAD VL = Very Low - Outside 4* +/- MAD
✓ = Passing