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2019

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Foreword

This is the latest of ASPAC's many inter-laboratory proficiency program (ILPP) reports for soils since 1993. This reporting format for soils has applied since ASPAC's 2004-05 annual program (see Rayment *et al*. 2007)[1]. Nowadays, ILPPs for common soil chemical tests have three "rounds" each of four carefully prepared and milled air-dry soils. Similar annual programs for milled plant tissue samples operate concurrently (e.g., Lyons *et al*.2013)[2].

This ILPP continued ASPAC's Australasian focus and targeted laboratories in the private, government and university sectors that provide soil testing services for a range of purposes. These mostly locate in Australia, New Zealand, Oceania, and in parts of South-east Asia.

The Service Provider for ASPAC is Global Proficiency Ltd. This company operates mainly out of New Zealand, with key personnel and contact details provided on page iv.

Technical aspects of this ILPP were specified and over-sighted by ASPAC's Laboratory Proficiency Committee (LPC), recent membership of which is listed on page iv. In addition, LPC members and two key personnel from the Service Provider participate annually in a Technical Advisory Group (TAG), chaired by a senior representative of the Service Provider.

The ASPAC-LPC and the ASPAC Executive Committee also appreciate the efforts made by laboratories who utilized this method-specific proficiency program. By participating, they share a commitment to and responsibility for perceived measurement quality across Australasia, noting that proficiency in measurement is only a component of laboratory accreditation to Australian Standard AS ISO/IEC 17025:2018, and New Zealand Standard NZS ISO/IEC 17025:2018, which should be an achievement goal for laboratory managers.

An electronic copy of this report, and other similar completed annual program reports, can be downloaded from ASPAC's public web site at www.aspac-australasia.com.

Dr Roger Hill
Convenor, ASPAC-LPC

1 Rayment, G.E., Peverill, K.I., Hill, R.J., Daly, B.K., Ingram, C. and Marsh, J. (2007). ASPAC Soil Proficiency Testing Program Report 2004-05. (73 + vi pp.) ASPAC, Melbourne, Victoria.

2 Lyons, D.J., Rayment, G.E., Daly, B.K., Hill, R.J., Ingram, C. and Marsh, J. (2013). "ASPAC Plant Proficiency Testing Program Report 2008-09". (47 + vi pp.) ASPAC, Melbourne, Victoria.

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Those commissioned by GPL to prepare soil samples and confirm homogeneity prior to circulation for proficiency testing purposes [Department of Environment and Science (DES) Queensland, Australia] are acknowledged, as are operational staff of GPL.

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[A] ***Note:*** GPL, under its "SoilChek" logo, is accredited by IANZ (the New Zealand accreditation authority) to ISO/IEC 17043:2010 standard, noting that IANZ is a full member of both the International Laboratory Accreditation Cooperation (ILAC), and Asia Pacific Laboratory Accreditation Cooperation (APLAC). GPL is also recognized by NATA (National Association of Testing Authorities of Australia) as a proficiency provider.

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1. Introduction

This not-for-profit, annual ASPAC Soil Proficiency Testing Program Report for 2019 documents program methodology, summary statistics, and a full listing of results by test for three "rounds" of soil chemical testing. For historical details on earlier annual soil ILPP's undertaken by ASPAC, refer to Rayment *et al*. (2007) referenced earlier in this report. These reports are also available for downloading from ASPAC's public web site at *www.aspac-australasia.com.*

The report includes an outline of how ASPAC now confers performance-based, method-specific certification to laboratories that regularly participate. To respect confidentiality, the cross-reference between laboratory name and laboratory identification number is not included. However, laboratories certified as proficient for specific tests in this annual program were documented at the time on ASPAC's public web site.

2. Program Details

2.1 Responsibilities

GPL- see page iv -under its "Soil Chek" arrangements, was contracted by ASPAC as the soil ILPP provider for 2019. Accordingly, GPL had responsibility on a "round-by-round" basis for sourcing and preparation of samples, for ensuring the samples met international and/or within-country quarantine requirements, and for the timely supply of samples to participating laboratories. GPL also undertook data analysis and "round-by-round" reporting for ASPAC and assembled the summary and "raw" data provided in Section 3 and Appendix 4, respectively, of this report.

ASPAC's LPC- see page iv- had responsibility to implement and resolve matters of policy and to provide guidance on technical matters specific to soil chemical testing both to GPL and to laboratory participants. The LPC also undertook occasional checks and audits for quality control purposes, participated in the earlier mentioned TAG, contributed to training workshops, and assisted (on request) laboratory managers with technical aspects on measurement improvement. As always, laboratory managers were encouraged to seek help from ASPAC when shown to be operating at levels of measurement performance below their peers.

Participants receive or have a unique, confidential laboratory number, subsequently used to identify the origin of each result presented in program reports and lists of results. This identification number has typically carried forward from one annual program to the next, but code numbers changed in 2014-15 and beyond.

ASPAC's web-site manager and others updated the public web site with details on method-specific certifications and lists of laboratories that undertook those soil tests. The proficiency data used was supplied by GPL and over-sighted by the Convener of the ASPAC-LPC.

2.2 Soil program participation

Some 70 laboratories submitted results for at least one soil test in 2019, 2 more than in 2018. Names and other summary contact details for the participants are provided in Appendix 1. There were 44 laboratories involved from Australia, a decrease of 6 from 2018 (NSW=10; QLD=9; VIC=12; SA=3; WA=8, TAS=1; ACT=1), 7 from New Zealand (no change), and 19 from Asia and the south Pacific, an increase of 8, including 3 from Fiji, 2 each from Papua New Guinea, Samoa and Thailand, and 1 each Guam, Guatemala, Indonesia, Lao Peoples Democratic Republic, New Caledonia, Pakistan, Philippines, United Arab Emirates, Uruguay, Vietnam.

The most reported results (see Table 2.1) across the three "rounds" combined were submitted for method 4A1 (48 average for pH, 1:5 soil-water) followed by method 3A1 (46 average for electrical conductivity, 1:5 soil-water). The median was 18 laboratories for each method. Results for Total Organic Matter (6G1) and Phosphate Extractable Sulphur (Pool of 10B1 + 10B2 + 10B3) were submitted by a sufficient number of participants this year to include them in the list of certifiable test methods.

While not assessable for certification, the number of laboratories reporting Aqua Regia digestible elements continued the trend of increased participation in 2019. The number of participants submitting results for Arsenic, Boron, Cadmium, Cobalt and Molybdenum increased this year to >7, suitable for statistical analysis.

Table 2.1. Test methods, corresponding method codes and the arithmetic average number of results per round submitted by participating laboratories in the ASPAC 2019 soil ILPP.

Soil Tests - Certified	Method Codes[i]	Number of participants		
		Mar 19	Jun 19	Sep 19
Air Dry Moisture	2A1	33	34	33
Electrical conductivity 1:5 soil-water	3A1	48	45	44
Soil pH, 1:5 soil-water	4A1 + 4A3	51	47	47
Soil pH, 1:5 0.01 M $CaCl_2$	4B1 + 4B3 + 4B2 + 4B4	35	34	33
Water soluble Cl — pooled	5A1 + 5A2 + 5A3	34	31	33
Organic Carbon —W&B	6A1	22	20	19
Total Organic C — Pooled	6B1 + 6B3	15	15	17
Total C — Dumas	6B2	26	26	28
Total Organic Matter (%)	6G1	11	11	10
Total N – Dumas	7A5	32	30	33
Total N – Pooled	7A1 + 7A2	17	14	13
Water Soluble Nitrate N — autocolour	7B1 + 7B2	22	18	18
KCl Extractable Nitrate N — autocolour	7C2	25	24	26
KCl Ext. Ammonium N — autocolour	7C2	30	30	27
Total P – all methods %	Pooled	28	25	26
Colwell Extractable P	9B1 + 9B2	30	32	31
Olsen Extractable P	9C1 + 9C2	27	26	28
Bray-1 Extractable P	9E1 + 9E2	10	10	12
Acid Extractable P	9G1 + 9G2	14	15	16
Phosphorus buffer index (with Colwell P)	9I2a + 9I2b + 9I2c[i]	18	18	19
Phosphorus buffer index (unadj)	9I4a + 9I4b + 9I4c[ii]	13	13	14
Phosphate Extractable S	10B1 + 10B2 + 10B3	14	13	15
KCl 40 Extractable S	10D1	17	16	17
DTPA Extractable Fe	12A1	29	27	30
DTPA Extractable Cu	12A1	30	27	30
DTPA Extractable Mn	12A1	29	27	30
DTPA Extractable Zn	12A1	30	27	28

Soil Tests - Certified	Method Codes[i]	Number of participants		
		Mar 19	Jun 19	Sep 19
$CaCl_2$ Extractable B — manual colour	12C1 + 12C2	24	22	22
Exchangeable Ca — 1M NH_4Cl extract	15A1	21	22	19
Exchangeable Mg — 1M NH_4Cl extract	15A1	21	22	19
Exchangeable Na — 1M NH_4Cl extract	15A1	20	22	18
Exchangeable K — 1M NH_4Cl extract	15A1	21	21	18
Exchangeable Ca — 1M NH_4OAc extract	15D3	26	23	24
Exchangeable Mg — 1M NH_4OAc extract	15D3	26	23	24
Exchangeable Na — 1M NH_4OAc extract	15D3	26	22	23
Exchangeable K — 1M NH_4OAc extract	15D3	26	22	23
Exchangeable Al — 1M KCl extract	15G1	19	17	18
Bicarbonate Extractable K	18A1	12	12	13
Aluminium	18F1	18	20	17
Boron	18F1	18	19	17
Calcium	18F1	18	19	16
Copper	18F1	19	20	17
Iron	18F1	19	20	17
Magnesium	18F1	18	19	16
Manganese	18F1	19	20	17
Phosphorus – ICP	18F1	19	21	17
Potassium	18F1	18	19	16
Sodium	18F1	18	19	16
Sulphur	18F1	17	19	15
Zinc	18F1	19	20	17

Soil Tests – Not Certified[ii]	Method Codes[i]	Number of participants		
		Mar 19	Jun 19	Sep 19
Total Aluminium (mg/kg)	17B1 + 17B2	15	15	14
Total Arsenic (mg/kg)	17B1 + 17B2	10	8	8
Total Boron (mg/kg)	17B1 + 17B2	9	11	8
Total Cadmium (mg/kg)	17B1 + 17B2	8	7	9
Total Calcium (mg/kg)	17B1 + 17B2	16	15	15
Total Chromium (mg/kg)	17B1 + 17B2	13	12	13
Total Cobalt (mg/kg)	17B1 + 17B2	11	13	10
Total Copper (mg/kg)	17B1 + 17B2	16	16	14
Total Iron (mg/kg)	17B1 + 17B2	15	15	14
Total Lead (mg/kg)	17B1 + 17B2	11	8	11
Total Magnesium (mg/kg)	17B1 + 17B2	16	15	15
Total Manganese (mg/kg)	17B1 + 17B2	16	15	15
Total Molybdenum (mg/kg)	17B1 + 17B2	9	8	8

Soil Tests – Not Certified[ii]	Method Codes[i]	Number of participants		
		Mar 19	Jun 19	Sep 19
Total Potassium (mg/kg)	17B1 + 17B2	16	16	15
Total Sodium (mg/kg)	17B1 + 17B2	15	15	10
Total Sulphur (mg/kg)	17B1 + 17B2	12	13	11
Total Zinc (mg/kg)	17B1 + 17B2	16	16	14

[i] Unless otherwise indicated, soil method codes are as defined by Rayment, G.E. and Lyons, D.J. (2011). *Soil Chemical Methods - Australasia*. CSIRO Publishing, Collingwood, Victoria, Australia.

[ii] NOT CERTIFIED table lists tests for which there were sufficient results reported for statistical analysis (>7) but are not yet part of the certification program.

[iii] NOT ASSESSABLE table lists tests for which there were insufficient results reported for statistical analysis (<7) and are not yet part of the certification program.

2.3 Tests and methods

The three proficiency "rounds" for soils – each comprised of four samples – were offered in March, June and September, 2019. Participants were invited to analyse each sample by the methods listed and/or coded in Table 2.1. Participants were not required to submit results for all of the methods listed, noting that selected methods, including phosphate buffer index (Colwell) and phosphate buffer index (Olsen), were "scored" as one method each, irrespective of which analytical finish was used. This "pooling" also occurred for extractable P tests and some others, with details provided in Table 2.2. 'Pooling' test results is done for tests which the LPC deem to be equivalent and should therefore yield the same results. The most common instance is where a common extraction may have different analytical finishes, e.g. atomic absorption spectroscopy (AAS) or inductively coupled plasma optical emission spectroscopy (ICP-OES). Grouping these tests together reduces the total number of tests and also provides larger datasets for statistical analysis. Data summaries in Section 3 also indicate where there was method "pooling".

Participating laboratories were required by ASPAC to report all tests either air dry (40ºC) or oven dry (105 ºC) soil-weight basis (not a soil-volume basis), as per the reporting guidelines published by Rayment and Lyons (2011). Indeed, routine soil fertility tests in Australia are mostly reported on an air-dry (40ºC) soil-weight basis. Those results reported on an oven-dry result in this report therefore required a final calculation using the air-dry moisture percentage included in the program as method-code 2A1.

Table 2.2. Method "pooling" summary for the ASPAC 2019 soil ILPP

Soil Tests	Method Codes	Average participants
Soil pH, 1:5 0.01 M $CaCl_2$ - direct, pooled air dry	4B1 + 4B2 + 4B3 + 4B4	34
Soil pH, soil/water suspension - NEW	4A1 + 4A3	48
Water Soluble Cl – Pooled	5A1 + 5A2 + 5A3	33
Total Carbon – Pooled %	6B1 + 6B3	27
Total Nitrogen – Pooled %	7A1 + 7A2	15

Soil Tests	Method Codes	Average participants
Total P – pooled % oven dry	Pooled	26
Colwell Extractable P – pooled mg/kg air dry	9B1 + 9B2	31
Olsen Extractable P – pooled mg/kg air dry	9C1 + 9C2	27
Bray-1 Extractable P – pooled mg/kg air dry	9E1 + 9E2	11
Acid Extractable P – pooled mg/kg air dry	9G1 + 9G2	15
Phosphorous Buffer Index (Colwell) L/kg dry wt	9I2a + 9I2b + 9I2c	18
Phosphorous Buffer Index (Unadj) L/kg dry wt	9I4a + 9I4b + 9I4c	13
Phosphate Extractable S, pooled mg/kg air dry	10B1 + 10B2 + 10B3	14
Hot $CaCl_2$ Extractable B – pooled mg/kg air dry	12C1 + 12C2	23

2.4 Sample preparation and identification

In common with practices since the 2004-05 soils program, potential samples were assessed for homogeneity by laboratories accredited to ISO/IEC 17025 standard. Specifically, 10 containers of each sample were selected at random and batched according to the principles described by Thompson and Wood (1993)[3]. These sub-samples were then tested in duplicate for Total N by Dumas Combustion.

Results from the homogeneity testing were subsequently statistically assessed according to ISO REMCO Protocol N231 "*Harmonised Proficiency Testing Protocol*" of January 1992. All prepared soils were rated as homogenous, as demonstrated in Appendix 2. In addition to testing for homogeneity, the soil samples were irradiated or otherwise rendered biologically benign to comply with international and/or national biosecurity regulations or requirements[4].

Ultimately, the samples used in the three "rounds" of the 2019 program were distributed and coded as follows: March 2019 (Round 3) ASS 1903-1 to 1903-4; June 2019 (Round 6) ASS 1906-1 to 1906-4; and September 2019 (Round 9) ASS 1909-1 to 1909-4. The association between sample code and origin of the various soils is provided in Table 2.3.

Table 2.3. Sample identification and the origin of the samples included in the ASPAC 2019 soil ILPP

Sample ID	*Round ID*	*Sample Origin*	*Previous Rounds*
ASS 1903-1	**3**	NZ 8668	N/A
ASS 1903-2		WA 6977	ASS1511-4, ASS1703-1
ASS 1903-3		VIC 7472	ASS1806-4
ASS 1903-4		NSW 7877	ASS1803-3
ASS 1906-1	**6**	QLD 9106	N/A

[3] Thompson, M and Wood, R. (1993). International harmonized protocol for proficiency testing of (chemical) analytical laboratories. *Journal of AOAC International* ***76*** (4), 926 – 940.

[4] Rayment, G.E. (2006). Australian efforts to prevent the accidental movement of pests and diseases in soil and plant samples. *Commun. Soil Sci. Plant Anal*. **37**, 2107-2117.

ASS 1906-2		NZ 8666	N/A
ASS 1906-3		NSW 9104	N/A
ASS 1906-4		NSW 9105	N/A
ASS 1909-1	**9**	WA 7881	ASS1806-2
ASS 1909-2		QLD 9103	N/A
ASS 1909-3		SA 10591	N/A
ASS 1909-4		VIC 9102	N/A

2.5 Data analysis and periodic reporting

Laboratory results, after submission to the Service Provider, were entered into a database and double-checked for data transfer accuracy and required soil-moisture status prior to data processing.

The non-parametric assessment of laboratory performance for each sample and method (and/or "pooled" methods) was performed by an iterative statistical procedure similar to that used in the WEPAL inter-laboratory proficiency programs of Wageningen University. This procedure[5,6,7,8] is suited to datasets of as few as six to seven laboratories, although larger laboratory populations are preferred. An outline of the median / MAD statistical procedure is provided in Appendix 3, with terms described in Table 2.4. In addition to medians and MADs, other statistical parameters (also described in Table 2.4) were calculated before and following the omission of non-conforming results. The "raw" data submitted by participating laboratories on a test-by-test basis are documented in Appendix 4, sometimes after rounding only for table formatting purposes.

Results submitted by each laboratory were expected to reflect the procedural and reporting guidelines in the chapter on that topic in Rayment and Lyons (2011). Like other programs nationally and internationally, the program did not accept as a numeric value a result reported as less than (<) or greater than (>) a specified number. In cases where the expected value was below the laboratory's lower limit of reporting, the expectation was that the laboratory would report a value half way between that value and zero. For high values, dilution was the option.

Interim "round" reports, summarizing measurement performance relative to the performance of all laboratories in the program that undertook the same test/s, were routinely and promptly e-mailed to laboratory participants. The main purpose of the interim reports was to provide feedback and to enable laboratories to take prompt action where appropriate. Interim reports also provided an opportunity to correct for data-transfer and data-processing misinterpretations. In addition, regular Newsletters from the Service Provider went to participating laboratories, adding to the information provided in ASPAC's own Newsletter to its members (the *ASPAC Digest*).

Laboratories that participated in the 2019 soil ILPP each received from the Service Provider (on behalf of ASPAC) a laboratory specific, confidential, annual summary report. Each laboratory's data for the 12 soil samples, the

5 Houba, V.J.G., Uittenbogaard, J. and Pellen, P. (1996). Wageningen evaluating programmes for analytical laboratories (WEPAL), organization and purpose. *Commun. Soil Sci. Plant Anal.* **27**, 421-429.

6 Montford, M.A.J. van. (1996). Statistical remarks on laboratory–evaluating programs for comparing laboratories and methods. *Commun. Soil Sci. Plant Anal*. **27**, 463-478.

7 Rayment, G.E., Miller, R.O. and Sulaeman, E. (2000). Proficiency testing and other interactive measures to enhance analytical quality in soil and plant laboratories. *Commun. Soil Sci. Plant Anal.* ***31***, 1513-1530.

8 Whitehouse, M.W. (1987). Medians and MADs - Statistical methodology used at Wageningen, The Netherlands, for interlaboratory comparisons in the plant exchange program. Ag. Chem. Br. Report, ACU87/36. 10 pp. (Qld Dept. Primary Ind., Brisbane.)

aggregate data from all participants, other relevant statistical data, and whether or not the test/s received ASPAC Certification (if applicable) were provided. The laboratory code number was included.

2.6 ASPAC certification of laboratories for soil tests

Subject to satisfactory measurement performance for twelve samples across three sequential "rounds", typically over the twelve-month period, ASPAC awarded participating laboratories with a printed, signed and dated *Certificate of Proficiency.* The *Certificate of Proficiency* identified performance for each test that met criteria set in advance by ASPAC. Method specific certification applied when a laboratory incurred no more than four demerit points for the twelve samples in the program year.

Demerit points (if any) were allocated through the identification of "outliers" and "stragglers" (see Appendix 3) by the "median / MAD" statistical procedure mentioned earlier in this report. Two demerit points were allocated to each statistical "outlier", while a statistical "straggler" was allocated one demerit point. As no sample result could be both an "outlier" and a "straggler", a maximum of two demerit points is all that could accrue per sample for a specific test.

Three (3) was set as the maximum number of demerit points for a specific test, that could be accrued in any one round of four samples. This was done so that unsatisfactory measurement for a test in one "round" did not in itself result in failure to be certified for that test across the three "rounds" in the designated 12-month period.

If a "round" was missed, the maximum number of three demerit points for every test in that "round" was allocated, unless very special circumstances applied and was known or advised expeditiously to ASPAC's LPC through its Convenor. When the explanation was accepted, performance from the three most recently completed "rounds" was used to assess eligibility for certification. No exceptions applied to this annual program.

Finally, when six (6) laboratories or less submitted results for a particular test and/or sample (including for "pooled" tests), proficiency assessments could not be made statistically with an acceptable level of confidence and hence certification for the affected test/s could not be granted. Importantly, ASPAC's *Certificates of Proficiency* are only issued on completion of each annual program of three "rounds". Moreover, ASPAC provide details of certified laboratories by test on its public web site. Those certifications remain valid until superseded by corresponding findings from the next annual soil program.

Table 2.4. Statistical terms and their meanings in the context of this ASPAC annual report

Statistical term	*Meaning and/or derivation*
Count or number	Original population size.
Maximum i	The highest of a range of values, based on the initial data set.
Minimum i	The lowest of a range of values, based on the initial data set.
Median	The median is the score (value) at the 50th percentile, also called the 2nd quartile or 5th decile. It is the score or potential score in a distribution of scores, above which and below which one-half of the frequencies fall. It is the middle observation of a sequentially sorted array of numbers, except in the case of an even sample size. Here it is the arithmetic mean of the two observations in the middle of the sorted array of observations. The median of a reasonably sized array of numbers is insensitive to extreme scores.
Mean[A]	The arithmetic mean (or average) is the sum of the values of a variable divided by their number. It represents the point in a distribution of measurements about which the summed deviations equals zero. The arithmetic mean is sensitive to extreme measurements.
MAD	The Median of the Absolute Deviations, calculated as the median of the absolute values of the observations minus their median.
Interquartile range (IQR)	This is calculated by subtracting the score at the 25th percentile (referred to as the first quartile; Q_1) from the score at the 75th percentile (the third quartile; Q_3). This value is affected by the assumptions made in the calculation of the first and third quartiles, particularly for low population sizes. Moreover, these differences exist within and across statistical software packages. Prior to the 2004-05 rounds, ASPAC used the algorithm employed by EXCEL and some others. For this program, the algorithm employed was that of SAS Method 4[9]. In summary, IQR = Q_3-Q_1.
Normalized IQR	This equates to IQR x 0.7413, where the latter is a normalizing factor.
Robust % CV[10]	The robust coefficient of variation (Robust % CV) = (100 x normalized IQR / median). For simplicity, the Robust %CVs shown are for the initial results, and for the "final" population of results for a test after the removal of any "outliers" or "stragglers", following one or two iterations.
Integer "i" and the letter "f" associated with medians, means, MADs, IQR and Robust %CVs in data summaries.	The integer "i" relates to the initial data set. The letter "f" relates to the "final" data set, generated after one or two iterations, typically after removal of laboratories with statistical "outliers" (if any), and statistical "stragglers" (if any).

A When the mean is greater than the median, the distribution is positively skewed. When the mean is lower than the median, the distribution is negatively skewed.

9 SAS Procedure Guide.

10 "Guide to NATA Proficiency Testing". 27 pp. (National Association of Testing Authorities, Australia, December 1997).

3. Summary Statistics

This section provides summary data and associated statistics (values sometimes rounded for table formatting purposes) on all tests (plus key "pooled" combinations) for each of the 12 samples used across three soil "rounds" in 2019. The tabulations include initial and subsequent values for the iterative "median / MAD" procedure plus other parametric and robust statistics. Table 2.4 and Appendix 3 have the meaning or derivation of the terms and statistics used in the tabulated summaries.

2019: Air-Dry Moisture Content 2A1 (%)

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	33	31	34	35	34	34	34	34	32	32	33	33
Minimum	0.57	0.1	0.8	1.34	0.437	0.376	0.68	0.838	0.112	0.61	1.02	0.551
Maximum	1.8	1.5	2.5	4.45	4.64	3	3.27	5.48	1	1.21	3.52	1.2
Median i	1.11	0.34	1.76	3.61	3.86	2.54	2.79	4.45	0.453	0.939	3.2	1
Mean i	1.09	0.419	1.74	3.49	3.67	2.45	2.61	4.33	0.471	0.92	2.97	0.97
MAD i	0.14	0.118	0.19	0.19	0.385	0.31	0.235	0.44	0.08	0.105	0.25	0.11
IQR i	0.292	0.229	0.343	0.39	0.953	0.613	0.608	0.865	0.141	0.206	0.53	0.191
Robust CV % i	20	50	14	8	18	18	16	14	23	16	12	14
Median f	1.11	0.338	1.76	3.62	3.9	2.59	2.9	4.61	0.453	0.946	3.25	1.02
Mean f	1.09	0.344	1.77	3.64	3.87	2.56	2.82	4.56	0.466	0.93	3.17	1
MAD f	0.115	0.0825	0.14	0.12	0.3	0.255	0.205	0.35	0.059	0.096	0.19	0.105
IQR f	0.223	0.197	0.305	0.25	0.575	0.513	0.415	0.775	0.115	0.18	0.468	0.193
Robust CV % f	15	43	13	5	11	15	11	12	19	14	11	14
Outliers	7	3	6	8	4	4	5	4	4	0	5	2
Stragglers	1	3	3	3	1	0	3	1	4	3	2	2

2019: Electrical conductivity 1:5 soil-water (3A1) dS/m

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	48	48	48	48	45	45	45	45	44	44	44	44
Minimum	0.06	0.114	0.191	0.104	0.097	0.024	0.115	0.024	0.102	0.0338	0.0952	0.0606
Maximum	0.099	0.19	0.28	0.18	0.197	0.262	0.219	0.239	159	174	174	91
Median i	0.083	0.151	0.231	0.136	0.151	0.213	0.173	0.194	0.157	0.0742	0.179	0.094
Mean i	0.0828	0.151	0.23	0.137	0.155	0.209	0.174	0.187	3.76	5.65	4.13	2.16
MAD i	0.0035	0.005	0.0075	0.006	0.008	0.004	0.008	0.01	0.005	0.0048	0.007	0.0041
IQR i	0.00713	0.0095	0.016	0.0123	0.015	0.009	0.017	0.016	0.012	0.008	0.0133	0.00818
Robust CV % i	6	5	5	7	7	3	7	6	6	8	5	6
Median f	0.0831	0.151	0.231	0.136	0.15	0.213	0.173	0.195	0.158	0.074	0.179	0.094
Mean f	0.0838	0.151	0.229	0.135	0.15	0.214	0.174	0.194	0.158	0.0748	0.179	0.0936
MAD f	0.0031	0.004	0.0045	0.006	0.0045	0.003	0.005	0.005	0.005	0.004	0.005	0.004
IQR f	0.00638	0.0075	0.0108	0.011	0.0075	0.007	0.0095	0.0103	0.01	0.0069	0.0095	0.00763
Robust CV % f	6	4	3	6	4	2	4	4	5	7	4	6
Outliers	4	6	7	7	6	10	7	7	11	9	12	12
Stragglers	1	3	6	0	7	7	8	7	1	3	4	0

2019: Soil pH, 1:5 soil-water (4A1 + 4A3)

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	51	51	51	51	47	47	47	47	47	47	47	47
Minimum	4.8	5.98	4.3	4.51	6.2	6	7.5	7.71	7.1	4.9	3.88	4.6
Maximum	6.8	7.99	6	7.44	7.91	6.78	8.17	8.36	8	6.03	9.2	5.02
Median i	5.56	7.33	4.96	7.23	7.7	6.46	7.97	8.16	7.58	5.54	8.42	4.76
Mean i	5.54	7.32	4.99	7.14	7.63	6.47	7.94	8.13	7.54	5.53	8.31	4.77
MAD i	0.07	0.07	0.06	0.09	0.08	0.04	0.09	0.08	0.06	0.06	0.09	0.06
IQR i	0.165	0.135	0.11	0.23	0.17	0.075	0.17	0.16	0.125	0.125	0.2	0.11
Robust CV % i	2	1	2	2	2	1	2	1	1	2	2	2
Median f	5.57	7.34	4.96	7.27	7.7	6.46	7.98	8.19	7.6	5.55	8.47	4.76
Mean f	5.55	7.33	4.95	7.27	7.71	6.46	7.97	8.17	7.58	5.54	8.43	4.76
MAD f	0.045	0.05	0.06	0.075	0.08	0.045	0.08	0.08	0.055	0.05	0.055	0.05
IQR f	0.103	0.085	0.1	0.13	0.148	0.0775	0.16	0.128	0.1	0.11	0.143	0.1
Robust CV % f	1	1	1	1	1	1	1	1	1	1	1	2
Outliers	9	10	8	7	7	7	2	5	8	13	6	6
Stragglers	7	4	0	4	0	0	2	0	5	0	7	2

2019: pH CaCl2 - Pooled (4B1 + 4B2 + 4B3 +4B4) pH Units

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	34	34	35	35	34	34	34	34	33	33	33	33
Minimum	4.58	5.7	4.3	5.2	5.9	5.6	6.5	6.8	6.64	4.18	7.27	3.65
Maximum	5.4	7.67	4.8	6.6	7.25	6.16	7.7	7.66	7.31	4.9	8.02	4.5
Median i	4.73	6.92	4.45	6.25	7.09	5.87	7.4	7.42	7.1	4.49	7.84	4.01
Mean i	4.77	6.92	4.46	6.23	7.01	5.87	7.34	7.4	7.08	4.51	7.74	4.03
MAD i	0.065	0.115	0.05	0.05	0.09	0.04	0.1	0.095	0.1	0.05	0.08	0.06
IQR i	0.12	0.213	0.115	0.11	0.17	0.075	0.238	0.195	0.19	0.1	0.23	0.1
Robust CV % i	2	2	2	1	2	1	2	2	2	2	2	2
Median f	4.7	6.92	4.44	6.26	7.1	5.87	7.4	7.43	7.1	4.47	7.86	4
Mean f	4.73	6.93	4.44	6.26	7.08	5.86	7.37	7.43	7.09	4.48	7.86	4
MAD f	0.07	0.085	0.035	0.04	0.07	0.03	0.09	0.07	0.095	0.03	0.02	0.035
IQR f	0.11	0.138	0.09	0.075	0.14	0.06	0.2	0.153	0.183	0.045	0.03	0.0725
Robust CV % f	2	1	2	1	1	1	2	2	2	1	0	1
Outliers	2	4	2	7	2	5	2	1	1	7	7	7
Stragglers	1	2	3	5	3	4	1	1	0	4	8	3

2019: Water Ext Cl - Pooled (5A1 + 5A2 + 5A3) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	33	34	34	34	30	32	31	32	33	33	33	33
Minimum	1	7	42.8	19.9	0.36	8.55	2.56	13	15.2	5.2	7.2	4.8
Maximum	32	97	139	235	53	367	56.7	172	736	462	855	219
Median i	7.38	18.2	46.5	33.5	10.1	67	14.6	33	22.7	18.3	22	17.8
Mean i	9.28	23.3	51.7	43.4	14.3	75.3	20.2	41.7	67.5	35.1	50.3	26.3
MAD i	2.62	3.05	2.6	3.75	3.35	6.45	4.6	3.95	4.5	3.8	4.4	3.9
IQR i	6	7.5	5.2	10.2	7.15	12.5	11.8	12.9	10	8.1	8.9	6.6
Robust CV % i	60	31	8	23	53	14	60	29	33	33	30	27
Median f	6.41	17.3	45.8	32.3	9.1	66.6	13.3	30.3	21.7	18	21	17.7
Mean f	6.78	18.5	46.4	33.8	10.2	67.2	14.6	31.1	22.8	18.6	21.5	17.1
MAD f	1.95	2.7	1.85	2.3	2.1	3.6	3.75	2.35	3.35	3.5	3.05	2.5
IQR f	3.78	5.4	4.28	5.3	5.97	8.1	8.68	4.73	7.48	6.8	4.95	6.15
Robust CV % f	44	23	7	12	49	9	48	12	26	28	17	26
Outliers	4	5	5	7	3	4	5	7	5	4	5	2
Stragglers	1	0	1	2	2	3	0	3	1	0	2	3

2019: Organic Carbon — W&B (6A1) %

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	22	22	22	22	20	20	20	20	19	19	19	19
Minimum	0.24	0.43	1.68	0.6	0.871	2.07	0.56	0.52	0.49	1.57	1.17	1.24
Maximum	2.4	1.5	3.1	1.5	1.98	3.36	1.65	1.2	1.16	14.8	2.07	2.46
Median i	1.6	0.895	2.22	0.993	1.11	2.72	0.739	0.721	0.701	1.84	1.45	1.46
Mean i	1.58	0.925	2.27	0.987	1.19	2.69	0.783	0.716	0.748	2.57	1.46	1.5
MAD i	0.115	0.135	0.155	0.0935	0.12	0.275	0.047	0.0745	0.051	0.12	0.1	0.09
IQR i	0.225	0.298	0.308	0.173	0.233	0.495	0.0863	0.135	0.118	0.23	0.18	0.155
Robust CV % i	10	25	10	13	16	13	9	14	12	9	9	8
Median f	1.6	0.89	2.21	0.996	1.09	2.72	0.72	0.72	0.7	1.84	1.45	1.43
Mean f	1.62	0.906	2.24	0.996	1.11	2.69	0.718	0.69	0.714	1.83	1.43	1.43
MAD f	0.095	0.107	0.11	0.048	0.08	0.275	0.033	0.07	0.03	0.07	0.09	0.07
IQR f	0.143	0.188	0.19	0.092	0.22	0.495	0.066	0.127	0.093	0.125	0.168	0.13
Robust CV % f	7	16	6	7	15	13	7	13	10	5	9	7
Outliers	4	1	1	2	1	0	5	1	10	7	4	3
Stragglers	0	4	2	4	2	1	3	0	1	2	0	5

2019: Total Carbon — Dumas (6B2) %

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	26	26	26	26	26	26	26	26	28	28	28	28
Minimum	1.46	0.08	2.15	0.909	1.24	2.75	0.79	0.71	0.643	1.72	1.68	1.38
Maximum	1.97	1.16	2.68	1.36	1.67	3.25	1.06	1.03	1.62	2.13	2.19	1.87
Median i	1.76	0.811	2.55	1.14	1.45	3.09	0.873	0.83	0.695	2.03	2	1.63
Mean i	1.76	0.803	2.54	1.13	1.46	3.08	0.893	0.831	0.734	2.01	1.99	1.64
MAD i	0.04	0.017	0.05	0.035	0.055	0.04	0.0255	0.021	0.021	0.04	0.06	0.065
IQR i	0.075	0.059	0.095	0.0675	0.085	0.075	0.0628	0.042	0.043	0.0825	0.0925	0.0975
Robust CV % i	3	5	3	4	4	2	5	4	5	3	3	4
Median f	1.75	0.802	2.56	1.14	1.45	3.09	0.871	0.83	0.688	2.03	2.01	1.63
Mean f	1.75	0.807	2.56	1.14	1.45	3.08	0.88	0.825	0.692	2.03	2.02	1.65
MAD f	0.035	0.008	0.04	0.03	0.03	0.03	0.02	0.0195	0.017	0.03	0.04	0.06
IQR f	0.065	0.0235	0.09	0.06	0.06	0.055	0.0505	0.03	0.036	0.05	0.085	0.09
Robust CV % f	3	2	3	4	3	1	4	3	4	2	3	4
Outliers	4	7	1	3	3	3	1	3	3	1	3	2
Stragglers	0	3	1	0	2	4	2	1	1	2	2	0

2019: Total Organic Carbon - Pooled (6B1 + 6B3 + 6B5) %

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	15	15	15	15	15	15	15	15	17	17	17	17
Minimum	0.935	0.522	2	0.818	1.1	2.75	0.7	0.667	0.661	1.48	1.35	1.3
Maximum	1.83	1	2.8	1.3	1.6	3.3	1.1	1.1	0.814	2.35	1.7	1.8
Median i	1.7	0.821	2.51	1.11	1.44	3.1	0.84	0.78	0.7	2.01	1.56	1.63
Mean i	1.67	0.825	2.45	1.11	1.41	3.04	0.85	0.795	0.715	1.97	1.55	1.61
MAD i	0.03	0.042	0.06	0.03	0.06	0.11	0.035	0.031	0.028	0.07	0.05	0.1
IQR i	0.05	0.0865	0.185	0.065	0.12	0.23	0.0725	0.057	0.044	0.14	0.1	0.18
Robust CV % i	2	8	5	4	6	5	6	5	5	5	5	8
Median f	1.7	0.821	2.52	1.11	1.48	3.1	0.837	0.77	0.689	2.03	1.57	1.63
Mean f	1.71	0.835	2.51	1.11	1.46	3.04	0.829	0.764	0.687	2.02	1.57	1.61
MAD f	0.03	0.039	0.04	0.03	0.07	0.11	0.0285	0.03	0.017	0.05	0.05	0.1
IQR f	0.03	0.062	0.07	0.05	0.11	0.23	0.062	0.057	0.028	0.07	0.09	0.18
Robust CV % f	1	6	2	3	6	5	5	5	3	3	4	8
Outliers	2	2	3	2	2	0	3	2	2	3	1	0
Stragglers	0	0	1	0	0	0	0	0	2	1	0	0

2019: Total N — Pooled (7A1 + 7A2) %

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	17	17	16	17	14	14	14	14	13	13	13	13
Minimum	0.15	0.0263	0.161	0.058	0.063	0.031	0.049	0.021	0.021	0.136	0.111	0.039
Maximum	0.24	3.4	0.24	0.64	0.12	0.339	0.115	0.09	0.0775	2.98	0.19	0.1
Median i	0.18	0.0564	0.196	0.092	0.107	0.32	0.078	0.073	0.036	0.174	0.14	0.071
Mean i	0.186	0.256	0.198	0.131	0.101	0.29	0.077	0.0682	0.0392	0.453	0.139	0.0697
MAD i	0.011	0.0036	0.0135	0.006	0.005	0.011	0.007	0.006	0.0047	0.022	0.01	0.009
IQR i	0.021	0.006	0.0225	0.019	0.0132	0.0185	0.0119	0.00998	0.0094	0.034	0.016	0.017
Robust CV % i	9	8	9	15	9	4	11	10	19	14	8	18
Median f	0.18	0.0557	0.195	0.0913	0.11	0.32	0.079	0.073	0.036	0.16	0.139	0.071
Mean f	0.18	0.0563	0.195	0.0913	0.107	0.323	0.0788	0.0735	0.0355	0.163	0.135	0.0697
MAD f	0.01	0.0037	0.012	0.0016	0.005	0.007	0.0022	0.001	0.0034	0.014	0.0085	0.009
IQR f	0.0185	0.006	0.0205	0.00345	0.0065	0.012	0.0042	0.0018	0.00503	0.025	0.0165	0.017
Robust CV % f	8	8	8	3	4	3	4	2	10	12	9	18
Outliers	2	6	1	6	3	2	2	2	3	3	3	2
Stragglers	0	0	1	1	1	1	4	3	4	2	0	0

2019: Total N – Dumas (7A5) %

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	32	32	32	32	30	30	30	30	32	33	33	33
Minimum	0.149	0.005	0.148	0.0246	0.075	0.25	0.069	0.055	0.025	0.118	0.068	0.054
Maximum	0.221	0.079	0.224	0.14	0.142	0.369	0.104	0.0954	0.077	0.197	0.168	0.133
Median i	0.195	0.06	0.205	0.098	0.113	0.341	0.083	0.0775	0.0377	0.17	0.139	0.0724
Mean i	0.195	0.0584	0.203	0.095	0.112	0.333	0.0837	0.0769	0.041	0.171	0.135	0.0762
MAD i	0.007	0.006	0.006	0.00475	0.009	0.0085	0.004	0.005	0.0052	0.006	0.004	0.003
IQR i	0.013	0.0109	0.0115	0.00895	0.017	0.0175	0.007	0.00953	0.0095	0.012	0.008	0.005
Robust CV % i	5	13	4	7	11	4	6	9	19	5	4	5
Median f	0.195	0.06	0.206	0.0989	0.113	0.342	0.083	0.0785	0.037	0.17	0.14	0.0722
Mean f	0.194	0.0612	0.206	0.0985	0.112	0.338	0.0832	0.078	0.0378	0.171	0.14	0.0728
MAD f	0.0045	0.0047	0.006	0.0031	0.0075	0.006	0.003	0.0025	0.00325	0.005	0.004	0.00235
IQR f	0.0095	0.0085	0.0115	0.00585	0.017	0.0145	0.00573	0.00525	0.00803	0.011	0.006	0.00453
Robust CV % f	4	11	4	4	11	3	5	5	16	5	3	5
Outliers	3	2	2	7	1	2	4	3	2	3	8	5
Stragglers	1	1	0	2	1	4	2	3	2	1	0	0

2019: Water Soluble Nitrate N— Pooled (7B1 +7B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	22	22	22	22	19	16	19	19	18	17	18	18
Minimum	0.27	3.33	3.09	2.23	13	0.01	5	1.7	6.5	0.001	9.1	5.1
Maximum	16.4	20.3	80	25	39.4	4.6	23.4	6.47	13.6	3.4	24.1	34
Median i	3.22	9.95	69.5	13.1	31	0.595	12	3.4	8.69	1.07	19	25.1
Mean i	3.67	10.1	62.6	13.4	29.3	1.26	11.9	3.59	8.79	1.22	17.9	23.8
MAD i	0.68	0.77	4.5	1.3	1	0.241	1	0.67	0.415	0.77	1.45	1.8
IQR i	1.27	1.36	11.1	2.38	2.55	0.783	1.75	1.12	0.77	1.48	1.98	2.9
Robust CV % i	29	10	12	13	6	98	11	24	7	102	8	9
Median f	3.24	9.95	70.6	13.1	31.3	0.518	12	3.4	8.69	1.07	19.1	25.4
Mean f	3.34	9.87	69.9	13	31.4	0.494	11.8	3.43	8.64	1.22	19.1	25.2
MAD f	0.57	0.4	3.4	1.1	0.3	0.0975	0.55	0.535	0.38	0.77	0.75	1.3
IQR f	0.935	0.65	6.83	2	0.55	0.188	1.38	0.965	0.71	1.48	1.3	1.93
Robust CV % f	21	5	7	11	1	27	8	21	6	102	5	6
Outliers	3	4	3	5	4	3	4	1	2	0	3	3
Stragglers	0	2	1	0	4	3	1	0	0	0	1	1

2019: KCl Extractable Nitrate N — autocolour (7C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	25	25	25	25	25	23	25	24	26	25	26	26
Minimum	2.71	7.3	60.2	11.6	7.1	0.024	7	2	7	0.00101	8.48	13.2
Maximum	5.6	15	75.6	17	36	193	14	8.48	10.2	70.2	21.2	29.2
Median i	3.7	10	70.5	13.1	29	0.47	12	3.17	8.95	0.636	18.6	24.9
Mean i	3.68	10.2	69.7	13.4	27	8.9	11.4	3.38	8.93	3.53	17.9	24.5
MAD i	0.21	0.39	2.4	0.9	1.6	0.16	1	0.355	0.385	0.149	1.2	1.05
IQR i	0.64	0.72	5.7	1.8	3	0.262	1.5	0.7	0.738	0.388	2.5	1.98
Robust CV % i	13	5	6	10	8	41	9	16	6	45	10	6
Median f	3.7	10	71.1	13	29.4	0.442	12.1	3.08	8.96	0.636	18.7	24.9
Mean f	3.61	10	70.7	13.2	29.6	0.431	12	2.99	9.01	0.648	18.6	24.8
MAD f	0.2	0.31	1.8	0.95	1.2	0.091	0.9	0.32	0.38	0.124	0.6	0.9
IQR f	0.43	0.59	3.48	1.8	2.3	0.178	1.53	0.788	0.72	0.238	1.35	1.73
Robust CV % f	9	4	4	10	6	30	9	19	6	28	5	5
Outliers	4	3	1	1	5	3	3	2	1	6	2	2
Stragglers	0	0	2	0	1	2	0	0	0	0	1	0

2019: KCl Ext. Ammonium N — autocolour (7C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	30	30	30	30	30	30	30	30	27	27	27	27
Minimum	5.01	3.06	7	7.6	3.27	0.307	2.3	2.18	3.89	14.2	11.4	8.49
Maximum	71	12	23	23.6	31	232	17	19	8.2	91.3	24.1	35
Median i	57.1	6.27	15.1	11	6.88	183	7.4	6.88	4.99	63.2	20.7	26
Mean i	56	6.46	14.8	11.6	7.65	155	7.67	7.26	5.24	61	20.2	25
MAD i	2	0.645	1.05	1	0.495	15.5	0.725	0.575	0.47	2.1	1.7	1.3
IQR i	4.08	1.25	2.08	1.51	1.01	43.3	1.89	1.06	1.15	4.55	3.25	2.6
Robust CV % i	5	15	10	10	11	18	19	11	17	5	12	7
Median f	57	6.24	15.1	10.8	6.96	186	7.4	6.82	4.8	64	21	26
Mean f	57.1	6.21	15	10.8	6.85	185	7.53	6.86	4.86	64.5	20.8	26.1
MAD f	1.7	0.44	1	0.6	0.28	6	0.515	0.25	0.395	1.2	1.5	1.3
IQR f	2.8	0.77	2	1.24	0.73	10.8	0.885	0.475	0.715	2.95	3.3	2.55
Robust CV % f	4	9	10	9	8	4	9	5	11	3	12	7
Outliers	5	5	3	4	8	7	6	8	2	7	2	4
Stragglers	0	2	0	1	3	3	2	3	3	1	0	0

2019: Total P - Pooled %

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	28	28	28	28	25	25	25	25	26	26	26	24
Minimum	0.0444	0.00058	0.00786	0.0026	0.012	0.064	0.021	0.012	0.00537	0.0199	0.0276	0.00331
Maximum	0.112	0.014	0.049	0.026	0.026	0.0913	0.0306	0.0223	3.15	4.1	6.23	3.29
Median i	0.0875	0.00765	0.0318	0.0175	0.0165	0.0798	0.0249	0.0188	0.0109	0.0234	0.038	0.0054
Mean i	0.0876	0.00794	0.0319	0.0173	0.0167	0.0792	0.0251	0.0182	0.132	0.181	0.276	0.143
MAD i	0.0056	0.001	0.0029	0.00155	0.0018	0.0052	0.0024	0.0018	0.00092	0.0023	0.003	0.00093
IQR i	0.0113	0.00192	0.00618	0.00308	0.0035	0.009	0.0048	0.0041	0.00195	0.00543	0.00583	0.003
Robust CV % i	10	19	14	13	16	8	14	16	13	17	11	41
Median f	0.0878	0.00725	0.0315	0.0169	0.0165	0.0798	0.0249	0.0189	0.0106	0.0233	0.038	0.0048
Mean f	0.089	0.00747	0.0324	0.0169	0.0163	0.0792	0.0251	0.0185	0.0105	0.0235	0.038	0.00491
MAD f	0.0051	0.00052	0.0016	0.0011	0.00175	0.0052	0.0024	0.0017	0.0006	0.0018	0.00285	0.0005
IQR f	0.01	0.00106	0.0035	0.0022	0.00323	0.009	0.0048	0.00385	0.0011	0.00355	0.00528	0.00105
Robust CV % f	8	11	8	10	15	8	14	15	8	11	10	16
Outliers	2	6	5	6	1	0	0	1	5	2	2	4
Stragglers	1	2	2	1	0	0	0	0	2	1	0	3

2019: Colwell Extractable P — Pooled (9B1 + 9B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	30	30	30	30	32	32	32	32	31	31	31	31
Minimum	136	17	31	13.3	16	62	18.2	13	18.1	27.1	22.1	5.35
Maximum	282	58.3	82.8	49.8	107	119	34.7	27.6	48.7	115	74.7	36.2
Median i	221	22.3	50.8	19	18.9	94.6	24.5	22	24	36.2	34.4	11.9
Mean i	212	23.9	50.8	21.5	22.4	93.9	24	21.7	25.9	40.4	36.8	13.4
MAD i	23.5	3.1	4.1	2.35	1.35	5.75	2.4	2.2	2.1	3.4	3.5	2.5
IQR i	51.8	6.48	7.13	4.83	2.65	10.7	3.48	3.53	5.35	6.55	6.85	5.25
Robust CV % i	17	22	10	19	10	8	11	12	17	13	15	33
Median f	221	21.8	51	18.9	18.6	95	24.3	22	23.2	36	33	11.6
Mean f	215	22.3	51	19.3	18.6	94.7	23.7	22	23.7	35.6	33.5	12.4
MAD f	23	2.8	3.1	2.1	1.15	4.1	2.2	2.2	1.65	3.1	2.8	2.2
IQR f	46	6.1	6.5	4.3	2.23	8.1	3.45	3.7	3.95	6.4	5	4.7
Robust CV % f	15	21	9	17	9	6	11	12	13	13	11	30
Outliers	1	1	3	2	3	4	1	1	4	2	5	1
Stragglers	0	1	2	1	1	3	0	0	1	0	1	1

2019: Olsen Extractable P — Pooled (9C1 + 9C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	27	27	27	26	26	26	26	26	27	28	28	27
Minimum	3.53	10	3.64	4.26	6	25	6.4	5.4	0.48	0.89	0.69	0.34
Maximum	118	20.1	26.5	10.2	34.1	52	13.1	11	20.2	25.3	17.2	13.2
Median i	92.6	12.6	20.9	7.73	9.37	37.6	10.2	9.02	9.9	18.7	13.7	7.26
Mean i	90.1	12.6	20.3	7.75	10.1	37.3	10.2	8.91	9.97	17.7	12.8	6.96
MAD i	8.4	0.6	1.3	0.695	0.7	2.9	0.705	0.595	0.8	1.55	1.25	0.42
IQR i	15.3	1.7	2.85	1.42	1.45	5.5	1.36	1.26	1.6	3.08	2.13	1.35
Robust CV % i	12	10	10	14	11	11	10	10	12	12	11	14
Median f	92.7	12.4	20.9	7.73	9.37	37.5	10.1	8.98	9.85	19	13.8	7.29
Mean f	93.5	12.3	21	7.79	9.29	36.7	10.1	8.88	9.94	18.9	13.7	7.34
MAD f	7.75	0.7	1.1	0.6	0.65	2.8	0.5	0.62	0.6	1.2	1.1	0.21
IQR f	14.9	1.63	1.95	1.35	1.22	4.9	1	1.11	1.28	2.35	2.3	0.335
Robust CV % f	12	10	7	13	10	10	7	9	10	9	12	3
Outliers	2	5	5	4	4	3	6	4	8	5	4	12
Stragglers	0	0	0	0	0	1	2	2	1	2	1	4

2019: Bray-1 Extractable P — Pooled (9E1 + 9E2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	10	10	10	10	10	10	10	10	12	12	12	11
Minimum	78.5	0.162	1.8	1.2	9.8	44	10.5	8.2	3.1	11.2	6.48	5
Maximum	191	33.9	22.3	14.7	25.7	111	35	29.8	38.2	46.5	55	10.1
Median i	150	11.5	12.5	13	14.6	56	13.5	14	19.2	16.6	13.5	7.5
Mean i	141	13.5	12.5	11.1	16.6	60.4	16.5	15.6	20.2	20.8	19.2	7.27
MAD i	20	6.9	3.7	0.95	4.05	6.3	2.5	4.41	5.6	4.1	4.45	1.62
IQR i	40.8	12.1	5.18	3.4	8.08	11.9	6.13	8.24	10.3	11.1	12.9	2.39
Robust CV % i	20	78	31	19	41	16	34	44	40	49	71	24
Median f	154	9.45	12.5	13.9	14.2	52.8	12	13	19.2	15.9	12.2	7.5
Mean f	157	8.85	12.5	14	15.5	54.7	12.8	14	20.2	15	12.7	7.27
MAD f	7	5	3.7	0.2	3.3	6.3	1	3.22	5.6	1.7	2.4	1.62
IQR f	16.5	8.78	5.18	0.3	6.7	10.2	1.95	6.22	10.3	4	3.9	2.39
Robust CV % f	8	69	31	2	35	14	12	35	40	19	24	24
Outliers	1	1	1	4	0	1	1	0	0	1	2	1
Stragglers	4	2	0	3	1	1	2	1	0	4	1	0

2019: Acid Extractable P — Pooled (9G1 + 9G2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	14	14	14	14	15	15	15	15	16	16	16	16
Minimum	368	20	26	21.7	21	132	30	22	27	26	25	5
Maximum	531	90.3	73.2	87.5	49.7	199	51.6	45.1	48.5	47.5	285	23.6
Median i	445	35.1	48.6	27.5	32.9	165	38.2	31.5	42.1	39	231	13.5
Mean i	450	38.3	48.7	31.7	34.5	167	38.9	32.4	41.1	39.7	220	13.4
MAD i	13.5	4.05	6.45	2.65	1.8	16	3.3	1.6	2.65	3.85	23.5	2.5
IQR i	32.5	7.08	11.6	5.93	3.6	30.5	5.7	3.3	4.75	6	41.8	5.06
Robust CV % i	5	15	18	16	8	14	11	8	8	11	13	28
Median f	444	35.1	48.6	26.9	32.8	165	37.7	31.5	42.1	39	237	13
Mean f	445	35.5	48.7	27.4	33.4	167	38	32.2	42	39.7	239	12.7
MAD f	12	3.5	6.45	2.2	1.45	16	2.55	1.1	2.3	3.85	18	2.6
IQR f	16.5	5.03	11.6	4.8	2.63	30.5	4.43	2.25	4.25	6	30.5	5.13
Robust CV % f	3	11	18	13	6	14	9	5	7	11	10	29
Outliers	3	1	0	1	3	0	1	4	1	0	1	1
Stragglers	0	1	0	0	0	0	0	0	0	0	1	0

2019: Phosphorus buffer index - Colwell (9I2a + 9I2b + 9I2c) L/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	18	18	18	18	18	18	18	18	19	19	19	19
Minimum	49.1	60.6	14.2	58.4	25	75	39	72	45	74	48.9	32.2
Maximum	192	95.3	130	97.1	104	120	80	121	74	105	110	63.6
Median i	74.2	76	110	66.7	59.7	104	68.5	102	60.1	84	73	50.3
Mean i	81.6	75.9	106	68.7	60.1	104	68.2	103	60.1	85.1	74.5	50.8
MAD i	6.35	7.2	3.5	2.25	4.4	5.2	3.2	5.5	6.8	5.3	7.2	3.1
IQR i	11.5	13.5	7	4.33	7.88	10.1	6.9	11.4	13.2	10.4	13.1	7.45
Robust CV % i	12	13	5	5	10	7	7	8	16	9	13	11
Median f	74	76	110	66.3	59.7	104	68.5	103	60.1	83.5	72.5	49.5
Mean f	75.1	75.9	110	65.9	59.6	106	69.3	105	60.1	84	72.6	49.9
MAD f	5.9	7.2	3	1.75	3.75	5.4	2.85	5.2	6.8	5.2	7.05	2.3
IQR f	11	13.5	5	3.45	7.43	8	6.1	11	13.2	9.78	12.8	4.2
Robust CV % f	11	13	3	4	9	6	7	8	16	9	13	6
Outliers	3	0	2	4	2	1	1	1	0	1	1	4
Stragglers	0	0	0	0	0	0	1	0	0	0	0	2

2019: Phosphorus buffer index - Unadj (9I4a + 9I4b + 9I4c) L/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	13	13	13	13	13	13	13	13	14	14	14	14
Minimum	35.5	57	89.7	58.6	50	78.1	59.9	91	41.1	69.2	53.3	30.6
Maximum	54.7	89.8	119	76.9	83.3	103	76	117	74.5	101	97.6	60.2
Median i	42.3	74.5	104	64.1	54.4	87	63.8	98.4	56.2	77.9	70.9	48
Mean i	42.2	73.6	103	64.7	57.3	88.1	65.7	100	57.1	79.7	72.3	48
MAD i	4.9	6.5	4	3.1	2.5	4.1	1.9	4.6	7.2	6.05	6.5	4.25
IQR i	7.4	10.2	8	5.6	6.8	6.7	6	9	13.9	10.7	13	9.68
Robust CV % i	13	10	6	6	9	6	7	7	18	10	14	15
Median f	42.3	74.5	104	63.8	53.1	87	62.3	97.7	56.2	77.9	69.8	48.3
Mean f	42.2	73.6	103	63.7	53.4	88.1	63	98.9	57.1	79.7	70.4	49.3
MAD f	4.9	6.5	4	2.8	1.65	4.1	0.7	4.3	7.2	6.05	6.1	4.3
IQR f	7.4	10.2	8	4.65	2.88	6.7	1.9	8.25	13.9	10.7	10.8	10.5
Robust CV % f	13	10	6	5	4	6	2	6	18	10	11	16
Outliers	0	0	0	1	2	0	2	1	0	0	1	1
Stragglers	0	0	0	0	1	0	2	0	0	0	0	0

2019: Phosphate Extractable S – Pooled (10B1 + 10B2 + 10B3) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	14	14	14	14	13	13	13	13	15	15	14	15
Minimum	2.29	4	18.3	2.5	8.37	58.7	2.5	8.29	21.8	5	5	6.78
Maximum	27.4	22.5	46.2	19.6	88	103	61	104	40.6	21	49.9	23.3
Median i	23.8	11.1	40	17.2	9.7	65.1	12.3	10.3	27	17.5	17.4	12.1
Mean i	21.1	11.6	35.9	15.3	16.5	67.3	15.7	19.1	27.3	15.5	18.4	13.2
MAD i	2	1.45	3.8	0.95	0.6	2.4	1	0.8	1	1.8	1.05	1.5
IQR i	5.03	2.73	9.1	1.68	1.04	4.6	1.9	2.52	1.8	5.75	2	2.25
Robust CV % i	16	18	17	7	8	5	11	18	5	24	9	14
Median f	24.7	11.1	40.9	17.2	9.44	64.7	12.3	10.2	27	18.1	17.5	12.1
Mean f	24.4	11.4	40.3	17.6	9.61	64.3	12.5	10.3	27.5	18.4	17.6	12.3
MAD f	1.3	1.36	2.4	0.8	0.46	2.3	0.7	0.57	0.8	0.8	0.4	0.75
IQR f	2.5	2.39	4.3	1.55	0.82	3.98	1.5	1.08	1.25	1.68	0.975	1.23
Robust CV % f	8	16	8	7	6	5	9	8	3	7	4	8
Outliers	3	2	3	3	2	1	3	3	4	3	3	2
Stragglers	0	0	0	0	0	0	1	0	0	2	1	3

2019: KCl_{40} Extractable S (10D1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	17	17	17	17	15	16	16	15	17	16	17	16
Minimum	15	5	16	5	6.19	26.9	4.9	6.91	9.91	5.98	12.1	7.27
Maximum	25.9	16.3	31.4	19.3	10.3	67.4	11.7	22.5	32.7	29.8	18.2	20.6
Median i	20.5	10.3	26.1	13.5	8.4	55.6	9.97	8.7	28.1	11.9	14.4	9.24
Mean i	20.6	10.6	25.6	13.5	8.44	54.8	9.86	9.27	27.3	12.3	14.7	9.61
MAD i	1.5	0.6	1.4	1.2	1.01	5.95	1.03	0.9	1	1.5	1.4	0.83
IQR i	2.4	1.16	2.4	2.1	1.67	10.8	2.18	1.87	2.6	2.7	2.8	1.34
Robust CV % i	9	8	7	12	15	14	16	16	7	17	14	11
Median f	20.5	10.1	26.3	13.5	8.4	55.7	10.2	8.49	28	12.1	14.4	9.08
Mean f	20.6	10.3	26.3	13.7	8.44	56.7	10.2	8.32	27.8	11.9	14.7	8.88
MAD f	1.5	0.3	1.05	1.1	1.01	5.8	1.1	0.835	0.95	1.2	1.4	0.66
IQR f	2.4	0.96	1.95	2	1.67	8.8	2.13	1.92	2.23	2	2.8	1.47
Robust CV % f	9	7	6	11	15	12	15	17	6	12	14	12
Outliers	0	3	3	2	0	1	1	1	4	3	1	2
Stragglers	0	1	0	0	0	0	0	0	0	1	0	0

2019: DTPA Extractable Fe (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	29	29	29	29	27	27	27	27	30	30	30	30
Minimum	134	33	46.9	13.1	2.11	75.1	11.3	9.05	29.6	13.9	1.37	143
Maximum	521	304	1190	29.6	35.6	258	47	41.3	163	620	60	534
Median i	243	134	463	18	10.3	123	18.5	18.6	39.9	422	4.16	187
Mean i	260	139	497	18.6	11.6	135	19.4	19.7	49.4	415	6.5	219
MAD i	33	27	54	2	1.48	17	2.4	2.5	5.6	37.5	0.645	32
IQR i	64	58	109	3.6	2.89	33	4.85	4.6	16.7	70.5	1.24	65.5
Robust CV % i	20	32	17	15	21	20	19	18	31	12	22	26
Median f	238	131	442	17.4	10.2	123	18	18	36	415	4.1	181
Mean f	237	133	443	17.8	10.4	126	18	18.3	37.3	418	4.31	185
MAD f	25	26.5	34	1.4	1.14	15	1.9	1.9	3.05	30	0.59	25
IQR f	42.3	52.8	68	3.48	2.76	33	3	3.8	5.65	55	1.02	42
Robust CV % f	13	30	11	15	20	20	12	16	12	10	18	17
Outliers	2	3	5	2	3	2	1	4	6	5	4	5
Stragglers	3	0	1	1	0	0	1	0	4	2	0	1

2019: DTPA Extractable Cu (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	29	29	30	30	27	26	27	27	30	30	30	28
Minimum	0.081	0.35	0.62	1.07	0.522	0.514	0.907	1.05	0.343	0.456	0.65	0.157
Maximum	0.49	0.77	1.4	2	1.58	1.35	2.3	2.7	0.534	2.01	2.18	0.971
Median i	0.34	0.55	0.847	1.52	0.945	0.786	1.47	1.64	0.445	0.6	0.789	0.216
Mean i	0.345	0.563	0.863	1.54	0.978	0.829	1.51	1.72	0.448	0.654	0.832	0.26
MAD i	0.03	0.025	0.06	0.105	0.055	0.048	0.11	0.09	0.025	0.03	0.0445	0.045
IQR i	0.073	0.09	0.119	0.14	0.0985	0.0975	0.2	0.17	0.0475	0.047	0.0838	0.106
Robust CV % i	16	12	10	7	8	9	10	8	8	6	8	36
Median f	0.34	0.534	0.844	1.52	0.943	0.776	1.47	1.63	0.445	0.6	0.788	0.209
Mean f	0.353	0.537	0.846	1.55	0.95	0.78	1.47	1.64	0.443	0.602	0.779	0.229
MAD f	0.02	0.0165	0.056	0.08	0.0505	0.038	0.075	0.065	0.02	0.02	0.0375	0.0365
IQR f	0.063	0.0295	0.095	0.13	0.0865	0.0753	0.148	0.118	0.0383	0.038	0.0763	0.0773
Robust CV % f	14	4	8	6	7	7	7	5	6	5	7	27
Outliers	5	7	2	4	3	4	3	3	5	6	5	3
Stragglers	1	3	1	1	0	0	0	2	1	2	1	1

2019: DTPA Extractable Mn (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	29	29	29	29	27	27	27	27	30	30	30	30
Minimum	10.7	2	7.84	118	38.7	113	28.4	16.6	2.59	3.73	33.4	3.15
Maximum	57.2	6.47	19	262	159	314	81.4	60	6.03	72.8	75.3	53.2
Median i	33	3.9	12.8	164	57	191	40	25.4	4.5	5.39	57.8	5.09
Mean i	32.8	3.91	12.5	164	59.7	194	40.3	26.3	4.46	9.23	57.9	6.56
MAD i	1.6	0.39	0.4	11	6	9	3.4	2.2	0.34	0.315	2.4	0.405
IQR i	3.7	0.83	1.1	18	12	16.5	6.15	4	0.64	0.545	4.63	0.763
Robust CV % i	8	16	6	8	16	6	11	12	11	8	6	11
Median f	33.1	3.96	12.9	165	57	192	40	25.4	4.5	5.39	57.6	5.17
Mean f	33.3	4.01	12.9	166	55.9	193	39.2	25.3	4.49	5.35	57.5	5.12
MAD f	1.25	0.33	0.2	8	6	6.5	2.5	2.1	0.24	0.18	1.7	0.28
IQR f	1.78	0.685	0.4	15	12.5	10.5	5.4	3.3	0.45	0.375	3.25	0.535
Robust CV % f	4	13	2	7	16	4	10	10	7	5	4	8
Outliers	6	6	8	4	1	6	1	2	7	4	5	4
Stragglers	1	0	2	2	0	0	1	1	2	3	2	1

2019: DTPA Extractable Zn (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	30	29	30	29	26	27	27	26	28	29	28	28
Minimum	1.99	0.65	1.16	0.2	0.147	2.78	1.29	0.318	0.345	1.86	0.904	1
Maximum	9.1	1.72	3.4	0.68	0.8	6	3.2	0.92	1.5	3.6	3	15.2
Median i	4.54	0.813	2.42	0.287	0.479	3.89	1.94	0.616	0.477	2.62	2.14	1.24
Mean i	4.63	0.84	2.38	0.294	0.476	3.91	1.99	0.616	0.522	2.63	2.15	1.78
MAD i	0.26	0.047	0.155	0.031	0.03	0.14	0.1	0.0425	0.042	0.1	0.13	0.065
IQR i	0.515	0.092	0.303	0.057	0.0625	0.27	0.195	0.0828	0.0825	0.2	0.268	0.118
Robust CV % i	8	8	9	15	10	5	7	10	13	6	9	7
Median f	4.52	0.812	2.43	0.284	0.479	3.89	1.94	0.622	0.465	2.59	2.12	1.24
Mean f	4.51	0.8	2.4	0.275	0.476	3.85	1.97	0.623	0.466	2.59	2.12	1.23
MAD f	0.24	0.0385	0.13	0.028	0.029	0.1	0.09	0.038	0.032	0.09	0.11	0.05
IQR f	0.46	0.0785	0.26	0.0505	0.0535	0.165	0.18	0.0735	0.058	0.15	0.205	0.095
Robust CV % f	8	7	8	13	8	3	7	9	9	4	7	6
Outliers	3	4	2	2	3	4	3	3	3	5	4	5
Stragglers	0	1	1	0	0	1	0	0	3	0	2	2

2019: CaCl2 Extractable B (12C1 + 12C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	24	24	24	24	22	22	22	22	22	22	22	22
Minimum	0.201	0.244	0.42	0.664	0.465	0.534	0.99	1.05	0.396	0.14	0.893	0.12
Maximum	0.759	1.77	1.15	2.05	1.2	1.1	2.2	3	1.1	0.851	2.48	3.03
Median i	0.333	0.408	0.604	1.39	0.791	0.792	1.37	1.69	0.667	0.29	1.89	0.35
Mean i	0.379	0.466	0.652	1.37	0.788	0.811	1.38	1.71	0.652	0.319	1.76	0.465
MAD i	0.0575	0.047	0.102	0.22	0.11	0.065	0.13	0.215	0.063	0.078	0.225	0.129
IQR i	0.119	0.0853	0.194	0.43	0.2	0.131	0.305	0.403	0.119	0.127	0.638	0.17
Robust CV % i	26	15	24	23	19	12	17	18	13	33	25	36
Median f	0.325	0.394	0.6	1.39	0.789	0.785	1.36	1.66	0.67	0.276	1.99	0.321
Mean f	0.317	0.396	0.615	1.37	0.769	0.784	1.34	1.65	0.677	0.267	1.92	0.303
MAD f	0.039	0.0395	0.0905	0.22	0.109	0.0205	0.12	0.22	0.034	0.061	0.085	0.058
IQR f	0.075	0.069	0.175	0.43	0.16	0.0373	0.34	0.4	0.062	0.118	0.213	0.172
Robust CV % f	17	13	22	23	15	4	19	18	7	32	8	40
Outliers	4	3	2	0	1	4	1	1	3	2	2	1
Stragglers	0	1	0	0	0	4	0	0	2	0	6	2

2019: Exchangeable Ca — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	21	21	21	21	22	22	22	22	19	19	19	19
Minimum	2.84	3.4	3.34	5.04	12	7.1	8.8	12	3	0.84	13	0.567
Maximum	4.63	4.88	5	9.05	21	14.1	15.4	21.8	4.58	1.46	37.5	1.34
Median i	3.73	3.92	3.96	7.46	17.2	11.5	12.5	18.1	4.03	1	28.7	0.779
Mean i	3.74	3.93	3.99	7.37	17.1	11.4	12.4	17.6	3.92	1.04	27.3	0.829
MAD i	0.13	0.18	0.12	0.14	1.15	0.55	1	1.35	0.2	0.041	1.5	0.049
IQR i	0.25	0.32	0.23	0.28	2.33	1.08	1.95	2.63	0.4	0.121	4.25	0.105
Robust CV % i	5	6	4	3	10	7	12	11	7	9	11	10
Median f	3.72	3.9	3.96	7.47	17.4	11.7	12.5	18.1	4.1	0.992	28.7	0.77
Mean f	3.7	3.89	3.97	7.47	17.6	11.6	12.6	17.9	4.06	0.987	28.5	0.77
MAD f	0.05	0.16	0.11	0.1	1.15	0.5	0.9	1.1	0.14	0.032	1.3	0.03
IQR f	0.125	0.323	0.2	0.19	2.18	1	1.7	2.5	0.25	0.045	2.45	0.069
Robust CV % f	2	6	4	2	9	6	10	10	5	3	6	7
Outliers	4	1	2	3	2	3	1	1	3	7	6	6
Stragglers	2	0	0	1	0	0	0	0	4	3	1	1

2019: Exchangeable K — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	20	19	20	20	21	21	21	21	18	18	18	18
Minimum	0.384	0.05	0.37	1	0.42	0.55	0.94	1.2	0.1	0.048	1.22	0.056
Maximum	0.67	0.46	2.09	8.52	0.796	0.9	461	2.1	0.2	0.431	2.02	0.243
Median i	0.55	0.104	0.439	1.16	0.5	0.747	1.14	1.63	0.14	0.131	1.41	0.189
Mean i	0.537	0.123	0.52	1.51	0.524	0.737	23	1.63	0.144	0.146	1.42	0.187
MAD i	0.0335	0.009	0.0195	0.055	0.02	0.063	0.08	0.09	0.01	0.0205	0.085	0.011
IQR i	0.0635	0.015	0.0403	0.0925	0.03	0.12	0.15	0.17	0.018	0.035	0.153	0.0198
Robust CV % i	9	11	7	6	4	12	10	8	10	20	8	8
Median f	0.551	0.104	0.432	1.16	0.5	0.747	1.14	1.63	0.139	0.13	1.4	0.189
Mean f	0.555	0.103	0.433	1.14	0.501	0.737	1.14	1.61	0.137	0.124	1.39	0.191
MAD f	0.028	0.0065	0.022	0.05	0.0095	0.063	0.075	0.075	0.006	0.009	0.08	0.009
IQR f	0.0535	0.01	0.044	0.09	0.0118	0.12	0.145	0.163	0.009	0.024	0.13	0.0188
Robust CV % f	7	7	8	6	2	12	9	7	5	14	7	7
Outliers	4	4	2	1	5	0	1	2	8	4	3	5
Stragglers	0	1	0	0	2	0	0	1	1	3	0	1

2019: Exchangeable Mg — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	21	21	21	21	22	22	22	22	19	19	19	19
Minimum	0.51	0.11	0.43	1.19	0.84	1.2	4.7	7.5	0.449	0.553	1.7	0.43
Maximum	0.95	0.6	2.66	9.4	11	2.1	17.2	11.7	0.923	2.18	7.48	0.912
Median i	0.78	0.453	2.28	8.57	8.44	1.57	5.88	9.87	0.7	0.63	2.2	0.503
Mean i	0.779	0.442	2.2	8.25	7.91	1.57	6.42	9.77	0.698	0.731	2.47	0.537
MAD i	0.05	0.027	0.09	0.24	0.64	0.08	0.34	0.68	0.037	0.03	0.08	0.013
IQR i	0.1	0.05	0.19	0.52	1.14	0.153	0.63	1.3	0.0745	0.0615	0.165	0.021
Robust CV % i	10	8	6	4	10	7	8	10	8	7	6	3
Median f	0.784	0.444	2.28	8.62	8.48	1.57	5.87	9.87	0.7	0.62	2.2	0.5
Mean f	0.802	0.442	2.3	8.6	8.57	1.58	5.85	9.77	0.699	0.622	2.2	0.502
MAD f	0.054	0.015	0.075	0.27	0.26	0.06	0.33	0.68	0.032	0.02	0.075	0.005
IQR f	0.119	0.029	0.163	0.523	0.58	0.12	0.578	1.3	0.056	0.0525	0.123	0.006
Robust CV % f	11	5	5	4	5	6	7	10	6	6	4	1
Outliers	2	5	3	1	3	4	2	0	6	4	7	7
Stragglers	0	1	0	0	3	1	0	0	0	1	0	3

2019: Exchangeable Na — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	18	19	20	21	22	22	21	22	16	19	19	16
Minimum	0.0181	0.0353	0.24	0.9	0.2	0.1	0.14	0.5	0.018	0.0033	0.0979	0.02
Maximum	0.246	0.17	0.39	1.81	0.707	0.61	0.47	1.58	0.115	0.18	0.717	0.82
Median i	0.0465	0.08	0.284	1.59	0.405	0.4	0.23	1.2	0.0554	0.1	0.248	0.0603
Mean i	0.0646	0.0879	0.293	1.55	0.417	0.395	0.236	1.18	0.0595	0.0996	0.265	0.113
MAD i	0.00925	0.01	0.0135	0.07	0.031	0.03	0.029	0.09	0.013	0.023	0.03	0.0161
IQR i	0.0293	0.014	0.0223	0.09	0.056	0.0513	0.04	0.168	0.0253	0.0435	0.076	0.0373
Robust CV % i	47	13	6	4	10	9	13	10	34	32	23	46
Median f	0.042	0.08	0.284	1.6	0.4	0.4	0.227	1.21	0.0519	0.1	0.249	0.052
Mean f	0.0464	0.0794	0.284	1.58	0.405	0.397	0.224	1.24	0.0523	0.1	0.256	0.0512
MAD f	0.008	0.002	0.009	0.075	0.02	0.016	0.0245	0.075	0.01	0.022	0.0285	0.0125
IQR f	0.0141	0.004	0.0153	0.09	0.0405	0.04	0.0378	0.148	0.0214	0.033	0.073	0.0217
Robust CV % f	25	4	4	4	8	7	12	9	31	24	22	31
Outliers	3	4	3	1	4	5	1	4	3	2	4	4
Stragglers	0	2	1	0	3	1	0	0	0	1	0	1

2019: Exchangeable Ca — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	26	26	26	26	23	23	23	23	24	24	23	24
Minimum	2	2.5	2.3	5.8	9.83	6.36	6.78	10.3	3.27	0.753	20.7	0.548
Maximum	4.91	5.19	4.86	9	78.8	14.6	18.7	22.7	9.73	5.39	73.9	1.78
Median i	3.65	3.86	3.75	7.21	17.1	11.3	12.1	17.1	3.99	0.967	27.4	0.724
Mean i	3.63	3.87	3.73	7.22	19.9	11.3	12	17.2	4.18	1.14	30.1	0.781
MAD i	0.12	0.15	0.12	0.185	0.7	0.5	0.5	0.5	0.075	0.0605	2.5	0.0695
IQR i	0.243	0.285	0.22	0.395	1.55	0.75	1.2	0.95	0.185	0.12	4.2	0.156
Robust CV % i	5	5	4	4	7	5	7	4	3	9	11	16
Median f	3.66	3.86	3.75	7.22	16.7	11.3	12.2	17.1	3.99	0.968	27.2	0.723
Mean f	3.63	3.88	3.75	7.19	16.9	11.4	12.1	17.1	3.97	0.974	27	0.737
MAD f	0.09	0.14	0.09	0.07	0.55	0.4	0.2	0.3	0.055	0.042	1.5	0.065
IQR f	0.17	0.265	0.17	0.12	1.13	0.625	0.325	0.525	0.115	0.064	2.85	0.135
Robust CV % f	3	5	3	1	5	4	2	2	2	5	8	14
Outliers	6	5	6	7	5	4	6	5	12	6	5	3
Stragglers	1	0	1	3	1	1	3	4	0	1	1	0

2019: Exchangeable K — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	26	26	26	26	22	22	22	22	23	23	23	23
Minimum	0.448	0.06	0.36	0.942	0.44	0.604	0.926	1.37	0.0785	0.086	0.367	0.143
Maximum	0.69	0.19	0.49	1.71	0.547	0.749	1.34	1.78	0.2	0.623	1.8	0.28
Median i	0.519	0.1	0.42	1.1	0.496	0.69	1.1	1.56	0.134	0.13	1.4	0.184
Mean i	0.523	0.102	0.422	1.13	0.494	0.69	1.1	1.56	0.134	0.151	1.36	0.187
MAD i	0.0225	0.0095	0.0135	0.04	0.015	0.0105	0.025	0.06	0.009	0.01	0.09	0.009
IQR i	0.046	0.0188	0.0248	0.08	0.0285	0.0205	0.055	0.118	0.0145	0.019	0.145	0.016
Robust CV % i	7	14	4	5	4	2	4	6	8	11	8	6
Median f	0.518	0.1	0.42	1.1	0.498	0.69	1.1	1.56	0.136	0.129	1.41	0.185
Mean f	0.516	0.0987	0.421	1.1	0.499	0.691	1.1	1.55	0.136	0.129	1.4	0.186
MAD f	0.015	0.007	0.0095	0.04	0.012	0.0095	0.01	0.055	0.007	0.0085	0.05	0.006
IQR f	0.022	0.0125	0.0188	0.07	0.0235	0.0173	0.025	0.113	0.0128	0.0153	0.0975	0.013
Robust CV % f	3	9	3	5	3	2	2	5	7	9	5	5
Outliers	4	4	5	7	5	6	7	4	6	5	4	4
Stragglers	4	1	4	0	3	1	3	1	0	1	3	3

2019: Exchangeable Mg — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	26	26	26	26	23	23	23	23	24	24	24	24
Minimum	0.5	0.3	1.8	6.72	4.1	0.73	2.92	4.55	0.553	0.547	1.81	0.43
Maximum	1.63	0.91	3.63	19.5	12.5	2.78	9.6	14.1	0.971	1.3	3.49	0.653
Median i	0.736	0.443	2.22	8.32	8.29	1.56	5.78	9.31	0.64	0.619	2.15	0.501
Mean i	0.769	0.463	2.28	8.87	8.28	1.6	5.83	9.35	0.667	0.668	2.3	0.51
MAD i	0.0355	0.021	0.055	0.44	0.38	0.06	0.3	0.41	0.0535	0.0445	0.14	0.03
IQR i	0.0663	0.048	0.125	0.888	0.685	0.12	0.505	0.785	0.101	0.085	0.285	0.0548
Robust CV % i	7	8	4	8	6	6	6	6	12	10	10	8
Median f	0.731	0.432	2.2	8.24	8.29	1.56	5.78	9.27	0.606	0.606	2.1	0.497
Mean f	0.731	0.44	2.2	8.19	8.28	1.56	5.79	9.28	0.629	0.612	2.11	0.493
MAD f	0.0275	0.02	0.035	0.33	0.32	0.05	0.23	0.365	0.0295	0.031	0.05	0.026
IQR f	0.0545	0.033	0.075	0.55	0.61	0.09	0.39	0.705	0.079	0.0618	0.1	0.04
Robust CV % f	6	6	3	5	5	4	5	6	10	8	4	6
Outliers	3	4	8	4	3	4	3	4	6	5	4	4
Stragglers	1	2	1	2	0	3	0	0	1	1	6	1

2019: Exchangeable Na — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	26	26	26	26	22	22	22	22	22	23	23	22
Minimum	0.01	0.03	0.2	1.17	0.26	0.34	0.184	1.05	0.03	0.0642	0.17	0.0299
Maximum	0.49	0.57	0.56	2.6	0.626	0.608	0.35	1.6	0.11	0.169	1.57	0.239
Median i	0.04	0.0712	0.282	1.55	0.387	0.379	0.215	1.15	0.0501	0.094	0.226	0.0521
Mean i	0.0623	0.0947	0.286	1.57	0.397	0.393	0.23	1.17	0.0556	0.105	0.295	0.0673
MAD i	0.0082	0.0079	0.0085	0.06	0.034	0.022	0.018	0.05	0.007	0.0085	0.019	0.0086
IQR i	0.0171	0.0187	0.0203	0.115	0.0663	0.046	0.0368	0.105	0.0137	0.0215	0.05	0.02
Robust CV % i	32	19	5	5	13	9	13	7	20	17	16	28
Median f	0.0391	0.07	0.284	1.55	0.387	0.378	0.211	1.14	0.045	0.0916	0.224	0.05
Mean f	0.0396	0.0704	0.283	1.55	0.392	0.383	0.214	1.14	0.0457	0.0915	0.225	0.0494
MAD f	0.0073	0.0057	0.003	0.05	0.0295	0.022	0.0105	0.035	0.0051	0.0035	0.011	0.007
IQR f	0.0148	0.0109	0.00425	0.085	0.0608	0.043	0.0268	0.07	0.0114	0.00688	0.017	0.013
Robust CV % f	28	11	1	4	12	8	9	5	19	6	6	19
Outliers	6	8	9	5	3	4	5	4	7	8	5	7
Stragglers	0	1	3	2	0	0	2	1	1	2	3	0

2019: Exchangeable Al — 1M KCl (15G1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	20	17	20	17	17	17	17	17	16	19	16	19
Minimum	0.0127	0.001	0.137	0.001	0.001	0.001	0.001	0.001	0.001	0.152	0.001	0.26
Maximum	0.29	0.12	0.48	0.05	0.05	0.074	0.05	0.05	0.112	1.21	0.046	1.89
Median i	0.15	0.00574	0.325	0.0051	0.0054	0.0072	0.00626	0.0048	0.00931	0.368	0.005	0.648
Mean i	0.152	0.0195	0.323	0.0131	0.011	0.0191	0.0108	0.00864	0.0258	0.39	0.0102	0.705
MAD i	0.026	0.00426	0.042	0.0041	0.0044	0.0062	0.00526	0.0038	0.0065	0.066	0.00285	0.064
IQR i	0.046	0.0193	0.0758	0.0127	0.0135	0.0295	0.0122	0.0077	0.0291	0.0885	0.00754	0.134
Robust CV % i	23	249	17	185	185	304	144	119	232	18	112	15
Median f	0.15	0.00412	0.325	0.005	0.005	0.005	0.005	0.00357	0.005	0.368	0.0045	0.648
Mean f	0.153	0.00443	0.324	0.0069	0.00692	0.0057	0.00734	0.00427	0.00522	0.356	0.0039	0.64
MAD f	0.016	0.00112	0.034	0.0035	0.004	0.0022	0.0034	0.00257	0.001	0.054	0.00105	0.052
IQR f	0.0285	0.00217	0.059	0.0057	0.00682	0.00454	0.00805	0.004	0.0014	0.077	0.00251	0.099
Robust CV % f	14	39	13	84	101	67	119	83	21	16	41	11
Outliers	3	5	2	3	2	5	1	2	6	2	5	5
Stragglers	1	1	0	0	0	1	1	1	2	1	0	0

2019: Extractable Al – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	18	18	18	18	20	20	20	20	17	17	17	17
Minimum	412	507	416	446	3.61	529	237	319	807	221	189	403
Maximum	6040	1320	733	774	897	1470	842	1210	1290	763	489	583
Median i	647	1240	660	652	543	894	512	720	1170	638	350	502
Mean i	931	1160	638	645	522	941	516	719	1140	604	334	501
MAD i	24	70	37.5	25.5	33.5	32	34.5	36	50	59	33	23
IQR i	42.3	133	70	37.8	63.8	59.5	57.5	81.3	90	116	92	45
Robust CV % i	5	8	8	4	9	5	8	8	6	13	19	7
Median f	647	1240	660	652	545	894	507	717	1180	643	357	506
Mean f	650	1240	651	654	547	891	507	711	1170	628	351	513
MAD f	12	60	35	14.5	20	17.5	23	20	55	51	21	25
IQR f	22.8	105	64	27.8	38	28.5	46	31	95	112	41	49
Robust CV % f	3	6	7	3	5	2	7	3	6	13	9	7
Outliers	3	3	1	3	5	6	4	6	1	1	3	2
Stragglers	3	0	0	1	0	2	1	2	0	0	1	0

2019: Extractable B – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	18	18	17	18	18	18	19	19	16	17	17	16
Minimum	0.05	0.146	0.09	0.185	0.11	0.001	0.6	0.83	0.153	0.001	2.38	0.006
Maximum	2.26	24.4	3.5	1.97	2.2	1.65	3.5	5.5	8.28	3	3.66	1.46
Median i	0.231	0.523	0.265	1.1	0.892	0.605	1.38	2.01	0.705	0.223	3.1	0.191
Mean i	0.469	3.46	0.658	1.08	1.04	0.646	1.53	2.12	1.21	0.538	3.06	0.351
MAD i	0.122	0.183	0.065	0.144	0.185	0.255	0.24	0.23	0.077	0.119	0.25	0.103
IQR i	0.271	0.311	0.116	0.306	0.591	0.395	0.465	0.57	0.154	0.363	0.36	0.347
Robust CV % i	87	44	32	21	49	48	25	21	16	121	9	135
Median f	0.217	0.511	0.256	1.1	0.856	0.569	1.38	2.01	0.71	0.153	3.1	0.111
Mean f	0.209	0.533	0.256	1.06	0.863	0.46	1.39	1.89	0.706	0.15	3.06	0.125
MAD f	0.079	0.066	0.0525	0.1	0.057	0.164	0.095	0.19	0.054	0.0653	0.25	0.069
IQR f	0.115	0.134	0.094	0.217	0.131	0.434	0.175	0.445	0.0755	0.122	0.36	0.103
Robust CV % f	39	19	27	15	11	57	9	16	8	59	9	68
Outliers	3	4	3	3	6	2	2	3	5	3	0	2
Stragglers	1	2	0	1	1	1	5	1	0	2	0	3

2019: Extractable Ca – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	18	18	18	18	19	19	19	19	16	16	16	16
Minimum	212	232	196	489	2050	534	1330	1870	780	140	6540	138
Maximum	1220	1000	903	1700	22200	3020	6770	4670	972	352	16600	373
Median i	832	867	783	1430	3710	2360	2560	3550	875	218	7600	166
Mean i	819	825	764	1410	4650	2280	2810	3640	880	219	8470	193
MAD i	44.5	62.5	40	45	200	80	90	130	29	23.5	620	19.5
IQR i	75	117	78.3	75	325	170	220	455	57.5	45.5	1500	67.5
Robust CV % i	7	10	7	4	6	5	6	10	5	16	15	30
Median f	832	882	784	1420	3710	2360	2540	3530	875	216	7570	165
Mean f	832	877	798	1420	3720	2370	2530	3540	880	210	7750	172
MAD f	37	39.5	36	30	120	55	40	100	29	24	575	18
IQR f	73	75.8	75	40	240	118	60	180	57.5	45.5	1310	35.5
Robust CV % f	7	6	7	2	5	4	2	4	5	16	13	16
Outliers	2	2	1	3	3	4	5	6	0	1	2	2
Stragglers	0	0	0	2	0	1	1	1	0	0	0	0

2019: Extractable Cu - Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	19	19	19	19	20	20	20	20	17	17	17	17
Minimum	0.108	0.079	0.1	1.3	0.82	0.73	1.2	1.5	0.35	0.01	0.81	0.04
Maximum	1.26	7.61	1.22	2.61	2.4	3.13	45.2	8.31	1.3	0.83	1.89	0.9
Median i	0.361	0.336	0.35	2.04	1.66	1.27	2.1	2.98	0.881	0.32	1.65	0.321
Mean i	0.372	0.733	0.388	1.99	1.65	1.4	4.29	3.18	0.87	0.372	1.56	0.348
MAD i	0.147	0.113	0.05	0.14	0.16	0.11	0.17	0.215	0.095	0.128	0.13	0.067
IQR i	0.232	0.22	0.097	0.325	0.333	0.215	0.333	0.403	0.184	0.267	0.26	0.11
Robust CV % i	48	49	21	12	15	13	12	10	15	62	12	25
Median f	0.344	0.336	0.338	2.06	1.67	1.25	2.09	2.98	0.881	0.314	1.65	0.321
Mean f	0.323	0.318	0.334	2.04	1.69	1.28	2.1	3.02	0.876	0.343	1.6	0.332
MAD f	0.0985	0.106	0.034	0.11	0.14	0.05	0.12	0.135	0.089	0.118	0.115	0.059
IQR f	0.244	0.159	0.0763	0.185	0.28	0.14	0.253	0.31	0.13	0.25	0.2	0.102
Robust CV % f	53	35	17	7	12	8	9	8	11	59	9	24
Outliers	1	2	3	2	2	5	5	4	2	1	1	2
Stragglers	0	0	2	2	1	2	1	2	0	0	0	0

2019: Extractable Fe – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	19	19	19	19	20	20	20	20	17	17	17	17
Minimum	198	577	283	70.7	37	147	53	53	1820	207	11	291
Maximum	831	11300	925	203	125	430	361	329	3660	807	43.5	683
Median i	515	4330	582	100	83	271	130	137	2250	531	29.1	420
Mean i	509	4560	588	109	83.4	267	142	147	2330	545	29.9	431
MAD i	57	440	37	6.1	11	30	23.5	23	130	59	3.7	24
IQR i	126	720	62	20.3	20.4	55.8	48	47.8	260	113	7.1	42
Robust CV % i	18	12	8	15	18	15	27	26	9	16	18	7
Median f	515	4330	581	98.9	79.6	271	129	137	2250	531	29.1	420
Mean f	509	4520	577	99	81.3	265	131	142	2250	552	30.3	428
MAD f	49	330	21	4.1	9.6	25	15	19.5	130	38	3.5	5
IQR f	120	620	38.8	9	18.8	49.5	26	39.3	263	86	5.9	17
Robust CV % f	17	11	5	7	18	14	15	21	9	12	15	3
Outliers	2	4	3	4	3	2	1	2	1	3	2	3
Stragglers	0	0	2	2	0	0	2	0	0	1	0	3

2019: Extractable K – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	18	18	18	18	19	19	19	19	16	16	16	16
Minimum	77	25	68	203	105	86.8	173	59	20	12	99.3	27
Maximum	261	62.2	208	503	388	353	577	808	91.2	79.3	615	111
Median i	206	50.5	167	417	187	256	417	562	63.3	51.5	534	71.2
Mean i	206	49	163	410	201	248	401	518	63.1	51.3	493	73.1
MAD i	6	3.45	5.5	14	17	11	29	42	2.25	3.5	36.5	5.9
IQR i	18.5	7.43	11	28.5	35.5	22.5	50.5	123	4.65	6.33	65.5	12.9
Robust CV % i	7	11	5	5	14	7	9	16	5	9	9	13
Median f	203	51	167	416	187	262	423	592	63	51.5	541	70.9
Mean f	203	50.4	166	412	193	264	424	583	62.8	51.5	542	70.9
MAD f	2	3.6	4	12	6.5	10.5	20	29	1	1.35	29.5	5.4
IQR f	4	6.3	7.25	20	24.3	18.8	39.5	43	1.38	3.3	51.3	9.5
Robust CV % f	1	9	3	4	10	5	7	5	2	5	7	10
Outliers	4	1	4	4	3	4	4	5	4	3	2	3
Stragglers	3	0	0	1	2	1	0	1	2	3	0	0

2019: Extractable Mg – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	18	18	18	18	19	19	19	19	16	16	16	16
Minimum	92	53.3	223	798	434	38.7	348	127	76.6	17	217	42
Maximum	145	99	492	1450	1470	303	1100	1920	137	93.8	582	91
Median i	102	64.8	282	1020	1070	190	749	1200	104	76.1	336	66.8
Mean i	105	67.2	291	1040	1020	184	718	1130	106	74.5	344	67.2
MAD i	3.55	3.65	9	21.5	40	5	19	50	6.8	9.05	19.5	6.3
IQR i	7.05	7.2	15	42.3	80	9	48	85	13.3	15.1	39.8	13.2
Robust CV % i	5	8	4	3	6	4	5	5	9	15	9	15
Median f	99.8	64.6	282	1020	1080	190	750	1210	105	76.2	336	66.8
Mean f	100	65.4	282	1010	1080	190	748	1220	108	78.3	335	67.3
MAD f	3.2	3.6	6	16.5	20	3	12	35	5	8.7	17.5	6.25
IQR f	5.9	5.5	13.3	22.3	40	5.5	23	60	10	12.9	26	11.9
Robust CV % f	4	6	3	2	3	2	2	4	7	13	6	13
Outliers	3	1	3	4	5	4	6	5	2	1	4	2
Stragglers	0	0	1	0	1	1	0	0	1	0	0	0

2019: Extractable Mn – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	19	19	19	19	20	20	20	20	17	17	17	17
Minimum	37	10.5	11	285	37.3	18.4	61	41	20	3.84	63	4
Maximum	51.5	65.6	19.6	462	387	345	201	161	117	72.7	342	77.4
Median i	41.3	51	15.2	343	305	249	123	102	27.6	5.91	83.6	5.58
Mean i	41.9	50.1	15.2	350	276	238	126	99.5	32.6	9.69	97.5	9.82
MAD i	2.8	4.7	0.8	15	28	19.5	16	9.95	1.4	0.54	4.9	0.42
IQR i	6.05	8.7	1.2	33	75.3	37.5	27	17.7	2.3	1.05	9.7	0.76
Robust CV % i	11	13	6	7	18	11	16	13	6	13	9	10
Median f	41	51.5	15.1	341	310	249	123	102	27.4	5.91	83.6	5.55
Mean f	41.4	52.3	15	343	308	246	125	99.3	27.5	5.88	83.6	5.58
MAD f	2.55	4.45	0.5	12	21	16	12.5	9.35	1.55	0.5	4.8	0.44
IQR f	5.05	8.53	1.13	23	49	30	22	16.8	2.25	0.955	9.5	0.698
Robust CV % f	9	12	6	5	12	9	13	12	6	12	8	9
Outliers	1	1	2	3	2	4	2	2	3	2	2	3
Stragglers	0	0	1	0	2	0	0	0	0	0	0	0

2019: Extractable Na - Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	18	18	18	18	19	19	19	19	16	16	16	15
Minimum	1.53	17.6	56	281	52	5.92	25	13.4	11	15.5	49.5	11.6
Maximum	270	395	767	3590	239	187	151	448	47.8	44.1	85	32
Median i	10	24.5	64.8	354	90	85.8	51	260	17.2	24.4	58.8	15
Mean i	26.5	45.6	106	549	100	87.4	58.3	264	20.2	25.3	59.3	17.2
MAD i	3.75	4.35	3.8	17	11.6	8.2	8.9	20	2.25	3.05	6.15	3.2
IQR i	7.25	6.65	10.3	33.5	26.8	18.1	17.1	37	6.7	5.93	9.55	8.1
Robust CV % i	54	20	12	7	22	16	25	11	29	18	12	40
Median f	9.96	24	63.6	343	88.3	85.8	50.9	260	17	23.4	58.2	14.7
Mean f	10.6	23.5	64	347	88.6	87	50.2	262	17.3	24	57.5	16.2
MAD f	0.855	3.4	2.7	11	4.8	3.8	7.9	15	1.9	2.6	5.4	2.7
IQR f	1.54	5.5	5.35	17	7.45	9.4	14.7	20.8	3.7	5.05	8.55	7.08
Robust CV % f	11	17	6	4	6	8	21	6	16	16	11	36
Outliers	2	2	2	5	2	3	2	5	2	1	1	1
Stragglers	4	0	1	0	5	1	0	0	0	0	0	0

2019: Extractable P - ICP — Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	19	19	19	19	21	21	21	21	17	17	17	17
Minimum	104	12.6	14.6	6.1	3.7	16	0.74	1.9	1.3	0.31	3.7	1.3
Maximum	364	42.8	37	25.5	45.2	386	267	149	61.8	52	110	19.5
Median i	262	33.3	29.2	19.9	22.5	104	21.6	20.2	42.5	40.5	62.3	10.5
Mean i	254	28.9	28.1	19.8	21.6	112	33.1	26	36.6	38.1	65	10.8
MAD i	22	5.7	2.3	0.8	1.4	8	1.7	1.5	6.7	4.5	6.3	1.1
IQR i	41.5	15.3	4.2	2.75	2.8	14	3.7	2.8	14.5	7.9	9.6	2.01
Robust CV % i	12	34	11	10	9	10	13	10	25	14	11	14
Median f	266	34.3	29.9	19.8	23.3	104	21.6	20.2	43.6	41	61.9	10.5
Mean f	265	33	30	20.2	23.3	104	22	20.2	42	42.7	63.2	10.6
MAD f	19	2.8	1.4	0.6	1.4	6	1.4	1.2	3.25	3.3	3	0.9
IQR f	39.3	6.1	2.8	1.15	2.38	10.6	2.4	2.05	7.63	8.1	6.3	1.51
Robust CV % f	11	13	7	4	8	8	8	8	13	15	8	11
Outliers	3	2	3	5	5	5	4	5	2	2	3	4
Stragglers	0	2	1	0	0	1	0	1	1	0	1	0

2019: Extractable S - Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	17	17	17	17	19	19	19	19	15	15	15	14
Minimum	21.9	8	31	8.3	3.4	45	5	4.7	12	0.36	11	2.8
Maximum	355	184	224	214	216	309	250	316	108	41.7	138	98.7
Median i	30.5	14.1	36.6	17.1	13.6	69.3	16	12.6	31.3	20.7	26.3	14.3
Mean i	53.7	25.5	52.6	31.8	33.8	79.5	34.2	33.7	35.9	20	38	21.7
MAD i	3.5	1.6	2.6	1.5	3.7	5.2	2	1.6	2.1	1.6	3.7	1.3
IQR i	7.5	2.1	4.7	2.6	10.5	14.1	7.95	8.15	4.05	3.9	13.7	2.28
Robust CV % i	18	11	10	11	57	15	37	48	10	14	38	12
Median f	29.9	14.1	36.4	17.1	12	69.4	15.2	12.2	31.3	21	24.1	14.3
Mean f	30.2	13.8	36.1	17.5	12.4	69.2	15.5	12.2	31.5	20.9	24.7	14.2
MAD f	2.9	0.9	2.3	0.35	1	4.9	1	1.1	0.65	1	1.1	0.85
IQR f	6.05	1.7	4.35	1.03	2.15	8.85	1.55	1.5	1.18	1.9	2.03	1.15
Robust CV % f	15	9	9	4	13	9	8	9	3	7	6	6
Outliers	2	3	2	3	4	5	7	7	4	3	4	4
Stragglers	0	1	0	4	4	0	1	1	1	1	3	0

2019: Extractable Zn — Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	19	19	19	19	19	20	20	19	17	17	17	17
Minimum	0.509	0.158	0.286	0.222	0.48	2.8	1.9	0.48	0.39	0.46	2.19	0.52
Maximum	7.52	2.25	3.23	1.07	9.21	9.38	256	179	2.21	3.43	5.58	2.14
Median i	6.06	1.74	2.72	0.551	1.1	5.41	3.5	0.93	1.24	3.09	5.01	1.44
Mean i	5.93	1.59	2.64	0.591	1.47	5.6	16.2	10.5	1.19	2.8	4.64	1.46
MAD i	0.64	0.24	0.14	0.051	0.129	0.355	0.295	0.12	0.22	0.2	0.32	0.11
IQR i	1.15	0.41	0.405	0.194	0.266	0.69	0.565	0.265	0.32	0.41	0.54	0.17
Robust CV % i	14	17	11	26	18	9	12	21	19	10	8	9
Median f	6.29	1.78	2.72	0.526	1.1	5.38	3.48	0.918	1.24	3.14	5.04	1.43
Mean f	6.37	1.76	2.77	0.531	1.1	5.32	3.48	0.928	1.2	3.09	4.96	1.45
MAD f	0.54	0.105	0.13	0.025	0.115	0.21	0.07	0.088	0.09	0.135	0.26	0.045
IQR f	0.93	0.23	0.285	0.05	0.212	0.43	0.115	0.18	0.28	0.238	0.42	0.105
Robust CV % f	11	10	8	7	14	6	2	15	17	6	6	5
Outliers	1	1	4	7	3	4	5	3	2	2	2	5
Stragglers	1	2	0	1	0	2	4	0	2	1	0	2

2019: Extractable K — Bicarbonate (18A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	12	12	12	12	12	12	12	12	13	13	13	13
Minimum	168	17	46	23	135	234	366	433	45.9	43	372	54.1
Maximum	570	150	445	950	283	293	484	610	71.6	204	613	93.8
Median i	303	48.5	220	404	185	267	417	504	63	54	468	74.4
Mean i	315	61.8	234	416	192	268	420	510	60.4	66.2	466	73.8
MAD i	23.5	9.4	14.5	15.5	17	8	33.5	31.5	5.4	7.1	43	9.6
IQR i	36.8	17.5	41	27	37.3	14.3	52.5	55.8	12.3	16.3	59	19
Robust CV % i	9	27	14	5	15	4	9	8	14	22	9	19
Median f	303	46.5	217	395	177	267	417	504	63	53.8	468	74.4
Mean f	304	48.2	216	397	184	270	420	510	60.4	54.7	466	73.8
MAD f	17.5	1.2	10	17	15	2	33.5	31.5	5.4	6.5	43	9.6
IQR f	28.8	3.65	16.8	25	32	7.25	52.5	55.8	12.3	10.5	59	19
Robust CV % f	7	6	6	5	13	2	9	8	14	14	9	19
Outliers	3	2	5	2	2	2	1	1	0	1	0	1
Stragglers	0	4	1	1	0	3	0	0	0	0	0	0

2019: Total Organic Matter (6G1) %

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	11	11	11	11	11	11	11	11	10	10	10	10
Minimum	2.7	1.3	3.5	1.7	1.9	4.9	1.2	1.18	1.2	3.2	2.5	2.5
Maximum	5.28	2.2	7.9	7.43	8.54	9.89	6.53	9.16	2.71	4.72	5.55	4.07
Median i	3.31	1.64	5.2	2.74	2.75	6.03	1.93	2.05	1.4	3.72	2.96	3.05
Mean i	3.64	1.7	5.36	3.24	3.85	6.73	2.85	3.3	1.73	3.84	3.54	3.18
MAD i	0.52	0.19	1.13	0.94	0.56	1.03	0.64	0.85	0.085	0.405	0.425	0.165
IQR i	1.39	0.47	2.29	2.2	2.92	2.8	2.77	3.61	0.9	0.573	1.54	0.505
Robust CV % i	31	21	33	59	79	34	106	131	48	11	39	12
Median f	3.31	1.64	5.2	2.54	2.4	6.03	1.9	1.65	1.4	3.72	2.71	2.98
Mean f	3.64	1.7	5.36	2.82	2.48	6.73	2.24	2.06	1.37	3.84	2.83	3.01
MAD f	0.52	0.19	1.13	0.705	0.21	1.03	0.61	0.425	0.015	0.405	0.19	0.12
IQR f	1.39	0.47	2.29	1.73	0.36	2.8	1.14	0.943	0.055	0.573	0.32	0.253
Robust CV % f	31	21	33	51	11	34	44	42	3	11	9	6
Outliers	0	0	0	1	3	0	2	1	4	0	3	2
Stragglers	0	0	0	0	1	0	0	2	1	0	1	1

2019: Total Aluminium (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	15	15	15	15	15	15	15	15	14	14	14	14
Minimum	8160	3880	7740	11100	8850	11300	10300	17200	4320	2960	10100	2500
Maximum	40600	22700	67300	94100	38000	28800	44800	63200	21000	14400	27000	9710
Median i	10300	5890	12000	22000	22800	19700	25900	44300	10800	7500	21900	5970
Mean i	12700	6870	17500	26300	21600	19900	25800	39400	11700	7220	19700	6100
MAD i	1400	1450	4250	9200	9000	5500	11700	11700	5050	1570	4000	2520
IQR i	2640	2640	11300	16300	18000	9450	23100	28300	9670	4450	11700	5090
Robust CV % i	19	33	70	55	58	36	66	47	66	44	39	63
Median f	9600	5440	11900	21700	22800	19700	25900	44300	10800	7280	21900	5970
Mean f	9760	5740	13900	21500	21600	19900	25800	39400	11700	6670	19700	6100
MAD f	1200	1180	4000	8150	9000	5500	11700	11700	5050	1630	4000	2520
IQR f	2420	2450	9360	15300	18000	9450	23100	28300	9670	4900	11700	5090
Robust CV % f	19	33	58	52	58	36	66	47	66	50	39	63
Outliers	3	1	1	1	0	0	0	0	0	1	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2019: Total Arsenic (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	9	9	11	9	8	8	8	8	7	8	8	8
Minimum	1.31	0.001	3.4	1.8	0.36	2.1	2.7	2.2	0.6	0.25	1.95	0.757
Maximum	19.2	39.2	9.8	20.7	1.8	4.03	5.56	4.88	1.81	2.82	24.4	5.13
Median i	2.68	0.226	5.78	2.67	1.15	2.8	3.9	3.5	0.852	0.375	2.68	1.03
Mean i	4.29	4.61	5.86	4.62	1.17	2.97	3.93	3.43	0.921	0.797	5.51	1.64
MAD i	0.25	0.126	0.73	0.54	0.195	0.455	0.63	0.54	0.152	0.081	0.655	0.15
IQR i	0.4	0.308	1.37	0.97	0.368	0.853	1.11	1	0.219	0.39	1.63	0.507
Robust CV % i	11	101	18	27	24	23	21	21	19	77	45	37
Median f	2.68	0.213	5.59	2.63	1.15	2.8	3.9	3.5	0.776	0.339	2.5	0.971
Mean f	2.59	0.281	5.47	2.61	1.17	2.97	3.93	3.43	0.773	0.334	2.81	0.975
MAD f	0.2	0.12	0.735	0.485	0.195	0.455	0.63	0.54	0.092	0.07	0.4	0.075
IQR f	0.335	0.227	1.33	1	0.368	0.853	1.11	1	0.176	0.111	1.11	0.127
Robust CV % f	9	79	18	28	24	23	21	21	17	24	33	10
Outliers	2	1	1	1	0	0	0	0	1	2	1	2
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2019: Total Boron (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	10	9	8	10	10	11	11	11	8	7	11	7
Minimum	0.9	0.05	0.5	1.5	0.98	2	1.07	4	0.537	0.179	6.5	0.133
Maximum	76.3	36.4	134	108	13	18	15	17	6.19	3.17	19.5	4.21
Median i	7.6	1.84	7.49	7.03	3.66	6.28	5.9	6.03	2.64	0.68	11.1	1.69
Mean i	15.3	7.13	26.6	19.1	4.82	9.67	8.01	9.07	3.01	1.28	12.2	1.8
MAD i	5.1	1.79	6.21	5.18	1.89	2.52	1.9	1.73	1.35	0.501	4.49	0.98
IQR i	8.87	5.73	19.8	15.4	3.61	9.91	7.52	9.67	2.36	1.52	9.27	1.4
Robust CV % i	86	231	195	162	73	117	94	119	66	165	62	61
Median f	5.38	0.915	3.74	4.7	2.46	5.8	5.57	5.12	2.64	0.551	11.1	1.69
Mean f	6.03	1.44	5.09	7.3	3.02	5.85	5.37	5.35	3.01	0.659	12.2	1.8
MAD f	3.66	0.64	3.17	2.85	1.1	0.16	0.35	0.82	1.35	0.148	4.49	0.98
IQR f	6.5	1.12	7.5	7.5	2.66	0.27	0.53	1.24	2.36	0.277	9.27	1.4
Robust CV % f	90	91	149	118	80	3	7	18	66	37	62	61
Outliers	1	2	2	1	1	2	2	4	0	1	0	0
Stragglers	1	1	0	1	1	4	3	0	0	1	0	0

2019: Total Calcium (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	16	16	16	16	15	15	15	15	15	15	15	15
Minimum	607	476	414	649	3510	3020	2780	3670	823	215	15600	159
Maximum	5350	1000	1110	1760	4910	4250	4170	5500	1090	395	22000	299
Median i	3430	902	998	1630	4110	3760	3270	4370	997	280	19400	206
Mean i	3460	862	949	1540	4110	3660	3310	4360	986	280	19500	214
MAD i	565	43	40	70	210	230	150	180	67	11	1600	22
IQR i	1110	74	83.5	113	425	515	270	390	135	22	2450	40
Robust CV % i	24	6	6	5	8	10	6	7	10	6	9	14
Median f	3500	916	1000	1630	4100	3760	3140	4370	997	280	19400	205
Mean f	3650	922	1020	1650	4050	3660	3200	4330	986	283	19500	208
MAD f	560	34	38	30	190	230	130	170	67	10	1600	21
IQR f	1090	66	70	90	420	515	250	340	135	19	2450	37.8
Robust CV % f	23	5	5	4	8	10	6	6	10	5	9	14
Outliers	1	3	3	2	1	0	2	2	0	4	0	1
Stragglers	0	0	0	1	0	0	0	0	0	0	0	0

2019: Total Cobalt (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	11	10	10	11	13	13	12	12	10	9	12	9
Minimum	3.2	0.593	0.001	0.001	4.07	12.8	5.19	6.09	0.703	0.25	2.93	0.417
Maximum	19.2	15.1	23.4	29.5	15	23	12	13	2.21	1.13	5.09	1.72
Median i	5	1	2.43	15	11	19	7.58	9.65	1.4	0.621	4.12	0.6
Mean i	6.19	3.08	4.4	14.9	11	18.8	7.94	9.67	1.42	0.576	4.17	0.797
MAD i	0.86	0.31	0.675	1.1	1	2	0.585	0.895	0.482	0.321	0.7	0.137
IQR i	1.54	0.615	1.13	1.8	1.2	3	1.26	1.42	0.843	0.34	1.22	0.386
Robust CV % i	23	46	35	9	8	12	12	11	45	41	22	48
Median f	4.95	0.785	2.2	15	11.5	19	7.58	9.65	1.4	0.621	4.12	0.6
Mean f	4.89	0.943	2.29	15	11.8	18.8	7.81	9.67	1.42	0.576	4.17	0.588
MAD f	0.78	0.139	0.6	1	0.5	2	0.5	0.895	0.482	0.321	0.7	0.131
IQR f	1.35	0.482	1	1.4	1.15	3	1.01	1.42	0.843	0.34	1.22	0.189
Robust CV % f	20	46	34	7	7	12	10	11	45	41	22	23
Outliers	1	2	1	2	3	0	2	0	0	0	0	2
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2019: Total Chromium (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	13	13	13	13	12	12	12	12	13	13	13	13
Minimum	7.72	9.98	23.9	20.2	14.3	11	14.5	21.9	29	8.86	14.3	29.1
Maximum	27.2	22.1	51.2	38.4	49	28	52	62	50.6	16	34.1	59
Median i	20	15.9	31	25.7	24	16.5	31	38.5	34.9	10.9	23.1	44.5
Mean i	19.8	16.3	33.3	27.8	27.1	17.5	32.7	39.2	36.5	11.1	25	45.5
MAD i	3	2.1	4	5.5	4.5	3.95	3.8	9	3.7	1.1	1.5	4.1
IQR i	5	3.4	7.7	12.7	8.65	7.08	6.2	15.1	6.1	2.2	4.8	6.5
Robust CV % i	19	16	18	37	27	32	15	29	13	15	15	11
Median f	20.3	15.9	30.5	25.7	22.9	16.5	30	38.5	34.2	10.5	22.2	44.5
Mean f	20.8	16.3	30.1	27.8	23.4	17.5	30.9	39.2	34.1	10.7	22.5	45.5
MAD f	2.5	2.1	3.5	5.5	2.65	3.95	3	9	3.2	1.45	0.4	4.1
IQR f	5.58	3.4	6	12.7	4.5	7.08	5.6	15.1	4.8	2.4	0.75	6.5
Robust CV % f	20	16	15	37	15	32	14	29	10	17	3	11
Outliers	1	0	2	0	2	0	3	0	1	2	5	0
Stragglers	0	0	0	0	0	0	0	0	1	0	2	0

2019: Total Copper (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	16	15	16	16	16	16	16	16	13	13	15	13
Minimum	2.5	1.4	3.74	9.3	7.93	7	10	12	3.24	2.49	7.53	2.37
Maximum	9.14	5.9	13.6	15.1	17	14	18	22	8.07	5.23	12.1	5.93
Median i	5.3	3.38	5.9	12	11.5	11.5	14.2	18.2	3.99	2.82	9.4	3.32
Mean i	5.33	3.25	6.08	11.9	11.5	10.9	14.1	17.8	4.26	3.05	9.52	3.48
MAD i	0.905	0.52	0.885	1.1	1.45	0.95	1.6	1.85	0.41	0.22	0.6	0.55
IQR i	1.62	1.13	1.57	2.13	3	2.35	3.03	3.55	0.75	0.5	1.45	1.13
Robust CV % i	23	25	20	13	19	15	16	14	14	13	11	25
Median f	5.19	3.39	5.9	12	11.4	11.8	14.2	18.2	3.98	2.73	9.18	3.31
Mean f	5.07	3.34	5.57	11.9	11.1	11.3	14.1	17.8	3.95	2.74	9.22	3.28
MAD f	0.81	0.245	0.8	1.1	1.4	0.6	1.6	1.85	0.375	0.145	0.28	0.54
IQR f	1.77	0.385	1.49	2.13	2.8	2.03	3.03	3.55	0.608	0.273	0.525	1.05
Robust CV % f	25	8	19	13	18	13	16	14	11	7	4	23
Outliers	1	2	1	0	1	1	0	0	1	1	1	1
Stragglers	0	3	0	0	0	1	0	0	0	2	3	0

2019: Total Iron (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	15	15	15	15	15	15	15	15	14	14	14	14
Minimum	12000	5270	7310	12300	8800	1500	16700	19600	17	4260	11000	4700
Maximum	35600	8600	61900	44700	21500	24900	27500	35500	13500	8650	26200	10800
Median i	14800	6470	26700	15600	13000	18200	21200	28500	7120	4920	14300	5740
Mean i	16000	6710	27100	18300	14700	17800	21500	28000	7040	5230	15000	6110
MAD i	1200	330	2200	3300	3510	2600	2800	3700	390	440	1400	370
IQR i	2300	905	3450	6100	5300	4800	5400	8300	1060	800	2350	623
Robust CV % i	12	10	10	29	30	20	19	22	11	12	12	8
Median f	14800	6460	26700	15100	13000	18600	21200	28500	7020	4810	14300	5690
Mean f	14600	6540	25900	16400	14700	19000	21500	28000	6920	4970	14200	5590
MAD f	1150	210	1900	2650	3510	2600	2800	3700	420	400	1300	155
IQR f	2150	365	3000	6130	5300	4150	5400	8300	905	730	2200	333
Robust CV % f	11	4	8	30	30	17	19	22	10	11	11	4
Outliers	1	2	2	1	0	1	0	0	3	1	1	2
Stragglers	0	1	0	0	0	0	0	0	0	0	0	2

2019: Total Potassium (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	16	16	16	16	16	16	16	16	15	15	14	15
Minimum	699	0.1	214	1190	18	45	118	243	87	67	2650	163
Maximum	5410	153	3160	4340	1180	3360	5780	9230	527	2020	6350	657
Median i	1790	97.3	1060	2700	632	2080	4010	6560	160	126	4510	290
Mean i	2060	95.1	1370	2900	682	2000	3850	5850	188	274	4310	303
MAD i	585	13.7	500	585	114	945	1320	1940	40	36	595	50
IQR i	1100	25.2	1180	1190	245	1720	2410	3680	85	78.5	1640	87.5
Robust CV % i	46	19	82	33	29	62	45	42	39	46	27	22
Median f	1660	97.3	920	2700	620	2080	4010	6560	160	120	4510	285
Mean f	1690	97.7	1120	2900	632	2000	3850	5850	164	124	4310	278
MAD f	535	13.2	394	585	75	945	1320	1940	40	30	595	46.5
IQR f	828	20.7	883	1190	143	1720	2410	3680	75.5	64	1640	83.8
Robust CV % f	37	16	71	33	17	62	45	42	35	40	27	22
Outliers	1	2	2	0	3	0	0	0	1	2	0	1
Stragglers	1	0	0	0	1	0	0	0	0	0	0	0

2019: Total Magnesium (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	16	16	16	16	15	15	15	15	15	15	15	15
Minimum	2330	80	204	2390	2470	960	2510	3350	102	110	2710	190
Maximum	3390	122	1500	3610	3840	2240	3940	5700	293	246	4650	320
Median i	2900	96.4	781	2690	2990	1550	2890	4500	208	185	3630	250
Mean i	2890	99.5	867	2850	3130	1540	3060	4570	211	171	3660	247
MAD i	155	6.85	144	210	380	430	380	380	28	26	310	27
IQR i	265	20	387	453	665	805	660	860	50	59.5	525	56.5
Robust CV % i	7	15	37	12	16	38	17	14	18	24	11	17
Median f	2900	96.1	740	2650	2990	1550	2890	4500	213	185	3630	250
Mean f	2890	96.3	799	2690	3130	1540	3060	4570	219	171	3660	247
MAD f	155	6.05	95	150	380	430	380	380	23.5	26	310	27
IQR f	265	9.35	209	390	665	805	660	860	49	59.5	525	56.5
Robust CV % f	7	7	21	11	16	38	17	14	17	24	11	17
Outliers	0	1	3	2	0	0	0	0	1	0	0	0
Stragglers	0	1	1	1	0	0	0	0	0	0	0	0

2019: Total Manganese (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	16	16	16	16	15	15	15	15	15	15	15	16
Minimum	190	48	33	580	696	1140	270	320	30.7	10	142	12.9
Maximum	261	88	52.2	850	999	1670	374	457	58.4	38.4	207	39.2
Median i	233	66.5	41	711	862	1480	328	390	37.1	13.7	177	18.5
Mean i	234	66.1	42.4	707	856	1440	323	389	38.9	15.5	174	21
MAD i	10	4.9	4.75	31	44	40	22	27	2.1	2.7	11	3.15
IQR i	16	8.85	6.68	56.3	75.5	105	39.5	54	4.5	3.95	25.5	8.35
Robust CV % i	5	10	12	6	6	5	9	10	9	21	11	34
Median f	234	66.5	41	714	866	1500	328	390	36.1	13.5	177	17.2
Mean f	237	65.8	42.4	714	868	1490	323	389	36.7	13.8	174	17.3
MAD f	9	4.1	4.75	18	46.5	20	22	27	2.4	2.1	11	1.9
IQR f	17	7.63	6.68	33.5	73.8	70	39.5	54	4	3.18	25.5	3.35
Robust CV % f	5	8	12	3	6	3	9	10	8	17	11	14
Outliers	1	2	0	3	1	4	0	0	3	1	1	3
Stragglers	0	0	0	2	0	2	0	0	0	1	0	1

2019: Total Sodium (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	15	13	15	15	14	15	14	15	9	9	13	9
Minimum	0.5	1	1	110	1	24	1	256	36.1	36	80	27.3
Maximum	217	78	267	530	261	436	325	795	111	307	209	74.6
Median i	100	50	120	430	144	236	153	421	55.4	52	117	31.5
Mean i	103	45.2	113	412	156	253	163	468	57.1	86.8	125	37.2
MAD i	21	10.9	28	60	20	36	48	61	3.6	6.6	17	3.7
IQR i	31.2	18.9	71.8	114	48.8	101	94.5	126	12.6	49.1	32	9.2
Robust CV % i	23	28	44	20	25	32	46	22	17	70	20	22
Median f	100	50	122	460	142	231	153	407	55.4	47.5	114	30.7
Mean f	104	52.5	115	451	145	242	163	408	52.4	46.8	118	32.5
MAD f	10.3	8	14.5	45	14	29.5	48	35	3.2	3.3	16.5	3.1
IQR f	26.3	13.2	33.4	91	26	58.8	94.5	61.5	8.7	5.68	29.5	6.2
Robust CV % f	19	20	20	15	14	19	46	11	12	9	19	15
Outliers	3	1	2	1	4	3	0	2	2	3	1	1
Stragglers	1	1	1	1	0	0	0	1	0	0	0	0

2019: Total Lead (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	11	9	12	11	8	8	9	8	9	10	12	12
Minimum	0.489	0.001	4.79	0.001	5.4	7.4	7.4	9.8	0.5	3.81	4.98	5.13
Maximum	12	7.5	26.5	19	9	11	14.4	17	3.68	5	14	7.32
Median i	7.49	2.4	15.7	12.2	8.03	8.85	12.8	11.7	2.94	4.28	10.8	6.04
Mean i	7.39	2.66	15.3	11.9	7.73	9	12.5	12.2	2.83	4.34	10.7	6.05
MAD i	1.49	0.31	1.05	1.2	0.27	0.77	1.4	0.9	0.26	0.385	0.9	0.22
IQR i	2.68	0.43	2.13	2.1	0.525	1.61	2.2	1.73	0.41	0.658	1.68	0.343
Robust CV % i	27	13	10	13	5	13	13	11	10	11	11	4
Median f	7.71	2.4	15.7	12.2	8.05	8.85	12.8	11.6	3.07	4.28	10.9	6.04
Mean f	8.08	2.35	15.9	12.5	7.99	9	12.5	11.5	3.12	4.34	11.2	6.01
MAD f	1.41	0.12	0.6	1.1	0.05	0.77	1.4	0.8	0.26	0.385	0.9	0.06
IQR f	2.56	0.3	1.1	1.8	0.1	1.61	2.2	1.3	0.488	0.658	1.45	0.15
Robust CV % f	25	9	5	11	1	13	13	8	12	11	10	2
Outliers	1	2	4	2	1	0	0	1	1	0	1	2
Stragglers	0	0	0	0	2	0	0	0	0	0	0	2

2019: Total Sulphur (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	12	12	12	12	13	13	13	13	11	11	11	11
Minimum	20	7.47	20	20	89.9	362	80	73	49.4	172	157	62.7
Maximum	1080	867	1020	930	1040	1150	962	1100	660	673	740	687
Median i	213	67	271	111	112	413	98	89.8	70.9	230	204	86.4
Mean i	288	138	335	189	239	509	223	227	121	262	257	142
MAD i	15.5	9.15	31	10	15	24	15	12.8	6.5	18	11	10.6
IQR i	29.8	15.2	81.3	18.4	54	35	43	57.4	10.9	36.5	38	17.5
Robust CV % i	10	17	22	12	36	6	33	47	11	12	14	15
Median f	213	67.1	271	111	105	412	94.6	79.3	70.5	225	200	84.9
Mean f	210	68.9	272	111	112	406	99.8	82.5	67.1	221	202	87.3
MAD f	11	2.9	14	8	7.5	16	11.3	4.3	6.1	20.5	7	9.25
IQR f	21.5	4.1	22	11.5	18.2	26	20.6	9.58	8.98	35.8	11.5	16.9
Robust CV % f	7	5	6	8	13	5	16	9	9	12	4	15
Outliers	4	4	4	4	2	3	3	3	1	1	4	1
Stragglers	0	1	1	0	1	0	0	2	0	0	0	0

2019: Total Zinc (17B1 + 17B2) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
	ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
No of results	16	15	16	16	16	16	16	16	12	15	15	13
Minimum	38.8	0.1	4.35	11	13	51.6	25	28	2.3	6.7	22	3.07
Maximum	65	7.9	65	29.5	41.4	71.9	50	59	8.67	15.4	41.8	9.94
Median i	52.7	2.8	16.3	21.9	27.3	63.3	40.3	47	4.14	9	30.4	5.51
Mean i	51.7	2.98	18.1	21	25.9	61.5	37.9	45.1	4.67	9.36	29.9	5.59
MAD i	2.35	0.52	3.05	5.7	5.7	7.35	8	5.85	1.11	1.1	5	1.56
IQR i	6.45	0.845	6.43	9.95	12.9	12.1	13.5	13.5	1.78	2.22	8.45	2.35
Robust CV % i	9	22	29	34	35	14	25	21	32	18	21	32
Median f	52.9	2.8	16.3	21.9	27.3	63.3	40.3	47	4.03	8.87	30.4	5.51
Mean f	52.2	2.84	15.7	21	25.9	61.5	37.9	45.1	4	8.64	29.9	5.59
MAD f	1.9	0.3	2.75	5.7	5.7	7.35	8	5.85	0.875	1.13	5	1.56
IQR f	3.8	0.55	5.95	9.95	12.9	12.1	13.5	13.5	1.4	2.21	8.45	2.35
Robust CV % f	5	15	27	34	35	14	25	21	26	18	21	32
Outliers	2	3	2	0	0	0	0	0	1	1	0	0
Stragglers	1	1	0	0	0	0	0	0	1	1	0	0

4. Comments on Measurement Performance

The 12 soils tested in 2019 represented a wide geographic spread, with multiple samples sourced from New Zealand and from every Australian state except Tasmania. Only 4 soils had been previously tested.

Based on final median concentrations submitted by laboratories, there were 4 acidic samples with measurable amounts of Aluminium between 0.15 and 0.64 cmol+/kg, and returning Robust CV%'s between 11 and 16. The remaining samples with no measurable Aluminium returned very high coefficients of variation, as would be expected from labs reporting "as measured" non-detectable concentrations.

The precision between laboratories for all test methods was maintained at a similar level to the last few years. Table 4.1. lists the highest and lowest performing methods in 2019, with the lowest performing methods including Aqua Regia digestible elements. The best performing test methods continue to comprise of Dumas combustion techniques, electrical conductivity, and both exchangeable and extractable cations.

Table 4.1. The six best performed and worst performed soil chemical tests for 2019, based on the median percent robust coefficients of variation (%CV as grand medians) for all twelve samples, after the removal of "outliers" and "stragglers", excluding pH soil tests which are logarithmic and have been shown over the years to be in the range 1 - 2% CV.

Best (Lowest Robust %CVs)	
Soil Method	***%CV***
Total Carbon (6B2)	3
Exchangeable Ca (15D3)	3.5
Electrical conductivity (3A1)	4
Extractable Mg - Mehlich (18F1)	4
Total Organic Carbon (6B1/6B3/6B5)	4.5
Total Nitrogen (7A5)	5

Worst (Highest Robust %CVs)	
Soil Method	***%CV***
Total Potassium (17B1/17B2)	36
Total Cadmium (17B1/17B2)	39
Exchangeable Al (15G1)	40
Total Molybdenum (17B1/17B2)	49
Total Aluminium (17B1/17B2)	51
Total Boron (17B1/17B2)	64

Appendix 1: List of laboratories (including contact details) that participated in ASPAC's Soil ILPP in 2019, arranged by country

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Appendix 2: Summary examples of homogeneity data and statistical assessments for soil samples used in the ASPAC Soil ILPP in the 2019

Sample name		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
Sub-sample													
1	Rep 1	0.214	0.050	0.200	0.109	0.116	0.342	0.082	0.081	0.038	0.166	0.131	0.073
	Rep 2	0.213	0.054	0.205	0.105	0.116	0.341	0.082	0.088	0.038	0.173	0.136	0.071
2	Rep 1	0.214	0.050	0.201	0.101	0.114	0.347	0.085	0.075	0.037	0.160	0.135	0.072
	Rep 2	0.216	0.054	0.203	0.104	0.116	0.346	0.087	0.095	0.037	0.171	0.135	0.078
3	Rep 1	0.216	0.051	0.202	0.103	0.116	0.343	0.087	0.085	0.038	0.168	0.139	0.071
	Rep 2	0.217	0.054	0.200	0.109	0.114	0.346	0.089	0.091	0.038	0.169	0.139	0.073
4	Rep 1	0.218	0.052	0.202	0.104	0.113	0.340	0.091	0.082	0.039	0.163	0.139	0.066
	Rep 2	0.212	0.053	0.200	0.105	0.112	0.340	0.088	0.090	0.037	0.164	0.130	0.066
5	Rep 1	0.214	0.051	0.206	0.104	0.113	0.347	0.091	0.083	0.039	0.162	0.136	0.070
	Rep 2	0.220	0.052	0.201	0.105	0.111	0.342	0.085	0.084	0.038	0.163	0.136	0.070
6	Rep 1	0.219	0.051	0.205	0.105	0.113	0.343	0.085	0.086	0.038	0.175	0.131	0.070
	Rep 2	0.214	0.054	0.201	0.103	0.116	0.339	0.080	0.086	0.037	0.164	0.134	0.067
7	Rep 1	0.210	0.052	0.204	0.104	0.115	0.341	0.082	0.085	0.037	0.167	0.138	0.074
	Rep 2	0.207	0.052	0.208	0.106	0.113	0.344	0.080	0.085	0.037	0.177	0.140	0.071
8	Rep 1	0.213	0.051	0.206	0.100	0.120	0.339	0.091	0.089	0.038	0.163	0.133	0.067
	Rep 2	0.210	0.052	0.204	0.105	0.117	0.336	0.088	0.086	0.038	0.163	0.137	0.072
9	Rep 1	0.207	0.051	0.204	0.104	0.116	0.341	0.092	0.085	0.037	0.165	0.133	0.067
	Rep 2	0.215	0.051	0.202	0.102	0.114	0.342	0.087	0.087	0.038	0.167	0.140	0.072
10	Rep 1	0.214	0.051	0.200	0.103	0.117	0.347	0.091	0.087	0.038	0.170	0.132	0.071
	Rep 2	0.210	0.051	0.205	0.105	0.119	0.342	0.090	0.089	0.038	0.167	0.134	0.073

Mean	0.213	0.052	0.203	0.104	0.115	0.342	0.087	0.086	0.038	0.167	0.135	0.071
Analytical SD	1.04E-05	2.1E-06	6.2E-06	4.2E-06	2.1E-06	4.7E-06	6E-06	2.9E-05	2.7E-07	2E-05	8.9E-06	6.4E-06
Sampling SD	2.53E-06	0	0	8.5E-08	3.2E-06	4.6E-06	9.7E-06	0	7.8E-08	6.5E-07	9.2E-07	3.1E-06
SD proficiency data	0.0114	0.0065	0.0081	0.0069	0.0127	0.0092	0.0055	0.0053	0.006	0.006	0.005	0.003
Status	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**

* Homogeneity statistics calculated according to *Thompson, M., Ellison, S.L.R. and Wood, R. (2006). "The International Harmonised Protocol For the Proficiency Testing of Analytical Chemistry Laboratories." Pure Appl. Chem. Vol. 78, No. 1, pp. 145-196. IUPAC Technical Report*

Appendix 3: Statistical procedures used by ASPAC for its contemporary soil ILPP

Refer to Table 4 for a description of most statistical terms and their meaning. Of most significance is the "median / MAD" non-parametric, iterative procedure for identifying "outliers" (††) and "stragglers" (†) within datasets for particular tests and samples from multiple (typically 7 or greater) laboratories. See references in the body of the report for more details. Also, the median (μ) is regarded as a good estimate of the true mean, while the MAD; i.e., the median of the absolute deviations from the median, @), is regarded as a good estimate of the standard deviation.

After tabulating the data with a separate column for each sample result and a separate row for each laboratory, calculations were applied iteratively. Each iteration operated at an action level of [(X- μ)/f@] (called the "ASPAC Score" for convenience)> 2, where "X" is the value reported by the laboratory (one replicate assumed), "μ" is the median of the population of values, and "f@" is a code for the Gaussian distribution of the sample size "n", approximated by [0.7722 + 1.604/n * t, with t = the Student's "t" of5% (two tailed), with n-1 degrees of freedom]. Note that for program reports up to and including 2009-10, Student "t's" of 2.5% (two-tailed) were used.

Excluding any case when a laboratory reported no result (or a non-numeric value) [these were automatically excluded], the laboratories at first iteration with an "ASPAC score" >2 were rated as "outliers" (††). Following their removal (if any), the remaining population of laboratory data were subject to a second iteration involving a recalculation of the "ASPAC score". Where this was again >2, relevant laboratories were rated as "stragglers" (†). The revised Student "t" at 5% (two tailed) makes the test slightly stricter than previously.

The other statistics summarized in Table 4 were calculated on the same populations of data. Only the first (i) and second (final; f) values appear in the data summaries in Section 3.

Appendix 4: "Raw" 2019 soil data reported by laboratories for 12 samples across three "rounds"

These tabulations list the "raw" data provided by participating laboratories for each method, with unnecessary precision removed after completion of statistical tests to assist data presentation. Statistical "outliers" and "stragglers" are indicated by †† and †, respectively. The soil method codes are those of Rayment and Lyons (2011), referenced earlier.

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Air-Dry Moisture Content 2A1 (%)											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
8888	2A1	0.617 ††	0.222	0.991 ††	2.31 ††	3.2	2.1	2.2	4.4	0.112 ††	0.654 †	2.41 †	0.843
10156	2A1					0.437 ††	0.376 ††	0.68 ††	0.838 ††	1 ††	1	1.02 ††	1
10173	2A1	1.15	0.38	1.64	3.55	4.43	2.71	2.86	5.2	0.53	1.03	3.34	1.06
10181	2A1	1.24	0.481	1.94	3.94	4.4	3	3.27	5.25	0.545	1.05	3.52	1.08
20136	2A1	1.2		1.8	3.5								
21043	2A1	0.604 ††	0.185	1.06 ††	2.51 ††	3.65	2.34	2.49	3.82	0.51	1.02	3.48	1.11
21088	2A1	1.58 ††	0.71 †	2.07	3.71	3.3	1.92	2.09 †	3.07 †	0.61	0.85	2 ††	0.91
21088	2A1					4.13	2.56	2.92	4.37	0.34	0.84	3.02	0.88
21100	2A1	1.45	0.797 ††	2.06	3.89	3.9	2.9	3	4.8	0.619	1.1	3.43	1.12
21115	2A1	0.89	0.26	1.52	3.34	3.86	2.56	2.68	4.61	0.37	0.84	3.01	0.91
21182	2A1	1.2	0.25	1.9	3.6	3.1	2.1	2.3	4	0.61	1.11	3.45	1.07
21190	2A1	1.3	0.5	2.1	3.8	4.47	2.75	2.97	5.37	0.635 †	1.21 †	3.39	1.12
21193	2A1	1.04	0.35	1.62	3.56	3.86	2.72	2.93	4.78	0.45	0.99	2.94	1.04
21230	2A1	1.03	0.373	1.74	3.64	4.14	2.74	3.03	4.88	0.454	0.931	3.29	0.887
50002	2A1									0.419	0.805	2.51	0.907
50005	2A1	0.963	0.311	1.77	3.47	4.16	2.76	2.95	4.82	0.513	0.946	3.1	0.889
50006	2A1									0.2 †	0.78	2.67	0.6 ††
50007	2A1	1.1	0.384	1.76	3.53	6.85 ††	6.41 ††	7.25 ††	6.85 ††	0.552	1.13	3.37	1.08
50011	2A1	1.15	0.491	1.83	3.74	4.12	2.62	2.83	4.49	0.452	1.06	3.36	1.06
50012	2A1	1.14	0.495	1.95	3.89	3.83	2.46	2.62	4.32	0.449	0.877	2.57	0.655 †
50013	2A1	1.68 ††		2.27 †	4.45 ††								
50014	2A1	1.11	0.395	1.95	3.73	3.23	2.49	2.59	4.26	0.598	1.12	3.45	1.17
50017	2A1	1.22	0.339	1.86	3.84	4.08	2.84	3.01	4.85	0.483	0.69	1.58 ††	0.551 ††
50018	2A1	0.763	0.336	1.54	3.06 †	3.02	2.14	2.36	3.97	0.347	0.763	2.58	0.663 †
50020	2A1	1.25	0.5	1.75	3.65	4.2	3	3	4.7	0.45	0.92	3.2	1.15
50023	2A1	0.99	0.27	1.68	3.55	4.29	2.92	3.1	4.94	0.41	0.97	3.41	1.07
50024	2A1	1.25	0.498	1.94	3.78	3.97	2.39	2.57	3.9	0.403	0.878	3.21	0.912
50029	2A1	0.948	0.293	1.53	3.36	3.83	2.44	2.77	4.41	0.352	0.795	2.95	0.912

50031	2A1	1	1.5 ††	2.5 ††	4.4 ††	4.2	2.9	3.1	5.2	0.5	1.1	3.5	1.2
50032	2A1	1.11	0.48	1.76	3.61	4.64	2.83	3.02	5.11	0.61	1.05	3.2	1.19
50033	2A1	1.32	0.94 ††	1.95	3.62	3.73	2.51	3.1	4.3	0.33	0.74	2.91	0.84
50036	2A1		0.3	1.6	3.5	2.8 †	2.3	2.1 †	4.1	0.3	0.7	2.6	0.8
50038	2A1									0.475	0.95	3.25	0.96
50039	2A1	0.83	0.25	1.33	3.41	4.4	2.88	2.81	4.79	0.36	0.88	3.07	0.92
50044	2A1				3 †	3	2	2 ††	4				
52417	2A1	0.57 ††	0.2	0.8 ††	1.34 ††	1.45 ††	1.04 ††	1.06 ††	1.87 ††				
52434	2A1	0.44 ††	0.08 †	1 ††	1.96 ††	3	2.24	2.44	3.8	0.24 †	0.8	2.48	0.8
52435	2A1	0.83	0.26	1.35	2.8 ††	3.64	2.39	2.59	4.3	1 ††	1.01	1.03 ††	1.01
52436	2A1	1	0.37	1.61	3.16 †	1.87 ††	1.47 ††	1.69 ††	2.09 ††	0.33	0.75	2.65	0.9
52437	2A1	1.01	0.34	2.27 †	3.51	4.18	3.21	3.34	5.28	0.463	0.952	2.75	0.882
52508	2A1	0.66 †	0.17	1.15 †	2.81 ††	2.98	2.13	2.49	3.98	0.25 †	0.61 †	2.37 †	0.74
52526	2A1	0.8	0.1 †	1.7	3.3	3.6	2.2	2.1 †	3.8	0.5	0.7	3.3	1
52527	2A1	1.8 ††		2.4 ††	3.9	4.2	2.4	2.6	4.1			2.9	1.2
52565	2A1	1.01	0.269	1.63	3.77	4.43	2.85	3.2	5.48	0.453	0.998	3.43	1
52632	2A1									0.4	0.87	2.86	0.91
52636	2A1	1.02	0.34	1.69	3.62	3.77	2.88	3	4.87	0.452	1	3.33	1.03
52676	2A1									1 ††	1.01	1.03 ††	1.01

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Electrical conductivity 1:5 soil-water (3A1) dS/m											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
10156	3A1	0.091	0.137 †	0.236	0.13	0.14	0.213	0.147 †	0.165 †	0.14 ††	0.08	0.18	0.1
10173	3A1	0.0786	0.147	0.228	0.122	0.138	0.219	0.15 †	0.172 †	0.142 †	0.0625	0.157 †	0.0836
10181	3A1	0.08	0.143	0.228	0.13	0.157	0.212	0.171	0.197	0.152	0.0746	0.179	0.0916
20136	3A1	0.091	0.167 †	0.253 †	0.149								
20204	3A1	0.0888	0.164	0.238	0.136	0.148	0.21	0.169	0.184	159 ††	71.7 ††	174 ††	91 ††
21043	3A1	0.081	0.14	0.219	0.145	0.136	0.186 ††	0.149 †	0.118 ††	0.125 ††	0.06 †	0.156 ††	0.081
21088	3A1	0.0844	0.155	0.233	0.136	0.153	0.211	0.168	0.199	0.159	0.078	0.189	0.092
21100	3A1	0.078	0.146	0.215 †	0.125	0.147	0.211	0.166	0.182	0.169	0.0731	0.168	0.0925
21104	3A1									0.14 ††	0.087	0.185	0.088
21115	3A1	0.083	0.156	0.233	0.13	0.147	0.217	0.174	0.197	0.152	0.075	0.178	0.091
21178	3A1	0.06 ††	0.19 ††	0.22	0.18 ††	0.155	0.22	0.17	0.19				
21182	3A1	0.084	0.151	0.231	0.131	0.141	0.21	0.165	0.184	0.155	0.073	0.173	0.088
21190	3A1	0.09	0.15	0.28 ††	0.17 ††	0.176 †	0.024 ††	0.198 †	0.024 ††	0.171	0.0874 †	0.211 ††	0.12 ††
21193	3A1	0.087	0.16	0.237	0.136	0.142	0.213	0.175	0.194	0.157	0.068	0.176	0.088
21229	3A1	0.088	0.151	0.239	0.148	0.157	0.217	0.174	0.204	0.147	0.068	0.174	0.091
21230	3A1	0.0823	0.156	0.236	0.138	0.147	0.206	0.164	0.18	0.15	0.0713	0.166	0.095
21232	3A1	0.08	0.16	0.23	0.14	0.15	0.21	0.17	0.19	0.16	0.08	0.18	0.1
21234	3A1	0.09	0.145	0.217 †	0.144					0.16	174 ††	0.186	0.09
50002	3A1									0.167	0.085	0.188	0.098
50005	3A1	0.0859	0.154	0.231	0.135	0.151	0.22	0.173	0.192	0.15	0.0721	0.171	0.0901
50006	3A1									0.16	0.09 ††	0.21 ††	0.11 ††
50007	3A1	0.072 †	0.126 ††	0.197 ††	0.115 ††	0.151	0.203 †	0.163	0.189	0.15	0.079	0.177	0.089
50011	3A1	0.075	0.123 ††	0.206 ††	0.136	0.181 ††	0.212	0.206 ††	0.231 ††	0.152	0.068	0.175	0.094
50012	3A1	0.0811	0.136 †	0.22	0.145	0.149	0.195 ††	0.197 †	0.196	0.158	0.0744	0.198 †	0.0992
50013	3A1	0.082	0.147	0.232	0.13	0.151	0.214	0.176	0.2	0.162	0.0756	0.188	0.0966
50014	3A1	0.079	0.151	0.227	0.128	0.169 †	0.224 †	0.183	0.217 †	0.15	0.0725	0.176	0.0895
50017	3A1	0.0875	0.158	0.243	0.138	0.149	0.214	0.171	0.189	0.161	0.0876 †	0.203 ††	0.11 ††
50018	3A1	0.077	0.151	0.223	0.129	0.148	0.213	0.165	0.184	0.161	0.0726	0.175	0.0982
50019	3A1	0.081	0.151	0.232	0.128								
50020	3A1	0.09	0.14	0.22	0.13	0.14	0.2 †	0.15 †	0.17 †	0.16	0.08	0.18	0.1
50023	3A1	0.083	0.15	0.222	0.127	0.15	0.222	0.178	0.202	0.157	0.079	0.177	0.095
50024	3A1	0.0819	0.154	0.235	0.133	0.159	0.227 ††	0.189	0.206	0.163	0.08	0.186	0.103
50025	3A1	0.0771	0.142	0.218	0.13	0.14	0.209	0.176	0.184	0.152	0.073	0.142 ††	0.089
50027	3A1	0.079	0.153	0.23	0.128	0.147	0.216	0.173	0.188	0.165	0.079	0.184	0.095
50029	3A1	0.0667 ††	0.146	0.191 ††	0.111 ††	0.151	0.202 †	0.167	0.201	0.122 ††	0.0649	0.179	0.0792 ††
50031	3A1	0.086	0.145	0.237	0.138	0.143	0.21	0.183	0.18	0.146	0.069	0.172	0.09

50032	3A1	0.085		0.158		0.246	†	0.131		0.151		0.22		0.18		0.195		0.154		0.073		0.173		0.095	
50033	3A1	0.081		0.15		0.228		0.142		0.169	†	0.221		0.115	††	0.194		0.157		0.074		0.183		0.096	
50036	3A1	0.078		0.147		0.221		0.122		0.162		0.213		0.182		0.199		0.161		0.072		0.171		0.088	
50038	3A1																	0.523	††	0.351	††	0.808	††	0.3	††
50042	3A1	0.064	††	0.114	††	0.202	††	0.104	††	0.097	††	0.203	†	0.139	††	0.147	††	0.125	††	0.036	††	0.159	†	0.078	††
50044	3A1	0.082		0.15		0.22		0.13		0.16		0.21		0.17		0.2		0.17		0.082		0.19		0.1	
52283	3A1	0.085		0.151		0.22		0.142		0.16		0.199	††	0.165		0.196		0.162		0.081		0.178		0.098	
52387	3A1	0.082		0.151		0.231		0.131		0.176	†	0.262	††	0.219	††	0.196		0.164		0.078		0.183		0.095	
52417	3A1	0.085		0.138		0.205	††	0.149		0.173	†	0.215		0.203	††	0.175	†								
52434	3A1	0.08		0.15		0.23		0.13		0.16		0.22		0.18		0.21		0.15		0.07		0.18		0.1	
52435	3A1	0.09		0.14		0.23		0.14		0.25	††	0.23	††	0.18		0.2		0.25	††	0.13	††	0.28	††	1.16	††
52436	3A1	0.09		0.16		0.23		0.18	††	0.1	††	0.15	††	0.15	†	0.18		0.16		0.08		0.22	††	0.09	
52437	3A1	0.08		0.14		0.23		0.14		0.151		0.217		0.151		0.166	†	0.15		0.08		0.18		0.11	††
52491	3A1	0.0832		0.141		0.231		0.137		0.149		0.218		0.173		0.195		0.152		0.0735		0.183		0.0934	
52494	3A1	0.086		0.153		0.236		0.136		0.151		0.214		0.17		0.195		0.162		0.079		0.186		0.098	
52508	3A1	0.099	††	0.155		0.231		0.176	††	0.163		0.21		0.183		0.239	††	0.147		0.072		0.172		0.087	
52526	3A1	0.086		0.153		0.231		0.144		0.176	†	0.224	†	0.187		0.209		0.165		0.078		0.189		0.094	
52527	3A1	0.092		0.17	††	0.249	†	0.143		0.168	†	0.223	†	0.204	††	0.238	††	0.155		0.082		0.193		0.096	
52528	3A1																	0.27	††	0.18	††	0.35	††	0.2	††
52565	3A1	0.089		0.157		0.248	†	0.137		0.197	††	0.234	††	0.181		0.19		0.171		0.086		0.182		0.101	
52632	3A1	0.08		0.15		0.23		0.14		0.185	††	0.21		0.21	††	0.215	†	0.155		0.0733		0.2	†	0.0933	
52636	3A1	0.089		0.17	††	0.256	††	0.146		0.156		0.179	††	0.149	†	0.125	††	0.102	††	0.0338	††	0.0952	††	0.0606	††
52676	3A1																	0.199	††	0.095	††	0.208	††	0.116	††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Soil pH, 1:5 soil-water (4A1 + 4A3)											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
10156	4A1	5.74 †	7.88 ††	5.07	7.25	7.7	6.62 ††	8.03	8.31	7.59	5.58	8.51	4.75
10166	4A1	5.6	7.4	5	7 †	7.7	6.4	7.9	8.2	7.5	5.6	8.4	4.8
10173	4A1	5.56	7.34	5.02	7.14	7.34 ††	6.46	7.86	8.01	7.39 †	5.92 ††	8.06 ††	4.84
10181	4A1	5.66	7.43	5.06	7.44	7.79	6.57	8.1	8.3	7.63	5.63	8.51	4.85
20136	4A1	5.4 †	7.08 ††	4.76 ††	7.07								
20204	4A1	5.44	7.28	4.88	7.24	7.77	6.41	7.98	8	7.5	5.61	8.33	4.85
21043	4A1	5.45	7.29	4.89	7.29	7.59	6.34	7.76	8.02	7.39 †	5.57	8.1 ††	4.76
21088	4A1	5.58	7.39	4.95	7.23	7.75	6.49	7.96	8.11	7.52	5.54	8.25	4.76
21100	4A1	5.61	7.46	5.01	7.43	7.67	6.44	7.99	8.19	7.42	5.54	8.11 ††	4.68
21104	4A1									7.6	5.4	8.4	4.7
21115	4A1	5.57	7.27	4.96	7.35	7.68	6.55	7.96	8.23	7.5	5.52	8.36	4.82
21178	4A1	5.98 ††	7.14 †	5.71 ††	6.94 †	7.6	6.4	7.9	8.1				
21182	4A1	6.1 ††	7.4	5.2 ††	7.3	7.8	6.5	8.1	8.3	7.61	5.84 ††	8.26	4.95 †
21190	4A1	4.8 ††	6.9 ††	4.3 ††	6.7 ††	6.77 ††	6.5	7.52 ††	7.83 ††	8 ††	5.5	9.2 ††	4.65
21193	4A1	5.63	7.34	5.06	7.19	7.62	6.45	7.87	8.07	7.58	5.48	8.47	4.7
21215	4A1	5.6	7.4	4.9	7.3	7.6	6.5	7.8	8	7.1 ††	4.9 ††	8.4	4.8
21229	4A1	5.58	7.41	4.99	7.37	7.8	6.54	8.05	8.26	7.63	5.64	8.48	4.85
21230	4A1	5.58	7.99 ††	4.97	7.19	7.68	6.43	7.94	8.11	7.53	5.53	8.44	4.73
21232	4A1	5.51	7.27	4.96	7.24	7.7	6.4	8	8.2	7.55	5.48	8.38	4.75
21234	4A1	5.45	7.3	4.88	7.2					7.29 ††	5.28 ††	8.14 †	4.64
50002	4A1									7.58	5.23 ††	8.16 †	4.5 ††
50005	4A1	5.42	7.33	4.96	7.3	7.76	6.45	7.98	8.14	7.31 ††	5.32 ††	8.24 †	4.71
50006	4A1									7.81 ††	6.66 ††	8.44	5.7 ††
50007	4A1	5.58	7.39	4.89	7.41	7.57	6.35	7.84	8.05	7.68	5.59	8.54	4.81
50011	4A1	5.57	7.32	4.98	7.39	7.54	6.5	7.93	8.19	7.52	5.6	8.31	4.84
50012	4A1	5.49	7.34	4.9	7.23	7.7	6.44	7.97	8.15	7.65	5.53	8.51	4.71
50013	4A1	5.4 †	7.3	4.9	7.2	7.77	6.43	8.07	8.22	7.61	5.54	8.52	4.74
50014	4A1	5.49	7.26	4.9	7.19	7.72	6.43	7.97	8.13	7.63	5.55	8.54	4.79
50017	4A1	5.07 ††	7.37	4.78	7.07	7.81	6.48	8.06	8.22	7.55	5.46	3.88 ††	4.66
50018	4A1	5.52	7.36	4.99	7.32	7.73	6.42	8.06	8.2	7.51	5.46	8.51	4.65
50019	4A1	6.8 ††	7.2	5.8 ††	6.8 ††								
50020	4A1	5.65	7.47	5.05	7.44	7.79	6.57	8.09	8.32	7.62	5.63	8.5	4.92
50023	4A1	5.47	7.32	4.89	7.25	7.61	6.35	7.9	8.06	7.66	5.55	8.48	4.8
50024	4A1	5.6	7.54 †	5.05	7.39	7.78	6.43	8.04	8.12	7.54	5.5	8.47	4.7
50025	4A1	5.37 †	7.33	4.8	7.17	7.7	6.5	7.89	7.71 ††	7.6	5.6	8.2 †	4.78
50027	4A1	5.57	7.37	4.95	7.32	7.68	6.41	7.94	8.07	7.52	5.47	8.34	4.79

50029	4A1	5.53	7.35	4.98	7.36	7.62	6.52	8.09	8.3	7.62	5.61	8.47	4.84
50031	4A1	5.5	7.4	4.9	7.3	7.7	6.4	7.9	8	7.7	5.6	8.6	4.8
50032	4A1	5.43	7.33	4.93	7.15	7.62	6.44	7.98	8.16	7.58	5.46	8.46	4.7
50033	4A1	5.25 ††	7.25	4.84	6.72 ††	7.82	6.49	8.11	8.24	7.62	5.33 ††	8.52	4.68
50036	4A1	5.6	7.1 ††	5	7 †	6.2 ††	6 ††	7.5 ††	7.8 ††	7.1 ††	5.4	8.3	4.6
50038	4A1									7.64	5.51	8.38	4.74
50042	4A1	5.07 ††	5.98 ††	6 ††	4.51 ††	7.89	6.46	7.98	8.23	7.6	5.23 ††	8.41	4.92
50044	4A1	5.6	7.4	5	7.3	7.7	6.5	8.1	8.2	7.7	5.6	8.5	4.7
52283	4A1	5.43	7.36	4.97	7.31	7.69	6.45	7.88	8.18	7.53	5.45	8.33	4.71
52384	4A1	5.39 †	7.36	4.86	7.16								
52387	4A1	5.76 †	7.82 ††	5.15	6.98 †	7.48	6.78 ††	7.78	7.89 ††	7.66	5.5	8.3	4.72
52417	4A1	5.2 ††	7.1 ††	4.8	6.9 ††	7.4 ††	6.4	7.7 †	7.8 ††				
52434	4A1	5.36 †	7.22	4.87	7.1	7.35 ††	6.4	7.92	8.02	7.46	5.6	8.41	4.64
52435	4A1	5.6	7.2	5.2 ††	7.1	7.2 ††	6.4	8	8.1	7.4 †	5.4	8.2 †	4.7
52436	4A1	5.71	6.49 ††	6.14 ††	7.13	7.71	6.59 ††	8.04	8.33	7.46	5.25 ††	8.21 †	4.51 ††
52437	4A1	5.7	7.54 †	5.01	7.32	7.7	6.9 ††	7.88	8.2	7.7	5.6	8.5	4.9
52491	4A1	5.52	7.36	4.93	7.39	7.78	6.47	8.02	8.22	7.65	5.55	8.5	4.71
52494	4A1	5.32 ††	7.23	4.86	7.2	7.87	6.54	8.12	8.31	7.39 †	5.6	8.45	4.76
52508	4A1	5.5	7.52 †	4.86	7.21	7.91	6.57	8.17	8.36	7.76	5.6	8.58	4.8
52526	4A1	5.6	7.3	5	7.3	7.7	6.5	7.9	8.2	7.64	5.58	8.42	4.81
52527	4A1	5.6	7.2	5	6.9 ††	7.5	6.5	7.8	8.1	7.6	5.4	8.4	4.7
52528	4A1									6.92 ††	5.03 ††	7.92 ††	4.3 ††
52565	4A1	5.6	7.1 ††	4.9	6.9 ††	7.6	6.4	7.8	8	7.59	5.48	8.48	4.8
52632	4A1	5.65	7.25	4.92	7.08	7.83	6.59 ††	8.07	8.32	7.41	5.66	8.13 †	4.95 †
52636	4A1	5.6	7.3	5.01	7.4	7.37 ††	6.59 ††	7.73 †	8.11	7.53	6.03 ††	8.53	5.02 ††
52639	4A3									7.39 †	5.6	8.3	4.75
52676	4A1									7.37 ††	5.74 ††	8.26	4.97 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: pH CaCl2 - Pooled (4B1 + 4B2 + 4B3 +4B4)											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
10166	4B1	4.7	6.9	4.4	6.2	7	5.8	7.3	7.3	7	4.5	7.6 †	4.5 ††
10181	4B2	4.83	7.01	4.54	6.32	7.12	5.98 †	7.49	7.55	7.25	4.5	7.85	3.99
20204	4B2	4.86	7.07	4.5	6.41 †	7.2	6.01 ††	7.51	7.58	7.1	4.5	7.69 †	4.04
21043	4B1	4.64	6.89	4.36	6.24	6.97	5.84	7.32	7.36	6.84	4.45	7.54 ††	3.99
21088	4B2	4.67	6.98	4.44	6.22	7.15	5.87	7.43	7.43	7.22	4.65 †	7.86	4.16 †
21100	4B4	4.83	7.07	4.55	6.43 ††	7.25	6.16 ††	7.63	7.66	7.18	4.78 ††	7.63 †	4.21 †
21182	4B1	4.8	6.9	4.5	6.1 †	7.1	5.9	7.4	7.4	6.83	4.61 †	7.37 ††	4.09
21193	4B2	4.85	6.9	4.46	6.05 ††	6.97	5.89	7.39	7.43	7.19	4.46	7.86	3.68 ††
21229	4B2	4.76	7	4.46	6.36	7.14	5.92	7.47	7.54	7.06	4.54	7.86	4.07
21230	4B2	4.81	7.67 ††	4.49	6.24	7.14	5.91	7.45	7.49	7.07	4.47	7.86	4.01
21232	4B2	4.78		4.54	6.34	7.1	5.9	7.5	7.5	7.1	4.78 ††	7.85	4.2 †
50005	4B1	4.67	6.73	4.43	6.22	7	5.74 †	7.21	7.29	6.64 ††	4.18 ††	7.27 ††	3.65 ††
50005	4B2	4.69	6.99	4.42	6.21	7.09	5.83	7.39	7.42	6.84	4.24 ††	7.45 ††	3.79 ††
50011	4B2	4.63	6.86	4.36	6.22	6.67 ††	5.77	7.27	7.31	6.97	4.53	7.63 †	4.05
50011	4B4	4.73	6.84	4.45	6.25								
50012	4B4	4.58	6.88	4.35	6.09 †	7.09	5.87	7.48	7.46	7.22	4.48	7.98	3.97
50013	4B2	4.7	7	4.4	6.3	7.17	5.86	7.4	7.45	7.05	4.47	7.84	3.98
50014	4B1	4.74	6.8	4.45	6.21	6.9	5.89	7.17	7.23	7.05	4.46	7.84	4.06
50017	4B2	4.62	7.08	4.32	6.28	7.18	5.85	7.5	7.5	7.17	4.42	7.85	3.88
50018	4B2	4.77	6.98	4.49	6.28	7.1	5.85	7.37	7.4	7.11	4.45	7.89	3.97
50019	4B1	5.2 ††	5.7 ††	4.6 †	5.2 ††								
50020	4B4	4.92 †	7.13	4.66 ††	6.55 ††	7.11	6.04 ††	7.58	7.63	7.14	4.67 ††	7.64 †	4.38 ††
50023	4B2	4.82	7.21 †	4.56	6.44 ††	7.12	5.93	7.46	7.49	7.31	4.55	7.78	4.13
50024	4B1	4.77	7.02	4.46	6.29	7.07	5.79	7.32	7.38	7.22	4.49	7.82	4
50027	4B1	4.72	7.03	4.42	6.26	7.09	5.85	7.34	7.38	7.02	4.43	7.7 †	4.03
50027	4B2	4.73	7.02	4.42	6.29	7.11	5.84	7.39	7.38	7.1	4.48	7.85	4.03
50029	4B3	4.63	6.77	4.36	6.23	6.97	5.83	7.26	7.36	6.99	4.47	7.72	3.97
50036	4B1		6.5 ††	4.3 †	5.9 ††	5.9 ††	5.6 ††	6.5 ††	6.8 ††	7.1	4.3 ††	7.5 ††	3.8 ††
50044	4B2	5.4 ††	7.1	4.8 ††	6.6 ††	7.2	6 †	7.7 †	7.6	7.2	4.9 ††	7.9	4.3 ††
52317	4B3	4.7	6.8	4.4	6.27	6.97	5.87	7.22	7.3	7.01	4.52	7.86	4.03
52387	4B1	4.76	7.42 ††	4.53	6.1 †	6.91	5.9	7.15	7.26	7.06	4.36 †	7.56 ††	3.9
52417	4B3	4.6	6.7	4.4	6.2	6.8 †	5.7 ††	7 ††	7.1 †				
52491	4B2	4.69	6.94	4.42	6.28	7.09	5.84	7.42	7.49	7.21	4.44	7.91	3.91
52494	4B1	4.69	6.93	4.42	6.25	7.14	5.9	7.42	7.48	7.04	4.46	7.85	3.95
52526	4B1	4.7	6.9	4.4	6.2	6.9	5.8	7.2	7.4	7.2	4.49	7.92	4
52527	4B2	4.7	6.6 †	4.4	6.1 †	6.8 †	5.8	7.2	7.3	7	4.4	7.7 †	3.9

52565	4B2	4.7	6.8	4.6 †	6.3	7.2	6 †	7.4	7.6	7.25	4.61 †	8.02 †	4.03
52636	4B1	4.81	6.91	4.47	6.34	6.84 †	5.87	7.21	7.24	6.86	4.57	7.32 ††	4.05

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Water Ext Cl - Pooled (5A1 + 5A2 + 5A3) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
20136	5A1	3.1	15	46	32								
20204	5A1	8.84	23.6	43.8	28.8	9.1	65.6	11.3	28.3	20.5	17.8	22.6	17.6
21043	5A1	2.36	13.3	43	29.9	8.3	59.1	12.6	27.3	15.2	11.7	12.6	11.8
21088	5A2	7.3	17.3	49.4	33.9	8.3	75.9	11.2	34.1	18.6	18.3	20.5	15
21100	5A3	12.1	26.4	65.5 ††	46.4 ††	7.52	78.8	14.6	50 ††	28.5	26	51.4 ††	22.4
21104	5A1									1080 ††	29.4	14.7	14.7
21115	5A2	5.59	15.4	48.4	58.2 ††	10.1	71.3	11.8	36.4	17.7	14.3	18.9	13.4
21178	5A3	5	19	44	30	7	65	10	23				
21182	5A1	10	22	54 †	51 ††	15	85 †	19	43 †	32.7	24.6	25.4	19.2
21193	5A1					15.6	81.7	18.7	42.4 †	58 ††	14	36 †	4.9 †
21229	5A2	4.87	15.8	44.3	29.9	8.7	70.2	14	29.8	16.6	5.2 ††	15.4	12
21230	5A1	3.04	15.8	47.5	32.8	42.5 ††	367 ††	56.7 ††	172 ††	20.8	16.7	19.8	16.9
21232	5A1	12.3	21	45.4	36	21 †	65.5	22.5	36.7	27.2	21.5	21	21.7
50005	5A1	5.62	15	48.4	30.1	13.7	55.6	20.9	35.8	24.5	17.6	20.4	15.4
50011	5A1	7.38	17.3	47	32.2	9.4	64.2	10.7	29.1	21.4	17.6	20.3	18.9
50012	5A2	4.4	15	45	33	7.5	68	37 ††	31	16	13	15	9.9
50013	5A1	9.17	21.1	51	38					22.7	21	24.4	17.8
50014	5A1	5.24	14.2	43.3	29.6	8.71	63.9	8.76	27.2	17.6	14.5	16.4	12.6
50018	5A2	7.2	15.6	45.5	33.1	5.8	66.6	11.6	29	19.6	8.5	7.2 ††	4.8 †
50020	5A2	4.75	54 ††	74 ††	81 ††		41 ††		13 ††	32.5	16.5	22	16
50023	5A1	3.4	15.7	44.2	31.6	7.73	67.3	10.1	30.4	18.9	15.2	17.4	13.8
50024	5A3	5.15	16.2	46	49.9 ††	0.36	8.55 ††	8.57	69.6 ††	25.1	22	23.2	19.8
50025	5A1	7.5	16.3	44.8	31.2	38 ††	63	56 ††	44 †	42 ††	25	28	20
50027	5A1	1	14	45	31	9	68	17	34	25	19	21	17
50029	5A2	13.3	49 ††	44.8	36.3	14.9	54.4	23.3	35.1	34.3 †	25.6	42.3 ††	26.3
50031	5A1	8.1	17.1	42.8	32.3	12.2	62	42 ††	33	22.5	20.3	22.3	19.6
50032	5A1	8.3	26	46	44 †	17	75	23	49 ††	26	18	28	12
50036	5A1		20	60 ††	40					20	20	20	20
50042	5A1	32 ††	97 ††	139 ††	235 ††	53 ††	87 †	56 ††	118 ††	720 ††	462 ††	855 ††	219 ††
50044	5A2	11	20	49	39	10	72	14	29	22	22	24	19
52494	5A1	5.3	7 ††	43.8	32.2	12.6	63.2	9.5	30.2	18.5	11.2	7.9 †	9.2
52508	5A1	19 ††	47.6 ††	65.8 ††	44.7 †	19.5 †	90.3 ††	25.2	49.7 ††	736 ††	117 ††	100 ††	134 ††
52526	5A1	8.54	20	50	40	4.58	70	2.56	30	19.2	16.7	17.6	21.8
52527	5A1	30 ††	20	50	40		50 †	10	30	28.8	34.2 ††	27.8	27.4 †
52565	5A2	20 ††	26	50	42	15	58	18	33	29.2	23.3	24.1	20.9
52632	5A2	15.3 †	23.5	49.9	19.9 ††	17.2	75.8	20	30.9	30.1	27.9	31.9	18.1

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Organic Carbon — W&B (6A1) %											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
20136	6A1	1.89	1.01	2.62	1.2 †								
20204	6A1	0.869 ††	0.471 †	2.03	0.79 †	1.5 †	2.91	0.765	0.75	0.675	1.76	1.44	1.37
21043	6A1	1.58	0.965	2.11	1.01	1.11	2.4	0.639	0.654	0.7	2.03	1.56	1.55
21100	6A1	1.48	1.15	2.04	0.889	1.08	2.37	0.784	0.721	0.688	1.57 †	1.17	1.31
21104	6A1									0.63	1.71	1.24	1.35
21178	6A1	1.5	0.76	2.2	0.85	1.06	2.4	0.64	0.61				
21190	6A1	0.24 ††	0.9	2.6	1.1	1.01	3.02	0.947 ††	0.775	0.49 ††	1.89	1.17	1.24
21193	6A1	1.61	0.87	2.28	1.04	1.35	2.89	1.65 ††	0.8	0.79	1.89	1.38	1.52
21215	6A1	1.57	0.43 †	2.68 †	0.68 †	1.98 ††	3.36	0.87 †	1.2 ††	0.949 ††	2.5 ††	2.07 ††	2.46 ††
21229	6A1	1.58	0.865	2.13	0.948	0.871	2.34	0.679	0.56	0.687	1.77	1.34	1.43
21232	6A1	1.58	0.74	2.03	0.99	1.07	2.75	0.69	0.63	0.71	2.35 ††	1.53	1.73 †
21234	6A1	2.05 ††	0.997	2.64	1.09					0.75	14.8 ††	1.47	1.46
50002	6A1									0.387 ††	1.98	1.65	0.629 ††
50005	6A1	1.75	0.926	2.21	0.996	1.09	2.97	0.748	0.658	0.701	1.96	1.52	1.49
50006	6A1									0.99 ††	2.48 ††	1.82 ††	1.16 †
50007	6A1	1.48	0.94	2.67	1.18 †	1.34	3.52 †	1.12 ††	0.92	0.67	1.76	1.4	1.33
50011	6A1	1.64	0.809	2.25	1.02	1.28	2.73	0.753	0.732	0.679	1.87	1.35	1.41
50012	6A1	1.71	1.09	2.24	1.13	1.12	2.7	0.872 †	0.762	0.904 ††	1.83	1.65	1.66
50014	6A1	1.56	0.833	2.1	0.961	1.1	2.74	0.737	0.751	0.81	1.84	1.48	1.39
50020	6A1	2.4 ††	1.5 ††	3.1 ††	1.5 ††	1.5 †	3.1	0.72	0.79	0.65	1.7	1.4	1.5
50025	6A1	1.69	1.31 †	2.08	0.903	1	2.4	0.72	0.62	0.67	1.58	1.32	1.26
50027	6A1	1.63	0.89	2.22	0.97	1.29	2.83	0.77	0.72	0.79	1.84	1.45	1.6
50029	6A1	1.76	1.13	2.28	1.03	1.28	2.71	0.72	0.63	0.8	2.03	1.45	1.41
50031	6A1	1.86	1.24 †	2.43	1.1	1.24	2.62	0.74	0.8	1.16 ††	1.83	1.72	1.48
50032	6A1	1.42	0.76	2	0.91	1.02	2.42	0.66	0.63	0.604	1.7	1.28	1.27
50038	6A1									2.98 ††	1.04 ††	2.8 ††	1.74 †
52417	6A1	1.29	0.7	1.68 †	0.6 ††	0.92	2.07	0.56 ††	0.52				
52434	6A1	1.77	0.99	2.53	1.08	1.3	3.16	0.84	0.79	0.81	2.13 †	1.62	1.65
52435	6A1	1.75	0.89	2.39	0.98	1.24	2.72	0.83	0.76	1.07 ††	1.92	1.71	1.76 †
52436	6A1	1.7	0.94	2.39	1	1.42	3.4	0.91 ††	0.81	0.82 †	2.37 ††	1.71	1.72 †
52437	6A1	1.82	1.01	2.59	1.09	1.32	3	0.866 †	0.793	0.94 ††	2.04	1.65	1.53
52673	6A1									1.23 ††	3.6 ††	2.12 ††	2.78 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Carbon — Dumas (6B2) %											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
22	6B2	1.68	0.735 ††	2.4 †	0.909 ††	1.24 ††	2.89 ††	0.868	0.837	0.788 ††	2	1.75 ††	1.79
8888	6B2	1.74	0.805	2.48	1.08	1.44	3	0.951	0.87	0.643	2.03	1.91	1.56
10156	6B2	1.68	0.795	2.49	1.09	1.42	3.08	0.825	0.76 †	0.658	1.91 †	1.98	1.6
10173	6B2	1.73	0.798	2.51	1.06	1.25 ††	3	0.858	0.803	0.687	1.95	1.83 †	1.55
10181	6B2	1.71	0.863 †	2.52	1.18	1.54	3.12	0.898	0.849	0.717	2	1.68 ††	1.61
20204	6B2	1.83	0.923 ††	2.6	1.2	1.62 †	3.25 ††	1.06 ††	0.84	0.765 †	2.07	2	1.68
21043	6B2	1.79	0.813	2.49	1.13	1.45	3.09	0.873	0.831	0.684	1.92 †	2	1.62
21100	6B2	1.97 ††	0.919 ††	2.64	1.24	1.67 ††	3.21 †	0.96 †	0.958 ††	0.75	2.04	2.13	1.77
21229	6B2	1.78	0.08 ††	2.58	1.11	1.33	3.04	0.92	0.83	0.75	2.11	2.06	1.82
21230	6B2	1.7	0.786	2.5	1.12	1.51	3.12	0.856	0.811	0.677	2.01	2.05	1.61
21232	6B2	1.9 ††	1.16 ††	2.68	1.36 ††	1.44	2.97 †	0.94	0.84	0.77 ††	2.05	1.97	1.79
50005	6B2	1.73	0.825	2.6	1.11	1.43	3.08	0.942	0.855	0.721	2.06	1.89	1.63
50011	6B2	1.78	0.864 †	2.57	1.17	1.46	3.16	0.836	0.795	0.712	2.12	1.97	1.69
50012	6B2	1.73	0.794	2.53	1.13	1.45	3.13	0.865	0.81	0.675	1.98	2.07	1.53
50014	6B2	1.82	0.794	2.6	1.18	1.5	3.1	0.871	0.837	0.67	1.96	2.01	1.59
50017	6B2	1.69	0.797	2.46	1.19	1.39	3.05	0.851	0.823	0.672	2.04	2.19 †	1.87 ††
50020	6B2					1.63 †	3.11	0.96 †	1.03 ††	0.71	2	2.1	1.64
50024	6B2	1.78	0.799	2.51	1.15	1.53	3.1	0.924	0.814	0.681	1.94	2.03	1.63
50032	6B2	1.79	0.859 †	2.65	1.14	1.55	3.21 †	0.899	0.852	0.693	2.13	2	1.69
50033	6B2	1.75	0.82	2.57	1.12	1.49	3.09	0.88	0.81	0.67	1.94	1.98	1.55
50039	6B2	1.7	0.89 ††	2.53	1.1	1.48	3.13	0.87	0.83	0.7	2.03	2.01	1.6
52283	6B2	1.92 ††	0.809	2.63	1.17	1.43	3.07	0.873	0.774	0.711	2.07	2.08	1.71
52387	6B2	1.46 ††	0.68 ††	2.15 ††	0.97 ††	1.34	2.75 ††	0.79	0.71 ††	1.62 ††	1.72 ††	1.79 ††	1.38 ††
52491	6B2	1.76	0.841	2.54	1.14	1.39	3.06	0.86	0.79	0.689	1.97	2.06	1.61
52565	6B2	1.75	0.82	2.56	1.14	1.44	3.06	0.869	0.797	0.697	2.05	2.09	1.65
52632	6B2									0.675	2.05	2.11	1.8
52636	6B2	1.82	0.798	2.56	1.08	1.45	3.22 †	0.924	0.854	0.666	2.04	1.99	1.43
52639	6B2	1.78	0.82	2.59	1.14					0.7	2.02	1.98	1.62

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Organic Carbon - Pooled (6B1 + 6B3 + 6B5) %											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
20204	6B3	0.935 ††	0.522 ††	2.09 ††	0.818 ††	1.55	2.75	0.834	0.743	0.716	1.48 ††	1.51	1.3
21088	6B3	1.62	0.956	2.45	1.09	1.36	2.91	0.751	0.685	0.814 ††	2.08	1.49	1.73
21100	6B3	1.83 ††	0.815	2.56	1.14	1.6	3.14	0.845	0.811	0.675	2.03	1.54	1.77
21182	6B3	1.73	0.86	2.4	1.05	1.39	2.93	0.84	0.8	0.81 ††	2.15	1.58	1.68
21182	6B1	1.73	0.86	2.4	1.05								
21230	6B3	1.7	0.747	2.5	1.11	1.49	3.11	0.805	0.76	0.664	2.01	1.56	1.61
21232	6B3									0.71	2.35 ††	1.53	1.73
50005	6B3	1.72	0.821	2.57	1.11	1.13 ††	3.01	0.777	0.667	0.698	1.89	1.47	1.51
50011	6B3	1.73	0.86	2.32	1.08	1.29	2.99	0.826	0.77	0.792 †	2.04	1.64	1.69
50012	6B3	1.69	0.779	2.51	1.13	1.49	3.16	0.862	0.806	0.672	2	1.63	1.62
50014	6B3	1.8	0.774	2.52	1.18	1.39	2.79	0.782	0.791	0.672	1.96	1.67	1.63
50018	6B3	1.7	0.798	2.53	1.13	1.44	3.1	0.861	0.768	0.689	1.97	1.6	1.55
50020	6B3									0.71	2.1	1.6	1.64
50023	6B3	1.76	0.86	2.71	1.16	1.54	3.29	0.89	0.85	0.67	2.04	1.55	1.76
50036	6B1	1.6	0.8	2 ††	1.2	1.5	3.2	1.1 ††	1.1 ††	0.7	1.9	1.7	1.8
50039	6B3	1.7	0.89	2.53	1.1	1.48	3.13	0.87	0.78	0.7	2.03	1.61	1.6
52526	6B1	1.7	0.9	2.3 †	1	1.1 ††	2.8	0.7 ††	0.7	0.8 †	1.8 †	1.4	1.4
52527	6B3	1.8	1 ††	2.8 ††	1.3 ††	1.4	3.3	1 ††	0.9 ††	0.661	1.69 ††	1.35 ††	1.32

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total N — Pooled (7A1 + 7A2) %											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
10181	7A2	0.18	0.055	0.189	0.092	0.109	0.319	0.0812	0.0732				
21088	7A2	0.179	0.056	0.203	0.084	0.0993	0.327	0.0757	0.0738	0.0313	0.136	0.111	0.0606
21104	7A1											10.2 ††	3.66 ††
21178	7A1	0.18	0.06	0.24 †	0.1	0.11	0.031 ††	0.077	0.073				
21182	7A2	0.21	0.06	0.21	0.11 †					0.0407	0.186	0.144	0.0763
21190	7A1	0.24 ††	0.07 ††	0.21	0.13 ††	0.11	0.318	0.115 ††	0.089 †	0.0775 ††	0.177	0.152	0.078
21215	7A1	0.15	3.4 ††	0.22	0.64 ††	0.063 †	0.175 ††	0.049 ††	0.021 ††	0.021 †	2.98 ††	0.14	0.039
21229	7A2	0.169	0.057	0.196	0.097	0.111	0.337	0.079	0.073	0.055 ††	0.174	0.146	0.083
21232	7A1	0.23 ††	0.13 ††	0.22	0.16 ††	0.12	0.32	0.09 †	0.09 †	0.05 †	0.16	0.13	0.08
21234	7A1	0.175	0.064	0.195	0.091					0.03	1.08 ††	0.119	0.061
50002	7A1									0.035	0.175	0.14	0.056
50006	7A1									0.01 ††	0.04 ††	0.03 ††	0.02 ††
50007	7A1	0.193	0.059	0.205	0.099	0.15 †	0.32	0.08	0.07	0.04	0.16	0.14	0.07
50012	7A2	0.181	0.055	0.189	0.091								
50014	7A2	0.191	0.054	0.202	0.091	0.105	0.334	0.077	0.0699	0.0332	0.16	0.137	0.0627
50031	7A2	0.161	0.051	0.177	0.087	0.096	0.293 †	0.07	0.067	0.037	0.146	0.13	0.068
50036	7A1	0.162	0.052	0.177	0.086	0.102	0.307	0.086	0.079	0.04	0.151	0.14	0.071
50038	7A1											0.13	0.079
50044	7A1	0.17	0.054	0.19	0.092	0.11	0.32	0.079	0.072	0.036	0.2 †	0.15	0.072
52417	7A1	0.187	0.052	0.161	0.091	0.11	0.339	0.084	0.081				
52436	7A1	0.16	0.07 ††	0.17	0.08	0.11	0.31	0.09 †	0.08	0.05 †	0.12 †	0.15	0.08
52437	7A1	0.15	0.04 ††	0.14 ††	0.06 ††					0.0355	0.161	0.114	0.0532
52508	7A1	0.21	0.06		0.12 ††	0.086 †	0.31	0.052 †	0.035 ††	0.036	0.185	0.19 ††	0.1
52636	7A1	0.189	0.026 ††	0.183	0.058 ††	0.0893 †	0.324	0.0627 †	0.0573 †	0.022 †	0.152	0.122	0.054

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total N – Dumas (7A5) %											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
22	7A5	0.187	0.053	0.191	0.076 ††	0.103	0.326	0.083	0.084	0.07 ††	0.178	0.105 ††	0.098 ††
8888	7A5	0.191	0.077	0.195	0.099	0.12	0.335	0.104 ††	0.094 †	0.028	0.165	0.114 ††	0.054 ††
10156	7A5	0.195	0.064	0.207	0.1	0.113	0.342	0.083	0.077	0.037	0.165	0.135	0.076
10173	7A5	0.185	0.060	0.204	0.087	0.098	0.327	0.0813	0.0684	0.0437	0.179	0.109 ††	0.0714
10181	7A5	0.189	0.072	0.211	0.113 †	0.142 †	0.335	0.0901	0.0847	0.0475	0.171	0.141	0.079
20204	7A5	0.193	0.067	0.2	0.087	0.127	0.367 †	0.087	0.0713	0.0388	0.168	0.141	0.0763
21043	7A5	0.198	0.06	0.202	0.099	0.115	0.342	0.086	0.081	0.035	0.16	0.138	0.069
21088	7A5					0.1	0.316 †	0.0697 †	0.0624 †	0.0359	0.165	0.135	0.0684
21100	7A5	0.221 ††	0.072	0.213	0.115 ††	0.133	0.343	0.0807	0.0852	0.0342	0.165	0.134	0.0713
21229	7A5	0.191	0.062	0.205	0.097	0.102	0.323	0.086	0.082	0.05	0.174	0.136	0.0753
21230	7A5	0.149 ††	0.009 ††	0.148 ††	0.028 ††	0.112	0.342	0.0757	0.0709	0.0357	0.17	0.139	0.0717
50005	7A5	0.194	0.052	0.208	0.093	0.11	0.343	0.0891	0.0792	0.0333	0.197 ††	0.146	0.0747
50011	7A5	0.195	0.054	0.207	0.093	0.11	0.344	0.081	0.078	0.035	0.172	0.133	0.076
50012	7A5	0.195	0.049	0.198	0.094	0.132	0.369 †	0.104 ††	0.0954 ††	0.0428	0.177	0.15	0.0754
50013	7A5	0.182	0.058	0.195	0.097					0.0358	0.185	0.147	0.0724
50014	7A5	0.209	0.057	0.214	0.103	0.112	0.341	0.08	0.0762	0.0373	0.169	0.14	0.073
50017	7A5	0.195	0.059	0.208	0.098	0.098	0.329	0.0747	0.0705	0.032	0.166	0.143	0.0702
50018	7A5	0.198	0.056	0.208	0.094	0.117	0.328	0.0842	0.0798	0.038	0.169	0.139	0.0724
50019	7A5	0.195	0.059	0.2	0.096								
50020	7A5	0.18	0.06	0.18 ††	0.14 ††	0.09	0.32	0.07 †	0.06 ††		0.18	0.15	0.08
50023	7A5	0.21	0.07	0.22	0.11	0.12	0.34	0.08	0.08	0.03	0.17	0.14	0.07
50024	7A5	0.204	0.069	0.221	0.115 ††	0.113	0.351	0.098 ††	0.088	0.046	0.177	0.14	0.074
50027	7A5	0.206	0.079 †	0.224	0.109	0.103	0.347	0.078	0.077	0.053 †	0.189 †	0.146	0.08
50029	7A5	0.203	0.005 ††	0.206	0.024 ††	0.13	0.345	0.0913	0.0762	0.0429	0.118 ††	0.0893 ††	0.0691
50032	7A5	0.192	0.066	0.199	0.1	0.121	0.326	0.082	0.081	0.035	0.176	0.068 ††	0.133 ††
50033	7A5	0.195	0.058	0.204	0.097	0.114	0.334	0.083	0.075	0.032	0.162	0.132	0.066
50039	7A5	0.194	0.062	0.204	0.095	0.11	0.344	0.079	0.076	0.039	0.172	0.136	0.072
52283	7A5	0.181	0.058	0.199	0.101	0.125	0.315 †	0.084	0.072	0.037	0.166	0.135	0.069
52491	7A5	0.201	0.064	0.212	0.102	0.113	0.342	0.087	0.08	0.0387	0.168	0.142	0.073
52526	7A5	0.182	0.053	0.189	0.1	0.088	0.25 ††	0.082	0.067 †	0.044	0.176	0.137	0.071
52527	7A5	0.218 †	0.06	0.222	0.079 ††	0.075 ††	0.274 ††	0.069 ††	0.055 ††	0.049	0.161	0.168 ††	0.072
52565	7A5	0.219 ††	0.071	0.21	0.112	0.116	0.354	0.088	0.079	0.025	0.194 ††	0.155 ††	0.071
52632	7A5									0.077 ††	0.161	0.141	0.104 ††
52639	7A5	0.182	0.049	0.189	0.085 †					0.0535 †	0.18	0.161 ††	0.0858 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Water Soluble Nitrate N - Pooled (7B1 +7B2) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
20204	7B1	0.27 ††	3.33 ††	3.09 ††	5.15 ††	14.7 ††	0.408	6.49 ††	4.16	8.23	0.665	20.8	25.9
21115	7B1	3.86	10.1	48.1 ††	13.1	31.7	0.42	12.6	3.6	9.03	0.51	19	24.9
21178	7B1	3.1	9.5	70	12	32	0.05	12	3.4				
21182	7B1	3	10	71	14	29 †	0.01 †	12	3	8	0.001	17	23
21232	7B1	4.2	10.8	74	14.3	31	1.2 †	12.6	3.8	9.1	1.87	19.5	27
50005	7B1	3.78	12.5 †	72.2	14.3	28.1 †	0.535	10.9	2.38	8.27	1.07	21	26.9
50013	7B1	2.2	8.8	66.6	11.6					8.39	0.161	17.6	24.2
50014	7B1	3.68	9.64	72.7	14.6	31.3	0.602	12.5	3.4	8.95	0.949	19.4	25.8
50018	7B1	0.58 ††	10.2	70.2	14.5	32.1	0.369	13.3	3.1	8.67	0.392	19	25.3
50020	7B1	3.7	11	59	20 ††	31	4.1 ††	16 ††	5.3	9.5	2.4	17.5	22.5
50024	7B2	3.81	9.9	65.2	2.23 ††								
50025	7B1	4.65	11.2	80	15	31	1.2 †	12.5	3.65	9.5	1.5	19.5	26
50029	7B1	3.24	9.26	61.2	9.78	26.7 ††	0.588	10.7	2.73	8.92	1.09	19.2	23.3
50032	7B1	3.03	8.4	62.4	13	32.3 †	4.6 ††	11.5	6.47 ††	7.61	2.45	12.7 ††	17.3 ††
50036	7B1	2.8	9.4	67.6	12.3	31.1		11.8	2.7				
50042	7B1	4.3	4.9 ††	11 ††	9.1	13 ††	4.1 ††	5 ††	4.9	6.5 ††	3.4	9.1 ††	5.1 ††
50044	7B1	1.6	7.5 †	77	14	31		11	2.6	8.1		18	24
52526	7B1	2.5	10	74	13.1	39.4 ††	0.5	23.4 ††	3.3	8.4	0.3	20.6	28.1
52527	7B1	2.2	9.6	74.5	13.1	31.4		8.7 †	1.7	8.8	0.1	18.8	25.5
52565	7B1	3.2	10.1	69	13	29 †	0.85	12	3.5				
52632	7B1	4.64	14.8 ††	72.4	20.6 ††	31.4	0.615	10.2	4.55	13.6 ††	1.3	24.1 †	34 ††
52639	7B1	16.4 ††	20.3 ††	55.8 †	25 ††					8.7	2.5	9.5 ††	20.1 †

Lab. Code #	Method Codes	Soil sample identification and values for 2019: KCl Extractable Nitrate N — autocolour (7C2) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
22	7C2	3.91	10	69.8	13.6	29.3	0.23	12.1	3.15	8.91	0.641	18.6	25
8888	7C2	3.63	9.28	60.2 ††	11.9	20.1 ††		9.96	2.35	9.23	2.94 ††	13.5 ††	23.7
10173	7C2	3.82	10.8	63.2 †	14	32.5	0.499	12.4	3.4	8.55	0.00101 ††	20	26
10181	7C2	3.5	9.8	66	12	28	0.413	11	3.01	8.7	0.511	17	23
21043	7C2	3.26	9.68	69	11.7	30.6	0.501	12.3	3.25	8.41	0.56	18.5	24.6
21088	7C2	3.07	9.3	63.2 †	11.6	29	0.63	13.1	3.6	7.82	0.43	16.6	22
21100	7C2	2.75 ††	7.3 ††	71.9	12.1	27.6	0.634	9.43	2.38	7 ††	0.953	15.5 †	22
21182	7C2	3	10	71	14	16 ††	1 †	7 ††	2				
21193	7C2	3.6	9.61	64.1	13.6	24.4 †	0.47	9.49	2.49	8.58	0.84	16.2	22.9
21229	7C2	3.89	10.7	70.5	12.6	26.8	0.36	11.7	2.5	9.3	0.97	18.2	25.3
21230	7C2	3.21	9.49	75	14	29.5	0.024 †	13.4	2.98	8	0.636	16.1	22.3
21232	7C2	3.01	9.6	69.6	12.3	31	0.3	13.1	3.2	9.66	1.58 ††	19.2	26
50005	7C2	3.8	12.1 ††	71.2	14.9	28.6	0.542	11.1	2.47	8.32	1.25 ††	21.2	27.8
50011	7C2	4.11	10.9	65.6	14.1	29.8	0.563	12.4	3.51	9.26	0.487	18.5	25.4
50012	7C2	3.7	9.7	73	15	7.1 ††	193 ††	7.1 ††	6.9 ††	9.2	0.636	20	24
50014	7C2	3.87	10	75.6	15.4	30.6	1.61 ††	12	3.18	8.96	0.758	19.3	25.6
50017	7C2	2.71 ††	10.1	73.2	14.9	9.41 ††	0.268	8.48 ††	8.48 ††	10.2	70.2 ††	8.48 ††	13.2 ††
50019	7C2									10.2	0.9	20.2	29.2 ††
50020	7C2	5 ††	15 ††	67	17 ††	36 ††		14		10		21	27.5
50023	7C2	3.8	10.3	69.3	13.1	28	0.31	11.7	2.94	8.94	0.55	19.2	25.8
50024	7C2	3.97	10.4	72.4	13.9	33.4	0.36	13.8	3.58	9.51	0.719	19	25.5
50027	7C2	3.9	10.2	69.6	12.7	27.7	0.5	10.9	2.8	8.1	0.6	16.5	24.2
50031	7C2	5.6 ††	9.9	73.8	12.2	30	1.4 ††	12.2	3.5	9.05	0.03 ††	18.9	25.3
50033	7C2	3.5	9.9	72.9	12.8	31.5	0.4	12.9	3.4	8.7	0.6	18.4	24.2
52491	7C2	3.46	10.1	72.2	12.4	29	0.3	12	2.8	8.94	0.512	17.6	24.7
52494	7C2	3.9	10.5	72.7	12.2	29.4	0.47	12.1	3.25	9.28	0.228	18.7	24.6
52565	7C2									9.39	0.78	19.2	26.7

Lab. Code #	Method Codes	Soil sample identification and values for 2019: KCl Ext. Ammonium N – autocolour (7C2) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
22	7C2	56.8	8.15 †	12.5	10.5	6.4	166	8.7	7	8.2 ††	62.8	18	24.7
8888	7C2	55.9	6.83	15.2	11.5	7.34	106 ††	7.67	7.32	5.19	62	20.4	27.1
10156	7C2					3.92 ††	7.15 ††	2.3 ††	2.18 ††				
10173	7C2	60.2	6.06	14.3	11	6.8	181	7.02	6.82	4.05	62.9	19.1	24.7
10181	7C2	57	5.8	15	11	3.27 ††	179	5.15 †	3.53 ††	4.2	63	21	26
20204	7C2	43.6 ††	10.8 ††	17.5	23.6 ††	7.39	146 †	9.13	8.3 †	4.99	45.4 ††	13.9 ††	11.8 ††
21043	7C2	56.8	7.28	17.5	12.2	7.03	190	7.49	7.07	4.91	65.3	21.3	25.6
21088	7C2	58.1	5.61	12.6	9.94	5.32 †	161	6.89	5.91	4.47	63.2	18.5	23
21100	7C2	61	5.15	14.6	9.87	6.42	199	7.39	6.67	6.01	70.2 †	24.1	27.6
21178	7C2	55	8.7 ††	16	14 †	9.3 ††	185	8.9	10 ††				
21182	7C2	55	4 ††	10 ††	10								
21193	7C2	56.7	5.91	12.4	9.95	6.96	185	7.43	7.08	4.34	62.9	18.8	25.6
21229	7C2	54.8	5.95	14.1	9.96	5.76	183	6.69	5.95	5.2	28.9 ††	19	27.8
21230	7C2	59.6	7.22	14.6	10.8	7.86	196	10.2 ††	8.5 †	6.5 †	64.7	22.6	27.5
21232	7C2	70.1 ††	6.9	16.1	10.6	8.55 †	232 †	9.15	8.52 †	7.25 ††	76.3 ††	23.1	35 ††
50005	7C2	55.2	5.7	14	9.94	7.05	153 †	7.41	6.94	4.59	63.1	19.5	24.6
50011	7C2	58.1	6.24	15.9	10.7	6.27	191	6.88	6.54	4.66	41.2 ††	21.1	26.9
50012	7C2	59	6.4	14	11	31 ††	0.307 ††	11 ††	2.6 ††	5.2	67	21	26
50014	7C2	58.1	6.37	15.3	11	7.15	203	6.73	7.51	3.89	66.4	21.2	28.6
50017	7C2	5.01 ††	5.31	13.4	9.5	5.21 †	38.1 ††	9.33 †	17.2 ††	6.15	14.2 ††	11.4 ††	8.49 ††
50020	7C2	71 ††	12 ††	23 ††	17 ††	6.99	162	6.1	6.6	6.33 †	91.3 ††	22.2	20.2 ††
50023	7C2	59.4	6.44	17.2	11.2	7.24	197	7.39	7.03	5.4	67.9	23.4	27.5
50024	7C2	57	5.59	14.4	10.5	6.47	186	6.86	6.81	4.82	64.7	20.7	26.6
50027	7C2	53.2	4.2 †	12.7	7.6 ††	6.8	182	7.6	6.7	4.4	62.3	19.1	24.8
50031	7C2	57.4	6.6	16.2	12.4	9 ††	194	8.5	8	5.13	64	22.5	27
50032	7C2	51.4	5.57	15.1	9.71	4.3 ††	122 ††	4.74 ††	3.05 ††	4.52	54.4 ††	18.6	23
50033	7C2	57.1	6.3	16.5	11.4	6.7	191	7.3	6.6	5.2	65	22.4	26.7
52417	7C2	64 ††	3.06 ††	7 ††	16 ††	15 ††	6.4 ††	17 ††	19 ††				
52491	7C2	55.3	6.36	15.6	11	4.5 ††	127 ††	4.8 ††	4.5 ††	4.77	61.2	20.5	25.6
52494	7C2	57.5	6.13	16.1	11.3	6.4	184	6.66	6.38	4.77	67.7	19.5	24.7
52565	7C2	61	7.2	16	12	7.2	192	7.8	7.4	6.29 †	68.9	23.4	27.8

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total P - Pooled % - Values rounded to fit table											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
10156	Not Specified	0.112 ††	0.014 ††	0.049 ††	0.026 ††	0.015	0.088	0.027	0.018	0.0141 ††	0.0272	0.0447	0.00776 †
10181	Not Specified	0.090	0.008	0.033	0.018	0.0183	0.0879	0.0279	0.0201				
20204	Not Specified	0.069 †	0.007	0.029	0.017					0.0087	0.0201	0.032	0.00445
21043	Not Specified	0.104	0.012 ††	0.04 †	0.026 ††	0.019	0.081	0.026	0.021	0.01	0.021	0.035	0.006
21088	Not Specified	0.087	0.007	0.034	0.016	0.0177	0.0822	0.0273	0.02	0.0124	0.0246	0.0379	0.0063
21100	Not Specified	0.092	0.009	0.031	0.016	0.0138	0.0765	0.0225	0.0145	0.0109	0.0233	0.0389	0.00331
21178	Not Specified	0.087	0.007	0.031	0.013	0.016	0.074	0.022	0.0165				
21182	Not Specified	0.103	0.01 †	0.04 †	0.023 ††					0.0136 †	0.0308 †	0.0448	0.0075 †
21229	Not Specified	0.082	0.007	0.031	0.018	0.0167	0.0742	0.0242	0.0174	0.0111	0.021	0.0365	0.00487
21230	Not Specified	0.078	0.006	0.029	0.016	0.0173	0.0798	0.0264	0.0206	0.00996	0.0215	0.0373	0.00465
21232	Not Specified	0.095	0.007	0.035	0.018	0.0191	0.0913	0.0297	0.0223	0.01	0.03	0.04	0.01 ††
50005	Not Specified	0.081	0.007	0.032	0.018	0.0155	0.0802	0.023	0.0157	0.0118	0.0246	0.042	0.00555
50011	Not Specified	0.084	0.007	0.030	0.015	0.0128	0.0751	0.0219	0.0145	0.0106	0.0233	0.0346	0.0053
50012	Not Specified	0.092	0.008	0.033	0.018								
50013	Not Specified	0.091	0.008	0.030	0.018	0.0194	0.0851	0.0269	0.0206	0.0111	0.0249	0.0422	0.0063
50017	Not Specified	0.083	0.007	0.01 ††	0.016	0.016	0.075	0.022	0.018	0.008 †	0.0327 ††	0.0368	0.0046
50018	Not Specified	0.089	0.007	0.032	0.017	0.0141	0.081	0.0225	0.015	0.0113	0.0238	0.0342	0.00431
50020	Not Specified	0.07	0.002 ††	0.02 ††	0.008 ††	0.014	0.064	0.021	0.016	0.01	0.02	0.04	0.004
50024	Not Specified	0.087	0.007	0.031	0.015	0.0148	0.0766	0.0248	0.0185	0.0108	0.0229	0.0343	0.00448
50027	Not Specified	0.104	0.008	0.035	0.016	0.0175	0.0813	0.0249	0.0188	0.0111	0.0234	0.0387	0.0055
50031	Not Specified	0.094	0.01 †	0.037	0.021	0.02	0.085	0.028	0.021	0.012	0.024	0.04	0.008 †
50036	Not Specified					0.0164	0.0832	0.028	0.0219	0.0089	0.0202	0.0276 ††	0.0052
50044	Not Specified	0.085	0.006	0.031	0.015					0.01	0.023	0.041	
52417	Not Specified	0.075	0.006	0.028	0.015	0.012	0.073	0.021	0.012 ††				
52491	Not Specified	0.084	0.006	0.028	0.013	0.0166	0.0703	0.0246	0.0199	0.0103	0.0226	0.0345	0.0048
52508	Not Specified									3.15 ††	4.1 ††	6.23 ††	3.29 ††
52526	Not Specified	0.096	0.011 ††	0.037	0.022 †	0.014	0.072	0.022	0.014	0.0142 ††	0.0292	0.0407	0.0107 ††
52527	Not Specified	0.1	0.013 ††	0.039	0.023 ††	0.026 ††	0.089	0.0306	0.019	0.018 ††	0.028	0.038	0.011 ††
52565	Not Specified	0.044 ††	0.001 ††	0.007 ††	0.002 ††	0.0194	0.0739	0.0265	0.0197	0.00537 ††	0.0211	0.0362	
52636	Not Specified	0.086	0.006	0.046 ††	0.017	0.0165	0.0798	0.0273	0.0201	0.00934	0.0199	0.0312	0.00392

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Colwell Extractable P — Pooled (9B1 + 9B2) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
20204	9B1	179	25.4	52.4	16.8	17.3	78.5 †	21.3	22.1	26.7	30.7	25.5	13.3
21043	9B2	251	24.8	59.5	22.1	21	108	27.3	25.9	27.7	39.1	35.9	15.1
21088	9B1	187	19.2	51.8	17.3	17.5	94.1	22.1	18.5	24.9	33.6	34.4	9.3
21100	9B1	223	27.8	52.7	18.8	20.3	119 ††	29	27.2	31.2 ††	40.9	42.9 †	18.1
21115	9B2	220	27.5	55.7	24.1	16.2	98.1	21.5	19.5	48.7 ††	104 ††	74.7 ††	36.2 ††
21178	9B1	208	20.7	49.4	17.4	19.8	89.8	24.9	22.7	23.4	32.4	30.9	9.95
21182	9B1	222	26	55	25	43 ††	62 ††	25	13 ††	18.1	28.3	22.1 ††	9.4
21193	9B1	229	18.4	58.2	49.4 ††	17.6	89.5	22.2	19.8	30.1 †	42.6	31.3	17.3
21229	9B2	237	23.7	47.9	15.7	16	95.8	21.1	17.5	22.2	33.2	29.4	10.5
21230	9B1	281	31.7 †	62.7 †	23.2	23.5 ††	116 ††	34.7 ††	27.6	43.6 ††	45.4	67.1 ††	18
21232	9B1	172	25.9	45	17.5	19.1	90	24.3	22.5	25.8	33.9	30.7	15.9
50005	9B1	196	19.5	48.3	20.7	20.4	93.8	25.2	24.6	24.4	38.8	41.3	6.78
50011	9B1	232	21.6	51.1	18.7	18.9	101	24.8	21.6	22	35.5	31.7	10.9
50012	9B2	233	21	51	19	23 †	103	28	26	22	36	37	12
50013	9B1	174	18	43	15	20	105	25	22	22.1	27.7	32.5	5.35
50014	9B2	223	22	52	18.7	19.1	96.6	24.6	22.3	27.2	38.7	35.8	12.4
50017	9B1	198	19.5	43.9	20.2	107 ††	111 †	26.5	26	22	44.8	47 ††	11.6
50018	9B2	218	21.4	49.4	18.9	18.9	87.2	23.4	21.4	26	38	34.8	14.6
50019	9B1									22.1	38.2	28.4	11.6
50020	9B1	168	17	46	23	17	81	22	19	21.5	31	30	11
50023	9B1	213	26.1	55.3	21.8	21.9	96.1	27.3	25.2	27.6	36.2	38.9	14.7
50024	9B1					18.4	85	21.6	21.4	20.8	29.5	29.6	8.8
50025	9B1	136 ††	18	31 ††	13.3	16.1	74 ††	18.2	16.6	20	28	33	10
50027	9B2	223	23.3	47.8	17.1	18	95.8	25	22	22.9	36.4	31.7	11.9
50029	9B1	252	20.9	48.8	13.3	18.2	99.1	20	19.1	23.1	40.4	35.3	13.6
50031	9B1	245	22.5	56	21	18.6	94	25	23	24	34.5	34	11.6
50032	9B1	221	28.1	50.6	21.5	19.8	94	25.6	22.6	29	39.6	37.5	16.1
52283	9B1	158	23	50.4	18.4	20.4	101	24.2	18.2	26.1	115 ††	49.5 ††	18.8
52387	9B1	240	28.2	54.8	26.3 †	18.6	84.5	21.5	22.7	21.6	35.1	37	10.8
52417	9B1	172	17	37 †	19	19	95	25	24				
52491	9B2					18	98	22	21				
52494	9B2	170	19.2	35.9 ††	22.3	16.8	78.2 †	20.6	19.8	23.3	27.1	32.4	9.4
52632	9B1	282	58.3 ††	82.8 ††	49.8 ††	17.7	91.7	20.5	19.9	31.9 ††	36.9	38.4	19.9 †

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Olsen Extractable P — Pooled (9C1 + 9C2) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
8888	9C2	92.8	11.1	20.4	6.96	10.1	40.3	11.1	9.4	9.37	16.3	11.9	5.95 †
10173	9C2	87	12.1	20.7	7.15	8.37	34.9	9.6	8.98	8.71	17	10.2	5.8 ††
10181	9C2	99	13	22	8.7	9.47	41	11	9.38	11	19	14	8.7 ††
21043	9C2	103	11.4	23.4	7.75	9.39	38.4	10.3	9.6	10.8	22.6	14.3	9.02 ††
21100	9C1	92.3	13.3	21.7	7.61	11.4	45.7	12.3 †	11 †	12.6 †	19.9	17.2	9.42 ††
21115	9C2	109	12.9	26.5 ††	8.7	9.4	39.8	9.9	9.7	4.31 ††	7.04 ††	6.63 ††	1.53 ††
21178	9C1	101	12.7	20.5	7.81	7.95	29.2	10.1	8.81	10.7	13.5 †	13.9	6.92
21190	9C1	118	10 ††	22	9	10.3	47.5 †	13 ††	11 †	20.2 ††	25.3 ††	17	13.2 ††
21215	9C1	3.53 ††	20.1 ††	3.64 ††	4.26 ††	10.9	52 ††	9.61	7.37	12.8 ††	15.5	14.9	7.49
21229	9C2	103	13.1	19.7	7.37	8.1	37.7	9.3	7.9	9.8	17.3	13.7	6.98
21232	9C1	92.8	15.2 ††	25.9 ††	6.8	8.7	34.1	13.1 ††	8.6	9.2	18	12.3	7.29
21234	9C1	92.6	12.1	23.9	10.2 ††					10.3	14.2 †	15.3	6.29 †
50002	9C1									12.7 ††	21.9	19.6 ††	7.68
50005	9C1	81.3	11.3	19.6	7.25	9.66	39.2	10.6	9.62	9.04	17.4	14.8	5.81 ††
50007	9C1	110	13.9	22.5	9.35	11.5	32.8	13 ††	11.6 ††	11.9	19.6	16.9	23.1 ††
50011	9C1	82.8	12.6	20.9	7.79	8.89	37.5	9.99	8.06	9.92	18.6	12.5	7.29
50012	9C2	104	13	23	8.6	9.7	35	11	9.6	9.4	19	14	7.5
50013	9C1	85.5	11.4	17.8	7.1	8.1	31.5	9	8.5	8.85	17.8	11.8	6.07 †
50014	9C2									9.3	18.8	12.8	7.2
50017	9C2	76.2	12.8	8.49 ††	9.01	34.1 ††	34.3	9.59	9.05	11.4	20.6	9.57 †	7.54
50018	9C2	96.4	12.2	20.6	7.83	8.21	33.4	10.4	8.96	10	19.1	12.4	7.51
50019	9C1									10.3	20.4	12.8	7.14
50020	9C1	82	12	24	7.5	8.6	32	8.2 †	7.4	9.2	18.5	13	7.1
50023	9C1	92	13.2	21.4	8.56	9.93	34.6	10.8	9.84	11.4	19.3	13.8	7.68
50027	9C2	88.4	13.1	20.4	7.6	9.2	40.4	10.3	9.3	9.9	19.3	12.3	7.5
50029	9C1	109	13.4	24.6	8.77	9.35	38	8.51	8.29	9.57	22.1	13.7	7.73
50033	9C2	96.3	13.9	21.3	8.1	9.7	36	10.5	9.34	0.48 ††	0.89 ††	0.69 ††	0.34 ††
50044	9C2	97	12	21		10	39	10	10		20	15	
52417	9C1	86	11	18	6.8	9.3	38	11	8.6				
52434	9C1	112	16.3 ††	22	11 ††	12.4 ††	44.3	14.2 ††	12.6 ††	12.1	20.3	17.3	8.69 †
52435	9C1	160 ††	19 ††	32 ††	11 ††	10.4	44	11.3	10.1	13 ††	22.5	15.5	7
52437	9C1					29.9 ††	51.4 ††	37.9 ††	30.9 ††	13.5 ††	13.1 ††	11.5	8.86 ††
52491	9C2	83.9	11.2	17.9	6.52	8.3	34	9	8	9.61	16.4	14.1	5.56 ††
52565	9C2	79	11	18	7.7	6 ††	25 ††	6.4 ††	5.4 ††	10.9	22.3	15.2	7.26
52673	9C1									64.9 ††	76.5 ††	60.4 ††	45.4 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Bray-1 Extractable P — Pooled (9E1 + 9E2) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
10156	9E1									15.8	16.7	13.3	5.14
10166	9E1	145	7.9	11.7	14.7	14	49.7	12	11.6	12.4	12.6	12.2	5
20204	9E1					12.3	52.8	11.5	9.78	19.3	26.6 †	10.5	9.16
21100	9E1	169	33.9 †	16.3	13.9	14.2	59.9	14	13	22.9	15.8	20.9	5.88
21178	9E1	84.4 †	12	16.8	13.7	23.2	48.8	22.4 †	23.7	38.2	25.9 †	55 ††	8.75
21229	9E2	191 †	18.8	22.3	12.1 †	10.9	59.1	11.6	9.4	23.6	12.4	9.8	7.5
50005	9E1	171	30.1 †	13.2	12.3 †	21.4	62.3	18.1 †	19.3	16.8	16.5	18	5.79
50007	9E1	153	6.41	10.9	13.6	13.6	39.6	13.4	11.8	9.4	16.4	21.1	7.51
50012	9E2	155	11	11	14	19	66	17	16	30	16	32 ††	7.5
50013	9E1	148	15	16	9.9 †	9.8	44	10.5	8.2	19.1	11.2	6.48	7.5
50020	9E1	118 †	5	5	5 ††	15	50	13	15	34	46.5 ††	30 †	
52435	9E1					17.4	71.9 †	17.1	16.3	8.05	21.7	18.8	9.75
52436	9E1	265 ††	11.2	17.4	18.5 ††	12.7	52.3	12.5	9.86	0.51	11.2	18.2	5.86
52437	9E1	142	46.8 ††	41.7 ††	22.6 ††					1.09	0.87 †	1.89	0.41 ††
52526	9E1	78.5 †	0.162	1.8	1.2 ††	25.7 †	111 ††	35 ††	29.8 †	7.1	30.9 †	9.1	10.1
52639	9E1	152	0.9	11.2	13.7					3.1	18.5	13.7	7.7

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Acid Extractable P — Pooled (9G1 + 9G2) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
20204	9G1	531 †	40.6	50.7	31.6	31.7	181	34.9	32.7	42.1	47.3	244	19.1
21088	9G2					29.6	147	31.9	25.3 ††				
21088	9G2									27 ††	26	25 ††	5
21100	9G2	510 †	43.2	40.8	33.2	49.7 ††	199	51.6 ††	45.1 ††	48.5	42.5	243	23.6 ††
21178	9G2	446	36.7	50.7	28.7	36.5	184	43	34.4				
21229	9G2	469	34.4	41.8	21.7	31.6	188	38.2	31.4	34.7	47.5	262	11.2
21232	9G2									35.7	33.2	230	9.55
50005	9G2	368 †	29.9	46.5	25.5	36.2	154	37.2	29.9	40.6	34.6	151 †	7.61
50011	9G2	431	31	51.7	26.9	32.9	165	36.7	31.2	44.4	41.2	231	16
50012	9G2									42	39	250	12
50014	9G2	458	34	55.6	26.2	32.7	160	38.2	31.5	42.3	38.9	262	11
50020	9G1	407	20 †	26	22	21 ††	132	30	22 ††	40.5	47	197	14
50025	9G1	432	35.7	45	24.7	32.3	171	36.7	31	45	39	264	13
50027	9G2	444	34.2	44	28	34.5	184	39.1	35.1	38	35.3	228	15.2
50029	9G1	439	29	39.1	25.2	32.7	153	34.1	30.8	40.4	38	214	15.6
50031	9G2	480	38	62	30	35	187	40	34	46	43	285	14
50032	9G1	445	39.1	54.7	32	34.7	149	45.3	39.7 ††	48.2	44.3	230	19.4
52632	9G1	440	90.3 ††	73.2	87.5 †	46.1 ††	154	46.6	32.6	42.3	38.6	203	8.37

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Phosphorus buffer index - Colwell (9I2a + 9I2b + 9I2c) L/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
20204	9I2a	77.4	82	109	66.6	60.8	106	68.7	115	60.1	81.8	67.2	57.6
21088	9I2a	69.9	60.6	100	61.9	55	102	65.9	94.6				
21088	9I2a									53.8	78.2	65.4	32.2 ††
21100	9I2a	81	78.8	115	67.5	57.6	107	71.7	112	68.9	85.6	84.6	47.8
21178	9I2a	192 ††	65.1	14.2 ††	97.1 ††	55.6	115	68.2	101	45	75.1	57.5	39.1 ††
21193	9I2a	80.5	84	120	78 ††	68	120	80 †	121	74	102	86	61 †
21229	9I2a	69.2	77.4	106	61.8	62.8	111	73.8	110	67.9	85.3	80.2	52.3
50005	9I2a	68.1	71.1	109	68.9	56.6	98	66.3	103	47	77.7	71.1	44.5
50011	9I2a	74.4	68.5	109	65.9	59.1	108	69.4	108	55.7	82.3	75.7	49.5
50012	9I2a	80.6	73.5	112	64	55	102	64.6	97	54.7	77.3	67.2	47.2
50014	9I2b	74	65	106	65	54	103	66	99	55	79	73	46
50017	9I2a	49.1 ††	87.2	104	58.4 ††	104 ††	104	64.7	97.2	73.9	105 ††	110 ††	58.4 †
50018	9I2a	101 ††	86.5	110	66.8	60.4	98.6	67.4	97.8	66.9	90.1	80.4	63.6 ††
50019	9I2a									59.5	88.6	71.1	50.3
50020	9I2a	70	62	114	68	25 ††	75 †	39 ††	72 ††	49	74	63	49
50025	9I2a	62.2	82.9	110	64.3	52	95	65.3	101	52.1	83	72	48.4
50027	9I2b	67.6	78.5	111	64.5	60.3	110	73.2	101	65.1	86.9	79.5	52
50029	9I2b	87.4	74.6	114	69	65.9	115	79.1	111	60.8	89.3	86.8	52.2
50032	9I2a	93.6	95.3	130 ††	80.9 ††	63.1	96.5	73.9	108	70.6	91.7	48.9	63.2 ††
52494	9I2a	70.7	72.8	108	67.9	67	103	70.5	107	61.8	84	76.7	51.5

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Phosphorus buffer index - Unadj (9l4a + 9l4b + 9l4c) L/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
21088	9l4a	36.8	57	89.7	58.6	51.9	84.4	61.9	91				
21088	9l4a									49.4	71.8	59.1	30.6 ††
21100	9l4b	43.4	73.7	104	64.1	54.4	86.1	66.9	107	63.4	78.1	76.7	44.7
21178	9l4c	42.3	74.6	106	60.3	52.2	94.9	63.8	96.8	41.1	69.2	53.3	37.4
21193	9l4a	43	81	108	69	65 ††	103	76 ††	117 ††	69	94	80	58
21232	9l4a	51.3	76.6	108	69.3	53	90	68 †	101	73.9	83.9	83.4	55.2
50005	9l4a	35.5	67.5	99.4	65.1	53.1	80.4	61.9	98.4	42.9	70.6	63.7	43.4
50011	9l4c	35.6	64.6	99	62.5	55.8	88.6	64.9	104	51.9	75.6	69.8	47.6
50014	9l4b	36	61	95	61	50	85	62	95	50	71	67	44
50017	9l4a	39.4	86.9	97.4	60.1	83.3 ††	91.1	59.9	92.1	74.5	101	97.6 ††	60.2
50019	9l4a									55.6	81.3	65.9	48.3
50025	9l4a	47.2	74.5	107	64.3	50	82	62.3	97	49	75	68	46
50027	9l4b	38.8	77.7	102	63.4	55	87	63	95	58.7	77.7	71.9	48.3
50029	9l4b	44.2	71.3	104	66.6	62.6 †	95.1	75.4 ††	107	56.7	81.6	80.1	49.8
50032	9l4a	54.7	89.8	119	76.9 ††	59	78.1	68.5 †	103	63.4	84.5	75.8	58.6

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Phosphate Extractable S – Pooled (10B1 + 10B2 + 10B3) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
10173	10B3	22.4	9.4	32	16.1	10.1	65.8	14.3	9.88	26.8	12.9 †	17.4	17 †
21088	10B3									29.4	18.9	18.5	13.1
21100	10B3	19.8	9.78	35.7	16.3	9.43	67.3	8.71 †	9.36	21.8 ††	12.7 †	13.3 ††	9.56
21229	10B1	25.5	11.8	40.9	17.2	8.37	64.2	11.6	10.3	26.5	19.6	17.7	12.1
21232	10B1	24.7	10.2	39.9	17.1	10	69	12.6	11.1				
21232	10B3									29.9	19.3	19.4	13.6
50011	10B3	23.5	12.5	40.9	17.6	9.1	60.7	11.8	10.1	27.8	18.2	17.5	12.9
50014	10B3	25.4	9.6	42.4	17.9	10.4	69.6	13.3	11.1	28	17.9	17.4	11.8
50020	10B3	15 ††	4 ††	22 ††	9.9 ††	88 ††	103 †	61 ††	104 ††	22.5 ††	10 ††	13.5 †	7.8 †
50025	10B3	26	12	43.3	18.7	9.44	63	12.1	10.2	27	17.3	16	11.9
50027	10B3	24	10.5	40	17.2	9.7	65.1	12.3	9.8	22 ††	16.6	17.2	11.4
50029	10B3	27	16.2	44.6	19.6	10.8	65.4	13.5	12.4	27.9	17.5	18.4	14.1
50031	10B3	27.4	11.7	46.2	19.1					27	17.6	16.9	12.1
50032	10B1	8.76 ††	13.4	19.1 ††	8.2 ††	9.36	58.7	18.9 ††	13.9 ††	25.8	5 ††	5 ††	21.3 ††
52283	10B3	23	9.42	37.2	16.4	8.98	60.4	11.4	8.29	26.6	21	49.9 ††	6.78 †
52632	10B1	2.29 ††	22.5 ††	18.3 ††	2.5 ††	20.4 ††	62.7	2.5 ††	27.6 ††	40.6 ††	7.45 ††		23.3 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: KCl_{40} Extractable S (10D1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
20204	10D1	20.9	16.3 ††	27.1	16.5	8.4	54.6	10.2	8.27	28.8	6.33 †	13	8.42
21043	10D1	19.6	10.1	23.3	11.5	8.02	52	9.19	7.03	26.1	13.5	13.2	7.33
21088	10D1	20.5	10.4	25.1	13.5	9.2	59.8	10.7	8.8	27.5	11.7	14	8.4
21100	10D1	20.5	10	24	16.3	8.61	45.8	8.47	9.36	26.4	10.2	12.7	9.56
21178	10D1	23	11	28	15.5	9.41	67.4	11.6	9.28	32 ††	12.2	17.2	10.2
21229	10D1	22	10.3	26.4	13.1	7.38	55.7	9.05	7.58	28.1	7.28	13.5	7.83
21232	10D1	23.8	11.6	28.8	14.6	9.64	64.6	11.3	9.15	29.1	12.1	15.9	9.6
50005	10D1	17.1	9.8	26.1	12.7	7.38	46.4	9.02	7.16	28.9	11.3	14.4	9.08
50011	10D1	19.8	9.66	24.7	13.1	7.35	53.4	8.86	6.96	25	5.98 ††	12.1	7.27
50012	10D1	22	11	26	14	7.9	61	9.7	7.8	30	14	16	9.6
50013	10D1	20.4	9.7	20.9 ††	11.7					32.7 ††	14.7	16.9	10.8
50017	10D1	16.1	9.84	27.1	11.9	6.19	26.9 ††	10.7	22.5 ††	9.91 ††	29.8 ††	18.2	20.6 ††
50018	10D1	21.2	9.88	26.8	12.6	8.15	46.7	9.74	6.91	27.8	11.7	13.2	7.56
50020	10D1	15	5 ††	16 ††	5 ††		61.5	4.9 ††		29		16.5	
50024	10D1	25.9	12.6 ††	31.4 ††	19.3 ††	9	61.5	11.2	8.7	27.9	13.3	13.5	9.4
50027	10D1	19	12.1 †	25.3	14	10.3	55.4	11.4	10.3	25.5	10.8	15.5	8.7
50038	10D1									2.85 ††	1.48 ††	1.61 ††	0.379 ††
52494	10D1	22.6	10.8	28.9	14.7	9.67	64.1	11.7	9.2	28.9	12.5	14.5	9.47

Lab. Code #	Method Codes	Soil sample identification and values for 2019: DTPA Extractable Fe (12A1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10166	12A1	279	161	636 †	29.6 ††	25 ††	223 ††	47 ††	41.3 ††	62 ††	397	4.8	178
20204	12A1	287	304 ††	551	16.6	9.86	147	18.5	19.2	42.1	434	3.9	223
21088	12A1	219	121	476	14.4	9.21	118	17.1	18.6	46	412	3.91	188
21100	12A1	240	147	521	16.9	12.7	149	22.1	21.7	35.2	456	4.01	340 ††
21178	12A1	215	155	410	17	12	124	19	18	40.8	393	3.81	151
21190	12A1	296	33 ††	663 ††	20	35.6 ††	121	11.3	9.05 ††	29.6	549 ††	5.29	297 ††
21193	12A1	253	222	46.9 ††	20.4	13.1	140	25.6 †	27.8 ††	58.8 ††	447	3.9	164
21229	12A1	235	96.5	445	16.8	12	146	21.5	21.5	40.1	418	5.85	218
21232	12A1	243	128	472	16.9	9.5	123	17.3	17.4	33.7	428	4.1	246
21234	12A1	134 †	87.9	325	13.1					36.2	165 ††	5.3	279 †
50002	12A1									17.4 ††	534 †	324 ††	555 ††
50005	12A1	300	60.8	517	20.4	11.1	146	19.1	20	33.5	381	4.75	182
50007	12A1	252	75	525	18.1	12.8	152	19.6	20.1	40.6	456	3.47	194
50011	12A1	226	114	480	18.3	9.91	114	18	19.9	35.6	406	4.21	193
50012	12A1	210	109	424	17	8.6	123	16	13	56 †	425	5.5	196
50013	12A1	348 †	52.2	792 ††	14.9	9.02	171	19	16.1	33.2	515	3.79	241
50014	12A1	224	89.5	439	17.7	11	134	19	20.7	39.6	443	3.93	206
50017	12A1	230	188	369	20.1	6.72	75.1	11.8	12.5	140 ††	13.9 ††	17.2 ††	153
50018	12A1	186	191	434	20.4	10.3	113	18.6	19.1	39.3	354	3.51	154
50019	12A1	244	119	358	20								
50020	12A1	268	134	519	18	13	173	22	22	35.5	524 †	4.4	164
50024	12A1	203	145	414	15.2	8.05	92	15.2	17.3	30	375	3.07	153
50025	12A1	521 ††	101	885 ††	20.2	13.3	258 ††	22.5	23.9	36.8	550 ††	4.95	534 ††
50027	12A1	186	219	373	16.5	10	105	16.6	17.4	58.1 †	450	5.5	175
50029	12A1	199	145	442	16.1	9.76	109	17.2	16.9	35.8	470	4.46	173
50031	12A1	244	156	496	18.8	9	108	16.2	15.7	35.2	356	3.42	153
50032	12A1	243	125	464	23.2 †	10.8	129	20.5	20.6	34.6	405	60 ††	233
50038	12A1									23.4 †	347	2.14	143
52283	12A1	265	159	463	18.2	2.11 ††	167	25.2	32.5 ††	40.5	620 ††	1.37 ††	492 ††
52387	12A1									54 †	465	5.11	209
52494	12A1	196	232 ††	410	16	8.82	94.2	15.6	17.2	67.6 ††	405	3.98	181
52632	12A1	331 †	80.3	386	21.7	11.9	121	16.1	16.1	45.8	392	3.47	168
52636	12A1	517 ††	153	1190 ††	25.6 ††	10.5	115	15.7	16	163 ††	332	3.13	143
52639	12A1									42	470	4.3	186

Lab. Code #	Method Codes	Soil sample identification and values for 2019: DTPA Extractable Cu (12A1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10166	12A1	0.49 ††	0.77 ††	1.4 ††	2 ††	1.58 ††	1.33 ††	2.3 ††	2.7 ††	0.48	0.59	0.7	0.2
20204	12A1	0.448 ††	0.643 ††	1.04 †	1.34	0.945	0.845	1.47	1.62	0.426	0.717 ††	0.709	0.313
21088	12A1	0.329	0.533	0.839	1.48	0.955	0.746	1.43	1.63	0.414	0.584	0.787	0.19
21100	12A1	0.361	0.553	0.74	1.38	0.999	0.819	1.63	1.84	0.477	0.632	0.803	0.296
21178	12A1	0.32	0.53	0.8	1.5	1	0.81	1.6	1.7	0.445	0.587	0.752	0.164
21190	12A1	0.4	0.5	1	2 ††	0.522 ††	0.514 ††	0.907 ††	1.05 ††	0.391	0.72 ††	0.788	0.334
21193	12A1	0.32	0.52	0.9	1.77	1.05	0.86	1.6	1.84	0.52 †	0.63	0.87	0.19
21229	12A1	0.352	0.554	0.857	1.51	0.982	0.782	1.51	1.68	0.448	0.59	0.756	0.206
21232	12A1	0.32	0.53	0.81	1.48	0.88	0.695	1.39	1.56	0.42	0.6	0.76	0.23
21234	12A1	0.224 ††	0.535	0.752	1.15 ††					0.534 ††	0.546	0.942 ††	0.297
50002	12A1									0.377	0.533	0.621 ††	0.424 ††
50005	12A1	0.415	0.617 †	0.871	1.6	0.991	0.799	1.52	1.76	0.459	0.592	0.86	0.231
50007	12A1	0.27	0.44 ††	0.88	1.59	0.94	0.75	1.41	1.64	0.36 ††	0.6	0.79	0.17
50011	12A1	0.404	0.652 ††	0.943	1.6	0.873	0.759	1.43	1.55	0.442	0.588	0.789	0.299
50012	12A1	0.322	0.525	0.833	1.5	0.934	0.727	1.3	1.5	0.466	0.611	0.81	0.21
50013	12A1			0.943	1.59	1.03		1.59	1.74	0.445	0.654	0.827	
50014	12A1	0.324	0.516	0.84	1.65	1.07	0.821	1.62	1.88 †	0.444	0.635	0.851	0.208
50017	12A1	0.331	0.544	0.722	1.55	1.5 ††	1.2 ††	2.26 ††	2.62 ††	0.531 ††	2.01 ††	2.18 ††	0.971 ††
50018	12A1	0.324	0.549	0.838	1.51	0.928	0.746	1.46	1.61	0.445	0.532	0.746	0.17
50019	12A1	0.303	0.517	0.682	1.39								
50020	12A1	0.23 ††	0.35 ††	0.62 ††	1.2 †	0.89	0.79	1.6	1.9 †	0.45	0.59	0.73	
50024	12A1	0.081 ††	0.5	0.78	1.07 ††	0.935	0.752	1.4	1.61	0.437	0.621	0.767	0.191
50025	12A1	0.325	0.527	0.844	1.39	0.889	0.736	1.33	1.53	0.412	0.557	0.677	0.336
50027	12A1	0.41	0.64 ††	0.89	1.5	0.85	0.72	1.26	1.47	0.47	0.62	0.74	0.26
50029	12A1	0.395	0.656 ††	0.929	1.52	0.912	0.74	1.41	1.58	0.454	0.668	0.811	0.243
50031	12A1	0.394	0.622 †	0.928	1.73	0.971	0.802	1.47	1.69	0.411	0.578	0.722	0.17
50032	12A1	0.37	0.55	0.93	1.62	1.03	0.86	1.53	1.74	0.46	0.63	0.82	0.27
50038	12A1									4.27 ††	5.82 ††	8.04 ††	2.34 ††
52283	12A1	0.344	0.559	0.888	1.49	0.871	0.867	1.53	1.64	0.428	0.692 †	0.835	0.365 †
52387	12A1									0.499	0.692 †	0.94 ††	0.222
52494	12A1	0.34	0.57	0.85	1.58	0.92	0.72	1.36	1.58	0.48	0.6	0.82	0.2
52632	12A1	0.42 †	0.62 †	0.84	1.75	0.958	0.77	1.49	1.67	0.343 ††	0.495 ††	0.65 †	0.157
52636	12A1	0.337	0.571	0.693	1.77	0.94	1.35 ††	1.34	1.63	0.413	0.456 ††	0.716	0.169
52639	12A1	0.38	0.56	0.9	1.62					0.4	0.6	0.8	0.2

Lab. Code #	Method Codes	Soil sample identification and values for 2019: DTPA Extractable Mn (12A1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10166	12A1	42 ††	4.8	19 ††	262 ††	159 ††	314 ††	81.4 ††	60 ††	6 ††	5.4	69 ††	5.6
20204	12A1	31.6	5.3 ††	12.6	124 ††	64	180	44.6	28	4.09	4.96	48.6 ††	5.05
21088	12A1	34	3.7	12.8	161	59.4	192	40	25.1	4.9	5.32	58.2	5.54
21100	12A1	32.9	3.73	11.9 †	163	55.5	190	41.7	27.5	4.42	5.05	57	5.08
21178	12A1	34	4.1	13	165	57	190	42	27	4.78	5.49	59.3	5.33
21190	12A1	33	2 ††	14 †	188	43.7	147 ††	28.4 †	19.3	2.62 ††	5.21	58	4.65
21193	12A1	30.8	4.22	13.4	164	48.3	211	33.6	21.4	4.23	4.48 †	51.6 †	4.35
21229	12A1	34.3	3.56	12.7	164	63	203	42	26.2	4.5	5.39	59.2	5.55
21232	12A1	35.4	3.96	13.3	178	54.5	199	37.5	24.8	4.23	5.76	62.3	5.65
21234	12A1	10.7 ††	2.57 ††	9.09 ††	134					2.87 ††	72.8 ††	33.4 ††	3.15 ††
50002	12A1									4.06	6	58.4	6.99 ††
50005	12A1	34.1	3.1	13.2	158	63.9	173	41.4	27.5	4.32	5.44	58.3	5.37
50007	12A1	34.9	3.25	14.9 ††	199 †	68.3	229 ††	49.4	32.8 †	4.6	5.49	61.5	5.52
50011	12A1	33.2	3.63	12.8	173	59.7	205	40.7	25.6	4.1	5.04	56.1	4.96
50012	12A1	36	3.9	13	169	57	198	40	25	5.4 †	5.6	65 †	5.4
50013	12A1	30.4	2.4 ††	11.2 ††	151	56.4	193	38.6	22.9	3.9	5.08	56.8	5.06
50014	12A1	34.6	3.28	13.2	178	64.1	206	43.7	27.7	4.62	5.67	61.6	5.42
50017	12A1	57.2 ††	6.47 ††	12.1	160	48.6	113 ††	33.1	22.7	4.58	58.3 ††	55.9	53.2 ††
50018	12A1	30.7	4.72	12.8	157	54.8	191	36.6	24.2	4.52	4.36 †	53.1	4.28
50019	12A1	23 ††	4.02	11.4 ††	118 ††								
50020	12A1	34.5	3.8	10 ††	175	59	265 ††	45	32	4.1	5.4	55	5.1
50024	12A1	34.4	4.15	13.2	168	68.1	190	44.1	27.7	4.34	5.55	57.2	5.46
50025	12A1	24.9 ††	2.4 ††	9.39 ††	122 ††	38.7	142 ††	30.8	19	2.59 ††	3.73 ††	71.2 ††	3.8 †
50027	12A1	32.6	4.7	12.8	147	57.8	194	42.3	26.3	5.09	5.27	57.1	5.26
50029	12A1	32.7	4.39	12.8	178	48.2	185	35.4	22.9	4.57	5.71	57.6	5.74
50031	12A1	37.3	4.29	13.5	162	63.4	200	43.5	27.6	4.75	5.8	61.2	3.52 ††
50032	12A1	32.6	3.57	12.6	174	63	185	40.5	28.1	4.5	4.8	52.9	4.9
50038	12A1									2.97 ††	4.84	52.5	4.56
52283	12A1	30.7	4.43	13.1	162	47.9	174	30.5	16.6 ††	4.47	6.13 †	52.7	5.93
52387	12A1									6.03 ††	5.38	75.3 ††	5.24
52494	12A1	32.6	4.9	12.9	181	60.1	191	38.3	24.7	5.1	4.9	55.4	5
52632	12A1	38.1 †	3.55	12.9	129 †	53.5	205	38.9	25.4	4.73	5.45	58	4.3
52636	12A1	23 ††	3.68	7.84 ††	180	43.4	189	34.2	24.2	5.72 ††	4.1 ††	60.2	4.21
52639	12A1									3.6 †	5.3	60	4.8

Lab. Code #	Method Codes	Soil sample identification and values for 2019: DTPA Extractable Zn (12A1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10166	12A1	5.9 ††	1.1 ††	3.4 ††	0.44 ††	0.8 ††	6 ††	3.2 ††	0.92 ††	0.5	2.5	2.4	1.2
20204	12A1	4.8	0.753	2.62	0.216	0.493	4.04	1.96	0.623	0.487	2.5	1.98	1.24
21088	12A1	4.66	0.845	2.46	0.287	0.507	3.8	1.94	0.628	0.543	2.54	2.12	1.25
21100	12A1	4.56	0.829	2.31	0.257	0.558	3.81	1.89	0.595	0.381	2.42	1.92	1.12
21178	12A1	4.4	0.79	2.3	0.29	0.51	3.8	2.1	0.68				
21190	12A1	5	1 ††	2	0.2	0.147 ††	2.78 ††	1.29 ††	0.318 ††	0.594 †	3.07 ††	2.34	1.41 †
21193	12A1	4.05	0.65 ††	2.3	0.23	0.43	4.08	1.87	0.59	0.48	2.8	2.36	1.27
21229	12A1	4.79	0.836	2.52	0.25	0.45	3.83	1.97	0.576	0.478	2.76	2.07	1.32
21232	12A1	4.23	0.68 †	2.2	0.24	0.42	3.56	1.84	0.56	0.44	2.65	2.26	1.25
21234	12A1	1.99 ††	0.759	1.92 †	0.242						2.9		
50002	12A1									0.467	2.76	2.6 ††	1.62 ††
50005	12A1	4.86	0.836	2.59	0.291	0.542	4.05	2.12	0.657	0.484	2.62	2.27	1.24
50007	12A1	4.67	0.81	2.49	0.29	0.59 ††	4.65 ††	2.3 ††	0.72	0.46	2.48	2.04	1.21
50011	12A1	4.42	0.82	2.43	0.316	0.496	3.92	2.07	0.667	0.438	2.33	2.17	1.17
50012	12A1	4.7	0.746	2.4	0.279	0.447	3.9	1.9	0.591	0.526	2.7	2.3	1.3
50013	12A1	4.2		2.18			3.79	1.86		0.446	2.53	2.02	1.19
50014	12A1	4.55	0.726	2.44	0.305	0.483	3.89	2	0.691	0.421	2.63	2.69 ††	1.2
50017	12A1	4.62	0.813	2.57	0.289	0.429	4.03	2.04	0.59	0.804 ††	2.59	0.904 ††	15.2 ††
50018	12A1	4.26	0.829	2.57	0.284	0.462	3.86	1.93	0.598	0.476	2.64	2.19	1.31
50019	12A1	3.92	0.712	2.11	0.323								
50020	12A1	4.5	0.81	2.25	0.25	0.52	3.9	2.2	0.68	1.5 ††	3.6 ††	3 ††	2.4 ††
50024	12A1	4.29	0.777	2.24	0.262	0.488	3.99	2.24	0.693	0.415	2.41	2.01	1.14
50025	12A1	4.83	0.769	2.61	0.256	0.427	3.54	1.74	0.55	0.43	2.64	2.05	1.4
50027	12A1	4.43	0.86	2.4	0.32	0.46	3.69	1.87	0.61	0.52	2.71	2.02	1.3
50029	12A1	4.29	0.878	2.31	0.307	0.431	3.44 †	1.78	0.543	0.497	2.68	2.12	1.29
50031	12A1	4.71	0.789	2.51	0.269	0.462	3.9	2.05	0.622	0.424	2.49	2.01	1.15
50032	12A1	4.23	0.82	2.55	0.33	0.48	3.93	2.04	0.66	0.46	2.45	2.15	1.19
50038	12A1									0.335 †	2.02 ††	1.7 †	1.14
52283	12A1	4.23	0.753	2.47	0.29	0.478	4.71 ††	2.23	0.463 ††	0.465	2.99 ††	2.55 †	1.53 ††
52387	12A1									0.518	2.64	1.99	1.05 †
52494	12A1	4.52	0.856	2.35	0.296	0.44	3.6	1.86	0.58	0.46	2.52	2.2	1.22
52632	12A1	4.76	0.87	2.57	0.33	0.508	3.56	1.88	0.63	0.345 †	2.57	2.18	1.23
52636	12A1	9.1 ††	1.72 ††	1.16 ††	0.68 ††	0.496	4.13	1.85	0.707	0.657 ††	1.86 ††	1.9	1 ††
52639	12A1	5.03	0.73	2.59	0.21					0.42	2.58	1.92	1.16

Lab. Code #	Method Codes	Soil sample identification and values for 2019: CaCl2 Extractable B (12C1 + 12C2) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10166	12C1	0.61 †	0.48	0.79	0.94	0.6	0.8	0.99	1.14	1.1 ††	0.3	1 ††	0.6
10173	12C2	0.32	0.39	0.68	1.5	0.7	0.78	1.32	1.56	0.67	0.19	1.83	0.19
20204	12C2	0.7 †	1.77 ††	1.15 ††	1.64	0.793	0.773	1.3	1.63	0.623	0.407	2.06	0.713 †
21043	12C2	0.218	0.244 ††	0.42	0.931	0.587	0.534 ††	0.994	1.25	0.46 †	0.187	1.39 †	0.237
21088	12C2	0.235	0.428	0.53	1.18	0.792	0.782	1.32	1.72				
21088	12C2									0.664	0.271	2.01	0.36
21100	12C2	0.334	0.323	0.549	0.88	0.465	0.553 ††	1.07	1.05	0.525	0.217	1.13 †	0.289
21178	12C2	0.227	0.372	0.445	1.28								
21229	12C2	0.285	0.397	0.607	1.32	0.84	0.799	1.48	1.91	0.697	0.401	2.19	0.495
21232	12C2	0.28	0.37	0.46	1.39	0.94	0.96 †	1.7	2.22	0.8	0.17	2.46 †	0.12
50005	12C2	0.345	0.419	0.599	1.32	0.788	0.797	1.36	1.78	0.636	0.327	1.98	0.374
50011	12C2	0.308	0.438	0.557	1.31	0.789	0.787	1.42	1.88	0.669	0.334	2.06	0.359
50012	12C2	0.363	0.441	0.803	1.8	0.662	0.759	1.1	1.1	0.645	0.299	1.5	0.379
50014	12C2	0.354	0.39	0.7	1.58	1.03	1.1 ††	1.66	1.97	0.818	0.339	1.99	0.378
50017	12C2	0.331	0.333	0.711	1.51	0.739	0.753	1.47	1.66	0.396 ††	0.851 ††	0.893 ††	3.03 ††
50018	12C2	0.33	0.464	0.624	1.46	0.71	0.84	1.35	1.63	0.698	0.302	1.61	0.321
50020	12C2	0.7 †	0.7 ††	0.85	2.05	1.2 ††	1.1 ††	2.2 ††	3 ††	0.4 ††	0.14	1.34 †	0.2
50025	12C2	0.352	0.336	0.491	1.75	0.828	0.811	1.37	1.87	0.726	0.205	2.48 †	0.154
50027	12C2	0.31	0.42	0.53	1.63	0.83	0.71	1.41	1.83	0.48 †	0.25	2.04	0.27
50029	12C2	0.201	0.379	0.542	0.664	0.587	0.688	1.13	1.38	0.572	0.206	1.89	0.123
50032	12C1	0.41	0.53	0.77	1.55	0.93	0.98 †	1.58	2.05	0.81	0.32	1.78	0.37
52494	12C2	0.27	0.28	0.55	0.97	0.68	0.66 †	1.12	1.48	0.68	0.28	1.88	0.34
52526	12C1	0.4	0.3	0.6	1.1	0.9	0.9	1.4	1.6	0.6	0.2	1.1 †	0.2
52632	12C1	0.46	0.55 †	0.72	1.39	0.955	0.97 †	1.51	1.91	0.683	0.83 ††	2.06	0.725 †
52636	12C1	0.759 †	0.427	0.977 ††	1.62								

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Exchangeable Ca — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
20204	15A1	3.72	3.74	3.85	6.52 ††	15.8	11.1	11.2	14.9	3.83	1.2 ††	23.5 †	1.06 ††
21104	15A1									4.08	1.02	37.4 ††	0.72
21178	15A1	3.19 ††	4.06	3.34 ††	7.41	17.6	11.2	11.3	18.1				
21182	15A1	3.67	3.87	3.88	7.37	16	10.3	11.3	14.9	3.39 †	0.96	27.6	0.73
21193	15A1	3.89	3.88	4.03	5.04 ††	19.7	13	14.7	20.6	4.14	1.12 †	28.2	0.87
21232	15A1	4.06 †	4.32	4.33	7.67	16.2	11.2	12	16.2	4.58 †	1.39 ††	31.1	1.11 ††
50002	15A1									4.6 †	0.844 ††	20.7 ††	0.581 ††
50005	15A1	3.73	4.11	4.05	7.54	16.5	11.7	12.6	16.5	3.76	0.985	25.1	0.726
50011	15A1	3.77	3.92	3.96	7.44	17.6	11.3	12.4	17.4	3.8	0.871 †	25.5	0.779
50013	15A1	4.02 †	4.18	4.14	7.79	17.1	11.7	13.2	18.5	4.03	1.04	29.6	0.746
50014	15A1	3.52	3.97	3.71	7.46	18.9	12.2	13.9	19.2	4.1	0.992	30.2	0.715
50017	15A1	4.29 ††	4.12	3.94	7.61	12.1 ††	12.2	12.1	18.4	4.1	1.46 ††	27.4	1.34 ††
50019	15A1					19.2	11.9	13.5	18.4				
50020	15A1	3.7	3.4	4.1	7.6	20	12	11	18	3.2 ††	0.92	16.5 ††	0.75
50023	15A1	3.85	4.06	4.08	7.5	18.5	12.1	13.4	19	4.16	1.01	30.2	0.77
50031	15A1	3.55	3.97	3.75	7.47	17.9	12.3	12.9	18.6	3.36 †	0.87 †	29.1	0.567 ††
50036	15A1	3.5	3.4	3.8	7.1	15.1	9.3 ††	11.7	14.5	4.2	1	25.9	0.8
50038	15A1									1.98 ††	0.466 ††	16.4 ††	0.692
50044	15A1	3.8	3.6	4.2	7.5	12 ††	7.1 ††	8.8 ††	12 ††	3 ††	0.84 ††	13 ††	0.61 †
52283	15A1	2.84 ††	3.81	3.93	7.46	18	11	12.8	20.8	3.94	1.21 ††	37.5 ††	1.05 ††
52387	15A1	3.75	3.99	4.02	7.04 †	16.6	10.6	12.5	17.3	4.22	0.96	28.7	0.8
52417	15A1	4.63 ††	4.88 ††	5 ††	9.05 ††	21	14.1 ††	15.4	21.8				
52494	15A1	3.73	3.73	3.94	7.13	17.2	11	12.1	17.3	3.94	0.959	29.7	0.731
52526	15A1	3.6	3.7	3.8	7.7	16.9	12	13.7	19.8	4.3	1	30.4	0.8
52527	15A1	3.67	3.87	4.01	7.32	16	10.7	11.1	15.9	4.37	1.03	28.7	0.788
52676	15A1									4.18	1.03	29.8	0.75

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Exchangeable K — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
20204	15A1	0.579	0.113	0.459	1.19	0.528	0.745	1.14	1.62	0.142	0.131	1.22	0.18
21104	15A1									1.51 ††	1.56 ††	3.54 ††	1.6 ††
21178	15A1	0.67 ††	0.46 ††	2.09 ††	8.52 †	0.5	0.72	1.14	1.7				
21182	15A1	0.55	0.11	0.44	1.16	0.48	0.68	1.08	1.45	0.1 ††	0.1	1.24	0.2
21193	15A1	0.59	0.16 ††	0.5	1.21	0.62 ††	0.86	1.31	1.84	0.19 ††	0.048 ††	1.54	0.056 ††
21232	15A1	0.64	0.15 ††	0.53 ††	1.25	0.5	0.8	1.2	1.6	0.184 ††	0.185 †	1.57	0.243 ††
50005	15A1	0.384 ††	0.073 †	0.438	1.16	0.524	0.749	1.18	1.66	0.133	0.175 †	2.02 ††	0.192
50011	15A1	0.555	0.1	0.455	1.16	0.508	0.712	1.14	1.63	0.128	0.108	1.32	0.182
50013	15A1	0.615	0.118	0.505	1.26	0.5	0.8	1.2	1.7	0.15	0.149	1.41	0.204
50014	15A1	0.544	0.104	0.453	1.18	0.511	0.747	1.22	1.7	0.139	0.139	1.41	0.186
50017	15A1	0.613	0.114	0.426	1.18	0.796 ††	0.815	461 ††	1.89 †	0.12 †	0.431 ††	1.32	0.201
50019	15A1					0.577 ††	0.759	1.23	1.64				
50020	15A1	0.53	0.05 ††	0.39	1.04	0.58 ††	0.81	1.24	1.57	0.13	0.13	1.29	0.18
50023	15A1	0.55	0.1	0.44	1.14	0.55 †	0.79	1.24	1.74	0.14	0.14	1.48	0.2
50031	15A1	0.551	0.102	0.446	1.19	0.46	0.684	1.09	1.56	0.13	0.129	1.45	0.186
50036	15A1	0.4 ††		0.4	1	0.5	0.6	1	1.4	0.1 ††	0.1	1.4	0.2
50038	15A1									0.0804 ††	0.7 ††	0.773 ††	0.106 ††
50044	15A1	0.52	0.11	0.42	1.1	0.42 ††	0.55	0.94	1.2 ††	0.14	0.13	1.3	0.18
52283	15A1	0.562	0.104	0.422	1.16	0.498	0.8	1.07	1.72	0.14	0.132	1.32	0.154 †
52417	15A1	0.45	0.09	0.37	1.02	0.45 †	0.6	0.97	1.46				
52494	15A1	0.523	0.097	0.42	1.09	0.486	0.678	1.1	1.53	0.132	0.123	1.41	0.181
52526	15A1	0.4 ††	0.079	0.4	1.1	0.5	0.9	1.4	2.1 ††	0.2 ††	0.1	1.4	0.2
52527	15A1	0.513	0.103	0.403	1.07	0.52	0.67	1	1.44	0.188 ††	0.169 †	1.53	0.233 ††
52676	15A1									0.14	0.14	1.32	0.18

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Exchangeable Mg — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
20204	15A1	0.924	0.574 ††	2.42	8.35	8.13	1.74	5.36	8.76	0.763	0.801 ††	2.18	0.708 ††
21104	15A1									0.66	0.64	2.83 ††	0.51
21178	15A1	0.51 ††	0.11 ††	0.43 ††	1.19 ††	8.64	1.43	5.72	9.96				
21182	15A1	0.73	0.43	2.17	8.33	8.22	1.45	5.52	8.52	0.63	0.6	2.12	0.43 ††
21193	15A1	0.89	0.52 †	2.49	8.9	9.97 †	1.66	7.08 ††	11.7	0.72	0.67	2.43	0.52 †
21232	15A1	0.95	0.6 ††	2.52	8.7	7.9	1.6	5.7	9	0.895 ††	0.845 ††	2.51 ††	0.67 ††
50002	15A1									0.942 ††	0.599	2.84 ††	0.51
50005	15A1	0.784	0.473	2.28	8.86	8.43	1.64	5.86	9.29	0.664	0.645	2.23	0.506
50011	15A1	0.785	0.453	2.3	8.5	8.45	1.53	5.69	9.43	0.663	0.553	2.12	0.503
50013	15A1	0.76	0.459	2.28	8.57	8.5	1.6	6.2	10	0.744	0.662	2.19	0.505
50014	15A1	0.719	0.444	2.22	8.75	9.22	1.67	6.35	10.4	0.688	0.609	2.22	0.453 ††
50017	15A1	0.821	0.485	2.19	8.34	1.83 ††	1.89 ††	5.91	10.9	0.449 ††	2.18 ††	7.48 ††	0.912 ††
50019	15A1					9.35	1.52	6.29	9.94				
50020	15A1	0.9	0.4	2.5	9.1	11 ††	2.1 ††	6.8	11	0.6	0.66	2.01	0.51
50023	15A1	0.78	0.46	2.33	8.56	9.24	1.71	6.42	10.6	0.75	0.63	2.29	0.5
50031	15A1	0.73	0.431	2.21	8.75	9.4	1.57	6.2	10.6	0.69	0.66	2.28	0.516
50036	15A1	0.6 ††	0.3 ††	1.8 ††	7.8	7.7	1.3 †	5	8.5	0.7	0.6	2.1	0.5
50038	15A1									0.437 ††	0.343 ††	1.13 ††	0.299 ††
50044	15A1	0.76	0.44	2.3	8.9	6.8 †	1.2 ††	4.7	7.5	0.51 ††	0.58	1.7 ††	0.44 ††
52283	15A1	0.815	0.457	2.22	8.46	8.74	1.28 ††	5.88	10.4	0.732	0.726 †	2.22	0.538 †
52387	15A1	0.92	0.55 ††	2.66 ††	9.4	6.52 †	1.57	5.88	9.37	0.71	0.62	2.07	0.49
52417	15A1	0.83	0.48	2.39	8.66	0.84 ††	1.55	17.2 ††	9.49				
52494	15A1	0.753	0.433	2.27	8.15	8.31	1.51	5.66	9.24	0.732	0.612	2.19	0.495
52526	15A1	0.7	0.4	2.2	9.2	8.3	1.6	6.3	10.6	0.7	0.6	2.2	0.5
52527	15A1	0.691	0.391	2.08	7.73	8.6	1.5	5.6	9.8	0.923 ††	0.627	2.31	0.499
52676	15A1									0.73	0.68	7.37 ††	0.53 †

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Exchangeable Na — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
20204	15A1	0.246 ††	0.139 ††	0.264	1.59	0.707 ††	0.61 ††	0.47 ††	1.41	0.057	0.0033 ††	0.221	0.049
21104	15A1									0.2 ††	0.26 ††	0.59 ††	0.26 ††
21178	15A1	0.04	0.09	0.28	1.6	0.37	0.36	0.2	1.15				
21182	15A1	0.04	0.08	0.28	1.6	0.59 ††	0.42	0.25	1.16	0.05	0.06	0.12 ††	0.82 ††
21193	15A1	0.067	0.065	0.304	1.38	0.38	0.37	0.22	1.08	0.065	0.11	0.24	0.068
21232	15A1	0.14 ††	0.17 ††	0.39 ††	1.76	0.5 †	0.5 †	0.3	1.2	0.115 ††	0.18 †	0.325	0.12 †
50005	15A1	0.0181	0.035 ††	0.284	1.61	0.421	0.406	0.224	1.2	0.0436	0.137	0.307	0.0599
50011	15A1	0.042	0.078	0.284	1.57	0.382	0.37	0.201	1.14	0.042	0.078	0.218	0.055
50013	15A1		0.085	0.334 ††	1.81	0.4	0.4	0.2	1.3	0.0537	0.111	0.265	0.0606
50014	15A1	0.0378	0.078	0.293	1.61	0.383	0.388	0.214	1.19	0.0417	0.0953	0.0979 ††	0.0463
50017	15A1	0.081 ††	0.081	0.281	1.52	0.497 †	0.544 ††	0.237	1.58 ††	0.0817	0.131	0.717 ††	0.124 ††
50019	15A1					0.424	0.396	0.306	1.27				
50020	15A1	0.05	0.05 †	0.24 †	1.45	0.48	0.47	0.23	1.3		0.14	0.27	
50023	15A1	0.04	0.07	0.26	1.51	0.41	0.41	0.23	1.23	0.06	0.1	0.25	0.07
50031	15A1	0.056	0.082	0.283	1.52	0.354	0.365	0.234	1.13	0.018	0.068	0.248	0.037
50036	15A1				0.9 ††	0.2 ††	0.1 ††		0.5 ††		0.1	0.3	
50038	15A1									0.0569	0.102	0.164	0.0907
50044	15A1	0.043	0.09	0.29	1.6	0.31 †	0.29 ††	0.17	0.88 ††	0.068	0.11	0.22	0.07
52283	15A1	0.072	0.103 †	0.306	1.61	0.437	0.41	0.232	1.32	0.048	0.085	0.179	0.042
52387	15A1	0.05	0.08	0.27	1.38	0.288 ††	0.29 ††	0.14	0.87 ††	0.07	0.06	0.24	0.02
52417	15A1	0.07	0.14 ††	0.34 ††	1.71	0.42	0.41	0.26	1.41				
52494	15A1	0.032	0.079	0.297	1.54	0.382	0.361	0.196	1.12	0.033	0.077	0.222	0.036
52526	15A1	0.0375	0.074	0.3	1.8	0.4	0.4	0.2	1.4		0.1	0.3	
52527	15A1			0.275	1.52	0.435	0.42	0.24	1.22	0.106 ††	0.146	0.293	0.124 ††
52676	15A1									0.04	0.11	0.28	0.08

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Exchangeable Ca — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
8888	15D3	3.78	4	3.84	7.25	17.1	11.3	12.4	17.1	4.04	1.01	26.8	0.724
10166	15D3	3.7	3.8	3.7	6.2 ††	16.6	9.4 ††	10.1 ††	15.5 †	4	1.1	24.4	0.9
10173	15D3	3.76	3.85	3.82	7.29	17.2	11.2	12.1	17.4	4.02	0.96	43.1 ††	0.83
10181	15D3	3.6	3.98	3.67	7.2	16	12	12	17	3.84	0.899	22.5	0.649
20136	15D3	3.66	3.85	3.74	7.25								
20204	15D3	3.71	3.72	3.22 ††	6.66 †	16.7	10.8	10.9 †	16.6	3.93	1.11	23.6	0.74
21043	15D3	3.54	3.74	3.67	7.22	18.3	11.9	12.6	18.6 †	3.62 ††	0.87	27.4	0.64
21088	15D3	3.92	4.23	4.06	7.21	16.4	11	10.9 †	16.6	4.03	0.965	32.5	0.749
21100	15D3	3.38	3.76	3.44	7.15	16.2	11.2	12.2	16.8	3.27 ††	0.766 †	21.3	0.548
21115	15D3	3.57	3.67	3.57	7.2								
21182	15D3	3.67	3.87	3.88	7.37	17.3	11.9	12.9	18.4 †				
21190	15D3	4.91 ††	4.5 ††	4.52 ††	8.85 ††	22.4 ††	14.6 ††	18.7 ††	22.7 ††	4.41 ††	0.998	73.9 ††	0.912
21229	15D3	3.52	4.09	3.82	6.73 †	18.2	11.8	12.2	17.6	3.97	0.875	28.8	0.715
21234	15D3	3.23 ††	3.21 ††	3.35 †	7					9.73 ††	5.39 ††	40.9 ††	1.78 ††
50005	15D3	3.71	4	3.83	7.32	16.4	11.6	12.3	16.3	3.86	0.99	32.5	0.705
50006	15D3									1640 ††	322 ††	8580 ††	222 ††
50007	15D3	2.71 ††	2.95 ††	2.89 ††	5.34 ††	9.29 ††	6.02 ††	6.22 ††	10.9 ††	2.56 ††	0.64 ††	16.4 ††	0.53
50011	15D3	3.37	3.62	3.61	6.97	19.4 †	12.4	12.4	18.3	3.62 ††	0.854	27.2	0.635
50018	15D3	3.7	4.02	3.83	7.32	17.6	11.3	11.7	17.2	3.96	0.968	28.7	0.678
50020	15D3	2 ††	2.5 ††	2.3 ††	5.8 ††	23 ††	12	14 ††	21 ††	4.3 ††	1.1		0.91
50024	15D3	3.57	3.75	3.66	6.76 †	16	10.7	11.1	15.7 †	3.9	0.977	27	0.722
50025	15D3	3.84	4.07	3.9	7.19	17.7	11.2	12.1	17	4.03	1.09	27.4	0.788
50027	15D3	3.64	4.03	3.78	6.89	16.7	11.3	11.3	16.8	4.05	1	26	0.838
50029	15D3	3.68	4.11	3.9	7.22	16	11.7	12.1	17.1	4.03	0.953	27.8	0.725
50032	15D3	3.43	3.95	3.75	7.5	17.6	11.2	12.7	17.7	3.92	0.753 ††	27.9	0.85
52434	15D3	2.99 ††	3.7	2.94 ††	6.21 ††	17.2	11.3	12.5	16.7	4.74 ††	1.31 ††	30.1	0.91
52437	15D3					18.2	12.9 †	2.38 ††	3.25 ††				
52491	15D3	3.45	3.75	3.64	6.9	78.8 ††	11.7	12.1	17.2	3.85	0.946	24.9	0.678
52508	15D3					16.5	10.6	10.4 †	17.3	3.51 ††	1.02	20.7 †	0.63
52632	15D3	4.79 ††	5.19 ††	4.86 ††	9 ††	9.83 ††	6.36 ††	6.78 ††	10.3 ††	4.29 ††	0.957	30.5	0.723
52639	15D3	3.27 †	3.47	3.6	8.35 ††					4.05	0.81	26.7	0.67
52673	15D3									7.11 ††	1.62 ††	32.6	1.03 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Exchangeable K — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
8888	15D3	0.556	0.107	0.462 †	1.18	0.524	0.749 ††	1.14	1.5	0.12	0.115	1.44	0.193
10166	15D3	0.6 ††	0.12	0.49 ††	1.3 ††	0.5	0.72	1.19 ††	1.7	0.1 ††	0.15	1.5	0.21 †
10173	15D3	0.522	0.1	0.425	1.14	0.506	0.726 †	1.17 †	1.66	0.138	0.126	1.53	0.185
10181	15D3	0.513	0.095	0.42	1.05	0.465	0.679	1.08	1.56	0.131	0.128	1.2 †	0.181
20136	15D3	0.495	0.086	0.411	1.13								
20204	15D3	0.518	0.121	0.405	1.1	0.547 †	0.688	1.06	1.48	0.149	0.14	0.367 ††	0.143 ††
21043	15D3	0.49	0.096	0.412	1.07	0.486	0.693	1.1	1.58	0.129	0.127	1.35	0.179
21088	15D3	0.498	0.095	0.374 †	1.11	0.508	0.668	1.1	1.49	0.133	0.131	1.5	0.178
21100	15D3	0.52	0.080	0.416	1.12	0.44 ††	0.604 ††	0.926 ††	1.37 †	0.118	0.119	1.45	0.173
21115	15D3	0.54	0.1	0.43	1.14								
21182	15D3	0.55	0.11	0.44	1.16	0.49	0.72	1.14	1.62				
21190	15D3	0.69 ††	0.19 ††	0.45	1.71 ††	0.514	0.697	1.09	1.48	0.0785 ††	0.086 ††	1.29	0.162 †
21229	15D3	0.525	0.099	0.432	1.06	0.496	0.689	1.09	1.51	0.144	0.121	1.4	0.183
21234	15D3	0.448 †	0.08	0.374 †	0.942 ††					0.145	0.623 ††	1.4	0.199
50005	15D3	0.521	0.097	0.425	1.09	0.487	0.688	1.08	1.5	0.133	0.133	1.42	0.186
50006	15D3									305 ††	279 ††	2350 ††	381 ††
50007	15D3	0.569 †	0.115	0.581 ††	1.16	0.55 ††	0.74 ††	1.25 ††	1.82 ††	0.16	0.14	1.42	0.2
50011	15D3	0.547	0.101	0.454	1.1	0.485	0.685	1.1	1.55	0.134	0.127	1.37	0.18
50018	15D3	0.506	0.101	0.427	1.1	0.542	0.668	1.07	1.58	0.143	0.132	1.41	0.176
50020	15D3	0.55	0.13 †	0.48 ††	1.3 ††	0.48	0.7	1.34 ††	1.78 ††	0.2 ††	0.19 ††	1.8 ††	0.28 ††
50024	15D3	0.512	0.088	0.413	1.06	0.471	0.681	1.09	1.52	0.144	0.14	1.45	0.204
50025	15D3	0.569 †	0.109	0.436	1.06	0.496	0.69	1.11	1.5	0.142	0.139	1.43	0.19
50027	15D3	0.503	0.101	0.41	1.03	0.446 †	0.658	1.02 †	1.41	0.148	0.14	1.35	0.193
50029	15D3	0.47	0.085	0.396	1.22	0.519	0.696	1.11	1.62	0.129	0.112	1.61 †	0.157 †
50032	15D3	0.507	0.101	0.418	1.07	0.51	0.7	1.12	1.6	0.14	0.135	1.3	0.201
52434	15D3	0.61 ††	0.15 ††	0.46 †	1.37 ††	0.45 †	0.7	1.12	1.55	0.15	0.15	1.55	0.2
52435	15D3	0.77 ††	0.17 ††	0.62 ††	1.86 ††	0.35 ††	0.38 ††	0.59 ††	0.88 ††	0.17 ††	0.16 †	1.26	0.2
52436	15D3	0.52	0.11	0.45	1.12	0.46	0.71	1.11	1.54	0.15	0.14	1.64 †	0.19
52437	15D3					0.225 ††	0.345 ††	0.415 ††	0.469 ††				
52491	15D3	0.472	0.086	0.389	1	0.509	0.725	1.17 †	1.62	0.134	0.13	1.31	0.184
52632	15D3	0.45 †	0.06 ††	0.36 ††	0.96 ††	0.44 ††	0.65 ††	1.01 ††	1.61	0.12	0.113	1.06 ††	0.165
52639	15D3	0.52	0.11	0.42	1.05					0.14	0.12	1.3	0.19
52673	15D3									0.09 ††	0.09 ††	1.23	0.12 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Exchangeable Mg — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
8888	15D3	0.765	0.455	2.29	8.29	8	1.64	5.91	8.87	0.669	0.674	2.15	0.515
10166	15D3	0.8	0.5 †	2.4 †	9.7 †	8.8	1.6	6.4	9.6	0.6	0.7	2.3	0.5
10173	15D3	0.76	0.474	2.21	8.67	8.67	1.49	6.1	9.63	0.676	0.59	2.53 †	0.523
10181	15D3	0.705	0.429	2.1	6.72 ††	8.15	1.58	5.86	9.76	0.58	0.547	2.04	0.43
20136	15D3	0.719	0.451	2.16	7.9								
20204	15D3	0.94 ††	0.589 ††	2.19	8.3	8.09	1.64	5.4	8.78	0.693	0.612	2.33	0.508
21043	15D3	0.722	0.423	2.17	8.08	8.57	1.59	5.93	9.79	0.573	0.591	2.02	0.47
21088	15D3	0.69	0.409	2.12	7.46	8.16	1.44	5.75	9.16	0.607	0.588	2.15	0.455
21100	15D3	0.753	0.432	2.23	8.86	7.74	1.51	5.48	9.23	0.553	0.561	1.88	0.441
21115	15D3	0.74	0.43	2.2	8.16								
21182	15D3	0.73	0.43	2.17	8.33	8.29	1.56	5.75	9.81				
21190	15D3	0.69	0.49	2.52 ††	9.67 †	9.08	1.74 †	6.36	10.8 ††	0.84 ††	0.639	3.49 ††	0.653 ††
21229	15D3	0.674	0.412	2.19	7.91	8.37	1.51	5.78	9.39	0.604	0.579	2.07	0.484
21234	15D3	0.79	0.46	2.41 ††	11.2 ††					0.971 ††	1.3 ††	2.59 †	0.624 ††
50005	15D3	0.749	0.447	2.28	8.38	8.21	1.55	5.69	9.19	0.628	0.613	2.3	0.472
50006	15D3									104 ††	61 ††	279 ††	46.1 ††
50007	15D3	0.773	0.492	2.12	7.72	7.82	1.59	5.48	8.96	0.66	0.63	2.21	0.5
50011	15D3	0.746	0.425	2.25	8.11	8.45	1.51	5.62	9.38	0.605	0.583	2.05	0.459
50018	15D3	0.731	0.456	2.22	8.42	7.81	1.38 †	5.4	8.8	0.601	0.658	2.1	0.497
50020	15D3	0.5 ††	0.3 ††	1.8 ††	9.9 ††	12.5 ††	2.2 ††	9.6 ††	14.1 ††	0.74 †	0.78 ††	3.1 ††	0.61 ††
50024	15D3	0.818	0.476	2.42 ††	8.57	7.91	1.52	5.55	8.9	0.651	0.671	2.15	0.53
50025	15D3	0.841 †	0.514 †	2.43 ††	8.78	8.74	1.71	6.2	9.78	0.721	0.729 †	2.38 †	0.567
50027	15D3	0.749	0.464	2.24	7.66	7.8	1.51	5.27	8.63	0.693	0.668	2.09	0.502
50029	15D3	0.695	0.422	2.16	8.18	7.25	1.38 †	5.34	8.97	0.582	0.567	1.81 †	0.457
50032	15D3	0.715	0.439	2.25	9.08	8.31	1.59	5.79	9.31	0.725	0.599	1.96	0.504
52434	15D3	0.8	0.55 ††	2.51 ††	8.49	8.81	1.51	6.13	9.94	1.05 ††	0.7	2.38 †	0.59 †
52437	15D3					1.85 ††	1.3 ††	1.85 ††	1.85 ††				
52491	15D3	0.665	0.398	2.01 ††	7.3	8.82	1.62	5.94	9.65	0.652	0.634	2.06	0.486
52508	15D3					8.61	2.78 ††	6.12	8.94	0.88 ††	0.97 ††	3.35 ††	0.57
52632	15D3	1.63 ††	0.91 ††	3.63 ††	19.5 ††	4.1 ††	0.73 ††	2.92 ††	4.55 ††	0.595	0.625	2.1	0.51
52639	15D3	0.68	0.41	2.16	7.39					0.58	0.55	2.17	0.47
52673	15D3									1 ††	0.88 ††	2.62 †	0.56

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Exchangeable Na — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
8888	15D3	0.024	0.063	0.288	1.62	0.399	0.405	0.234	1.1	0.057	0.114 †	0.262	0.092 ††
10166	15D3	0.04	0.07	0.25 ††	1.5	0.35	0.4	0.31 ††	1.1	0.07 †	0.09	0.2	0.06
10173	15D3	0.043	0.083	0.285	1.74 †	0.352	0.356	0.203	1.15	0.077 ††	0.088	0.253	0.0299
10181	15D3	0.037	0.074	0.281	1.51	0.327	0.358	0.201	1.06	0.0557	0.0832	0.226	0.044
20136	15D3	0.048	0.071	0.288	1.58								
20204	15D3	0.134 ††	0.159 ††	0.284	1.17 ††	0.626 ††	0.608 ††	0.35 ††	1.38 ††	0.0435	0.169 ††	1.57 ††	0.239 ††
21043	15D3	0.038	0.07	0.281	1.55	0.38	0.378	0.212	1.15	0.053	0.102	0.224	0.066
21088	15D3	0.043	0.075	0.284	1.66	0.435	0.401	0.231	1.16	0.034	0.082	0.224	0.041
21100	15D3	0.0468	0.069	0.296	1.62	0.362	0.357	0.184	1.11	0.0406	0.0855	0.207	0.0461
21115	15D3	0.06	0.1 ††	0.3 †	1.56								
21182	15D3	0.04	0.08	0.28	1.6	0.43	0.4	0.22	1.21				
21190	15D3	0.49 ††	0.57 ††	0.56 ††	1.71	0.439	0.435	0.258 †	1.2	0.1 ††	0.144 ††	0.342 ††	0.128 ††
21229	15D3	0.0317	0.069	0.285	1.47	0.385	0.377	0.204	1.12	0.0537	0.0912	0.23	0.0512
21234	15D3	0.028	0.048 †	0.2 ††	1.17 ††					0.04	0.168 ††	0.17 †	0.043
50005	15D3	0.0482	0.085	0.285	1.55	0.382	0.362	0.2	1.15	0.0461	0.095	0.226	0.0584
50006	15D3									17.5 ††	26.8 ††	81.5 ††	11.3 ††
50007	15D3	0.062	0.1 ††	0.475 ††	1.54	0.48	0.46 ††	0.29 ††	1.4 ††	0.09 ††	0.11 †	0.26	0.06
50011	15D3	0.05	0.076	0.285	1.5	0.369	0.358	0.195	1.11	0.045	0.094	0.213	0.053
50018	15D3	0.0391	0.075	0.283	1.57	0.451	0.354	0.212	1.23	0.0501	0.089	0.295 ††	0.0591
50020	15D3	0.05	0.05	0.27	1.76 ††	0.46	0.45	0.24	1.6 ††		0.1	0.28 †	
50024	15D3	0.032	0.064	0.277	1.52	0.361	0.356	0.195	1.1	0.043	0.094	0.227	0.056
50025	15D3	0.0845 ††	0.117 ††	0.333 ††	1.5	0.405	0.412	0.294 ††	1.12	0.089 ††	0.159 ††	0.267	0.0915 ††
50027	15D3	0.034	0.071	0.271	1.46	0.352	0.361	0.217	1.07	0.05	0.106	0.217	0.05
50029	15D3	0.0369	0.065	0.25 ††	1.47	0.393	0.38	0.249	1.22	0.0396	0.0642 ††	0.235	0.0404
50032	15D3	0.031	0.061	0.263 †	1.58	0.42	0.42	0.24	1.23	0.052	0.092	0.216	0.05
52434	15D3	0.17 ††	0.18 ††	0.32 ††	1.83 ††	0.46	0.47 ††	0.27 †	1.31 †	0.32 ††	0.14 ††	0.35 ††	0.17 ††
52437	15D3					0.146 ††	1.05 ††	0.378 ††	0.216 ††				
52491	15D3	0.0318	0.063	0.249 ††	1.37 †	0.388	0.381	0.207	1.16	0.0431	0.0921	0.207	0.051
52632	15D3	0.01 ††	0.03 ††	0.26 †	1.5	0.26 ††	0.34	0.21	1.05	0.03	0.08	0.193	0.04
52639	15D3	0.07 ††	0.1 ††	0.25 ††	2.6 ††					0.11 ††	0.14 ††	0.29 †	0.09 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Exchangeable Al — 1M KCl (15G1) cmol+/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
20204	15G1	0.0127 ††	0.003	0.275	0.002	0.007	0.014	0.013	0.0087	0.0528 ††	0.191	0.0163 ††	0.376 ††
21043	15G1	0.146	0.001	0.328	0.001	0.001	0.001	0.001	0.001	0.016 †	0.368	0.001	0.554
21088	15G1	0.11	0.005	0.26	0.005	0.005	0.005	0.005	0.005				
21088	15G1									0.005	0.373	0.005	0.62
21100	15G1	0.138	0.023 ††	0.317	0.0096	0.0071	0.025 †	0.015	0.0145	0.0344 ††	0.379	0.00868	0.682
21178	15G1	0.168	0.001	0.336	0.001	0.001	0.001	0.001	0.001	0.001	1.21 ††	0.001	1.89 ††
21229	15G1	0.235 †	0.005	0.336	0.0049	0.016	0.007	0.0028	0.0048	0.00851	0.374	0.00299	0.795
21232	15G1	0.29 ††	0.12 ††	0.48 ††	0.05 †	0.02	0.04 ††	0.02	0.02 ††	0.112 ††	0.454	0.046 ††	0.745
50005	15G1	0.0517 ††	0.004	0.137 ††	0.0042	0.0044	0.006	0.00626	0.00314	0.0189 †	0.152 †	0.0161 ††	0.26 ††
50011	15G1	0.153	0.005	0.254	0.005	0.005	0.005	0.005	0.005	0.005	0.235	0.005	0.648
50013	15G1	0.164		0.36							0.302		0.494
50014	15G1	0.162	0.020 †	0.306	0.0104	0.001	0.001	0.001	0.001	0.0101	0.314	0.001	0.516
50017	15G1	0.116	0.003	0.292	0.0042	0.001	0.004	0.008	0.001	0.003	0.522	0.005	1.27 ††
50018	15G1	0.132	0.006	0.304	0.0051	0.0054	0.012	0.0084	0.00761	0.0054	0.362	0.0051	0.641
50027	15G1	0.192	0.01	0.413	0.01	0.0025	0.005	0.0025	0.002	0.005	0.35	0.005	0.66
50029	15G1	0.162	0.034 ††	0.374	0.0263 †	0.0332 ††	0.037 ††	0.0241 †	0.0172 †	0.0977 ††	0.265	0.0382 ††	0.584
50032	15G1	0.142	0.004	0.322	0.017	0.01	0.074 ††	0.004	0.004	0.004	0.483	0.004	0.706
50038	15G1									0.158 ††	0.931 ††	0.115 ††	2.01 ††
50044	15G1	0.2		0.44									
52494	15G1	0.207	0.034 ††	0.379	0.017	0.0172	0.034 ††	0.0172	0.001	0.034 ††	0.379	0.003	0.655
52526	15G1	0.146	0.05 ††	0.33	0.05 †	0.05 ††	0.05 ††	0.05 ††	0.05 ††		0.4		0.7
52527	15G1	0.113		0.212							0.3		0.6

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable Al – Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
22	18F1	695	1310	700	693	501	895	477	692	1290	630	362	502
8888	18F1	610	1200	620	649	545	851	481	697	1120	605	357	480
10156	18F1	412 †	897 ††	416 ††	446 ††	897 ††	1470 ††	842 ††	1210 ††	1120	556	357	417 ††
21100	18F1	723 †	1310	713	731 †	516	785 †	456	682	1170	697	384	569
21178	18F1	560 †	1140	570	655	540	860	520	720				
21229	18F1	650	1240	666	667	560	893	530	715	1180	690	286	525
21232	18F1	6040 †	1170	607	602	482	822 †	473	658	1170	638	381	518
50005	18F1	722 †	507 ††	667	650	531	874	507	697	1100	714	349	566
50011	18F1	660	1300	649	690	534	901	490	724	1250	559	203 ††	539
50014	18F1	630	1100	636	650	3.61 ††	1470 ††	546	350 ††	1200	675	378	509
50018	18F1	636	1270	669	654	556	901	475	740	1190	647	337	481
50020	18F1	641	1240	695	638	254 ††	529 ††	237 ††	319 ††	1040	569	350	468
50024	18F1	656	1250	684	677	576	924	530	754	1120	654	189 ††	476
50027	18F1	661	1280	659	678	535	910	517	719	1260	763	417	583
50042	18F1	500 †	929 ††	548	498 ††	565	1220 ††	662 ††	879 ††	807 ††	221 ††	233 †	403 ††
52283	18F1	638	1240	660	646	579	875	520	831 †	1210	653	489 ††	485
52417	18F1	643	1160	589	607	418 ††	756 ††	347 ††	581 ††				
52491	18F1	678	1320	733	774 ††	576	915	505	735				
52565	18F1					674 ††	1080 ††	619 †	860 ††	1230	486	282	506
52636	18F1					605	891	580	821 †	993	519	317	491

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable B – Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
22	18F1	0.21	0.448	0.244	1.07	0.799	0.609	1.38	2.03	0.594	0.104	3.11	0.111
8888	18F1	0.302	0.492	0.299	1.08	0.856	0.569	1.3	1.82	0.648	0.227	2.85	0.201
10156	18F1	0.613 †	0.695	0.435	0.939	1.7 ††	1.57 ††	2.53 ††	2.92 ††	0.7	0.18	3.16	0.12
21100	18F1	0.235	0.442	0.201	1.2	0.165 ††	0.001	0.666 †	1.35	0.773	0.271	3.35	0.443 †
21178	18F1	1.5 ††	4 ††	3.5 ††	0.8	0.7	0.3	1.3	1.5				
21229	18F1	0.224	0.763	0.257	1.15	1.01	0.681	1.48	2.13	0.764	0.0924	2.85	0.0268
21232	18F1	1.14 ††	15.1 ††	1.34 ††	0.81	0.81	0.13	1.26	1.92	8.28 ††	1.64 ††	3.66	1.33 ††
50005	18F1	0.375	0.73	0.354	1.12	1.07	0.952	1.62	2.22	2.42 ††	0.472 †	3.04	0.503 †
50011	18F1									0.808	1.64 ††	3.13	1.46 ††
50014	18F1	0.144	0.409	0.174	1.17	2.2 ††	0.118	2.23 †	1.33	0.619	0.109	3.08	0.066
50018	18F1	0.226	0.502	0.265	1.12	0.831	0.662	1.08	2.01	0.697	0.223	2.38	0.218
50020	18F1	0.24	0.52	0.33	1.4			0.6 †	0.83 ††		3 ††	3.1	
50024	18F1	0.117	0.146 †	0.131	0.869	0.66	0.45	1.23	1.78	0.71	0.14	2.6	0.11
50027	18F1	0.196	0.525	0.238	0.974	0.884	0.636	1.46	2.01	0.732	0.165	3.21	0.18
50042	18F1	0.05	0.33	0.09	0.61 †	0.97	0.6	1.8	2.7	0.37 ††	0.07	2.5	0.11
52283	18F1	0.445	0.542	0.306	1.2	1.5 †	0.733	1.37	2.04	0.718	0.223	3.08	0.225
52417	18F1	0.06	0.17 †		1.8 ††	1.9 ††	1.5 †	3.5 ††	5.5 ††				
52491	18F1	0.0999	12 ††	0.254	0.185 ††	0.11 ††	0.06	0.79 †	1.3				
52565	18F1					0.9	0.4	1.4	2.2	0.401 ††	0.001	3.46	0.006
52636	18F1	2.26 ††	24.4 ††	2.76 ††	1.97 ††	1.68 ††	1.65 ††	2.14 †	2.78 †	0.153 ††	0.588 †	3.5	0.499 †

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable Ca – Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
22	18F1	788	789	748	1380	3320	2220	2360	3280	819	237	6970	211
10156	18F1	212 ††	232 ††	196 ††	489 ††	4120	2550	3180 ††	4160 ††	889	216	16600 ††	166
21100	18F1	892	935	841	1660 ††	3910	2290	2500	3670	962	242	7200	301 ††
21178	18F1	820	860	780	1420	3600	2300	2600	3500				
21229	18F1	784	858	784	1380	3810	2360	2440	3650	845	219	7540	164
21232	18F1	862	907	830	1520 †	3480	2320	2540	3420	914	243	8610	186
50005	18F1	773	588 ††	717	1420	3710	2330	2650	3640	901	240	8730	173
50011	18F1	836	874	771	1410	3710	2440	2500	3530	972	352 ††	7600	373 ††
50014	18F1	769	771	737	1410	22200 ††	534 ††	6770 ††	4670 ††	869	207	6540	146
50018	18F1	806	853	781	1430	3630	2370	2560	3550	858	212	8210	147
50020	18F1	890	940	832	1470	2050 ††	1440 ††	1330 ††	1870 ††	780	176	7350	147
50024	18F1	860	889	832	1490	3920	2640 †	2790 †	3840	881	219	7020	148
50027	18F1	836	924	796	1430	3640	2470	2560	3470	924	244	7600	228
50042	18F1	937	1000	896	1560 †	3770	2470	2500	3530	863	140	10500 ††	228
52283	18F1	786	845	757	1450	3790	2350	2470	3980 †	850	197	8700	138
52417	18F1	827	763	752	1380	4080	2650 ††	3110 ††	4450 ††				
52491	18F1	839	891	806	1450	3580	2360	2540	3440				
52565	18F1					4570 ††	3020 ††	3370 ††	4450 ††	904	163	9160	164
52636	18F1	1220 ††	937	903	1700 ††	3470	2300	2640	3020 ††	846	189	7210	166

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable Cu - Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
22	18F1	0.411	0.323	0.303	2.11	1.67	1.21	1.97	2.86	0.929	0.561	1.52	0.346
8888	18F1	0.361	0.421	0.325	2.03	1.68	1.23	2.07	2.93	1.04	0.308	1.79	0.353
10156	18F1	0.214	0.151	0.176 †	1.72	2.14	1.86 ††	2.75 ††	3.77 ††	0.93	0.47	1.65	0.39
21100	18F1	0.568	0.644	0.421	2.23	1.64	1.19	1.99	2.8	1.06	0.329	1.65	0.394
21178	18F1	0.37	0.35	0.4	2.2	1.9	1.4	2.4	3.3				
21229	18F1	0.108	0.329	0.325	1.95	1.77	1.35	2.26	3.2	0.863	0.192	1.55	0.247
21232	18F1	0.13	0.12	0.1 ††	1.66 †	1.53	1.17	2.02	2.77	0.62	0.19	1.39	0.9 ††
50005	18F1	0.512	0.565	0.401	1.95	1.87	1.45	2.28	3.12	0.885	0.32	1.52	0.235
50011	18F1	0.403	0.921 ††	0.503 †	2.14	1.57	1.95 ††	2.01	3.34	1.3 ††	0.685	1.7	0.446
50014	18F1	0.312	0.449	0.304	2.13	1.49	3.13 ††	45.2 ††	8.31 ††	0.881	0.239	1.65	0.314
50018	18F1	0.327	0.336	0.369	2.06	1.63	1.24	1.96	2.95	0.854	0.281	1.39	0.286
50020	18F1	0.29	0.17	0.22	1.55 †	0.82 ††	0.73 ††	1.2 ††	1.5 ††	1.15	0.36	1.7	0.38
50024	18F1	0.13	0.336	0.219	1.71	1.29	0.91 †	1.68	2.25 †	0.97	0.26	1.39	0.28
50027	18F1	0.369	0.079	0.699 ††	2.04	1.89	1.39	2.29	3.22	0.786	0.2	1.71	0.305
50042	18F1	0.13	0.2	0.35	1.9	1.5	1.2	2.1	3	0.35 ††	0.01	0.81 ††	0.04 ††
52283	18F1	0.645	0.338	0.385	2.09	1.85	1.29	2.21	3.01	0.865	0.506	1.69	0.321
52417	18F1	0.39	0.23	0.35	1.3 ††	1.1 †	0.88 †	1.3 ††	1.8 ††				
52491	18F1	1.26 ††	7.61 ††	1.22 ††	2.36	1.7	1.3	2.1	2.9				
52565	18F1					2.4 ††	1.9 ††	2.6 †	3.7 †	0.698	0.83 ††	1.89	0.427
52636	18F1	0.136	0.359	0.307	2.61 ††	1.62	1.25	3.42 ††	2.85	0.61	0.577	1.44	0.254

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable Fe – Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
22	18F1	572	5530	631	103	77.2	256	114	120	2380	592	32.6	420
8888	18F1	505	5940 ††	535	94	65.6	242	95.9	96.1	2670	569	27.9	444
10156	18F1	198 †	11300 ††	283 ††	70.7 ††	123 ††	348	185	187	3660 ††	807 ††	32.8	683 ††
21100	18F1	564	4000	619	116 †	70	221	100	113	2110	620	43.5 ††	424
21178	18F1	515	4200	580	100	88	290	130	135				
21229	18F1	409	4330	543	103	89.7	266	135	135	2320	525	32.2	413
21232	18F1	432	4200	494	93.9	79.6	255	129	129	2250	493	25.7	397
50005	18F1	430	976 ††	577	93	89	281	134	138	2040	324 †	29.1	291 ††
50011	18F1	492	4200	557	103	73.7	276	114	122	2250	509	28.1	425
50014	18F1	544	4250	597	116 †	59	239	361 ††	329 ††	2530	623	28.8	455
50018	18F1	541	4510	582	98.9	86.3	292	120	140	2310	590	23.9	418
50020	18F1	554	5470	599	114	37 ††	147 ††	53 †	53 ††	2120	506	40.5	420
50024	18F1	409	3500	468 †	95.4	70.9	186	112	114	1820	531	24.7	362 †
50027	18F1	600	4970	679 †	99.7	90.7	308	140	141	2400	614	37	497 †
50042	18F1	831 †	4870	925 ††	154 ††	110	430 ††	204 †	206	2040	207 ††	11 ††	295 ††
52283	18F1	495	4770	595	98.6	56.6	191	163	197	2380	755 ††	40	492 †
52417	18F1	607	4300	568	90	73	222	97	104				
52491	18F1	548	4730	605	124 ††	92	287	129	138				
52565	18F1					111	327	161	166	2140	497	29.6	417
52636	18F1	434	577 ††	741 ††	203 ††	125 ††	275	163	167	2230	501	21.5	471

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable K – Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
22	18F1	202	47.3	159	405	170	250	409	553	61.9	50	519	70.9
10156	18F1	216 †	54.6	164	400	219	284	462	618	79 ††	79.3 ††	542	110 ††
21100	18F1	261 ††	62.2	208 ††	503 ††	181	246	402	599	91.2 ††	63.4 †	615	111 ††
21178	18F1	210	52	170	430	180	250	430	560				
21229	18F1	206	48.3	168	424	187	266	451	592	63.2	55.1	540	71.4
21232	18F1	207	51	167	417	207	253	423	563	65.6	54.8	567	82.2
50005	18F1	201	40.3	168	421	222	274	460	561	62	52.7	592	65.5
50011	18F1	236 ††	57.9	198 ††	464 †	201	285	463	632	68.6 †	71.8 ††	99.3 ††	63.5
50014	18F1	194	42.4	156	378	388 ††	86.8 ††	173 ††	251 ††	63.3	51.3	507	72.5
50018	18F1	198	45.6	163	416	213	258	410	594	62.7	50.3	492	65.8
50020	18F1	222 †	53	173	395	105 ††	154 ††	229 ††	313 ††	52.5 ††	39 †	452	59
50024	18F1	205	47.4	167	413	186	267	440	610	63.3	51.6	527	70.5
50027	18F1	203	53.6	162	404	180	256	417	562	69.7 †	54	562	83
50042	18F1	77 ††	25 ††	68 ††	203 ††	127 †	197 ††	285 ††	396 ††	20 ††	12 ††	192 ††	27 ††
52283	18F1	202	45.3	157	428	192	255	403	604	60.6	50.6	574	65.2
52417	18F1	204	50	134 ††	358 ††	182	222 †	373	534				
52491	18F1	224 †	51.1	175	431	186	266	423	59 ††				
52565	18F1					263 ††	353 ††	577 ††	808 ††	64.4	40 †	575	77
52636	18F1	243 ††	54.2	171	484 ††	233 †	284	388	424 †	61.1	44.2	528	75

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable Mg – Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
22	18F1	97.9	63.6	281	1070	1020	180	722	1180	96.4	74.9	307	61.3
10156	18F1	105	71.7	276	1040	1160	199	823 ††	1310	109	72	453 ††	60.5
21100	18F1	117 ††	73.7	318 ††	1180 ††	1070	185	708	1200	137 ††	93.8	339	82.1
21178	18F1	92	65	260 †	970	1050	190	750	1150				
21229	18F1	98.1	67.3	277	1010	1080	188	760	1210	105	83	328	67.1
21232	18F1	103	59.9	271	985	1030	191	741	1150	113	91.8	355	76.4
50005	18F1	97.3	53.3	280	997	1110	194	768	1250	120	93.5	341	75.8
50011	18F1	105	68.7	293	1040	1100	203 †	749	1210	76.6 ††	56	582 ††	91 ††
50014	18F1	96.6	62	269	955	434 ††	38.7 †	348 ††	127 ††	100	75.9	310	59.5
50018	18F1	101	63.3	276	1010	1070	187	764	1210	103	85.6	224 ††	66.5
50020	18F1	109	71	296	1000	657 ††	131 †	429 ††	698 ††	103	67.5	319	58
50024	18F1	99.8	64.6	284	1020	1080	192	762	1220	103	79.1	317	60.5
50027	18F1	104	76.6	291	1020	1060	190	750	1160	117	87	340	73
50042	18F1	92	55	223 ††	798 ††	816 ††	168 †	606 ††	912 ††	82 †	17 ††	217 ††	42 ††
52283	18F1	98.2	63.9	283	1020	1130	193	739	1270	101	76.2	355	60.7
52417	18F1	145 ††	99 ††	492 ††	1450 ††	1470 ††	303 †	1100 ††	1920 ††				
52491	18F1	102	63.2	285	1020	1080	190	736	1190				
52565	18F1					1180 †	196	769	1300	119	63.4	379	70.8
52636	18F1	124 ††	68.2	291	1130 ††	838 ††	184	609 ††	864 ††	110	75.3	332	69.6

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable Mn – Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
22	18F1	37.3	55	13.5	343	272	234	123	98.4	29	5.41	78.7	5.51
8888	18F1	41.8	57.8	15	367	306	249	129	101	32.8 ††	6.45	90.1	6.25
10156	18F1	51.5 ††	65.6	19.6 ††	339	330	286	152	122	24.3	5.18	82.6	4.88
21100	18F1	45.5	47.1	16.2	383	275	227	123	103	30.2	7.32	90.6	7.4 ††
21178	18F1	37	47	14	350	330	260	140	110				
21229	18F1	40.7	52.6	15.2	324	258	249	123	90.7	27.6	6.29	87.9	5.99
21232	18F1	38.5	45.7	14.4	285 ††	208 †	210	107	78.5	28.7	5.91	88.1	6.03
50005	18F1	39.7	10.5 ††	15.6	330	325	263	130	104	27	6.27	76.4	5.99
50011	18F1	45.2	50	15.6	357	304	271	132	106	117 ††	72.7 ††	342 ††	77.4 ††
50014	18F1	41.3	45.6	15.4	375	37.3 ††	18.4 ††	100	91.8	28.9	5.91	83.6	5.58
50018	18F1	38.4	54.2	14.7	328	317	248	119	108	27.2	5.18	77.6	4.98
50020	18F1	44	61	16	337	120 ††	137 ††	61 ††	41 ††	29	5.45	86	5.45
50024	18F1	42.3	46.3	15.5	315	214 †	232	105	71.2	26.8	5.68	78.4	5.24
50027	18F1	38.1	45.4	14.7	335	308	257	146	116	29	6	88	6
50042	18F1	47	51	11 ††	462 ††	366	345 ††	201 ††	161 ††	20 ††	7.2	63 ††	4 ††
52283	18F1	38.8	55.7	14.4	346	387	322 ††	121	92.3	26.7	5.24	77	4.99
52417	18F1	42	47	14	308	283	224	114	93				
52491	18F1	38.6	51.9	15.2	351	311	257	139	109				
52565	18F1					331	266	142	113	25.7	3.84 ††	88.4	5.73
52636	18F1	48.3	62.6	18 †	414 ††	230	198	106	79.9	24.8	4.76	79.9	5.52

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable Na - Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
22	18F1	10	23.6	61.6	342	78.4	77.8	43.6	240	15.1	21.2	49.8	12.2
10156	18F1	270 ††	395 ††	767 ††	3590 ††	92	87.5	57.7	259	21.8	31.5	65.5	24.7
21100	18F1	16.4	31.7	78.5 †	422 ††	74.9	66.6	34.9	240	23.7	26.8	61.2	20.1
21178	18F1	9	22	61	330	88	82	51	260				
21229	18F1	9.87	24.6	65.2	353	86.3	85.8	48.6	262	16.1	23.4	53.8	12.4
21232	18F1	20.3 †	31.7	73	362	94.2	89	53.5	259	21.8	30.7	67.1	20.7
50005	18F1	10.1	17.6	63.6	339	115 †	102	60.9	298	18.9	25.4	59.5	16.9
50011	18F1	1.56 †	18.4	59.3	377	82.4	107	40.9	276	47.8 ††	44.1 ††	58.2	11.8
50014	18F1	9.92	20	60.2	320	54 †	5.92 ††	60.7	13.4 ††	15.1	21.5	50.5	11.7
50018	18F1	9	25.8	64.3	343	107	73.4	42.1	228	17.1	22.2	59.4	17
50020	18F1	5	20	56	281 ††	52 †	53 ††	25	153 ††	11	15.5	49.5	
50024	18F1	10	24.3	66.6	354	90	87	49	273	14.8	22	52.5	11.6
50027	18F1	12.5	25.4	61.4	334	88.5	85.1	52.8	253	16.9	25.6	55.6	15
50042	18F1	38 ††	50 ††	98 ††	515 ††	121 †	109 †	79	354 ††	33 ††	26	85 ††	32 ††
52283	18F1	1.53 †	20.2	60.9	342	123 †	82.2	50.9	286	18.5	29	66.4	24.2
52417	18F1	16	27	74	359	95	94	60	281				
52491	18F1	9.21	24.6	66.5	356	86	83	43	259				
52565	18F1					239 ††	187 ††	151 ††	448 ††	17.3	19.3	61.2	14.4
52636	18F1	17.9 †	19.6	66.1	557 ††	138 ††	103	103 ††	371 ††	13.6	19.9	52.8	13.4

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable P - ICP — Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
22	18F1	279	31.5	31.5	19.4	20.2	104	19.3	18	43.5	50.3	58.9	11.6
8888	18F1	262	35.5	28.7	19.6	23.9	106	22.3	21.5	43.8	45.6	62.3	11.7
10156	18F1	104 ††	22.7	14.6 ††	12.3 ††	45.2 ††	152 ††	44.1 ††	44.1 ††	61.8	49.8	110 ††	19.5 ††
21100	18F1	311	15.7 †	34.8	24.6 ††	21.9	96	21.6	20.1	52.1	52	79.8 †	19.2 ††
21178	18F1	275	29	33	22	26	115	25	23				
21229	18F1	233	18.7	28.5	19.3	22.1	104	21.2	20.2	24.4 †	36	67.2	10.4
21232	18F1	241	36.4	25.9	19.1	21.4	97.7	20.6	19.4	44.1	37.7	60.9	11.4
50005	18F1	240	12.7 ††	25.9	19.1	23.6	126	22.4	21.4	38.5	32.5	61.1	10.5
50011	18F1	256	41.2	30.2	22	23.6	108	21.8	20.8	29.6	6.16 ††	89.8 ††	9.28
50014	18F1	278	35.7	29.9	20.1	7.17 ††	386 ††	267 ††	149 ††	44.1	43.3	61.3	9.59
50018	18F1	269	33.3	28.9	19.2	21.1	102	19.2	18.7	35.8	40.3	53	11.1
50020	18F1	239	25	16 ††	6.1 ††	10 ††	52 ††	9.9 ††	8.2 ††	42.5	40.5	70	7.2
50024	18F1	260	12.6 ††	28.5	19.9	21.9	93.5	19.9	19.7	8.72 ††	43.9	56	10.3
50027	18F1	286	42.8	33.2	20.4	22.5	110	21	18	43.7	49	70.5	13.3
50042	18F1	124 ††	14 †	15 ††	25 ††	3.7 ††	16 ††	0.74 ††	1.9 ††	1.3 ††	0.31 ††	3.7 ††	1.3 ††
52283	18F1	224	33.5	29.2	20.5	23.7	97.2	20	14.2 ††	29.2	40.4	63.6	9.89
52417	18F1	364 ††	39	37 †	22	27	108	23	22				
52491	18F1	283	34.3	31	19.6	23	106	21	19				
52508	18F1					14 ††	42.3 ††	26.7	20.6				
52565	18F1					26	131 †	25	25 †	33.6	38.1	75.4	6.33 ††
52636	18F1	302	36.3	31.3	25.5 ††	25.4	90.8	23.7	21.1	45	41	61.9	11.1

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable S - Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
22	18F1	32.8	14.2	38.7	19.3	11.3	69.5	15.1	11.8	31.7	22	24.9	14.3
10156	18F1					87.8 ††	89.4 †	86.8 ††	87.1 ††	42.8 ††	41.7 ††	60.2 ††	52.2 ††
21100	18F1	355 ††	184 ††	224 ††	214 ††	216 ††	309 †	250 ††	316 ††	108 ††	12.7 ††	138 ††	98.7 ††
21178	18F1	27	12	32	17	12	69	16	12				
21229	18F1	30.5	13.2	36.6	16.6	12.1	77.8	15.2	11.1	30.9	21	22.6	13.7
21232	18F1	21.9	14.3	34	17.1	21.9 †	69.3	15.5	12.2	21.9 ††	20.7	29.4	14.5
50005	18F1	33.3	14.2	38.2	18.1	13.6	72.9	16.8	13.5	30	19.1	23.8	15.6
50011	18F1	29.9	13.5	37.5	16.9	10.4	74.2	14.1	11	31.7	15.6 †	22.7	13
50014	18F1	34.5	16.3	39.8	20.5 †	105 ††	51.8	63.1 ††	26.1 ††	34.3	23	26.3	14.3
50018	18F1	31.3	14.1	35.7	17.4	13	56.4	14.2	12.2	30.4	20	23.4	13.2
50020	18F1	23	11	31	8.3 ††	31 ††	50 †	24 ††	28 ††	38.5 †	22	35 †	
50024	18F1	29.7	12.5	37	18.6	21.7 †	74.4	23.2 ††	21.2 ††	29.2	20.2	39.4 †	12.7
50027	18F1	29.5	14.6	36.4	16.9	11	68.6	13.9	10	31.3	21.1	24.4	16
50042	18F1	27	8.5 †	33	13 †	3.4 †	45 †	5 ††	4.7 ††	12 ††	0.36 ††	11 ††	2.8 ††
52283	18F1	25.1	12.6	32	16.7	17.3	64.1	15.2	12.6	31.3	23.5	54 ††	8.37 ††
52417	18F1	38	8 ††	35	13 †	8	47 †	5 ††	5 ††				
52491	18F1	39.1	16.5	44	22 †	16	74	18	14				
52565	18F1					20 †	83	22 †	18 †	34.2	17.1	35.1 †	14.4
52636	18F1	105 ††	53.4 ††	129 ††	75.9 ††	11.3	64.2	16.4	13.3				

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable Zn — Mehlich3 (18F1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
22	18F1	6.31	1.34	2.58	0.501	0.923	4.96	3.27	0.884	1.01	2.75	4.23	1.35
8888	18F1	6.06	1.8	2.67	0.5	1.27	5.23	3.42	0.825	1.24	3.02	5.01	1.42
10156	18F1	0.509 ††	0.158 ††	0.286 ††	0.222 ††	9.21 ††	9.38 ††	6.88 ††	5.3 ††	1.02	2.93	5.58	1.42
21100	18F1	7.39	1.74	3.23 ††	0.739 ††	0.971	5.1	3.55	0.906	1.6 †	3.29	5.5	2.14 ††
21178	18F1	6	1.4	2.6	0.47	1.1	5.4	3.6	0.93				
21229	18F1	5.75	1.75	2.85	0.347 ††	1.23	6.4 †	4.15 †	1.14	1.18	3.43	4.57	1.39
21232	18F1	5.96	1.81	2.78	0.52	1.03	5.2	3.5	1	1.33	3.15	4.88	1.56
50005	18F1	5.42	0.941 †	2.62	0.577	0.889	5.48	3.43	0.63	1.33	3.4	5.06	1.48
50011	18F1	6.96	2.06	3.08	0.854 ††	1.22	5.78	3.48	1.2	2.21 ††	3.16	5.04	2.07 ††
50014	18F1	6.29	2.18	2.92	0.592	1.2	7.87 ††	256 ††	179 ††	1.5	3.14	4.78	1.92 ††
50018	18F1	6.02	1.64	2.84	0.526	1.11	5.36	3.26	1.05	1.19	3.09	5.52	1.52
50020	18F1	6.7	1.7	3.1	0.56		2.8 ††	1.95 ††		1.25	3.2	5.2	1.55
50024	18F1	5.65	1.43	2.59	0.51	1.01	5.07	3.5	0.85	0.97	2.7	4.16	1.15 †
50027	18F1	5.53	1.82	2.49	0.534	1.1	5.79	3.85	0.992	1.3	3.14	5.09	1.79 †
50042	18F1	3.9 †	1.1 †	1.9 ††	0.76 ††	0.48 ††	4.5	1.9 ††	0.73	0.39 ††	0.46 ††	2.2 ††	0.52 ††
52283	18F1	7.05	1.83	2.72	0.551	1.21	5.42	3.91 †	0.835	1.25	2.84	4.69	1.4
52417	18F1	6.8	1.5	2.6	0.74 ††	1.1	4.3 †	2.9 †	0.97				
52491	18F1	6.89	2.25	3.09	1.07 ††	0.59 ††	5.6	3.4	0.48 ††				
52565	18F1					0.927	6.8 ††	4 †	0.658	0.98	2.38 †	5.11	1.44
52636	18F1	7.52	1.85	3.23 ††	0.66 †	1.37	5.58	4.99 ††	1.24	0.5 †	1.55 ††	2.19 ††	0.69 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Extractable K — Bicarbonate (18A1) mg/kg											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
20204	18A1					211	242 †	402	471				
20204	18A1	276	31.1 †	193	381					68.4	69.7	421	85.3
21088	18A1	308	55.6	233	448 †	198	265	414	509				
21088	18A1									67.2	48.4	468	70.1
21100	18A1	326	71 †	234	413	171	234 †	366	508				
21178	18A1	570 ††	150 ††	445 ††	950 ††	220	280	420	500	68	56	480	64
21193	18A1	298	123 ††	291 ††	388	135	267	484	562	56	64	511	83
21229	18A1	330	60.2 †	214	413	192	279	445	518	63.1	46.9	476	79.2
21232	18A1	296	45	300 ††	412	207	293 †	459	610	71.6	71.7	613	93.8
21232	18A1	296	45	300 ††	412								
50011	18A1	327	45.5	221	414	177	271	436	495	68	53.6	474	77.9
50017	18A1	273	45.9	205	395	283 ††	292 †	461	581	45.9	204 ††	372	54.1
50020	18A1	168 ††	17 †	46 ††	23 ††								
50024	18A1					176	267	404	474	52.8	47.7	463	63.8
50025	18A1									55.7	54	560	74.4
50027	18A1	315	50	219	388	165	266	374	460	63	55	453	84
52387	18A1									46.2	43	376	58
52437	18A1	192 ††	43.5	164 †	401	87.8 ††	135 †	162 ††	184 ††	65.6	49.9	334	125 ††
52494	18A1	294	47	208	369	170	265	378	433	59	46	392	72

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Organic Matter (6G1) %											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
21088	6G1	2.79	1.64	4.22	1.87	2.34	5.01	1.29	1.18	1.4	3.57	2.56	2.98
21115	6G1	4.16	1.8	6.33	3.93	4.98 †	8.1	4.04	4.64	2.6 ††	4.22	4.53 †	3.49
21182	6G1	3	1.5	4.1	1.8	2.4	5	1.4	1.4	1.4	3.69	2.71	2.89
50005	6G1	3.46	1.65	5.2	2.75	2.19	5.94	1.5	1.32	1.42	4.02	3.41	3.12
50020	6G1	4.65	2.2	6.75	4.75	5.9 ††	8.1	4.4	5.3 †	2.71 ††	4.4	5.5 ††	3.7 †
50029	6G1	3.31	1.41	5.12	2.34	2.75	6.03	1.93	2.05	1.39	3.74	3.01	2.98
50036	6G1	2.7	1.3	3.5	2	2.5	5.6	1.9	1.9	1.2 †	3.2	2.9	3.2
52417	6G1	5.28	2.1	7.9	7.43 ††	8.54 ††	9.89	6.53 ††	9.16 ††				
52494	6G1	3.29	1.45	5.33	2.74	3.25	6.95	2.54	2.78	1.33	3.68	2.71	2.88
52508	6G1	4.51	2.09	6.56	4.33	5.59 ††	8.48	4.62 ††	5.4 †	2.52 ††	4.72	5.55 ††	4.07 ††
52526	6G1	2.9	1.6	3.9	1.7	1.9	4.9	1.2	1.2	1.3	3.2	2.5	2.5
52676	6G1									3.06 ††	4.64	5.1 ††	3.97 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Aluminium (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	40600 †	22700 ††	67300 ††	94100 †	29700	25200	37600	53300	19500	9040	25100	8740
21229	17B1	11700	6940	17600	31200	23500	20200	31300	46100	13300	7280	20600	6090
21230	17B2	15900 †	7200	24500	35400	32000	25700	39500	56000	19600	8600	26000	8960
50005	17B2	11100	6670	17800	27400	35400	28800	39600	51700	15900	8910	23900	8150
50017	17B2	17400 †	7860	25300	35000	31400	25300	36700	53600	6750	14400 ††	27000	8550
50020	17B1	9200	4310	9130	15000	13800	14600	14600	26800	4320	2960	10100	2500
50036	17B1	8160	3880	8050	12300	8850	11400	10300	17200	5330	3410	12000	2930
50044	17B1	11000	6200	12000	22000	14000	17000	16000	32000	8300	5900	18000	3800
52417	17B1	8620	4440	8140	12400	9660	14000	11400	19400				
52491	17B1	10300	4920	9620	15200	22800	19100	28100	40000	21000	9510	24400	9710
52508	17B1	9000	5890	13600	22000	18900	22200	25900	44300	14900	8860	25300	9330
52526	17B1	8250	4420	7740	12000	10400	11300	11600	19600	5700	3940	11700	3660
52527	17B1	8560	3890	7750	11100	11400	17300	13600	21600	6020	3960	12600	3510
52565	17B2	10000	4980	11800	21400	38000	26300	44800	63200	15800	7710	23200	5840
52636	17B1	11200	8710	22000	28700	23500	19700	25400	46400	7940	6570	15300	3590

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Arsenic (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	2.21	0.34	5.21	3.1								
21088	17B1									0.6	0.25	2.5	0.9
21229	17B1					1.19	3.31	4.33	3.81	0.858	0.328	2.86	1.05
21230	17B2	2.43	0.468	6.51	3.45	1.8	4.03	4.73	4.88	1.81 ††	1.55 ††	4.26	2.15 ††
50005	17B2	2.88	0.754	6.22	2.59	1.77	3.68	5.56	4.18	0.852	0.417	1.95	0.757
50020	17B1	19.2 ††	39.2 ††	9.8 ††	20.7 †								
50036	17B1	2.8	0.2	6.8	3.1	1.2	3	4.1	3.8				
50044	17B1			5									
52417	17B1	2.4	0.16	3.9	1.8	0.36	2.4	2.8	2.2				
52508	17B1										2.82 ††	24.4 ††	5.13 ††
52526	17B1	2.7	0.1	5.4	2	1	2.6	3.7	3.1	0.7	0.4	2.1	1
52527	17B1	2.68	0.226	6.43	2.67	0.9	2.6	3.5	3.2	0.674	0.349	2.28	0.941
52565	17B2			3.4		1.1	2.1	2.7	2.3				
52565	17B2									0.954	0.259	3.73	1.2
52636	17B1	1.31 ††	0.001	5.78	2.13								

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Boron (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	4.65	0.05	1.92	5.15	4.57	15.8 †	13.5 †	15.2 ††	6.19	2.51 †	19.4	2.67
21229	17B1					1.73	5.69	5.56	5.12	2.39	0.551	8.06	2.02
21230	17B2	9.09	1.14	5.56	8.91	2.91	15.5 †	12.3 †	14.3 ††	3.31	0.403	16.2	0.133
50005	17B2	9.51	6.42 †	12.5	20.1	4.4	5.96	6	7.12	6.16	3.17 ††	17.6	4.21
50017	17B2	13.2	4.43	9.42	13.6	5.76	17 ††	14 ††	15.8 ††	2.88	1.48	19.5	1.69
50020	17B1	3	0.5	0.5	2.2	1.8	5.8	5.2	5.8	2.01		7.2	
50044	17B1											13	
52491	17B1	28.6 †	12.7 ††	47.9 ††	24.4 †	11 †	18 ††	15 ††	17 ††				
52508	17B1	6.11	1.84		4.24		5.51	1.07 †	5.05			6.61	
52526	17B1	1.78	0.69	0.64	2.71	2	2 †	4	4			9	
52565	17B2	0.9			1.5	13 ††	8.8 †	5.9	4.3				
52565	17B2									0.612	0.179	11.1	0.592
52636	17B1	76.3 ††	36.4 ††	134 ††	108 †	0.98	6.28	5.58	6.03	0.537	0.68	6.5	1.3

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Calcium (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	3360	628 ††	718 ††	1250 †	4070	3840	3400	4440	1050	301	20200	274
21229	17B1	4300	916	1000	1740	4280	3960	3350	4740	953	271	19300	195
21230	17B2	3710	709 ††	798 ††	1370 †	3720	3570	3100	4420	823	215 ††	17100	159
50005	17B2	4070	970	1000	1610	4560	4080	3580	4590	1020	291	18900	216
50017	17B2	4630	926	987	1680	4170	3830	3120	4190	1010	275	21000	203
50020	17B1	3080	858	962	1630	4110	3020	3070	3930	868	236 ††	18700	184
50027	17B2	5350	1000	1080	1500	3510	4250	2780	3670 ††	997	283	18800	236
50036	17B1	2760	1000	1110	1710	4220	3260	3140	4540	1060	270	21400	200
50044	17B1	3500	890	990	1600	3900	3400	3300	4100	930	280	22000	180
52417	17B1	607 ††	476 ††	414 ††	649 †	4650	3760	3910 ††	4530				
52491	17B1	2940	882	996	1630	3580	3570	3040	4020	993	293	17800	206
52508	17B1	3350	920	1000	1620					1090	395 ††	19700	299 ††
52526	17B1	2740	910	1040	1720	4130	3370	3360	4370	910	270	19400	180
52527	17B1	3010	860	960	1630	4080	3280	3120	4200	1090	280	21400	220
52565	17B2	3690	956	1070	1620	4910 ††	3990	4170 ††	5500 ††	1090	302	21800	226
52636	17B1	4200	894	1060	1760	3750	3780	3270	4220	907	232 ††	15600	233

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Cobalt (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	3.2	0.593	2.65	11.8					1.53	0.64	4.14	0.71
21088	17B1									1.2	0.25	4.4	0.6
21229	17B1					7.07 ††	13.8	5.19 ††	6.09	1.3	0.621	3.6	0.855
21230	17B2	5.86	1.2	3.87	15.3	13.6	22.3	9.25	11.3	1.94	1.01	5.09	1.34 ††
50005	17B2	3.52	1.32	3	13.9	12.2	19.4	8.45	10	1.49	0.628	2.93	0.463
50020	17B1	19.2 †	8.14 ††	23.4 ††	29.5 ††	15 ††	23	12 ††	13			3.9	
50036	17B1	4.9	0.8	2.2	16.1	11	20	8	10			5	
50044	17B1	5			19	12	21	7	11			5	
52417	17B1	4.3	0.77	2	15	11	21	7.4	9.4				
52491	17B1					11	17	7.7	9.3				
52508	17B1					4.07 ††	12.8			1.99			
52526	17B1	5.2	0.7	1.6	14.4	12	18.9	7.3	8.9	0.9	0.3	4.1	0.6
52527	17B1	4.48	0.764	2.08	14	11	18	6.98	8.55	0.926	0.342	3.84	0.469
52565	17B2	6	1.4	3.2	15.4	13	19	8.6	9.9	2.21	1.13	5	1.72 ††
52565	17B2									1.72	0.739	4.82	0.848
52636	17B1	6.44	15.1 ††	0.001	0.001 ††	10.7	18.7	7.45	8.61	0.703	0.26	3.06	0.417

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Chromium (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	25.3	22	51.2 ††	38.4					33.8	10	22.6	39.7
21088	17B1									34.9	10	21.6	45.1
21229	17B1	20.6	16.6	34.7	31.6	31.6	17.8	34.6	41.7	38.6	11.4	24.1	48.6
21230	17B2	27.2	19.2	50.1 ††	37.5	42.1 ††	27.6	47.2 ††	55.8	50.6 ††	16 ††	34.1 ††	58.1
50005	17B2	7.72 †	9.98	23.9	20.2	14.3	11.9	14.5 ††	21.9	39	12	14.3 ††	29.1
50020	17B1	18.2	13.6	28.5	23.3	26	16	30	36	34.2	9.8	31 ††	44.5
50036	17B1	18	15	27	21	18	11	27	27	29	9	22	39
50044	17B1	23	18	33	34	25	17	30	44	38	12	27 †	45
52417	17B1	20	17	31	24	22	14	32	31				
52491	17B1					30	19	35	41				
52508	17B1	16.9	22.1	30.5	25.7	22.7	22.4	34.6	49.4	35.1	12.3	26.7 †	53.9
52526	17B1	15.3	14.6	24.7	20.2	21	12.1	26.3	28	29	9	23.1	42.9
52527	17B1	18	13	26	21	23	13	29	32	31	8.86	22.2	44
52565	17B2	22	15	32	31	49 ††	28	52 ††	62	49 †	12.9	33.8 ††	59
52565	17B2									45.5	15.9 ††	32.6 ††	56.8
52636	17B1	25.3	15.9	39.7	33.7					32.5	10.9	22.2	42.1

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Copper (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	2.5	1.56 †	3.74	9.63	13.1	12.4	16.6	20.2	4.18	3.1	9.46	3.63
21229	17B1	5.19	3.38	5.9	13.2	11.4	10.6	14.5	18	3.99	2.75	8.81	3.32
21230	17B2	4.77	3.28	6.1	13.5	13.4	12.2	16.5	20.1	4.55	2.82	10.7	3.83
50005	17B2	5.12	3.57	6.15	11.2	13	12.4	16.1	19.2	4.53	3.5 †	10.9 †	4.1
50017	17B2	3.44	1.52 †	4.47	12.8	12.6	11.6	15.2	18.4	3.24	3.48 †	10.8 †	3.71
50020	17B1	3.6	1.4 ††	3.9	9.3	13	12	16	20	4.4	2.7	9.4	2.7
50027	17B2	4.9	3.7	5.5	11.5	11.5	11.3	13.8	15.9	4	2.6	9	3.3
50036	17B1	5.5	3.4	5.9	11.2	10	10	13	17			10	
50044	17B1	6		6	13	10	10	12	19			9	
52417	17B1	7.7	5.9 ††	7.9	12	11	12	13	16				
52491	17B1	9.14 ††	4.91 †	13.6 ††	13	8.1	7 ††	10	12	3.77	2.49	7.53 †	3.21
52508	17B1	3.26	2.38	4.24	10.1	7.93	7.96 †	10	13.8	8.07 ††	5.23 ††	12.1 ††	5.93 ††
52526	17B1	5.9	2.8	4.8	9.6	10	9.1	13	17	3.5	2.6	8.3	2.6
52527	17B1	5.4	3.29	5.44	12	10	9.06	13	16	3.56	2.55	9.18	2.37
52565	17B2	6.4	3.9	6.7	14	17 ††	14	18	22	3.97	2.9	9.4	3.87
52565	17B2									3.93	2.78	9.43	4.4
52636	17B1	6.44	3.73	6.87	15.1	12.2	12.1	15.5	19.4	3.65	2.89	8.2	2.68

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Iron (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	35600 †	8230 ††	61900 ††	44700 †	20200	22800	26600	34800	13500 ††	8650 ††	26200 ††	10800 ††
21229	17B1	16300	6450	27700	21100	17200	19600	23700	32000	7400	5230	14600	5430
21230	17B2	15500	6970	27200	19800	21500	24900	27500	35500	7460	4620	14300	5810
50005	17B2	13800	6140	27500	19700	15700	20800	23800	31500	7530	5020	14300	5870
50017	17B2	16600	6390	7310 ††	20200	19600	21900	24100	32200	6280	5410	16300	6170
50020	17B1	13000	6560	24500	13500	12500	18200	21200	28500	6040	4260	15600	4860
50036	17B1	14700	6170	29500	14500	9490	15600	19200	22000	7020	4570	12800	5600
50044	17B1	16000	8600 ††	25000	19000	13000	19000	18000	29000	6900	5700	14000	4700 †
52417	17B1	14800	7380	27000	12700	8800	1500 †	18200	19600				
52491	17B1	13900	6370	24800	12300	12700	14900	16700	21100	7440	5300	12700	5680
52508	17B1	12000	5270 †	21200	15600	12700	17800	18800	27800	17 ††	4810	15000	7310 ††
52526	17B1	13700	6470	23800	12500	9800	14400	17700	21000	6070	4410	11000	5000
52527	17B1	16100	5610	26700	14100	12000	17200	20500	25600	7210	4740	14100	5690
52565	17B2	13200	6590	20100	14500	17100	17400	22000	27400	8880 ††	6090	17000	6830 †
52636	17B1	15000	7410	32300	20000	17900	21600	24000	32700	6750	4410	12500	5790

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Potassium (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	2200	0.1 ††	2020	2790	462	2620	4990	8340	527 ††	478 ††	5160	657 ††
21229	17B1	2290	90.1	1850	3780	786	1920	4610	7230	160	126	4420	258
21230	17B2	3670	73.1	3040 ††	3840	811	3360	5710	9190	192	139	5040	308
50005	17B2	1950	111	2220	4140	1030 †	3010	5320	7820	251	181	6350	349
50017	17B2	3910 †	124	214	4340	1180 ††	3260	5380	8260	102	2020 ††	4990	269
50020	17B1	1350	57	702	2200	540	1010	2430	4290	87	67	2650	163
50027	17B2	5410 ††	153 ††	3160 ††	3380	609	2750	4610	6530	227	177	4590	323
50036	17B1	1040	110	720	2010	550	940	2350	3820	120	90	3280	220
50044	17B1	1700	95	990	2600	610	1400	3100	5500	130	100	4200	230
52417	17B1	699	58	340	1190	18 ††	45	118	243				
52491	17B1	1610	111	841	2380	668	2230	4020	6580	220	170	5040	340
52508	17B1	1120	97.6	1130	2610	634	2380	4000	776	189	154		314
52526	17B1	1040	90	710	2300	530	960	2600	4150	120	90	3060	280
52527	17B1	1120	110	850	2280	630	1120	2680	4470	160	120	3400	290
52565	17B2	1940	97	1490	3370	1090 ††	3060	5780	9230	200	120	4740	346
52636	17B1	1880	144	1630	3110	758	1920	3950	7120	138	74.9	3390	205

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Magnesium (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	2430	96.1	1010	2580	3610	2040	3590	5330	243	185	3830	264
21229	17B1	3150	96.6	1040	3520 †	3460	1550	3410	5190	208	164	3580	238
21230	17B2	2980	93.6	1260 †	3060	3740	2240	3650	5200	233	187	3630	250
50005	17B2	2730	110	1120	3000	3370	2030	3280	4500	237	186	4080	255
50017	17B2	3370	112	204 ††	3440 †	3550	1860	3340	4900	102 ††	204	4110	271
50020	17B1	2850	89	681	2670	2990	1140	2730	4270	168	110	2710	191
50027	17B2	3390	121 †	1320 ††	2710	2600	1760	2510	3350	248	214	3560	275
50036	17B1	2510	90	650	2390	2470	960	2510	4010	180	120	3070	190
50044	17B1	2900	96	840	2900	2900	1200	2800	4600	190	140	3900	210
52417	17B1	2980	88	634	2510	2960	1090	2530	4190				
52491	17B1	2900	97.4	715	2500	2930	1600	2890	4180	246	200	3740	279
52508	17B1	2330	110	765	2610					217	189	4030	304
52526	17B1	3040	90	700	2650	2780	1090	2800	4250	190	130	3130	210
52527	17B1	2810	80	640	2470	2670	1040	2700	4120	200	130	3320	230
52565	17B2	2820	100	797	2900	3840	1980	3940	5700	293	246	4650	320
52636	17B1	3100	122 ††	1500 ††	3610 †	3120	1500	3170	4700	206	159	3570	223

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Manganese (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	206	57.1	42.7	580 ††					35.9	14	178	18.6
21229	17B1	243	60.8	46.5	820 †	957	1520	337	415	38.5	13.2	166	18.3
21230	17B2	259	76.7	52.2	752	882	1450	342	382	47.4 ††	20.6	207	32 ††
50005	17B2	228	65	45.9	690	818	1480	313	365	37.1	13.7	188	17.4
50017	17B2	253	68.5	36.4	707	869	1450	333	406	58.4 ††	38.4 ††	185	28 †
50020	17B1	232	69	39	729	999	1520	364	417	34.2	10.1	156	16.2
50027	17B2	261	62.6	51	580 ††	759	1590 †	294	339	45	21	177	39.2 ††
50036	17B1	210	60	40	696	862	1500	321	457	35	10	173	13
50044	17B1	250	88 ††	46	850 ††	890	1500	280	410	39	14	190	17
52417	17B1	243	72	41	775	943	1670 ††	360	440				
52491	17B1	230	70.8	39.6	694	696 ††	1140 ††	270	320	36.1	14.2	155	20.4
52508	17B1	190 †	48 ††	36	644	820	1390 †	292	376	32.1	12.1	153	19.4
52526	17B1	234	68	41	728	796	1260 ††	306	337	35	10.5	169	12.9
52527	17B1	242	58	40	631 †	814	1440	334	390	40	10.6	177	15
52565	17B2	229	65	33	714	844	1230 ††	328	359	39	16.4	195	23.2
52565	17B2									48.6 ††	21.9 †	240 ††	30.2 ††
52636	17B1	230	68.2	48	725	893	1520	374	425	30.7	13	142	15.6

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Sodium (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	94	39.1	79.5	204 †	143	288	183	474	59	52.7	134	41.7
21229	17B1	121	45.6	124	505	125	247	160	509	36.1 ††	95.1 ††	102	29.3
21230	17B2	217 ††	52.7	267 ††	519	182	324	215	519	52.2	45.4	142	31.5
50005	17B2	178 †	61	180	479	261 ††	433 †	257	647 †	41.5	36	117	27.8
50017	17B2	156	33.4	41 †	530	234 ††	338	257	681 ††	57.2	98 ††	173	29.8
50020	17B1	50	50	50	376		167		337				
50036	17B1	100	50	130	490	160	210	110	430			100	
50044	17B1	97		120	430	130	200	120	410			110	
52417	17B1	0.5 ††	1 ††	1 ††	348	1 ††	24 †	1	256				
52491	17B1	89.7	47	117	418	144	259	162	404	57	52	130	34
52508	17B1	94.4	62.2	148	391	169	236	146	386	111 ††	307 ††	209 ††	74.6 ††
52526	17B1	5.24 ††	9.4 †	50	110 ††	140	200	100	390			90	
52527	17B1	100		110	460	130	210	100	360			80	
52565	17B2	125	78	138	505	243 ††	436 †	325	795 ††	55.4	46	130	38.5
52636	17B1	120	58	135	414	122	225	143	421	44.6	48.9	110	27.3

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Lead (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2	6.6	2.09	14.9	11.5					3.22	3.86	10.2	6.24
21088	17B1									3.2	4.3	13	5.8
21229	17B1	7.93	2.52	17.4	13.4	8.16	9.4	14.4	11.6	2.81	4.46	10.7	6.65 †
21230	17B2	6.94	2.74	15.4	13.3	7.62	8.13	12.8	11.8	3.68	4.84	11.8	7.32 ††
50005	17B2	7.49	2.49	17	12.8	8.05	9.64	14.2	12.6	3.53	4.72	8.59	5.13 ††
50020	17B1	12	7.5 ††	26.5 ††	16.1			7.4				11.4	6.1
50036	17B1	6	2.4	16	10	8.1	10	14.2	12.9			10	6
50044	17B1	10		20 ††	19 ††	9 †	11	14	17 ††		5	14	6
52417	17B1	5.9		15	11	5.4 ††	7.4	11	9.8				
52508	17B1			4.79 ††						0.5 ††	3.93	4.98 ††	5.42 †
52526	17B1	9.5	1.9	15.2	12.2	8	8.3	12.4	10.8	2.8	4.2	11.9	6.1
52527	17B1	8.46	2.32	16	12	7.5 †	8.1	12	11	2.81	4.26	10.9	6.08
52565	17B2									2.94	3.81	10.6	5.77
52636	17B1	0.489 ††	0.001 ††	5.96 ††	0.001 ††								

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Sulphur (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	**ASS 1903-2**	**ASS 1903-3**	**ASS 1903-4**	**ASS 1906-1**	**ASS 1906-2**	**ASS 1906-3**	**ASS 1906-4**	**ASS 1909-1**	**ASS 1909-2**	**ASS 1909-3**	**ASS 1909-4**
10156	17B2					781 ††	830 †	773 ††	771 ††	660 ††	673 ††	740 ††	687 ††
21229	17B1	216	61.7	271	111	109	405	93.9	89.8	64.4	216	193	86.4
21230	17B2	180	47 †	238	95.6	89.9	362	83.6	78.6	49.4	172	157 ††	62.7
50005	17B2	199	66.8	257	104	99.7	413	95.2	77.5	63.5	184	193	78.5
50017	17B2	221	67.1	60 ††	121	120	421	109	98.3	70.9	248	212	83.3
50020	17B1	110 ††	15 ††	158 †	53 ††	164 †	389	135	136 †	73	206	214	83
50036	17B1	200	70	300	110	100	410	80	80				
50044	17B1	210	71	270	120	100	440	92	77	53	230	200	100
52417	17B1	1080 ††	867 ††	1020 ††	930 ††	1040 ††	1150 †	962 ††	1100 ††				
52491	17B1	222	80	299	110	112	375	98	86	76.6	247	258 ††	104
52526	17B1	20 ††	7.47 ††	20 ††	20 ††	97	413	83	73	70	220	200	80
52565	17B2	230	66	272	120	154	435	128	132 †	78.6	249	255 ††	97.9
52636	17B1	562 ††	231 ††	854 ††	379 ††	143	570 †	160 ††	146 ††	71.8	236	204	97

Lab. Code #	Method Codes	Soil sample identification and values for 2019: Total Zinc (17B1 + 17B2) mg/kg – Not Certified											
		March 2019 (Round 3)				*June 2019 (Round 6)*				*September 2019 (Round 9)*			
		ASS 1903-1	ASS 1903-2	ASS 1903-3	ASS 1903-4	ASS 1906-1	ASS 1906-2	ASS 1906-3	ASS 1906-4	ASS 1909-1	ASS 1909-2	ASS 1909-3	ASS 1909-4
10156	17B2	38.8 ††	0.1 ††	13.3	20.3	41.4	71.9	48	58.2	7.41 †	12.7 †	41.8	9.94
21229	17B1	52.5	3.19	18.2	27.7	29	65.3	42.7	47.9	3.98	9	27.7	3.95
21230	17B2	50.2	2.61	18.5	28.2	30.6	62.6	41.7	48.9	4.08	8.87	30.4	5.51
50005	17B2	53.4	7.9 ††	18.8	20.7	33.4	70.6	46.1	53.4	5.98	10.1	35.4	7.78
50017	17B2	52.9	3.37	4.35 ††	29.5	32.1	66.7	43.6	52.3	3.85	15.4 ††	32.6	5.94
50020	17B1	46	3	10.7	14	22	54	31	38		6.7	22.7	3.5
50027	17B2	48	3.1	19.4	24.1	30.4	65	40.6	46.3	4.2	8.4	28.7	5.6
50036	17B1	54.9	2.6	15.4	16.3	15	55	29	32		7	25	
50044	17B1	65 ††		16	24	22	64	32	47		10	31	
52417	17B1	47	0.82 ††	11	11	13	52	25	28				
52491	17B1	54.8	2.59	16.6	17.1	29	60	40	47	4.77	9.51	32.6	6.3
52508	17B1	44.1 †	4.54 †	17.7	23	18.5	55.9	31.3	42.6	8.67 ††	10.8	34.3	7.94
52526	17B1	59.4	1.9	12.2	13.1	17	51.6	27.9	36	2.3	6.8	23.5	4.1
52527	17B1	54	2.28	12	14	17	52	30	35	2.58	7.3	25	3.57
52565	17B2	54	2.8	65 ††	25	38	71	50	59	3.02	9.51	35.5	5.42
52565	17B2									3.92	9.62	38.7	6.01
52636	17B1	52	3.85	19.8	28.6	25.5	67.1	46.9	50.6	5.24	8.36	22	3.07

[i] These are ASPAC endorsed tests, where "O" in the code refers to Olsen extractable P, and "C" refers to Colwell extractable P. See the table Notes for more details.

[ii] Unless otherwise indicated, soil method codes are as defined by Rayment, G.E. and Lyons, D.J. (2011). *Soil Chemical Methods - Australasia.* CSIRO Publishing, Collingwood, Victoria, Australia.