Australasian Soil and Plant Analysis Council Inc.

ASPAC Soil Proficiency Testing Program Report

2020

P. Kennelly, G. Lancaster, and R.J. Hill

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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.

Acknowledgements

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Memberships

Membership of ASPAC's LPC 2020

Name[†]	*Location*	*Email*
R.J. Hill (Convenor)	Hamilton, New Zealand	roger.hill@hill-labs.co.nz
L.A. Sparrow	Tasmania, Australia	leigh@birdbrainsdownunder.com.au
P. Kennelly	Victoria, Australia	paul.kennelly@incitecpivot.com.au

Service Provider Details

Name, Street and Postal Address	*Key Personnel & Current Emails.*
Global Proficiency Ltd (GPL)[A].	*Business Manager:* Gordana.Aleksic@global-proficiency.com
Ruakura Research Campus, Hamilton 3214, NZ. PO Box 20474, Hamilton 3241, NZ. P. +64 7 850 4483	*Technical / Operational:* Lana Pears, Programme Leader – Ag. Programmes. Lana.Pears@global-proficiency.com Dr Julie Marsh Jules.Marsh@global-proficiency.com

[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.

Contents

1. Introduction

This not-for-profit, annual ASPAC Soil Proficiency Testing Program Report for 2020 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 2020. 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 72 laboratories submitted results for at least one soil test in 2020, 2 more than in 2019. Names and other summary contact details for the participants are provided in Appendix 1. There were 43 laboratories involved from Australia, a decrease of 1 from 2019 (NSW=10; QLD=9; VIC=9; SA=4; WA=9, TAS=1; ACT=1), 9 from New Zealand, an increase of 2, and 20 from Asia and the south Pacific, an increase of 1, including 4 from Fiji, 2 each from Papua New Guinea, Samoa and Thailand, and 1 each Guam, Guatemala, Indonesia, Japan, Lao Peoples Democratic Republic, Myanmar, New Caledonia, Philippines, United Arab Emirates and Vietnam.

The most reported results (see Table 2.1) across the three "rounds" combined were submitted for method 4A1 (45 average for pH, 1:5 soil-water) followed by method 3A1 (43 average for electrical conductivity, 1:5 soil-water). The median was 18 laboratories for each method. There were no additions this year to the list of certifiable test methods.

The so-called "total" digestible elements have been renamed within the program this year and ongoing to "Aqua Regia" digestible elements to more accurately reflect their methodology and ensure they are not either confused with or pooled with tests more likely to present "true" total composition, such as sodium fusion methods. Participation in these test methods continues to grow.

Table 2.1. Test methods, corresponding method codes and the arithmetic average number of results per round submitted by participating laboratories in the ASPAC 2020 soil ILPP.

Soil Tests - Certified	Method Codes[i]	Number of participants		
		Mar 20	Jun 20	Sep 20
Air Dry Moisture	2A1	30	32	32
Electrical conductivity 1:5 soil-water	3A1	43	42	43
Soil pH, 1:5 soil-water	4A1 + 4A3	46	44	44
Soil pH, 1:5 0.01 M $CaCl_2$	4B1 + 4B3 + 4B2 + 4B4	33	31	33
Water soluble Cl — pooled	5A1 + 5A2 + 5A3	30	28	30
Organic Carbon —W&B	6A1	21	19	17
Total Organic C — Pooled	6B1 + 6B3	16	19	21
Total C — Dumas	6B2	24	24	25
Total Organic Matter (%)	6G1	9	9	12
Total N – Dumas	7A5	30	27	28
Total N – Pooled	7A1 + 7A2 + 7A3	13	14	15
Water Soluble Nitrate N — autocolour	7B1 + 7B2	18	18	17
KCl Extractable Nitrate N — autocolour	7C2	25	21	24
KCl Ext. Ammonium N — autocolour	7C2	32	26	30
Total P – all methods %	Pooled	22	25	25
Colwell Extractable P	9B1 + 9B2	29	25	28
Olsen Extractable P	9C1 + 9C2	24	24	23
Bray-1 Extractable P	9E1 + 9E2	11	11	10
Acid Extractable P	9G1 + 9G2	16	15	18
Phosphorus buffer index (with Colwell P)	9I2a + 9I2b + 9I2c[ii]	18	16	18
Phosphorus buffer index (unadj)	9I4a + 9I4b + 9I4c[ii]	13	12	13
Phosphate Extractable S	10B1 + 10B2 + 10B3	14	14	13
KCl 40 Extractable S	10D1	15	13	12
DTPA Extractable Fe	12A1	28	26	25
DTPA Extractable Cu	12A1	28	26	25
DTPA Extractable Mn	12A1	28	26	25
DTPA Extractable Zn	12A1	27	25	25

Soil Tests - Certified	Method Codes[i]	Number of participants		
		Mar 20	Jun 20	Sep 20
$CaCl_2$ Extractable B — manual colour	12C1 + 12C2	22	19	18
Exchangeable Ca — 1M NH_4Cl extract	15A1	20	19	20
Exchangeable Mg — 1M NH_4Cl extract	15A1	20	19	20
Exchangeable Na — 1M NH_4Cl extract	15A1	20	18	20
Exchangeable K — 1M NH_4Cl extract	15A1	19	18	19
Exchangeable Ca — 1M NH_4OAc extract	15D3	20	20	20
Exchangeable Mg — 1M NH_4OAc extract	15D3	20	20	20
Exchangeable Na — 1M NH_4OAc extract	15D3	20	19	19
Exchangeable K — 1M NH_4OAc extract	15D3	20	19	19
Exchangeable Al — 1M KCl extract	15G1	14	13	13
Bicarbonate Extractable K	18A1	14	13	14
Aluminium	18F1	18	18	18
Boron	18F1	18	18	17
Calcium	18F1	18	17	17
Copper	18F1	19	18	18
Iron	18F1	19	18	18
Magnesium	18F1	18	17	17
Manganese	18F1	19	18	18
Phosphorus – ICP	18F1	19	19	19
Potassium	18F1	18	17	17
Sodium	18F1	17	17	17
Sulphur	18F1	16	16	16
Zinc	18F1	19	18	18

Soil Tests – Not Certified[ii]	Method Codes[i]	Number of participants		
		Mar 20	Jun 20	Sep 20
Aqua Regia Aluminium (mg/kg)	17B1 + 17B2 + 17C1	12	18	20
Aqua Regia Arsenic (mg/kg)	17B1 + 17B2 + 17C1	13	14	15
Aqua Regia Boron (mg/kg)	17B1 + 17B2 + 17C1	11	15	13
Aqua Regia Cadmium (mg/kg)	17B1 + 17B2 + 17C1	14	13	13
Aqua Regia Calcium (mg/kg)	17B1 + 17B2 + 17C1	13	19	20
Aqua Regia Chromium (mg/kg)	17B1 + 17B2 + 17C1	15	19	20
Aqua Regia Cobalt (mg/kg)	17B1 + 17B2 + 17C1	13	17	18
Aqua Regia Copper (mg/kg)	17B1 + 17B2 + 17C1	15	19	19
Aqua Regia Iron (mg/kg)	17B1 + 17B2 + 17C1	12	18	19
Aqua Regia Lead (mg/kg)	17B1 + 17B2 + 17C1	15	17	17
Aqua Regia Magnesium (mg/kg)	17B1 + 17B2 + 17C1	13	19	20
Aqua Regia Manganese (mg/kg)	17B1 + 17B2 + 17C1	13	19	20
Aqua Regia Molybdenum (mg/kg)	17B1 + 17B2 + 17C1	11	12	14

Soil Tests – Not Certified[ii]	Method Codes[i]	Number of participants		
		Mar 20	Jun 20	Sep 20
Aqua Regia Potassium (mg/kg)	17B1 + 17B2 + 17C1	13	19	20
Aqua Regia Selenium (mg/kg)	17B1 + 17B2 + 17C1	11	10	11
Aqua Regia Silicon (mg/kg)	17B1 + 17B2 + 17C1	6	8	11
Aqua Regia Sodium (mg/kg)	17B1 + 17B2 + 17C1	12	17	18
Aqua Regia Sulphur (mg/kg)	17B1 + 17B2 + 17C1	10	15	15
Aqua Regia Zinc (mg/kg)	17B1 + 17B2 + 17C1	15	19	20

[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, 2020. 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 on an air dry (40ºC) or an 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 2020 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	32
Soil pH, soil/water suspension - NEW	4A1 + 4A3	45
Water Soluble Cl – Pooled	5A1 + 5A2 + 5A3	29
Total Carbon – Pooled %	6B1 + 6B3	19

Soil Tests	Method Codes	Average participants
Total Nitrogen – Pooled %	7A1 + 7A2	14
Total P – pooled % oven dry	Pooled	24
Colwell Extractable P – pooled mg/kg air dry	9B1 + 9B2	27
Olsen Extractable P – pooled mg/kg air dry	9C1 + 9C2	24
Bray-1 Extractable P – pooled mg/kg air dry	9E1 + 9E2	11
Acid Extractable P – pooled mg/kg air dry	9G1 + 9G2	16
Phosphorous Buffer Index (Colwell) L/kg dry wt	9I2a + 9I2b + 9I2c	17
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	20
Aqua Regia Metals	17B1 + 17B2 + 17C1	15

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 2020 program were distributed and coded as follows: March 2020 (Round 3) ASS 2003-1 to 2003-4; June 2020 (Round 6) ASS 2006-1 to 2006-4; and September 2020 (Round 9) ASS 2009-1 to 2009-4. 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 2020 soil ILPP

Sample ID	*Round ID*	*Sample Origin*	*Previous Rounds*
ASS 2003-1	**Round 3**	NSW – Australia	ASS1806-3
ASS 2003-2	**20200316**	NSW – Australia	ASS1809-3

[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 2003-3		USA	N/A
ASS 2003-4		South Australia	N/A
ASS 2006-1	**Round 6 20200602**	New Zealand	ASS1803-2
ASS 2006-2		Queensland – Australia	ASS1803-4
ASS 2006-3		USA	N/A
ASS 2006-4		Victoria – Australia	N/A
ASS 2009-1	**Round 9 20200914**	NSW – Australia	N/A
ASS 2009-2		QLD – Australia	ASS1909-2
ASS 2009-3		New Zealand	ASS1906-2
ASS 2009-4		QLD – Australia	ASS1906-1

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

[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.)

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 2020 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 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 <u>four</u> 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 2020. 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.

2020: Air-Dry Moisture Content 2A1 (%)

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	30	30	30	30	32	32	32	32	32	32	32	32
Minimum	1.2	2.19	3.51	1.37	1.02	1.03	1.03	1	0.1	0.69	1.85	2.68
Maximum	3.8	33	8.2	4.4	4.26	6.85	4.56	4.53	1.9	1.6	3.18	4.8
Median i	3.22	4.92	6.97	3.48	3.85	6	4.01	1.5	1.21	0.985	2.8	4.17
Mean i	3.02	5.64	6.74	3.35	3.59	5.52	3.8	1.54	1.21	1.01	2.73	4.16
MAD i	0.245	0.45	0.635	0.32	0.25	0.25	0.24	0.17	0.11	0.107	0.17	0.21
IQR i	0.768	0.898	1.27	0.605	0.523	0.635	0.5	0.33	0.245	0.209	0.268	0.358
Robust CV % i	18	14	14	13	10	8	9	16	15	16	7	6
Median f	3.37	5.01	7.15	3.52	3.93	6.06	4.07	1.49	1.21	0.95	2.8	4.19
Mean f	3.31	4.85	7.04	3.47	3.88	6	4.1	1.45	1.23	0.969	2.76	4.24
MAD f	0.15	0.41	0.56	0.315	0.18	0.24	0.21	0.17	0.095	0.08	0.16	0.19
IQR f	0.288	0.83	1.17	0.543	0.33	0.34	0.33	0.305	0.198	0.165	0.265	0.353
Robust CV % f	6	12	12	11	6	4	6	15	12	13	7	6
Outliers	5	4	4	3	6	12	8	2	10	6	4	5
Stragglers	6	0	1	0	4	0	1	0	0	0	0	1

2020: Electrical conductivity 1:5 soil-water (3A1) dS/m

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	43	43	43	43	42	42	42	42	43	43	43	43
Minimum	0.089	0.149	0.119	0.1	0.104	0.13	0.137	0.073	0.03	0.065	0.011	0.121
Maximum	110	180	220	120	184	226	238	134	0.08	0.19	0.5	0.22
Median i	0.111	0.175	0.214	0.115	0.177	0.224	0.231	0.123	0.041	0.0773	0.218	0.148
Mean i	2.67	4.36	5.33	2.91	4.56	5.6	5.9	3.31	0.0413	0.0796	0.224	0.15
MAD i	0.005	0.008	0.014	0.005	0.0055	0.01	0.0085	0.0045	0.001	0.0037	0.006	0.006
IQR i	0.0115	0.017	0.033	0.0085	0.00975	0.0193	0.015	0.00975	0.003	0.008	0.0105	0.0125
Robust CV % i	8	7	11	5	4	6	5	6	5	8	4	6
Median f	0.111	0.175	0.211	0.115	0.177	0.224	0.231	0.122	0.041	0.0772	0.217	0.148
Mean f	0.111	0.174	0.215	0.114	0.177	0.223	0.232	0.123	0.041	0.0767	0.217	0.148
MAD f	0.005	0.007	0.011	0.004	0.004	0.006	0.007	0.004	0.001	0.0033	0.003	0.0035
IQR f	0.009	0.012	0.0238	0.008	0.007	0.013	0.015	0.009	0.002	0.008	0.007	0.0075
Robust CV % f	6	5	8	5	3	4	5	5	4	8	2	4
Outliers	9	6	8	5	11	14	7	9	17	7	9	11
Stragglers	0	4	1	4	4	3	1	1	0	0	6	4

2020: Soil pH, 1:5 soil-water (4A1 + 4A3)

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	46	46	46	46	44	44	44	44	44	44	44	44
Minimum	6.6	7.38	6	6.5	6.47	7.8	6.1	4.39	5.8	4.95	5.6	6.5
Maximum	8.3	8.32	8.58	7.9	6.8	8.62	6.83	4.8	6.85	5.88	6.63	7.92
Median i	7.2	8.11	8.37	6.94	6.64	8.32	6.44	4.7	6.34	5.5	6.4	7.65
Mean i	7.15	8.05	8.21	6.95	6.62	8.3	6.44	4.67	6.33	5.46	6.36	7.61
MAD i	0.1	0.1	0.085	0.105	0.055	0.08	0.06	0.045	0.085	0.08	0.055	0.09
IQR i	0.225	0.208	0.178	0.195	0.0925	0.158	0.123	0.1	0.153	0.155	0.123	0.15
Robust CV % i	2	2	2	2	1	1	1	2	2	2	1	1
Median f	7.22	8.15	8.39	6.94	6.64	8.32	6.44	4.7	6.39	5.5	6.42	7.68
Mean f	7.22	8.15	8.38	6.93	6.62	8.33	6.44	4.69	6.37	5.49	6.41	7.68
MAD f	0.07	0.06	0.09	0.085	0.055	0.07	0.06	0.04	0.085	0.07	0.045	0.08
IQR f	0.14	0.13	0.155	0.158	0.0925	0.14	0.113	0.0825	0.128	0.12	0.0825	0.16
Robust CV % f	1	1	1	2	1	1	1	1	1	2	1	2
Outliers	11	9	11	6	4	11	12	11	12	13	14	11
Stragglers	4	4	0	2	0	0	0	1	0	1	0	0

2020: pH CaCl2 - Pooled (4B1 + 4B2 + 4B3 +4B4) pH Units

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	33	33	33	33	31	31	31	31	32	33	33	33
Minimum	5.6	6	6.2	5.5	5.62	7.4	5.58	3.64	5.14	4.23	5.15	6.2
Maximum	6.7	7.4	8	6.5	6.53	8.07	6.41	4.53	5.8	5	6.13	7.24
Median i	6.09	7.2	7.74	5.77	6	7.67	6.02	4.03	5.4	4.5	5.8	7.06
Mean i	6.09	7.14	7.64	5.83	6.02	7.67	6.01	4.05	5.41	4.54	5.8	7.02
MAD i	0.06	0.11	0.09	0.07	0.06	0.09	0.08	0.06	0.075	0.06	0.06	0.07
IQR i	0.11	0.21	0.24	0.18	0.115	0.155	0.17	0.115	0.125	0.11	0.09	0.16
Robust CV % i	1	2	2	2	1	1	2	2	2	2	1	2
Median f	6.1	7.21	7.75	5.77	5.99	7.66	6.02	4.01	5.4	4.48	5.8	7.1
Mean f	6.09	7.21	7.74	5.77	5.98	7.66	6.01	4.03	5.38	4.47	5.81	7.08
MAD f	0.025	0.1	0.08	0.05	0.05	0.08	0.08	0.045	0.07	0.035	0.03	0.06
IQR f	0.0425	0.198	0.18	0.08	0.09	0.14	0.17	0.0875	0.105	0.06	0.0625	0.1
Robust CV % f	1	2	2	1	1	1	2	2	1	1	1	1
Outliers	3	4	5	6	6	3	2	4	5	7	5	3
Stragglers	7	0	0	2	2	0	0	3	0	1	3	1

2020: Water Ext Cl - Pooled (5A1 + 5A2 + 5A3) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	30	30	30	30	28	26	29	29	29	30	30	29
Minimum	10	8	8	3.38	2.92	1	11.8	11	3.6	6.7	35.5	5.06
Maximum	55	55.4	61.3	686	114	193	166	82	83	49	167	94
Median i	19.4	23.8	21.5	33	11.8	10	53.2	16.6	10.2	17.8	67.9	10.7
Mean i	22.6	26.4	24.3	68.5	16.1	17.7	56.2	22.3	14.3	19.4	72.5	14.2
MAD i	2.7	3.75	3.35	3.35	2.89	2.5	3.3	4	2.05	3.2	3.85	2
IQR i	5.2	8.65	6.7	9.35	7.11	5.43	6.5	13.3	5.9	6.33	8.78	3.7
Robust CV % i	20	27	23	21	45	40	9	59	43	26	10	26
Median f	18.5	23.6	20.7	32	9.98	9.7	53.2	15.4	10	17.3	66.7	10
Mean f	18.5	23.8	21.6	31.9	10.9	9.68	53.8	17.6	10.6	17.5	67.6	10.3
MAD f	1.5	3	2.55	1.7	2.47	1.5	2.7	2.4	1.7	2.7	1.85	2
IQR f	2.9	5.2	5.73	3.45	5.14	2.41	6.3	9	3.23	4.5	4.7	3.56
Robust CV % f	12	16	21	8	38	18	9	43	24	19	5	26
Outliers	8	7	6	9	6	7	4	5	5	4	6	4
Stragglers	3	0	2	3	0	2	0	2	1	1	2	0

2020: Organic Carbon — W&B (6A1) %

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	21	21	21	21	19	19	19	19	17	17	17	17
Minimum	0.576	0.578	1.73	0.2	2.36	0.43	1.28	2.94	0.367	1.34	2.1	0.823
Maximum	1.62	1.3	3.99	0.92	3.41	1.23	2.01	4.88	0.8	2.37	3.3	1.39
Median i	0.84	0.73	2.09	0.43	2.94	0.661	1.6	3.85	0.48	1.83	2.73	1.17
Mean i	0.885	0.757	2.23	0.452	2.9	0.693	1.63	3.9	0.5	1.82	2.72	1.14
MAD i	0.12	0.085	0.16	0.054	0.12	0.111	0.08	0.26	0.054	0.06	0.1	0.05
IQR i	0.206	0.142	0.35	0.094	0.24	0.199	0.155	0.55	0.114	0.11	0.19	0.11
Robust CV % i	18	14	12	16	6	22	7	11	18	4	5	7
Median f	0.813	0.705	2.07	0.43	2.96	0.656	1.6	3.8	0.48	1.83	2.73	1.2
Mean f	0.825	0.713	2.11	0.441	2.96	0.664	1.63	3.84	0.481	1.84	2.74	1.18
MAD f	0.074	0.075	0.11	0.05	0.09	0.106	0.06	0.245	0.052	0.045	0.07	0.04
IQR f	0.169	0.137	0.225	0.0825	0.17	0.202	0.125	0.523	0.0978	0.095	0.11	0.07
Robust CV % f	15	14	8	14	4	23	6	10	15	4	3	4
Outliers	4	6	5	5	6	4	8	5	2	10	8	8
Stragglers	0	1	2	0	3	0	1	0	0	0	1	1

2020: Total Carbon — Dumas (6B2) %

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	24	24	24	24	24	24	24	24	25	25	25	25
Minimum	0.84	0.7	2.2	0.4	3.2	0.81	1.72	4.04	0.41	1.86	2.87	1.16
Maximum	1.05	0.866	2.76	0.518	3.6	1.12	1.99	5	0.558	2.15	3.25	3.98
Median i	0.921	0.796	2.48	0.453	3.36	0.901	1.88	4.38	0.472	1.99	3.1	1.46
Mean i	0.925	0.789	2.49	0.455	3.36	0.906	1.87	4.38	0.474	2	3.08	1.55
MAD i	0.0225	0.02	0.085	0.022	0.09	0.0305	0.045	0.155	0.022	0.04	0.05	0.06
IQR i	0.0513	0.038	0.158	0.0413	0.153	0.0535	0.09	0.323	0.043	0.08	0.13	0.13
Robust CV % i	4	4	5	7	3	4	4	5	7	3	3	7
Median f	0.919	0.798	2.48	0.453	3.36	0.901	1.88	4.38	0.471	1.99	3.1	1.46
Mean f	0.92	0.794	2.49	0.455	3.36	0.896	1.87	4.35	0.471	1.99	3.09	1.47
MAD f	0.019	0.018	0.085	0.022	0.09	0.029	0.045	0.15	0.02	0.04	0.05	0.06
IQR f	0.032	0.029	0.158	0.0413	0.153	0.0515	0.09	0.32	0.0398	0.08	0.095	0.115
Robust CV % f	3	3	5	7	3	4	4	5	6	3	2	6
Outliers	3	4	0	0	0	1	0	1	1	2	2	2
Stragglers	1	0	0	0	0	0	0	0	0	0	0	0

2020: Total Organic Carbon - Pooled (6B1 + 6B3) %

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	17	17	17	14	19	19	18	19	19	21	21	21
Minimum	0.715	0.61	1.86	0.36	2.9	0.041	1.64	3.89	0.42	1.8	2.73	1.19
Maximum	1.05	0.863	2.66	0.52	4.78	2.24	2.4	5.01	0.59	2.2	3.3	1.68
Median i	0.911	0.78	2.38	0.455	3.3	0.78	1.82	4.28	0.461	1.98	3.05	1.43
Mean i	0.901	0.773	2.36	0.45	3.35	0.821	1.86	4.37	0.472	1.99	3.04	1.39
MAD i	0.059	0.037	0.14	0.0255	0.15	0.063	0.09	0.18	0.026	0.06	0.07	0.07
IQR i	0.098	0.068	0.28	0.0503	0.295	0.0985	0.183	0.4	0.057	0.11	0.13	0.2
Robust CV % i	8	6	9	8	7	9	7	7	9	4	3	10
Median f	0.911	0.79	2.43	0.455	3.28	0.775	1.8	4.27	0.458	1.98	3.05	1.43
Mean f	0.901	0.784	2.39	0.45	3.27	0.77	1.79	4.3	0.465	1.98	3.05	1.38
MAD f	0.059	0.0325	0.14	0.0255	0.13	0.0445	0.09	0.17	0.0205	0.06	0.055	0.07
IQR f	0.098	0.0675	0.253	0.0503	0.248	0.0873	0.158	0.25	0.051	0.103	0.105	0.213
Robust CV % f	8	6	8	8	6	8	6	4	8	4	3	11
Outliers	0	1	1	0	1	2	2	2	1	1	2	1
Stragglers	0	0	0	0	0	1	0	0	0	0	1	0

2020: Total N — Pooled (7A1 + 7A2 + 7A3) %

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	13	13	13	13	14	14	14	14	15	15	15	15
Minimum	0.058	0.0108	0.09	0.004	0.277	0.06	0.17	0.19	0.017	0.139	0.23	0.089
Maximum	0.104	0.091	0.262	0.127	0.41	0.123	0.293	0.331	0.07	0.187	0.367	0.136
Median i	0.0844	0.076	0.206	0.0332	0.325	0.084	0.192	0.22	0.043	0.163	0.321	0.109
Mean i	0.0823	0.0717	0.202	0.0382	0.324	0.0844	0.196	0.226	0.0444	0.163	0.321	0.109
MAD i	0.0074	0.012	0.015	0.0068	0.019	0.008	0.0135	0.0085	0.0046	0.007	0.013	0.009
IQR i	0.0132	0.018	0.027	0.01	0.032	0.0156	0.0255	0.011	0.00965	0.013	0.03	0.0125
Robust CV % i	12	18	10	22	7	14	10	4	17	6	7	9
Median f	0.0844	0.078	0.206	0.0332	0.323	0.083	0.191	0.22	0.043	0.163	0.325	0.109
Mean f	0.0823	0.0767	0.207	0.0332	0.318	0.0814	0.189	0.218	0.043	0.163	0.328	0.109
MAD f	0.0074	0.009	0.014	0.0068	0.019	0.0074	0.012	0.004	0.00385	0.007	0.0125	0.009
IQR f	0.0132	0.0155	0.025	0.01	0.03	0.0144	0.024	0.0075	0.00693	0.013	0.031	0.0125
Robust CV % f	12	15	9	22	7	13	9	3	12	6	7	9
Outliers	0	1	1	3	4	3	3	6	6	5	6	4
Stragglers	0	0	2	0	0	0	0	2	1	0	0	0

2020: Total N – Dumas (7A5) %

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	30	30	30	29	27	27	27	27	28	28	28	28
Minimum	0.0743	0.068	0.198	0.0255	0.274	0.0559	0.157	0.18	0.0282	0.143	0.26	0.085
Maximum	0.12	9.24	8.86	4.09	0.4	0.12	0.204	0.36	0.0651	0.187	0.388	0.147
Median i	0.0886	0.0841	0.222	0.0358	0.33	0.081	0.188	0.225	0.0473	0.169	0.344	0.113
Mean i	0.0903	0.389	0.509	0.179	0.331	0.0826	0.187	0.228	0.0463	0.167	0.336	0.113
MAD i	0.0041	0.00615	0.0095	0.0067	0.009	0.009	0.007	0.012	0.0038	0.0065	0.0125	0.007
IQR i	0.00848	0.0126	0.0185	0.0109	0.0185	0.0128	0.014	0.0215	0.00835	0.0128	0.0273	0.0128
Robust CV % i	7	11	6	23	4	12	6	7	13	6	6	8
Median f	0.0877	0.0831	0.22	0.035	0.33	0.0805	0.19	0.223	0.0475	0.17	0.346	0.112
Mean f	0.0886	0.0837	0.221	0.0364	0.331	0.0812	0.189	0.223	0.0469	0.17	0.341	0.111
MAD f	0.00265	0.0061	0.01	0.005	0.009	0.0095	0.008	0.01	0.0029	0.005	0.007	0.006
IQR f	0.00503	0.012	0.017	0.007	0.018	0.0128	0.013	0.019	0.006	0.011	0.021	0.011
Robust CV % f	4	11	6	15	4	12	5	6	9	5	4	7
Outliers	4	1	2	3	2	1	2	3	3	3	3	3
Stragglers	2	0	0	1	0	0	0	0	2	0	2	0

2020: Water Soluble Nitrate N— Pooled (7B1 +7B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	18	18	18	17	17	19	18	18	19	16	14	19
Minimum	4.13	1	1.7	1.1	0.5	0.4	30	0.2	4.11	0.05	0.05	26
Maximum	13	12	16	10	20	32	88.5	37	33	42	49	75
Median i	6.79	6.56	5.88	2.64	1	8	65.9	5.56	5.14	0.529	0.522	30.8
Mean i	7.29	6.62	6.18	3.22	2.47	9.77	64.7	7.07	6.72	3.29	4.18	32.3
MAD i	1.83	0.435	1.11	0.44	0.35	0.4	2.65	0.785	0.28	0.441	0.181	1.4
IQR i	3.03	0.938	2.43	1	0.65	1.19	4.95	1.54	0.635	1.02	0.896	3.05
Robust CV % i	33	11	31	28	48	11	6	20	9	143	127	7
Median f	6.79	6.58	5.8	2.56	0.931	7.95	65.9	5.6	5.1	0.5	0.513	30.5
Mean f	7.29	6.56	5.54	2.61	0.916	7.8	65.4	5.49	5.16	0.604	0.486	30
MAD f	1.83	0.37	0.7	0.34	0.281	0.2	2.25	0.43	0.12	0.35	0.02	1.45
IQR f	3.03	0.575	1.9	0.65	0.55	0.353	4.65	0.98	0.3	0.786	0.0605	2.9
Robust CV % f	33	6	24	19	44	3	5	13	4	117	9	7
Outliers	1	8	5	3	3	5	2	3	3	2	4	1
Stragglers	0	0	1	2	1	2	0	2	3	0	2	0

2020: KCl Extractable Nitrate N — autocolour (7C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	25	25	25	25	21	21	21	21	24	24	24	24
Minimum	4.76	3.58	4.23	1.64	0.901	6.07	57.7	3.2	4.39	0.067	0.12	24.8
Maximum	12.9	9	13.7	9.97	4.1	9.95	76.4	6.25	11.8	5.81	5.68	32.1
Median i	7.14	6.3	6.28	2.47	1.23	7.5	64	5.68	5.02	0.49	0.513	29
Mean i	7.37	6.33	6.54	2.8	1.36	7.68	65	5.39	5.35	0.787	0.785	29
MAD i	1.29	0.4	0.54	0.37	0.16	0.41	2.3	0.34	0.27	0.207	0.191	1.4
IQR i	2.48	0.7	1.03	0.68	0.28	0.84	5.1	1	0.53	0.512	0.369	2.68
Robust CV % i	26	8	12	20	17	8	6	13	8	77	53	7
Median f	7.04	6.3	6.28	2.38	1.19	7.45	64	5.8	5.02	0.42	0.5	29
Mean f	7.14	6.43	6.33	2.36	1.19	7.5	63.8	5.81	5.07	0.509	0.572	29
MAD f	1.16	0.3	0.46	0.28	0.14	0.33	2.1	0.17	0.27	0.144	0.172	1.4
IQR f	2.2	0.465	0.72	0.543	0.26	0.58	4	0.32	0.505	0.355	0.326	2.68
Robust CV % f	23	5	8	17	16	6	5	4	7	63	48	7
Outliers	1	4	2	3	2	2	2	3	1	2	1	0
Stragglers	0	2	2	0	0	2	0	3	0	1	0	0

2020: KCl Ext. Ammonium N — autocolour (7C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	32	32	32	31	26	26	26	26	29	30	30	30
Minimum	9.8	5.98	7.6	3.12	118	15.6	16.9	20.2	1	25.2	143	6.08
Maximum	18	13.2	22.3	8.35	193	31.7	29.2	32.4	4.82	90.2	237	10.9
Median i	13.3	9.93	11.9	5.26	151	21.7	24.3	28	2.03	64.6	185	7.58
Mean i	13.2	9.76	12.2	5.43	151	21.7	23.8	27.2	2.19	63.6	182	7.69
MAD i	1.25	0.9	1.3	0.54	6.5	2.1	1.75	2.4	0.43	1.65	7	0.515
IQR i	2	1.51	2.25	1.01	12.3	4	3.43	4.75	0.83	3.13	13	1.11
Robust CV % i	11	11	14	14	6	14	10	13	30	4	5	11
Median f	13.2	9.97	11.8	5.25	150	21.7	24.5	28	1.94	64.6	185	7.48
Mean f	13.1	9.96	11.8	5.22	150	21.3	24.3	27.2	1.97	64.8	185	7.5
MAD f	1.2	0.475	1.35	0.37	6	2.1	1.75	2.4	0.365	1	5	0.395
IQR f	1.95	0.883	2.08	0.7	11	3.5	3.6	4.75	0.668	2.3	12	0.763
Robust CV % f	11	7	13	10	5	12	11	13	26	3	5	8
Outliers	1	4	2	5	2	1	2	0	2	6	5	3
Stragglers	0	2	0	1	1	0	0	0	1	3	1	1

2020: Total P - Pooled %

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	22	22	22	22	25	25	25	25	25	25	25	25
Minimum	0.0136	0.0125	0.005	0.0034	0.064	0.0144	0.056	0.0094	0.003	0.017	0.0537	0.013
Maximum	0.0221	0.0243	0.103	0.0075	1	0.172	0.431	0.134	0.0198	0.283	0.1	0.0269
Median i	0.0172	0.018	0.0858	0.00506	0.086	0.0222	0.07	0.013	0.0131	0.0237	0.0794	0.0172
Mean i	0.0176	0.0183	0.0832	0.00529	0.141	0.0287	0.0846	0.0186	0.0137	0.0337	0.0786	0.0181
MAD i	0.00115	0.00115	0.00495	0.00105	0.0096	0.0026	0.0046	0.002	0.0024	0.0023	0.0083	0.0024
IQR i	0.00228	0.00223	0.0102	0.00136	0.018	0.006	0.0086	0.0031	0.0059	0.0041	0.0149	0.005
Robust CV % i	10	9	9	20	16	20	9	18	33	13	14	22
Median f	0.017	0.018	0.0867	0.00506	0.0836	0.0212	0.069	0.0127	0.0137	0.0235	0.0794	0.0171
Mean f	0.0169	0.0178	0.0882	0.00529	0.0836	0.0217	0.069	0.0132	0.0141	0.0233	0.0786	0.0177
MAD f	0.001	0.001	0.0037	0.00105	0.0079	0.0016	0.0052	0.0016	0.00265	0.00215	0.0083	0.0023
IQR f	0.00185	0.00198	0.00835	0.00136	0.0154	0.00358	0.0091	0.0029	0.00593	0.00413	0.0149	0.00425
Robust CV % f	8	8	7	20	14	13	10	17	32	13	14	18
Outliers	4	5	4	1	3	3	3	4	1	1	0	1
Stragglers	1	1	2	0	1	3	0	0	0	0	0	0

2020: Colwell Extractable P — Pooled (9B1 + 9B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	29	29	29	28	25	25	25	25	27	28	28	28
Minimum	14	14	51.3	0.453	32	14.5	36.1	17.4	3.95	19	70.5	12
Maximum	31	31	101	16	54	26	74	42.5	30.8	43.9	130	27.2
Median i	21.3	21.6	65	6.74	45.5	20.5	60.5	27.2	9.9	34.7	94.4	19
Mean i	21.4	22	66.5	6.75	44.7	20.4	59.2	27.9	10.9	34.6	95.2	19.2
MAD i	1.2	1.8	4	1.89	3.8	1.5	5.6	2.8	1.3	3.25	6.6	2.2
IQR i	2.4	3.6	7.2	3.07	6.8	2.7	8.3	6	2.6	5.98	13.4	3.95
Robust CV % i	8	12	8	34	11	10	10	16	19	13	10	15
Median f	21.3	21.5	64	6.74	45.6	20.5	60.5	27.2	9.88	35	94.4	19
Mean f	21.1	21.8	64.2	6.53	45.2	20.5	60.1	27.8	10.1	35.7	94.8	19.1
MAD f	1	1.55	2.6	1.43	3.4	1.2	4.55	2.7	1.15	2.85	6.6	1.8
IQR f	1.68	3.18	4.83	2.25	5.9	2.45	8.45	5.45	2.28	5.63	12.4	3.48
Robust CV % f	6	11	6	25	10	9	10	15	17	12	10	14
Outliers	4	2	3	2	1	2	1	2	3	2	2	1
Stragglers	1	1	2	2	0	0	0	0	0	0	0	1

2020: Olsen Extractable P — Pooled (9C1 + 9C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	24	24	25	24	24	23	24	24	22	24	24	22
Minimum	7.4	3.77	2.56	0.083	8.38	7.2	14.2	9.16	2.3	14.6	29	6.9
Maximum	58	89	382	132	20.9	16	35.7	25	7	27	52	14
Median i	8.9	9.89	25.4	2.44	13.1	9.37	22.6	20.8	3.58	19.5	35.3	9.36
Mean i	12	14.5	41.1	7.88	13	9.67	23.3	20	3.75	19.5	36	9.56
MAD i	0.58	0.81	2.1	0.5	1.55	0.61	1.95	1.25	0.3	1.5	2.9	0.745
IQR i	1.05	1.57	3.7	0.985	2.58	1.01	4.93	2.38	0.543	2.6	5.75	1.47
Robust CV % i	9	12	11	30	15	8	16	8	11	10	12	12
Median f	8.53	9.87	25.4	2.48	13	9.37	22.6	20.9	3.55	19.4	34.8	9.36
Mean f	8.63	9.97	25.5	2.43	12.7	9.38	23.2	20.5	3.59	19.1	35.3	9.47
MAD f	0.57	0.73	1.9	0.38	1.5	0.46	1.6	1.1	0.17	1.4	2.6	0.66
IQR f	1.08	1.33	3.15	0.68	2.15	0.655	3.08	2	0.31	2.4	5.2	1.36
Robust CV % f	9	10	9	20	12	5	10	7	6	9	11	11
Outliers	8	8	8	8	4	8	7	7	9	5	5	6
Stragglers	0	0	0	0	0	1	1	1	2	0	1	1

2020: Bray-1 Extractable P — Pooled (9E1 + 9E2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	11	11	11	10	11	10	11	11	10	10	10	10
Minimum	9.23	7.97	21.8	1.31	8.16	5.29	30.6	9.26	0.338	0.237	43.2	9.9
Maximum	13.6	21	250	2.7	22.1	45.8	53.6	25.2	6.06	27.9	65.5	16.7
Median i	11.7	13.7	35	1.81	12.5	10.4	42	18.9	4.39	16.5	51.8	13.3
Mean i	11.6	14	61	1.82	13.3	14.6	41.3	19.4	4.26	16.8	53	13
MAD i	0.6	0.7	6	0.3	1.8	3.5	7	3.5	1.13	4.25	3.3	1.55
IQR i	1.15	1.5	25.3	0.543	2.9	6.33	12	6.95	2.18	8.68	5.83	3.45
Robust CV % i	7	8	53	22	17	45	21	27	37	39	8	19
Median f	11.9	13.5	31.5	1.81	12.4	10	42	18.9	4.39	16.5	51.8	13.3
Mean f	11.8	13.3	31.1	1.82	12.4	11.1	41.3	19.4	4.26	16.8	53	13
MAD f	0.7	0.7	3.55	0.3	1.75	3.4	7	3.5	1.13	4.25	3.3	1.55
IQR f	1.1	1.1	7.05	0.543	2.85	6.07	12	6.95	2.18	8.68	5.83	3.45
Robust CV % f	7	6	17	22	17	45	21	27	37	39	8	19
Outliers	3	6	3	3	2	1	0	0	0	0	2	1
Stragglers	0	0	1	0	0	0	0	0	0	0	0	0

2020: Acid Extractable P — Pooled (9G1 + 9G2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	16	16	16	16	15	15	15	15	18	18	18	18
Minimum	18	17	389	0.25	82	46.6	198	19.6	5.53	23.9	137	23.1
Maximum	46.5	44.4	570	17	128	69.9	254	39.1	162	276	840	204
Median i	24.5	30.2	484	5.43	100	53.9	231	31.4	12.5	41	166	34.3
Mean i	26.7	30.9	485	7	102	55.2	227	30.5	21.9	52.3	203	43.8
MAD i	4.1	3.55	40	2.9	6	6	8	2.9	1.45	2.8	8	2.05
IQR i	6.6	6.2	73.3	4.93	10.1	10.2	20	7.65	3.7	5.43	15.3	4.15
Robust CV % i	20	15	11	67	7	14	6	18	22	10	7	9
Median f	24.3	30.2	484	5.2	99.4	53.9	232	31.7	12.5	41	165	34.5
Mean f	25.3	31	485	6.34	99.7	55.2	229	31.3	12.5	40.1	165	34.7
MAD f	3.9	2.95	40	2.39	5.05	6	6.5	2.45	1.45	2.45	8	0.5
IQR f	6	5.05	73.3	4.72	9.33	10.2	16.5	6.3	2.58	4.53	15	1
Robust CV % f	18	12	11	67	7	14	5	15	15	8	7	2
Outliers	1	1	0	1	1	0	1	1	4	4	1	4
Stragglers	0	1	0	0	0	0	0	0	0	0	0	4

2020: Phosphorus buffer index - Colwell (9I2a + 9I2b + 9I2c) L/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	18	18	18	18	16	16	16	16	17	18	18	18
Minimum	30.8	51.1	64.1	120	139	99.2	59.7	46	32.7	28.5	70.5	15.5
Maximum	83.7	114	111	159	183	130	88.7	74.6	51.4	94.2	133	84.1
Median i	62.5	93.6	95.1	137	159	114	69.3	52.8	40.1	81.2	98.2	55.7
Mean i	61.1	91.7	92.9	136	161	114	70.3	54.9	40.2	79	98.9	55.5
MAD i	2.35	3.7	4.05	2	7	3.5	3.55	4.1	2.4	2.35	4.2	4.65
IQR i	4.88	8.45	9.8	3.75	12.3	7.25	6.53	6.68	4.2	4.35	8.1	8.18
Robust CV % i	6	7	8	2	6	5	7	9	8	4	6	11
Median f	62.9	93.6	95.1	137	159	113	67.6	52.3	40.1	81.2	97	55.4
Mean f	63.1	93.7	94.9	137	161	113	67.8	52.7	39.7	81.5	97.6	55.1
MAD f	0.95	3.4	3.7	1	7	3	3.05	3.05	1.2	1	3	3.8
IQR f	2.05	5.2	6.45	2	12.3	6	5.63	6.35	2.2	1.35	6	6.5
Robust CV % f	2	4	5	1	6	4	6	9	4	1	5	9
Outliers	4	3	3	5	0	3	2	1	2	4	2	2
Stragglers	2	0	0	2	0	0	0	1	2	3	1	1

2020: Phosphorus buffer index - Unadj (9I4a + 9I4b + 9I4c) L/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	13	13	13	13	12	12	12	12	13	13	13	13
Minimum	43	75	62	120	132	95	48.1	41	33.5	65.6	68.4	40.1
Maximum	78.5	109	97.1	155	155	125	77.6	69.2	43.8	86.8	90.8	59.1
Median i	58.3	89.7	82.6	136	148	109	56.9	48.9	37.3	75.2	79.1	50.4
Mean i	59.4	90.4	81.9	136	147	109	58.9	50.7	37.7	74.9	80.3	51.2
MAD i	3.3	6.2	3.8	2	4	4	3.05	4.8	2.9	2.7	3.4	3.9
IQR i	6.4	12.2	6.5	3	6	7.25	4.85	7.03	5.1	5.2	7.3	8.7
Robust CV % i	8	10	6	2	3	5	6	11	10	5	7	13
Median f	58.3	89.7	82.6	135	148	108	56.1	48.6	37.3	74.7	79.1	50.4
Mean f	59.1	90.4	82.4	135	147	107	55.6	49	37.7	73.9	80.3	51.2
MAD f	3.1	6.2	2.7	1	4	3	2.9	4.4	2.9	2.6	3.4	3.9
IQR f	4.2	12.2	5.65	2	6	5	5.85	6.2	5.1	4.8	7.3	8.7
Robust CV % f	5	10	5	1	3	3	8	9	10	5	7	13
Outliers	2	0	1	5	0	1	2	1	0	1	0	0
Stragglers	0	0	1	0	0	2	0	0	0	0	0	0

2020: Phosphate Extractable S – Pooled (10B1 + 10B2 + 10B3) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	14	14	14	14	14	14	14	14	12	13	13	13
Minimum	0.027	3.9	7.53	14.3	16.2	12.3	5	5	7.26	14.5	59.6	9.23
Maximum	16.3	15.2	30.5	24.2	52.7	19.1	26.3	24.3	10.2	19.1	94.5	13
Median i	15	13.8	24.4	19.7	47.3	15.3	23.6	21.8	8.27	18.1	68.6	10.9
Mean i	12.7	12.4	22.1	19.6	44.7	15.3	21.4	19.7	8.43	17.6	68.9	10.9
MAD i	0.65	0.75	1.3	1.3	2.35	0.3	1.5	0.95	0.41	0.6	3.4	0.6
IQR i	2.53	1.95	4.13	2.28	7.05	0.6	4.03	2.1	0.783	1.4	5.3	1.1
Robust CV % i	12	10	13	9	11	3	13	7	7	6	6	7
Median f	15.3	14.1	24.6	19.7	47.4	15.3	24.3	22.2	8.26	18.2	67.3	10.9
Mean f	15.4	14.2	24.7	19.7	47.6	15.3	23.8	22.2	8.27	17.9	66.8	10.9
MAD f	0.35	0.3	0.35	0.65	2.1	0.1	0.8	0.7	0.38	0.65	2.65	0.6
IQR f	0.725	0.6	0.55	1.23	2.68	0.2	2	1.4	0.75	1.08	5.65	1.1
Robust CV % f	4	3	2	5	4	1	6	5	7	4	6	7
Outliers	4	3	4	1	1	4	2	3	1	1	1	0
Stragglers	0	2	2	3	1	1	1	0	0	0	0	0

2020: KCl_{40} Extractable S (10D1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	15	15	15	15	13	13	13	13	12	12	12	12
Minimum	9.4	9.32	14.9	9.28	34.9	12.1	16.9	8.4	6.3	7.24	55.1	8.37
Maximum	16.6	18.6	30.1	14.3	46.6	37.4	29.8	25.6	11.3	14	65	13
Median i	11.1	11.9	23.2	11.5	39.7	13.3	19.6	21.1	6.97	12.8	60.3	9.5
Mean i	12	12.1	22.8	11.7	39.8	15.2	20.2	20.1	7.51	12.1	59.9	9.76
MAD i	0.9	1.7	2.6	1.1	3.8	0.8	2	1.7	0.285	0.6	2.75	0.325
IQR i	1.95	2.85	4.5	1.95	7.1	1.5	3.5	3.9	0.683	1.38	6.18	0.708
Robust CV % i	13	18	14	13	13	8	13	14	7	8	8	6
Median f	11.1	11.6	23.2	11.5	39.7	13.3	19.4	21.3	6.9	12.9	60.3	9.35
Mean f	11.4	11.7	22.8	11.7	39.8	13.4	19.4	21.1	6.84	12.7	59.9	9.16
MAD f	0.9	1.4	2.6	1.1	3.8	0.75	1.75	1.55	0.2	0.4	2.75	0.26
IQR f	1.5	2.4	4.5	1.95	7.1	1.53	3.33	3.45	0.27	0.65	6.18	0.965
Robust CV % f	10	15	14	13	13	8	13	12	3	4	8	8
Outliers	2	1	0	0	0	1	1	1	4	2	0	3
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2020: DTPA Extractable Fe (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	28	28	28	28	26	26	26	26	25	25	25	25
Minimum	19.7	8.98	11.1	26.9	14.5	5.11	21.4	105	43.5	357	55.5	7.08
Maximum	36.9	19.7	23.5	60.7	163	14	117	509	102	647	294	14.6
Median i	29	11.4	14.9	46.4	63.6	10.4	82.6	367	56.5	432	125	9.62
Mean i	29.1	11.8	15.6	45.3	67.6	10.2	82.6	363	58.8	448	129	10.1
MAD i	2.2	1.2	1.4	5.1	8.7	1.23	4.3	22.5	4	19	8	0.78
IQR i	4.23	2.28	2.6	8.93	17.7	2.27	8.65	42.8	5.4	40	12	1.57
Robust CV % i	11	15	13	14	21	16	8	9	7	7	7	12
Median f	29	11.3	14.7	47.1	61.7	10.5	82	367	56	431	125	9.55
Mean f	29.1	11.4	14.8	47.3	62.9	10.6	82.3	373	56.3	427	123	9.62
MAD f	2.05	0.9	1.3	3.9	5.4	1.05	2.75	16	3.6	13.5	7	0.555
IQR f	4.03	2.03	2.5	7.7	10.2	1.78	5.33	29	5.95	25.5	11	0.92
Robust CV % f	10	13	13	12	12	13	5	6	8	4	7	7
Outliers	3	1	4	2	4	4	6	4	4	9	7	4
Stragglers	0	1	0	1	2	0	4	2	0	2	2	2

2020: DTPA Extractable Cu (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	28	28	28	26	26	26	26	25	24	25	25	25
Minimum	1.42	1.69	2.24	0.0261	0.474	1.46	1.72	0.047	0.149	0.471	0.675	0.802
Maximum	2.62	2.25	3.77	0.381	2.15	2.34	3.6	0.82	0.363	0.793	1.28	1.41
Median i	2.08	1.97	3.32	0.0985	1.64	2	2.87	0.4	0.211	0.639	0.815	1
Mean i	2.1	1.95	3.3	0.115	1.58	1.98	2.82	0.423	0.218	0.636	0.84	1.03
MAD i	0.085	0.1	0.235	0.0327	0.11	0.09	0.255	0.044	0.023	0.041	0.038	0.06
IQR i	0.163	0.193	0.45	0.0507	0.185	0.175	0.408	0.084	0.039	0.063	0.054	0.11
Robust CV % i	6	7	10	38	8	6	11	16	14	7	5	8
Median f	2.08	1.97	3.33	0.0981	1.65	2.01	2.88	0.4	0.202	0.639	0.792	1
Mean f	2.08	1.95	3.34	0.104	1.63	2.02	2.86	0.414	0.204	0.636	0.796	0.999
MAD f	0.06	0.1	0.23	0.0274	0.09	0.08	0.26	0.032	0.018	0.04	0.0375	0.05
IQR f	0.14	0.193	0.435	0.0493	0.155	0.158	0.41	0.069	0.033	0.0615	0.0573	0.11
Robust CV % f	5	7	10	37	7	6	11	13	12	7	5	8
Outliers	6	1	2	2	3	5	3	4	3	5	9	4
Stragglers	1	0	0	1	2	1	0	1	2	0	0	3

2020: DTPA Extractable Mn (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	28	28	28	27	26	26	26	26	25	25	25	25
Minimum	8.38	28.4	52.7	1.32	150	33.2	50.1	26	20.3	4.39	122	49.3
Maximum	208	87.2	130	4.19	462	72.4	88	70.3	35.4	8.67	219	86.1
Median i	166	60.8	104	1.9	366	48.7	72.6	50.4	24.6	5.31	198	58.5
Mean i	163	60.6	103	2.02	363	49.2	72.2	50.1	24.6	5.38	196	58.9
MAD i	10.5	3.65	8.5	0.19	14	3.65	3.8	2.8	1.2	0.19	9	2.9
IQR i	21.8	6.55	16	0.37	29.5	6.85	6.28	5.2	2	0.4	22	5.2
Robust CV % i	10	8	11	14	6	10	6	8	6	6	8	7
Median f	167	60.8	104	1.88	366	48.7	72.6	50.4	24.6	5.39	199	58.4
Mean f	169	61.3	105	1.87	364	48.9	72.5	50.6	24.1	5.34	199	57.7
MAD f	10	3.05	6.3	0.17	10	3.4	3.4	2.6	1.1	0.17	10	2.8
IQR f	18	6.03	14.8	0.25	21	6.15	6.03	4.75	1.73	0.26	20	5.05
Robust CV % f	8	7	11	10	4	9	6	7	5	4	7	6
Outliers	5	4	3	5	8	5	5	5	6	4	3	4
Stragglers	0	1	1	0	2	0	1	1	0	1	0	0

2020: DTPA Extractable Zn (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	27	27	27	27	25	25	25	25	25	25	25	25
Minimum	0.284	0.182	0.597	0.0176	5.76	0.258	1.66	0.694	0.435	1.57	3.13	0.239
Maximum	1.3	0.9	1.62	1	11	1.63	3.45	11.3	1.25	2.85	4.11	0.95
Median i	0.79	0.405	1.1	0.197	9.23	0.33	2.1	3.59	0.72	2.5	3.82	0.452
Mean i	0.782	0.434	1.13	0.229	9.13	0.433	2.21	3.84	0.736	2.47	3.77	0.472
MAD i	0.058	0.052	0.1	0.044	0.37	0.039	0.14	0.22	0.073	0.1	0.16	0.033
IQR i	0.103	0.11	0.245	0.0815	0.71	0.082	0.23	0.44	0.145	0.2	0.31	0.078
Robust CV % i	10	20	17	31	6	18	8	9	15	6	6	13
Median f	0.795	0.403	1.1	0.181	9.23	0.323	2.09	3.59	0.72	2.52	3.82	0.452
Mean f	0.79	0.411	1.12	0.186	9.23	0.331	2.11	3.66	0.726	2.51	3.82	0.46
MAD f	0.0415	0.0425	0.085	0.028	0.25	0.036	0.13	0.21	0.072	0.09	0.13	0.03
IQR f	0.0815	0.0938	0.175	0.052	0.5	0.0698	0.24	0.415	0.132	0.178	0.2	0.069
Robust CV % f	8	17	12	21	4	16	9	9	14	5	4	11
Outliers	3	6	4	6	8	5	5	5	2	4	3	8
Stragglers	5	0	2	1	1	0	0	0	0	0	1	0

2020: CaCl2 Extractable B (12C1 + 12C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	22	22	22	22	19	19	18	18	17	18	19	19
Minimum	0.04	0.05	0.06	0.11	0.752	0.255	0.52	0.304	0.11	0.097	0.587	0.5
Maximum	2.83	2.77	3.89	3.75	1.6	1.29	1.01	1.41	0.327	0.403	1.16	1.21
Median i	1.34	1.91	2	2.11	0.94	0.83	0.835	0.69	0.153	0.297	0.827	0.791
Mean i	1.34	1.83	1.93	2.02	0.995	0.821	0.813	0.709	0.17	0.282	0.858	0.838
MAD i	0.13	0.2	0.21	0.285	0.129	0.12	0.0995	0.156	0.019	0.0425	0.049	0.105
IQR i	0.238	0.345	0.458	0.565	0.235	0.164	0.188	0.251	0.044	0.079	0.139	0.202
Robust CV % i	13	13	17	20	19	15	17	27	21	20	12	19
Median f	1.33	1.97	2.02	2.12	0.937	0.848	0.835	0.633	0.148	0.3	0.813	0.771
Mean f	1.32	2	2.03	2.11	0.961	0.862	0.813	0.631	0.15	0.301	0.813	0.796
MAD f	0.08	0.14	0.155	0.11	0.115	0.0585	0.0995	0.123	0.0125	0.0375	0.0285	0.099
IQR f	0.16	0.27	0.278	0.18	0.212	0.143	0.188	0.248	0.021	0.0623	0.0588	0.171
Robust CV % f	9	10	10	6	17	13	17	29	11	15	5	16
Outliers	2	4	4	2	2	3	1	3	4	3	7	4
Stragglers	3	1	0	2	0	3	0	0	0	1	2	0

2020: Exchangeable Ca — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	20	20	20	20	19	19	19	19	20	20	20	20
Minimum	5.28	10.9	16.7	4.05	3.24	7.07	4.3	1.07	1.64	0.61	9.31	14
Maximum	7.9	16.3	29.4	10.5	12.4	36.4	19.2	3.85	2.31	1.07	13.8	20.8
Median i	7.47	15.2	21.6	9.56	9.75	29.4	15	2.98	2.12	0.955	11.5	17.6
Mean i	7.25	14.9	21.5	9.14	9.63	28.5	14.6	2.91	2.1	0.929	11.5	17.6
MAD i	0.23	0.65	1.85	0.495	0.45	2.1	0.7	0.22	0.09	0.061	0.5	0.6
IQR i	0.628	1.18	3.5	0.845	0.805	3.8	1.35	0.425	0.145	0.123	0.95	1.15
Robust CV % i	6	6	12	7	6	10	7	11	5	10	6	5
Median f	7.49	15.3	21.6	9.63	9.75	29.8	15	2.98	2.12	0.962	11.4	17.6
Mean f	7.4	15.2	21.1	9.55	9.84	29.7	14.9	2.97	2.12	0.963	11.4	17.6
MAD f	0.205	0.5	1.8	0.4	0.41	1.85	0.6	0.2	0.09	0.062	0.3	0.45
IQR f	0.553	0.925	3.3	0.693	0.71	3.53	1.3	0.4	0.125	0.123	0.65	0.85
Robust CV % f	5	4	11	5	5	9	6	10	4	9	4	4
Outliers	5	3	3	4	4	3	4	3	3	4	4	5
Stragglers	0	2	0	0	0	0	0	0	0	0	2	2

2020: Exchangeable K — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	19	19	19	19	18	18	18	18	19	19	19	19
Minimum	0.98	1.14	0.69	0.148	1.24	1.17	0.513	0.123	0.1	0.08	0.58	0.47
Maximum	1.27	1.52	1.39	1.5	1.67	1.41	1.02	0.486	0.2	0.2	0.88	0.6
Median i	1.1	1.25	0.837	1.3	1.46	1.3	0.604	0.26	0.147	0.14	0.715	0.505
Mean i	1.11	1.27	0.861	1.26	1.48	1.3	0.636	0.269	0.15	0.138	0.723	0.521
MAD i	0.03	0.05	0.043	0.04	0.08	0.07	0.0205	0.02	0.008	0.011	0.023	0.015
IQR i	0.06	0.08	0.087	0.115	0.175	0.133	0.0355	0.0428	0.024	0.021	0.035	0.035
Robust CV % i	4	5	8	7	9	8	4	12	12	11	4	5
Median f	1.1	1.25	0.837	1.3	1.46	1.3	0.601	0.252	0.144	0.14	0.714	0.502
Mean f	1.11	1.25	0.84	1.33	1.48	1.3	0.605	0.253	0.145	0.138	0.716	0.502
MAD f	0.03	0.04	0.037	0.04	0.08	0.07	0.0075	0.0155	0.0045	0.01	0.006	0.002
IQR f	0.05	0.0725	0.08	0.095	0.175	0.133	0.0135	0.0273	0.00925	0.018	0.0123	0.004
Robust CV % f	3	4	7	5	9	8	2	8	5	10	1	1
Outliers	3	2	2	4	1	2	8	6	7	5	7	6
Stragglers	0	0	1	0	0	0	2	0	2	1	2	4

2020: Exchangeable Mg — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	20	20	20	20	19	19	19	19	20	20	20	20
Minimum	6.42	10.4	4.12	2.48	0.75	5.17	2.81	0.78	1.4	0.528	1.4	7.2
Maximum	8.7	12.8	31	5.99	1.22	9.75	5.28	1.44	1.73	0.72	2	10.9
Median i	6.95	11.6	27.4	5.38	1.1	8.4	4.68	1.27	1.52	0.63	1.54	8.5
Mean i	7.07	11.6	26.1	5.29	1.1	8.3	4.58	1.23	1.52	0.63	1.57	8.65
MAD i	0.145	0.4	1.55	0.175	0.04	0.37	0.2	0.06	0.055	0.0295	0.045	0.195
IQR i	0.283	0.65	2.78	0.308	0.07	0.685	0.365	0.115	0.095	0.0613	0.095	0.405
Robust CV % i	3	4	8	4	5	6	6	7	5	7	5	4
Median f	6.91	11.6	27.5	5.38	1.11	8.4	4.71	1.27	1.52	0.63	1.54	8.49
Mean f	6.9	11.6	27.6	5.41	1.12	8.4	4.67	1.27	1.51	0.63	1.53	8.49
MAD f	0.095	0.4	1.3	0.125	0.035	0.32	0.195	0.05	0.04	0.0295	0.04	0.055
IQR f	0.183	0.65	2.15	0.248	0.065	0.67	0.355	0.11	0.09	0.0613	0.065	0.085
Robust CV % f	2	4	6	3	4	6	6	6	4	7	3	1
Outliers	6	3	4	4	3	4	3	4	3	2	5	7
Stragglers	3	0	1	3	0	0	0	0	1	0	0	3

2020: Exchangeable Na — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	20	20	20	20	19	19	16	17	20	19	20	20
Minimum	1.21	1.86	0.357	0.049	0.077	0.754	0.02	0.027	0.134	0.038	0.3	0.2
Maximum	1.73	2.67	1	1.96	0.329	1.33	0.23	0.266	0.26	0.2	0.45	0.611
Median i	1.5	2.23	0.892	1.75	0.112	1.17	0.044	0.081	0.193	0.098	0.398	0.407
Mean i	1.49	2.24	0.859	1.58	0.123	1.14	0.0653	0.09	0.194	0.101	0.393	0.405
MAD i	0.07	0.135	0.0515	0.09	0.012	0.05	0.0085	0.01	0.014	0.008	0.0225	0.026
IQR i	0.153	0.21	0.0888	0.185	0.02	0.1	0.0254	0.0176	0.027	0.0162	0.0443	0.0455
Robust CV % i	8	7	7	8	13	6	43	16	10	12	8	8
Median f	1.51	2.23	0.9	1.79	0.105	1.18	0.043	0.0786	0.19	0.098	0.4	0.411
Mean f	1.53	2.24	0.91	1.79	0.107	1.16	0.0415	0.0769	0.191	0.0991	0.398	0.411
MAD f	0.065	0.135	0.033	0.055	0.0075	0.05	0.002	0.0084	0.013	0.005	0.021	0.019
IQR f	0.138	0.21	0.087	0.113	0.0165	0.095	0.0047	0.0136	0.023	0.007	0.0415	0.03
Robust CV % f	7	7	7	5	12	6	8	13	9	5	8	5
Outliers	4	1	4	4	4	3	5	5	5	7	2	4
Stragglers	0	0	1	1	2	0	5	1	0	1	0	1

2020: Exchangeable Ca — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	20	20	20	20	20	20	20	20	20	20	20	20
Minimum	6.81	12.8	17.2	7.46	7.96	23.2	13.5	2.29	1.94	0.87	10.3	14.9
Maximum	9.39	19.3	36.3	12.5	36.1	36.9	17.1	3.34	2.36	1.09	12.6	19
Median i	7.2	15.1	21.4	9.32	10.1	28.7	15.3	2.78	2.15	0.985	11.5	17.4
Mean i	7.35	15.2	22	9.46	11.3	29	15.3	2.78	2.14	0.982	11.5	17.2
MAD i	0.085	0.3	1.1	0.29	0.41	0.95	0.65	0.2	0.09	0.0405	0.35	0.6
IQR i	0.195	0.6	2.03	0.5	0.753	1.8	1.23	0.353	0.178	0.088	0.75	1.15
Robust CV % i	2	3	7	4	6	5	6	9	6	7	5	5
Median f	7.16	15.1	21.4	9.32	10.1	28.7	15.3	2.78	2.15	0.985	11.5	17.5
Mean f	7.18	15.1	21.4	9.35	10.1	28.6	15.3	2.78	2.14	0.982	11.5	17.4
MAD f	0.085	0.3	0.85	0.15	0.355	0.4	0.65	0.2	0.09	0.0405	0.35	0.6
IQR f	0.138	0.5	1.35	0.378	0.668	0.75	1.23	0.353	0.178	0.088	0.75	1.15
Robust CV % f	1	2	5	3	5	2	6	9	6	7	5	5
Outliers	7	6	5	7	5	7	2	3	1	1	2	3
Stragglers	0	0	2	2	0	4	0	0	0	0	0	0

2020: Exchangeable K — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	20	20	20	20	19	19	19	19	19	19	19	19
Minimum	1.01	1.1	0.7	0.99	1.25	0.96	0.374	0.18	0.122	0.11	0.63	0.44
Maximum	1.22	1.49	1.01	1.43	1.6	1.35	0.673	0.286	0.3	0.163	0.77	0.611
Median i	1.09	1.24	0.77	1.29	1.46	1.23	0.583	0.247	0.141	0.132	0.699	0.5
Mean i	1.08	1.23	0.787	1.27	1.45	1.22	0.575	0.243	0.151	0.132	0.699	0.503
MAD i	0.035	0.04	0.037	0.06	0.04	0.04	0.022	0.018	0.007	0.006	0.014	0.024
IQR i	0.0825	0.0825	0.075	0.123	0.07	0.085	0.045	0.029	0.014	0.01	0.026	0.042
Robust CV % i	6	5	7	7	4	5	6	9	7	6	3	6
Median f	1.08	1.24	0.757	1.3	1.46	1.23	0.583	0.249	0.141	0.133	0.699	0.498
Mean f	1.08	1.21	0.776	1.29	1.45	1.23	0.588	0.246	0.142	0.132	0.698	0.497
MAD f	0.04	0.04	0.038	0.05	0.03	0.04	0.019	0.0155	0.006	0.0045	0.0055	0.0225
IQR f	0.07	0.085	0.069	0.095	0.06	0.07	0.0373	0.03	0.0105	0.00775	0.0103	0.039
Robust CV % f	5	5	7	5	3	4	5	9	6	4	1	6
Outliers	2	3	3	3	4	3	6	4	4	6	9	6
Stragglers	0	0	0	2	1	0	0	0	0	2	4	0

2020: Exchangeable Mg — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	20	20	20	20	20	20	20	20	20	20	20	20
Minimum	6.29	10.5	1.59	3.81	1	7.6	4	0.91	1.33	0.55	1.32	7.73
Maximum	9.8	16	35.8	7.58	1.72	11.8	5.35	1.58	1.95	0.82	2.43	10.6
Median i	6.72	11.2	26.7	5.26	1.1	8.26	4.69	1.24	1.52	0.656	1.57	8.47
Mean i	6.87	11.6	25.5	5.35	1.16	8.53	4.65	1.23	1.55	0.664	1.62	8.64
MAD i	0.205	0.25	1.3	0.155	0.045	0.34	0.11	0.07	0.055	0.044	0.075	0.485
IQR i	0.428	0.425	2.73	0.335	0.105	0.77	0.225	0.113	0.103	0.079	0.143	0.8
Robust CV % i	5	3	8	5	7	7	4	7	5	9	7	7
Median f	6.71	11.1	26.7	5.24	1.09	8.19	4.69	1.24	1.51	0.644	1.56	8.43
Mean f	6.72	11.1	26.2	5.28	1.09	8.27	4.64	1.24	1.52	0.648	1.57	8.53
MAD f	0.2	0.1	1.15	0.13	0.03	0.26	0.07	0.02	0.02	0.0395	0.06	0.45
IQR f	0.37	0.25	2.15	0.25	0.06	0.46	0.143	0.04	0.085	0.0668	0.13	0.805
Robust CV % f	4	2	6	4	4	4	2	2	4	8	6	7
Outliers	2	4	7	3	5	4	7	5	6	4	5	3
Stragglers	0	3	1	1	2	0	1	5	2	1	1	0

2020: Exchangeable Na — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	20	20	20	20	19	19	18	18	19	19	19	19
Minimum	0.99	1.5	0.57	0.87	0.071	0.902	0.016	0.044	0.141	0.0699	0.316	0.297
Maximum	1.55	2.37	1.08	1.84	0.179	1.31	0.186	0.144	0.314	0.347	0.461	0.503
Median i	1.46	2.21	0.84	1.7	0.11	1.1	0.0464	0.0812	0.18	0.0967	0.373	0.381
Mean i	1.41	2.11	0.837	1.61	0.113	1.1	0.0646	0.0819	0.191	0.111	0.372	0.38
MAD i	0.055	0.11	0.045	0.06	0.01	0.04	0.0123	0.0112	0.012	0.0053	0.017	0.025
IQR i	0.123	0.265	0.0818	0.133	0.0177	0.055	0.033	0.0225	0.0255	0.0124	0.028	0.0415
Robust CV % i	6	9	7	6	12	4	53	21	11	10	6	8
Median f	1.5	2.22	0.847	1.72	0.11	1.1	0.041	0.0803	0.178	0.0963	0.373	0.381
Mean f	1.47	2.18	0.847	1.71	0.106	1.08	0.0421	0.0783	0.178	0.0978	0.37	0.373
MAD f	0.035	0.1	0.037	0.05	0.007	0.01	0.0057	0.0103	0.006	0.0044	0.016	0.0245
IQR f	0.07	0.17	0.07	0.11	0.0167	0.025	0.0136	0.02	0.0105	0.008	0.025	0.04
Robust CV % f	3	6	6	5	11	2	25	18	4	6	5	8
Outliers	4	3	3	5	4	3	5	2	2	5	2	2
Stragglers	1	1	1	0	1	6	1	0	3	0	1	0

2020: Exchangeable Al — 1M KCl (15G1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	14	14	14	14	12	12	12	14	12	15	12	12
Minimum	0.005	0.002	0.001	0.003	0.001	0.001	0.001	0.069	0.0031	0.261	0.001	0.001
Maximum	3	0.511	0.378	0.6	0.0925	0.041	0.0424	0.436	0.057	0.463	0.077	0.0437
Median i	0.0145	0.0085	0.0115	0.0157	0.0105	0.0057	0.0091	0.332	0.0178	0.375	0.00787	0.00591
Mean i	0.268	0.0502	0.0378	0.0642	0.022	0.0104	0.0147	0.313	0.0227	0.378	0.0232	0.0106
MAD i	0.00925	0.0065	0.00645	0.01	0.00595	0.00435	0.00557	0.0625	0.0112	0.042	0.00387	0.00441
IQR i	0.0265	0.0127	0.0118	0.023	0.0183	0.00825	0.0207	0.111	0.0284	0.0865	0.0278	0.00888
Robust CV % i	136	111	76	109	130	107	168	25	118	17	262	111
Median f	0.00698	0.00796	0.011	0.0152	0.0071	0.0045	0.00467	0.348	0.0178	0.375	0.00629	0.0054
Mean f	0.0108	0.00864	0.0116	0.0145	0.00718	0.00481	0.00596	0.346	0.0227	0.378	0.00591	0.00543
MAD f	0.00198	0.00296	0.006	0.0082	0.0038	0.00318	0.0026	0.044	0.0112	0.042	0.002	0.0029
IQR f	0.00915	0.0074	0.0112	0.0121	0.0069	0.00586	0.00486	0.0855	0.0284	0.0865	0.0028	0.00451
Robust CV % f	97	69	75	59	72	97	77	18	118	17	33	62
Outliers	2	3	1	3	3	2	2	1	0	0	4	2
Stragglers	2	0	0	0	0	0	2	1	0	0	0	0

2020: Extractable Al – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	18	18	18	18	18	18	18	18	18	18	18	18
Minimum	432	553	349	618	527	387	458	260	357	181	463	290
Maximum	632	862	588	876	1040	800	934	466	584	717	933	558
Median i	604	817	535	840	934	684	788	404	515	635	891	530
Mean i	580	796	522	808	907	676	774	397	500	584	856	515
MAD i	22	37.5	33.5	16	38	20	21	25	13.5	34	19.5	18
IQR i	55	77.3	59	64	86.8	39	52.5	46.3	35	63	55	36
Robust CV % i	7	7	8	6	7	4	5	8	5	7	5	5
Median f	611	841	539	850	937	684	788	415	517	636	894	530
Mean f	608	826	540	850	929	684	784	411	512	631	893	528
MAD f	8	21	26.5	6.5	38	13	15	16.5	10	28	16	17
IQR f	14	43.5	48.3	15.5	67	21	28.3	30.8	19	50	28	32
Robust CV % f	2	4	7	1	5	2	3	5	3	6	2	4
Outliers	2	2	1	5	1	3	4	1	4	2	3	1
Stragglers	3	1	1	1	0	2	0	1	0	0	0	0

2020: Extractable B – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	18	18	18	18	18	18	18	17	16	16	17	17
Minimum	0.7	1.5	1.88	0.41	0.386	0.897	0.29	0.153	0.01	0.01	0.3	0.5
Maximum	1.21	2.48	3.43	1.9	1.15	1.74	0.969	1.18	0.447	0.648	0.831	1.25
Median i	1	2.02	3.03	1.65	0.67	1.17	0.676	0.256	0.138	0.159	0.593	0.887
Mean i	0.979	2.02	2.93	1.57	0.675	1.2	0.682	0.362	0.146	0.184	0.603	0.892
MAD i	0.07	0.1	0.23	0.135	0.075	0.11	0.074	0.056	0.051	0.064	0.085	0.064
IQR i	0.15	0.173	0.435	0.255	0.137	0.198	0.149	0.109	0.0978	0.114	0.148	0.111
Robust CV % i	11	6	11	11	15	13	16	32	53	53	19	9
Median f	1	2.02	3.1	1.68	0.67	1.16	0.671	0.242	0.115	0.155	0.593	0.887
Mean f	0.995	2.05	3.09	1.67	0.663	1.17	0.672	0.234	0.126	0.153	0.603	0.884
MAD f	0.06	0.06	0.13	0.13	0.0685	0.11	0.058	0.032	0.055	0.065	0.085	0.036
IQR f	0.13	0.07	0.28	0.248	0.11	0.2	0.105	0.056	0.096	0.109	0.148	0.0665
Robust CV % f	10	3	7	11	12	13	12	17	62	52	19	6
Outliers	1	2	2	2	2	1	2	3	1	1	0	5
Stragglers	0	3	1	0	0	0	1	1	0	0	0	1

2020: Extractable Ca – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	18	18	18	18	17	17	17	17	17	17	17	17
Minimum	7.94	16.6	24.9	5.66	1710	5300	2400	425	352	106	1510	2300
Maximum	1560	3160	4700	1950	2200	6560	3240	645	503	229	2530	3810
Median i	1430	2920	4310	1820	2070	5780	3070	589	447	203	2360	3610
Mean i	1330	2720	4070	1680	2030	5780	3050	571	438	196	2310	3500
MAD i	40	115	280	55	50	140	90	15	27	16	60	90
IQR i	77.5	215	533	130	120	290	190	29	55	33	100	180
Robust CV % i	4	5	9	5	4	4	5	4	9	12	3	4
Median f	1430	2930	4360	1830	2090	5780	3080	591	447	208	2380	3640
Mean f	1420	2920	4300	1820	2080	5730	3090	590	438	202	2360	3630
MAD f	30	95	260	50	35	140	85	14	27	16.5	30	30
IQR f	60	185	480	95	75	255	185	27	55	32.3	92.5	50
Robust CV % f	3	5	8	4	3	3	4	3	9	12	3	1
Outliers	2	2	1	2	2	1	1	4	0	1	1	2
Stragglers	1	0	0	1	1	0	0	0	0	0	2	4

2020: Extractable Cu - Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	19	19	19	18	18	18	18	18	17	18	18	18
Minimum	1.9	2.59	4.7	0.0564	2	2.3	3.2	0.03	0.15	0.04	0.43	0.59
Maximum	3.43	4.76	9.98	0.426	3.55	4.5	5.59	0.72	0.585	0.61	1.55	2.2
Median i	2.33	3.23	6.77	0.127	2.76	3.46	4.46	0.429	0.32	0.319	1.27	1.66
Mean i	2.37	3.26	6.71	0.173	2.75	3.44	4.43	0.409	0.336	0.319	1.24	1.64
MAD i	0.15	0.17	0.73	0.0554	0.08	0.2	0.38	0.139	0.044	0.0855	0.06	0.06
IQR i	0.3	0.345	1.28	0.13	0.148	0.453	0.695	0.274	0.084	0.172	0.125	0.103
Robust CV % i	10	8	14	76	4	10	12	47	19	40	7	5
Median f	2.33	3.25	6.76	0.104	2.76	3.46	4.46	0.429	0.32	0.319	1.27	1.66
Mean f	2.31	3.24	6.53	0.116	2.76	3.43	4.43	0.409	0.316	0.319	1.27	1.66
MAD f	0.145	0.14	0.66	0.0324	0.04	0.135	0.38	0.139	0.04	0.0855	0.055	0.02
IQR f	0.275	0.238	1.09	0.0703	0.08	0.225	0.695	0.274	0.0753	0.172	0.115	0.03
Robust CV % f	9	5	12	50	2	5	12	47	17	40	7	1
Outliers	1	2	1	3	6	3	0	0	3	0	2	3
Stragglers	0	1	0	1	2	1	0	0	0	0	0	2

2020: Extractable Fe – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	19	19	19	19	18	18	18	18	18	18	18	18
Minimum	102	69.6	126	106	87.8	13.2	131	37	226	144	146	39
Maximum	188	129	442	189	197	89.9	304	655	369	642	288	88.1
Median i	136	93.7	209	142	157	76.5	264	565	306	542	258	78.9
Mean i	136	94.4	216	142	155	72.3	254	513	305	501	250	75.1
MAD i	13	6.3	15	12	7	6.8	20	53.5	26.5	50	13.5	6.35
IQR i	24.5	12	30.5	23	13.8	11.6	47	129	50.8	89	23	14.7
Robust CV % i	13	9	11	12	6	11	13	17	12	12	7	14
Median f	135	95.6	209	142	157	77.8	271	582	306	547	260	79
Mean f	134	95.2	204	139	159	77.3	266	567	305	555	260	77.2
MAD f	11.5	4.9	15	11.5	6	4.7	16	40	26.5	34	11.5	5.9
IQR f	21.3	9.48	29.5	22	8	7.38	32.5	85	50.8	71.5	20	14.7
Robust CV % f	12	7	10	11	4	7	9	11	12	10	6	14
Outliers	1	3	3	1	4	2	2	2	0	3	2	1
Stragglers	0	0	0	0	1	0	0	1	0	0	0	0

2020: Extractable K – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	18	18	18	18	17	17	17	17	17	17	17	17
Minimum	1.12	1.3	0.82	1.42	275	281	108	45	22	11	92	69
Maximum	428	502	302	537	677	559	272	121	73.4	63.1	308	210
Median i	403	446	279	474	545	447	220	93.4	59.2	51.3	256	183
Mean i	362	403	249	429	533	440	219	91.3	58.6	47	249	179
MAD i	14.5	14.5	10	12.5	15	11	7	4.1	3.2	3.2	9	8
IQR i	30	38.3	31.5	21.8	21	18	12	7.9	4.1	6.1	16	14
Robust CV % i	6	6	8	3	3	3	4	6	5	9	5	6
Median f	408	446	282	478	545	448	220	93.6	59.1	51.4	256	185
Mean f	408	449	283	479	543	448	220	93.7	59.6	50.6	256	186
MAD f	10	10	5	8	5	6	3.5	3.45	0.6	1.15	7	7
IQR f	18	15	9	15	10	10.5	6.75	6.3	1.43	2.5	14.5	13.5
Robust CV % f	3	2	2	2	1	2	2	5	2	4	4	5
Outliers	4	4	4	5	5	4	4	3	3	3	2	1
Stragglers	0	1	1	0	3	1	1	0	4	2	0	0

2020: Extractable Mg – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	18	18	18	18	17	17	17	17	17	17	17	17
Minimum	7.67	13.9	38.4	6.8	91	581	329	101	93	8.8	83	399
Maximum	875	1570	4090	713	163	1220	658	177	216	88.3	220	1190
Median i	831	1420	3680	638	137	1040	564	152	192	77.2	193	1080
Mean i	757	1290	3370	591	135	1010	548	147	187	71.3	187	1050
MAD i	25	50	195	27	4	30	16	7	8	3.8	3	30
IQR i	61.3	87.5	438	49.8	6	60	31	15	14	5.7	6	70
Robust CV % i	5	5	9	6	3	4	4	7	5	5	2	5
Median f	835	1420	3710	649	137	1040	566	153	192	78.9	193	1080
Mean f	830	1420	3720	650	137	1030	564	153	193	78.5	193	1070
MAD f	19	10	120	21	2	20	14	4	7.5	3.1	2	25
IQR f	34.5	10	270	39	4	42.5	27	8	14.5	5.75	3.5	52.5
Robust CV % f	3	1	5	4	2	3	4	4	6	5	1	4
Outliers	3	4	2	3	3	3	3	2	1	2	3	1
Stragglers	0	5	1	0	3	0	0	2	0	0	2	2

2020: Extractable Mn – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	19	19	19	19	18	18	18	18	18	18	18	18
Minimum	246	177	214	1.25	468	284	58.1	38.1	34	3.69	170	163
Maximum	461	313	394	7	685	509	103	71.1	52	8	257	307
Median i	345	230	309	2.35	584	396	77.2	46.9	40.4	5.82	245	277
Mean i	354	226	298	2.77	586	389	77.5	48	41.1	5.67	239	265
MAD i	14	15	33	0.25	38.5	31	6.25	3	3.6	0.335	11	21.5
IQR i	35.5	31.5	59.5	0.865	75.5	70.8	11	6.63	7.4	0.783	19	41.8
Robust CV % i	8	10	14	27	10	13	11	10	14	10	6	11
Median f	343	229	309	2.25	584	389	77.2	45.9	40.4	5.85	245	277
Mean f	344	221	298	2.28	586	382	76	46.7	41.1	5.79	243	271
MAD f	13	14.5	33	0.1	38.5	34	6.2	2.4	3.6	0.165	11	18
IQR f	24.3	30.5	59.5	0.15	75.5	72	9.6	5.7	7.4	0.268	19	41
Robust CV % f	5	10	14	5	10	14	9	9	14	3	6	11
Outliers	5	1	0	7	0	1	1	1	0	3	1	1
Stragglers	0	0	0	1	0	0	0	0	0	3	0	0

2020: Extractable Na - Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	17	17	17	17	17	17	16	17	17	17	17	17
Minimum	260	386	146	310	16.7	30	6.7	14.6	37.7	7.86	71.3	66.2
Maximum	389	616	267	459	83	555	52	59	80	39	151	167
Median i	331	501	190	398	23.3	249	10.5	19.3	44.8	21.6	83.1	86.5
Mean i	331	501	198	397	27.7	252	13.6	22.9	46.6	22.5	87.2	91.4
MAD i	10	13	16	20	2.5	12	1.51	2.1	2.1	1.7	4.2	5.1
IQR i	23	26	28	37	5.2	19	3.65	3.6	3.9	3.1	6.8	8.3
Robust CV % i	5	4	11	7	17	6	26	14	6	11	6	7
Median f	331	502	190	399	22.9	250	9.66	18.5	44.4	21.5	82.9	86.5
Mean f	332	502	189	403	22.9	250	10.1	18.4	43.8	21.9	83.2	88.1
MAD f	9	9.5	8	18.5	1.95	8.5	1.54	1.3	1.8	1.45	3.95	3.3
IQR f	19.5	18	15	34.5	4.05	15.5	2.91	2.4	4.1	2.6	6.68	7.6
Robust CV % f	4	3	6	6	13	5	22	10	7	9	6	7
Outliers	2	4	2	1	2	3	3	4	2	3	1	2
Stragglers	0	1	2	0	1	0	0	0	0	0	0	0

2020: Extractable P - ICP — Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	19	19	19	18	19	19	19	19	18	19	19	19
Minimum	3.08	0.77	3.45	0.9	4.2	4.1	6.1	5.4	5.4	2.1	5.4	1.9
Maximum	23	34	199	4.3	612	152	570	99.5	10	51.4	114	32.5
Median i	18.3	23.2	95.6	2.96	25.6	19.4	76.6	31.2	8.15	42.9	108	23.4
Mean i	17.8	22.8	100	2.85	56	27.2	99.7	33.5	8.02	40.1	98.5	23
MAD i	0.6	1.8	8.4	0.335	1	1.3	5.7	2.5	0.485	4	4	1.5
IQR i	1	3.1	13.7	0.638	2.35	5.25	9.55	4.35	0.958	5.95	8	2.9
Robust CV % i	4	10	11	16	7	20	9	10	9	10	5	9
Median f	18.3	23.2	95.1	3.01	25.5	19.2	76.6	31.2	8.15	44.6	109	23.4
Mean f	18.2	23.4	98.2	2.99	25.3	19.3	77.6	31.3	8.05	44.8	108	23.2
MAD f	0.35	1.7	6.9	0.32	0.85	0.9	4.7	2	0.39	3.05	3	1.25
IQR f	0.65	2.6	12.3	0.585	1.53	1.7	6.9	4	0.813	5.73	8	2.63
Robust CV % f	3	8	10	14	4	7	7	10	7	10	5	8
Outliers	3	2	3	3	5	6	2	2	2	3	2	3
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2020: Extractable S - Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	16	16	17	16	16	16	16	16	16	16	17	16
Minimum	2.92	3.26	6.96	4.3	9.7	0.89	3.9	3.5	1.3	3.1	40	3.5
Maximum	90	94	98	92	53.5	30.6	34.4	25.5	71.9	89.5	124	102
Median i	14.1	13.9	26.5	16.2	46.3	21.4	29	22.4	8.42	21.2	70.8	12.6
Mean i	18.6	18.1	29.1	20.1	44.1	21.3	28.1	21.1	12	23.4	70.6	18.1
MAD i	1.65	1.25	2.7	0.85	2.75	1.65	2.1	0.95	0.745	2	1.8	1.85
IQR i	2.98	2.53	4.7	1.65	5.65	2.55	3.45	1.85	1.32	3.5	2.7	3.13
Robust CV % i	16	13	13	8	9	9	9	6	12	12	3	18
Median f	13.8	13.9	27.3	16.2	46.7	21.2	29.2	22.5	8.39	21.2	71	12.6
Mean f	13.6	13.7	27.3	16.2	46.3	21.7	29.7	22.9	8.29	21.2	70.6	13.2
MAD f	1.05	0.95	1.7	0.75	2.6	1.3	2	0.85	0.44	1	1.8	1.45
IQR f	2.03	1.68	3.15	1.38	4.9	2.3	3.2	1.33	0.78	1.4	2.6	2.8
Robust CV % f	11	9	9	6	8	8	8	4	7	5	3	17
Outliers	3	4	3	4	1	2	1	2	3	3	4	2
Stragglers	1	0	2	0	0	1	0	0	2	0	0	0

2020: Extractable Zn — Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	19	18	19	18	18	17	18	18	18	18	18	17
Minimum	0.82	0.29	1.67	0.02	7.5	0.19	1.7	0.313	0.15	0.29	2	0.25
Maximum	2.23	3.2	5.82	1.34	14.9	3.16	5.21	3.99	1.21	3.67	6.56	7.76
Median i	1.38	0.74	3.51	0.232	12.5	0.818	3.97	3.31	1.02	2.98	5.4	1.06
Mean i	1.4	0.984	3.63	0.331	12.4	0.91	4	3.07	0.925	2.72	5.32	1.4
MAD i	0.12	0.096	0.37	0.0565	0.75	0.107	0.395	0.25	0.139	0.155	0.225	0.114
IQR i	0.185	0.296	0.675	0.12	1.33	0.176	0.8	0.525	0.256	0.27	0.5	0.243
Robust CV % i	10	30	14	38	8	16	15	12	19	7	7	17
Median f	1.36	0.707	3.51	0.23	12.5	0.825	4.01	3.33	1.02	2.99	5.4	1.06
Mean f	1.32	0.702	3.5	0.216	12.7	0.83	4.14	3.33	0.971	2.94	5.44	1.05
MAD f	0.05	0.045	0.315	0.052	0.7	0.0705	0.41	0.21	0.13	0.13	0.175	0.103
IQR f	0.14	0.089	0.54	0.0863	1.2	0.154	0.65	0.303	0.252	0.23	0.32	0.182
Robust CV % f	8	9	11	28	7	14	12	7	18	6	4	13
Outliers	3	5	3	4	1	2	1	2	1	3	2	2
Stragglers	3	1	0	0	0	1	0	0	0	0	0	0

2020: Extractable K — Bicarbonate (18A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	14	14	14	14	13	13	13	13	15	14	14	14
Minimum	366	322	258	349	1.46	1.19	0.583	0.234	0.129	45.7	238	159
Maximum	462	518	430	687	626	475	350	114	299	65.8	308	240
Median i	405	401	318	441	554	386	270	99.1	60.2	53.1	274	187
Mean i	413	398	317	451	512	355	247	89.4	66.2	54.5	277	189
MAD i	20.5	33	18	19	25	28	27	8.9	10.5	5.25	11.5	13.5
IQR i	39.8	46	37.8	48.3	49	48	57	16.4	21.3	11	24	26
Robust CV % i	7	9	9	8	7	9	16	12	26	15	7	10
Median f	405	401	314	441	559	398	275	99.9	65.4	53.1	274	183
Mean f	413	398	308	440	562	398	267	99.3	63.6	54.5	277	185
MAD f	20.5	33	19	11	13.5	21	27	5.1	5.4	5.25	11.5	15
IQR f	39.8	46	37	21	23.3	43	50.3	11.2	7.7	11	24	26
Robust CV % f	7	9	9	4	3	8	14	8	9	15	7	11
Outliers	0	0	1	4	2	2	1	1	4	0	0	1
Stragglers	0	0	0	2	1	0	0	1	1	0	0	0

2020: Total Organic Matter (6G1) %

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	9	9	9	9	9	9	9	9	11	12	12	12
Minimum	1.4	1.26	3.21	0.76	4.99	1.13	2.69	6.69	0.7	3.2	5	2.05
Maximum	7.7	10.4	17	8.82	10.4	4.97	5.52	8.09	2.23	4.38	8.26	4.63
Median i	1.7	2.31	4.42	0.918	6.47	1.6	3.83	7.52	0.85	3.54	5.2	2.46
Mean i	2.58	3.05	6.02	2.18	7.01	2.31	3.72	7.49	0.998	3.59	5.71	2.61
MAD i	0.24	0.92	0.58	0.158	1.44	0.47	0.38	0.29	0.1	0.175	0.195	0.295
IQR i	0.52	1.02	1.34	1.56	2.23	1.5	1.2	0.57	0.219	0.303	0.998	0.543
Robust CV % i	23	33	22	126	26	69	23	6	19	6	14	16
Median f	1.68	1.5	4	0.8	6.47	1.39	3.64	7.52	0.84	3.53	5.18	2.42
Mean f	1.69	1.78	4.23	0.826	7.01	1.53	3.5	7.49	0.875	3.52	5.18	2.43
MAD f	0.17	0.24	0.42	0.04	1.44	0.2	0.49	0.29	0.0905	0.13	0.01	0.26
IQR f	0.245	0.97	0.835	0.054	2.23	0.333	1.17	0.57	0.191	0.26	0.02	0.44
Robust CV % f	11	48	15	5	26	18	24	6	17	5	0	13
Outliers	2	1	2	4	0	3	2	0	1	1	4	1
Stragglers	0	1	0	0	0	1	0	0	0	0	3	0

2020: Aqua Regia Aluminium (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	12	12	12	12	18	18	18	18	20	20	20	19
Minimum	8540	16700	19200	17600	17100	3650	9710	1590	14.5	3080	11800	8260
Maximum	70000	55600	38000	72200	44700	54000	34500	7410	21100	10500	32300	39600
Median i	26600	36400	24600	48000	33300	31000	16500	3700	10400	4630	17100	15900
Mean i	26700	34800	26200	44100	32100	31200	18000	4060	11700	5860	19100	19800
MAD i	10600	10300	3200	19800	4150	8000	4000	930	3840	1460	3850	5700
IQR i	16900	17600	6780	33700	7680	15600	6930	1610	6790	2970	7500	12400
Robust CV % i	47	36	20	52	17	37	31	32	48	47	33	58
Median f	24300	36400	24300	48000	33900	31000	15500	3280	10400	4530	16600	13700
Mean f	22700	34800	25100	44100	33800	31200	17000	3650	11700	4840	17000	15500
MAD f	9500	10300	3000	19800	2800	8000	3700	1110	3840	750	3300	3500
IQR f	15200	17600	5550	33700	5750	15600	7000	1640	6790	2320	6400	9950
Robust CV % f	46	36	17	52	13	37	33	37	48	38	29	54
Outliers	1	0	1	0	1	0	1	2	0	3	2	2
Stragglers	0	0	0	0	1	0	0	0	0	1	1	2

2020: Aqua Regia Arsenic (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	13	12	13	12	15	13	13	13	16	14	15	15
Minimum	0.627	0.703	1.8	1.49	2.9	2.8	2.6	0.39	2.41	0.093	2.92	0.833
Maximum	5	5.86	5.32	5.31	10	5.78	5.08	1.22	74	1	5.21	3.73
Median i	3.31	3.23	4.2	3.76	5.59	4.87	4.07	0.731	2.98	0.386	3.3	1.2
Mean i	3.07	3.17	3.89	3.56	5.82	4.6	4.07	0.766	7.55	0.413	3.53	1.48
MAD i	0.72	0.985	0.79	0.95	0.73	0.79	0.39	0.106	0.41	0.113	0.27	0.09
IQR i	1.27	1.63	1.89	1.72	1.17	1.18	0.7	0.205	0.735	0.171	0.705	0.43
Robust CV % i	28	37	33	34	16	18	13	21	18	33	16	27
Median f	3.31	3.23	4.2	3.76	5.5	4.87	4.07	0.7	2.86	0.358	3.18	1.18
Mean f	3.07	3.17	3.89	3.56	5.5	4.6	4.07	0.685	2.89	0.328	3.29	1.19
MAD f	0.72	0.985	0.79	0.95	0.38	0.79	0.39	0.096	0.26	0.069	0.14	0.055
IQR f	1.27	1.63	1.89	1.72	0.7	1.18	0.7	0.171	0.42	0.169	0.465	0.095
Robust CV % f	28	37	33	34	9	18	13	18	11	35	11	6
Outliers	0	0	0	0	1	0	0	2	3	2	2	5
Stragglers	0	0	0	0	2	0	0	0	0	0	1	0

2020: Aqua Regia Boron (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	11	11	11	11	16	15	15	14	14	12	13	12
Minimum	1.56	3.8	1.58	4.9	0.2	2.11	2.37	0.433	0.00215	0.0129	0.00221	0.506
Maximum	12.3	23.4	36.1	31.3	24	23	27	24	12	4.8	19.2	5.54
Median i	6.75	10.5	12	19.6	3.21	7.2	9.75	1.97	1.4	0.643	6.23	2.78
Mean i	7.12	11.2	15.1	18.4	5.88	9.03	11.3	4.21	1.95	1.02	9.19	3.07
MAD i	4.25	4.5	2.17	8.5	2.39	3.86	6.55	1.29	0.441	0.446	4.03	1.84
IQR i	7.33	8.47	5.84	16.1	4.61	8.59	13.6	2.56	0.876	0.644	10.6	3.52
Robust CV % i	80	60	36	61	106	88	103	97	47	74	126	94
Median f	6.75	10.5	12	19.6	2.94	3.62	9.75	1.6	1.32	0.555	6.23	2.78
Mean f	7.12	11.2	11.5	18.4	3.24	5.12	11.3	1.97	1.18	0.682	9.19	3.07
MAD f	4.25	4.5	1.1	8.5	1.24	1.42	6.55	0.6	0.42	0.357	4.03	1.84
IQR f	7.33	8.47	2.14	16.1	3.85	4.67	13.6	1.37	0.794	0.636	10.6	3.52
Robust CV % f	80	60	13	61	97	96	103	63	45	85	126	94
Outliers	0	0	3	0	3	2	0	2	1	1	0	0
Stragglers	0	0	1	0	0	2	0	1	0	0	0	0

2020: Aqua Regia Calcium (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	13	13	13	13	19	19	19	19	19	20	20	20
Minimum	1430	3010	8560	1690	355	874	512	80.7	311	117	2650	2430
Maximum	1870	3760	11800	2160	4030	10400	5840	911	614	4040	4710	4790
Median i	1610	3390	10600	1930	3100	8030	4420	711	509	271	3710	4300
Mean i	1610	3340	10500	1940	2890	7670	4250	673	512	450	3610	4190
MAD i	90	130	400	140	170	630	410	62	46	19.5	350	285
IQR i	160	230	1100	240	350	1140	755	111	79	35.8	613	475
Robust CV % i	7	5	8	9	8	11	13	12	12	10	12	8
Median f	1610	3390	10600	1930	3130	8100	4450	753	514	272	3710	4300
Mean f	1610	3340	10700	1940	3150	8100	4490	746	523	273	3610	4280
MAD f	90	130	400	140	145	525	315	45	42.5	19	350	270
IQR f	160	230	950	240	260	963	640	98.3	71.8	32	613	485
Robust CV % f	7	5	7	9	6	9	11	10	10	9	12	8
Outliers	0	0	1	0	4	3	2	2	1	3	0	1
Stragglers	0	0	0	0	1	0	1	1	0	0	0	0

2020: Aqua Regia Cadmium (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	14	13	14	13	15	12	14	12	12	12	14	12
Minimum	0.00689	0.00209	0.214	0.0021	0.34	0.0463	0.29	0.0239	0.001	0.03	0.29	0.02
Maximum	2	2	2	2	1.09	0.25	0.658	0.25	0.182	0.194	1.5	0.214
Median i	0.084	0.1	0.6	0.05	0.67	0.0632	0.594	0.0326	0.0316	0.0585	0.358	0.046
Mean i	0.301	0.312	0.785	0.324	0.638	0.0855	0.534	0.0537	0.0431	0.0723	0.437	0.0652
MAD i	0.058	0.07	0.105	0.0479	0.057	0.0103	0.0385	0.00555	0.0161	0.0131	0.034	0.0134
IQR i	0.265	0.204	0.334	0.327	0.134	0.0328	0.112	0.0118	0.026	0.0241	0.0668	0.0328
Robust CV % i	234	151	41	485	15	38	14	27	61	31	14	53
Median f	0.0312	0.0342	0.574	0.02	0.674	0.0612	0.6	0.03	0.0305	0.0576	0.354	0.0439
Mean f	0.0503	0.0588	0.603	0.0214	0.678	0.0646	0.599	0.0304	0.0305	0.0612	0.355	0.0409
MAD f	0.0188	0.0158	0.026	0.002	0.034	0.0069	0.0165	0.0031	0.0115	0.0104	0.025	0.0064
IQR f	0.0399	0.07	0.04	0.0054	0.0545	0.0119	0.0273	0.0061	0.0238	0.0175	0.049	0.0095
Robust CV % f	95	152	5	20	6	14	3	15	58	23	10	16
Outliers	4	3	3	5	3	2	3	2	1	1	1	2
Stragglers	1	1	2	3	2	0	1	1	0	0	0	1

2020: Aqua Regia Cobalt (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	13	13	13	13	18	18	17	15	17	15	19	19
Minimum	0.015	0.006	0.005	0.01	10.8	11.6	4.36	0.542	4	0.065	15.6	9.79
Maximum	11.5	12	60	7.96	22.9	22.9	16.6	25.8	13.7	0.91	24.6	14.8
Median i	9.62	9.63	49.8	6.2	17.6	17.8	6.59	1	4.89	0.555	20.2	12.4
Mean i	8.97	8.94	46.8	5.74	17.2	17.4	7.03	2.67	5.37	0.545	20.2	12.4
MAD i	1.08	0.97	3.3	1.1	1.5	1.4	0.75	0.26	0.28	0.185	0.9	0.6
IQR i	2.44	1.5	6.8	2.07	2.78	2.9	1.07	0.468	0.48	0.356	2.1	1.15
Robust CV % i	19	12	10	25	12	12	12	35	7	48	8	7
Median f	9.81	9.67	49.9	6.38	17.6	18	6.55	0.998	4.88	0.555	20.2	12.4
Mean f	9.72	9.68	50.7	6.22	17.6	17.7	6.43	1.02	4.85	0.545	20.2	12.4
MAD f	0.84	0.8	3.35	0.965	1.1	1.1	0.625	0.23	0.27	0.185	0.8	0.6
IQR f	1.54	1.33	6.38	2.07	2.05	2.25	0.99	0.426	0.47	0.356	1.5	1
Robust CV % f	12	10	9	24	9	9	11	32	7	48	6	6
Outliers	1	1	1	1	2	2	1	1	1	0	2	2
Stragglers	0	0	0	0	1	1	0	0	0	0	0	0

2020: Aqua Regia Chromium (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	14	15	15	15	19	19	19	19	20	20	20	20
Minimum	33.9	26	228	31.8	5.19	13.2	10.9	23.1	50.4	8	12	21.4
Maximum	65.4	51.9	320	71.5	20.8	49.4	37.9	109	84.6	17	30.4	45.7
Median i	50.6	36.4	260	49.6	16.8	40.2	28.1	93.2	61.6	10.9	16.7	29.6
Mean i	51	36.7	264	50.6	16.5	36.2	27.4	88.9	62.2	11.1	18.2	29.8
MAD i	5.1	4.4	17	12	2.1	8.1	5.1	6.2	4.35	1.15	3.6	5.65
IQR i	8.63	6.7	28.5	20.3	3.8	13.4	8.25	12.6	7.53	2.24	6.38	10
Robust CV % i	13	14	8	30	17	25	22	10	9	15	28	25
Median f	50.6	36.4	260	49.6	16.9	40.2	28.1	93.5	61	10.8	16.6	29.6
Mean f	51	36.7	264	50.6	17.2	36.2	27.4	92.6	61	10.8	17.5	29.8
MAD f	5.1	4.4	17	12	1.85	8.1	5.1	5.95	4.6	1.1	3.6	5.65
IQR f	8.63	6.7	28.5	20.3	3.7	13.4	8.25	11.8	7.55	2.18	6.25	10
Robust CV % f	13	14	8	30	16	25	22	9	9	15	28	25
Outliers	0	0	0	0	1	0	0	1	1	1	1	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2020: Aqua Regia Copper (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	15	15	15	15	19	19	19	17	17	18	20	19
Minimum	7.9	11.4	29.1	0.041	9	12	16	3.22	0.851	0.363	6.66	8.58
Maximum	48.5	41	57.7	14	29.6	31.4	32.7	5.85	4	5	14.4	13.7
Median i	14.6	19	36.3	1.1	14	18.1	21	4.73	2.4	2.64	10.8	11.3
Mean i	16.3	19.9	37.5	2	14.8	18.2	21.9	4.62	2.39	2.65	10.6	11.4
MAD i	0.7	0.9	2.3	0.36	0.9	1.7	1.2	0.68	0.4	0.2	0.93	1.2
IQR i	1.55	1.6	3.95	0.627	1.55	3.15	2	1.31	0.73	0.37	1.77	2.3
Robust CV % i	8	6	8	42	8	13	7	21	23	10	12	15
Median f	14.6	19	35.9	1.05	14	18.1	20.7	4.73	2.4	2.55	10.8	11.3
Mean f	14.7	19	36.1	1.04	14.3	17.7	20.6	4.62	2.38	2.55	10.6	11.4
MAD f	0.6	0.8	2.05	0.34	0.5	1.5	0.5	0.68	0.34	0.17	0.85	1.2
IQR f	1.15	1.4	3.5	0.624	1.3	3	1.03	1.31	0.655	0.28	1.57	2.3
Robust CV % f	6	5	7	44	7	12	4	21	20	8	11	15
Outliers	2	2	1	2	5	1	4	0	2	3	2	0
Stragglers	1	0	0	0	0	1	2	0	0	1	0	0

2020: Aqua Regia Iron (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	12	12	12	12	18	18	18	18	19	19	19	19
Minimum	11500	17700	40300	27600	1040	930	339	43.1	9800	4090	12800	6870
Maximum	24800	32700	52600	42600	38000	45200	35100	5330	14100	6780	25300	21600
Median i	19000	27500	45200	36600	24200	26100	17600	4110	10800	4920	18200	12700
Mean i	18300	26200	45400	35500	23600	24900	18500	3940	11100	4910	18300	13800
MAD i	2950	2750	2000	3400	2250	2950	1250	390	700	180	1900	2600
IQR i	5550	6680	3700	7950	4330	7350	2400	808	1700	590	3700	5950
Robust CV % i	22	18	6	16	13	21	10	15	12	9	15	35
Median f	19000	27500	45200	36600	24200	26100	17300	4110	10800	4940	18000	12700
Mean f	18300	26200	45400	35500	24100	26600	17000	4100	10900	4890	17900	13800
MAD f	2950	2750	2000	3400	1900	2100	900	245	650	120	1850	2600
IQR f	5550	6680	3700	7950	3580	3850	1400	433	1350	220	3580	5950
Robust CV % f	22	18	6	16	11	11	6	8	9	3	15	35
Outliers	0	0	0	0	4	3	5	1	1	5	1	0
Stragglers	0	0	0	0	0	1	0	5	0	1	0	0

2020: Aqua Regia Potassium (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	13	13	13	13	19	19	19	19	20	20	20	20
Minimum	166	195	1030	65.1	128	597	372	34.7	130	57.8	464	211
Maximum	5030	7380	5960	7590	1590	6020	5290	672	1890	211	3780	903
Median i	3420	5000	2810	5610	965	4470	1900	247	1530	101	1600	662
Mean i	3070	4630	3030	5030	994	4280	2360	265	1490	117	1840	662
MAD i	1160	1590	1090	1200	64	910	800	61	135	19.1	667	125
IQR i	1870	2780	2180	2520	185	1770	1590	104	223	50.6	1420	229
Robust CV % i	41	41	58	33	14	29	62	31	11	37	66	26
Median f	3420	5000	2810	5830	964	4540	1710	244	1550	99.7	1600	680
Mean f	3070	4630	3030	5450	976	4480	1910	242	1580	104	1840	686
MAD f	1160	1590	1090	795	54	825	450	58.5	90	16.8	667	118
IQR f	1870	2780	2180	2330	95	1520	1510	96.5	218	44.4	1420	223
Robust CV % f	41	41	58	30	7	25	65	29	10	33	66	24
Outliers	0	0	0	1	5	1	1	1	1	3	0	1
Stragglers	0	0	0	0	0	0	2	0	1	0	0	0

2020: Aqua Regia Magnesium (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	13	13	13	13	19	19	19	19	20	20	20	20
Minimum	1890	4180	4630	1860	126	638	477	37	142	91.6	949	2270
Maximum	3290	5800	45700	3210	1220	7000	5090	390	1730	220	2250	4000
Median i	2840	5160	41500	2790	862	5200	3610	299	1530	150	1440	3080
Mean i	2720	5140	39500	2670	836	4860	3460	275	1430	155	1480	3090
MAD i	340	380	2500	350	95	720	580	33	100	25.5	380	475
IQR i	610	760	3800	590	199	1390	1160	60.5	205	53.8	673	903
Robust CV % i	16	11	7	16	17	20	24	15	10	27	35	22
Median f	2840	5160	42400	2790	872	5200	3630	305	1550	150	1440	3080
Mean f	2720	5140	42400	2670	880	5100	3630	308	1530	155	1480	3090
MAD f	340	380	1900	350	93	715	575	35	85	25.5	380	475
IQR f	610	760	3650	590	176	1340	1140	65	143	53.8	673	903
Robust CV % f	16	11	6	16	15	19	23	16	7	27	35	22
Outliers	0	0	1	0	3	1	1	3	2	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2020: Aqua Regia Manganese (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	13	13	13	13	19	19	19	19	20	20	20	20
Minimum	700	475	1400	19	1900	1200	220	57	112	8	1130	649
Maximum	875	590	1760	53.4	3900	2070	407	390	180	23.3	9020	1080
Median i	825	559	1620	31.6	3010	1580	273	66.5	140	13.2	1500	904
Mean i	808	547	1600	30.9	3010	1610	285	86.8	144	13.7	1870	896
MAD i	43	20	80	3.6	170	90	12	5.3	11	2.25	120	59.5
IQR i	62	47	160	10.2	320	165	27.5	9.9	19.3	3.88	248	108
Robust CV % i	6	6	7	24	8	8	7	11	10	22	12	9
Median f	825	560	1620	30.7	3010	1580	272	66.1	140	12.6	1500	908
Mean f	808	553	1600	29.1	2990	1580	271	65.8	142	12.3	1500	909
MAD f	43	18	80	3.95	140	80	10	4.2	10	1.8	120	55
IQR f	62	33.3	160	9.63	248	128	17.8	7.8	17	2.8	215	93.5
Robust CV % f	6	4	7	23	6	6	5	9	9	16	11	8
Outliers	0	1	0	1	2	3	6	4	1	2	1	1
Stragglers	0	0	0	0	1	0	0	0	0	1	0	0

2020: Aqua Regia Molybdenum (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	11	10	11	10	13	12	12	12	15	13	13	13
Minimum	0.173	0.0152	0.144	0.0804	0.464	0.01	0.641	1.15	0.00104	0.0001	0.847	0.0001
Maximum	2	0.435	2	0.95	1.31	0.519	2.31	3.12	2.59	0.672	1.62	0.693
Median i	0.8	0.227	0.56	0.605	1	0.284	1.7	2.81	2	0.44	1.2	0.21
Mean i	0.864	0.208	0.617	0.548	1.01	0.246	1.66	2.45	1.79	0.385	1.19	0.236
MAD i	0.32	0.0965	0.205	0.242	0.102	0.089	0.345	0.22	0.3	0.121	0.19	0.15
IQR i	0.553	0.2	0.4	0.472	0.202	0.192	0.66	0.77	0.685	0.195	0.29	0.274
Robust CV % i	51	65	53	58	15	50	29	20	25	33	18	97
Median f	0.8	0.227	0.492	0.605	1.01	0.284	1.7	2.83	2.19	0.44	1.2	0.21
Mean f	0.864	0.208	0.478	0.548	1.05	0.246	1.66	2.84	2.1	0.385	1.19	0.236
MAD f	0.32	0.0965	0.21	0.242	0.101	0.089	0.345	0.12	0.195	0.121	0.19	0.15
IQR f	0.553	0.2	0.383	0.472	0.219	0.192	0.66	0.17	0.33	0.195	0.29	0.274
Robust CV % f	51	65	58	58	16	50	29	4	11	33	18	97
Outliers	0	0	1	0	1	0	0	3	3	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2020: Aqua Regia Sodium (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	12	12	12	12	18	18	16	15	18	16	19	19
Minimum	314	589	287	351	25.4	45.7	9.77	4.57	71.5	13.2	151	109
Maximum	536	872	487	744	486	495	136	65	220	198	454	272
Median i	431	744	334	570	157	384	68.9	33.8	101	46.5	252	161
Mean i	429	738	357	562	192	379	72.8	34	119	59.9	264	169
MAD i	42.5	81	35.5	44	56.2	31	25.7	9.8	16.6	16.9	58	19
IQR i	75.8	139	76	95	112	63.8	51.8	18.3	42.4	32.1	106	38
Robust CV % i	13	14	17	12	53	12	56	40	31	51	31	17
Median f	431	744	333	595	139	384	68.9	33.8	99.2	35	252	148
Mean f	429	738	345	581	155	393	72.8	34	100	39.9	264	154
MAD f	42.5	81	33	55	38	26.5	25.7	9.8	13.8	11.2	58	14.5
IQR f	75.8	139	56.5	76.5	99.5	61.3	51.8	18.3	24.3	22	106	29.5
Robust CV % f	13	14	13	10	53	12	56	40	18	47	31	15
Outliers	0	0	1	1	2	2	1	1	3	2	0	3
Stragglers	0	0	0	0	2	1	0	0	0	1	0	0

2020: Aqua Regia Lead (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	15	14	15	14	18	17	17	17	18	15	18	17
Minimum	5.83	6.2	2.5	7.37	4.64	1.98	10.4	3.44	3.74	3.49	7.38	6.8
Maximum	13.7	14	10	13.7	21.1	20.4	19.1	9.69	10	5.7	11.3	11
Median i	11	10.5	7.2	10.8	16.5	16.7	16.3	7.71	6.35	4.46	9.77	8.34
Mean i	10.7	10.4	6.75	10.9	15.7	15.2	15.8	7.33	6.25	4.56	9.64	8.37
MAD i	1	0.795	1.03	0.8	2.5	2.6	1.4	0.71	1.08	0.53	0.98	0.85
IQR i	1.85	1.42	1.59	1.7	5.23	4.4	2.8	1.49	1.65	0.93	1.62	1.65
Robust CV % i	12	10	16	12	23	20	13	14	19	15	12	15
Median f	11.1	10.6	7.4	10.9	16.8	17	17	7.79	6.35	4.46	9.77	8.34
Mean f	11	10.7	7.31	11.2	16.4	16.5	16.7	7.57	6.25	4.56	9.64	8.37
MAD f	0.95	0.5	0.8	0.9	2.2	2	0.95	0.685	1.08	0.53	0.98	0.85
IQR f	1.85	1.05	1.2	1.5	5	3.85	1.58	1.35	1.65	0.93	1.62	1.65
Robust CV % f	12	7	12	10	22	17	7	13	19	15	12	15
Outliers	1	2	1	1	1	1	1	1	0	0	0	0
Stragglers	0	1	1	0	0	1	2	0	0	0	0	0

2020: Aqua Regia Sulphur (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	10	10	11	10	15	15	15	15	14	15	15	15
Minimum	66	74	257	40	53.7	14	26.3	25.3	37.9	184	364	84.9
Maximum	125	136	348	67.5	761	232	440	425	71.9	282	598	150
Median i	93.9	111	301	56.1	485	126	240	240	53.5	219	430	117
Mean i	96.4	110	293	55.4	472	126	247	236	54	217	434	115
MAD i	4	13.5	15	7.35	25	26.1	16	19	4.85	13	24	7
IQR i	10.7	24.5	33	13.5	46	49.1	35.5	30	9.1	28.5	48	16.5
Robust CV % i	8	16	8	18	7	29	11	9	13	10	8	10
Median f	91.4	111	301	56.1	485	126	238	243	53.5	217	426	117
Mean f	93	110	293	55.4	483	127	241	243	54	212	423	116
MAD f	0.9	13.5	15	7.35	17	25	14.5	12	4.85	13	19.5	5.5
IQR f	3.9	24.5	33	13.5	25.5	41	26.8	24.8	9.1	28	35.3	7.75
Robust CV % f	3	16	8	18	4	24	8	8	13	10	6	5
Outliers	3	0	0	0	4	2	3	3	0	1	1	2
Stragglers	1	0	0	0	0	0	0	0	0	0	0	1

2020: Aqua Regia Selenium (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	12	11	12	10	10	10	10	10	12	11	11	11
Minimum	0.13	0.11	0.155	0.18	0.52	0.072	0.26	0.076	0.0145	0.029	0.446	0.0478
Maximum	20	3.81	20	3.07	3.44	4.09	2.64	1.47	5	0.9	3.1	2.6
Median i	1.44	0.629	0.847	0.665	1.64	0.656	0.739	0.392	0.291	0.221	1	0.367
Mean i	3.1	1.14	2.64	1.01	1.6	1.26	1.12	0.47	0.895	0.336	1.17	0.724
MAD i	0.725	0.353	0.5	0.181	0.485	0.49	0.429	0.235	0.249	0.179	0.32	0.305
IQR i	1.36	1.19	1.08	0.599	0.778	1.7	1.06	0.429	0.89	0.452	0.501	0.664
Robust CV % i	70	140	94	67	35	192	106	81	227	151	37	134
Median f	1.14	0.5	0.572	0.532	1.64	0.378	0.73	0.26	0.156	0.221	0.965	0.264
Mean f	1.18	0.467	0.782	0.548	1.6	0.603	0.95	0.359	0.209	0.336	0.977	0.37
MAD f	0.676	0.129	0.388	0.064	0.485	0.204	0.37	0.184	0.11	0.179	0.29	0.202
IQR f	1.26	0.212	0.853	0.181	0.778	0.383	0.889	0.397	0.198	0.452	0.475	0.541
Robust CV % f	82	31	111	25	35	75	90	113	94	151	37	152
Outliers	2	2	2	2	0	1	1	1	2	0	1	2
Stragglers	0	2	0	1	0	2	0	0	2	0	0	0

2020: Aqua Regia Silicon (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	6	6	6	6	8	8	8	8	11	11	11	11
Minimum	156	195	126	129	79.6	79.5	100	274	33.7	26.1	23.7	46.7
Maximum	1500	2110	2440	1220	1730	1200	1450	994	2170	1440	2230	2330
Median i	685	774	684	839	696	742	645	586	631	590	623	662
Mean i	834	1020	964	819	792	672	633	608	909	711	846	743
MAD i	304	359	384	227	591	410	400	252	321	218	363	286
IQR i	590	806	692	399	1060	713	509	447	537	288	522	453
Robust CV % i	64	77	75	35	112	71	59	57	63	36	62	51
Median f	685	774	684	839	696	742	645	586	624	590	623	651
Mean f	834	1020	964	819	792	672	633	608	637	711	613	585
MAD f	304	359	384	227	591	410	400	252	79	218	98	268
IQR f	590	806	692	399	1060	713	509	447	108	288	215	345
Robust CV % f	64	77	75	35	112	71	59	57	13	36	26	39
Outliers	0	0	0	0	0	0	0	0	2	0	2	1
Stragglers	0	0	0	0	0	0	0	0	2	0	1	0

2020: Aqua Regia Zinc (17B1 + 17B2 + 17C1) mg/kg – Not Certified

Statistical parameters	Soil sample identification and values											
	March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
	ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
No of results	15	15	15	14	19	19	19	19	19	19	20	20
Minimum	13	23	51	4.3	55	28	68	2.61	5.8	3.31	47.5	14.1
Maximum	70.5	112	121	16.8	119	62.6	113	270	16	13.3	81.6	42.6
Median i	27.5	37.4	76.4	9.35	89	48.9	89.3	7.79	10.7	7.88	62.9	22.5
Mean i	28.9	41.3	76.1	9.83	88.2	45.3	88.2	22.1	11.2	8.09	61.7	24.7
MAD i	5.5	4.4	8	3.05	8.2	5.7	7.3	0.99	1.6	0.88	7.3	5.3
IQR i	9.55	8.75	12.8	5.7	18.8	15.1	14.9	3.15	3.67	1.8	13.2	11.1
Robust CV % i	26	17	12	45	16	23	12	30	25	17	16	37
Median f	26	36.8	76.4	9.35	89	49	89.3	7.53	10.7	7.79	62.9	22.1
Mean f	26	36.3	74.6	9.83	88.3	46.2	88.2	7.6	11.2	7.92	61.7	23.7
MAD f	4.7	3.75	4.4	3.05	8	5.6	7.3	0.53	1.6	0.685	7.3	5.2
IQR f	9.23	7.45	11.5	5.7	15.9	12.7	14.9	1.01	3.67	1.4	13.2	10.2
Robust CV % f	26	15	11	45	13	19	12	10	25	13	16	34
Outliers	1	1	1	0	2	1	0	4	0	2	0	1
Stragglers	0	0	1	0	0	0	0	2	0	1	0	0

4. Comments on Measurement Performance

The 12 soils tested in 2020 represented a wide geographic spread, with samples sourced from the USA, New Zealand, and from Australian states NSW, QLD, SA and VIC. There were 7 soils tested that had been previously tested in 2018 and 2019.

There were 2 acidic samples with measurable amounts of Exchangeable Aluminium (mean values of 0.35 and 0.38 cmol+/kg, returning a CV% of 18 and 17, respectively). 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. This year also presented 4 alkaline soils and 4 soils with Organic Carbon greater than 2%, providing a comprehensive representation of the materials that many ASPAC laboratories measure.

Several test methods this year revealed improved precision compared to previous years. The single point Phosphorus Buffering Index used extensively in Australia returned a robust coefficient of variation of 8.5% in 2019, and 4.5% in 2020. Similarly, Phosphate Extractable Sulphur results improved with a robust coefficient of variation in 2019 of 7.5, and 4.5 in 2020. Hopefully this enhanced inter-laboratory performance is maintained, indicative of the potential of the program for initiating laboratory process refinement where it is needed. The test methods with the widest and most narrow precision in 2020 are listed in Table 4.1., with the greatest variation between laboratories continuing to come from Aqua Regia digestible elements. Similar to 2019, the best performing test methods comprised of Dumas combustion techniques, and both exchangeable and extractable cations.

Table 4.1. The six best performed and worst performed soil chemical tests for 2020, 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***
Extractable K - Mehlich3 (18F1)	2
Extractable Al - Mehlich3 (18F1)	3.5
Extractable Ca - Mehlich3 (18F1)	3.5
Total Carbon (6B2)	4
Exchangeable Mg (15A1)	4
Exchangeable Mg (15D3)	4

Worst (Highest Robust %CVs)	
Soil Method	***%CV***
Aqua Regia Aluminium (17B1/17B2/17C1)	37
Aqua Regia Molybdenum (17B1/17B2/17C1)	41.5
"Aqua Regia" Silicon (17B1/17B2/17C1)	58
Exchangeable Al (15G1)	70.5
Aqua Regia Boron (17B1/17B2/17C1)	82.5
Aqua Regia Selenium (17B1/17B2/17C1)	86

Appendix 1: List of laboratories (including contact details) that participated in ASPAC's Soil ILPP in 2020, arranged by country

Name (position)	*Facility*	*Street and/or Postal Address*	*Country*	*Email*
Ian Grant (Director)	Agricultural Chemistry P/Ltd	72 Cothill Rd, Silkstone, QLD 4304	Australia	igrant51@optusnet.com.au
Kraig Sutherland (Laboratory Manager)	AgVita Analytical	4 Thompson's Road, Latrobe, TAS 7307 PO Box 188, Devonport, TAS 7310	Australia	ksutherland@agvita.com.au
Kristina Moulding (National Quality Manager)	ALS Scoresby	22 Dalmore Drive, Scoresby, Victoria 3179	Australia	kristina.moulding@alsglobal.com
Weiming Dai	Analytical Laboratories and Technical Services Australia (ALTSA)	585 River Avenue, Merbein South, Victoria 3505	Australia	weiming.dai@altsa.com.au
Tim Thompson (Operations Manager)	APAL Laboratory Pty Ltd	U 3, 11 Ridley Street, Hindmarsh, SA 5007	Australia	tim@apal.com.au
Kerri Taylor (QC Coordinator)	Australian Laboratory Services (Brisbane)	32 Shand St, Stafford, QLD 4053	Australia	Kerri.Taylor@alsglobal.com
Emily Yuen (QC Coordinator)	Australian Laboratory Services (Melbourne)	4 Westall Rd, Springvale, Victoria 3171	Australia	emily.yuen@alsglobal.com
Fernando Rodriguez (QC Officer)	Australian Laboratory Services (Perth)	26 Rigali Way, Wangara, WA, 6090	Australia	fernando.rodriguez@alsglobal.com
Lancy Cai (National Quality Manager)	Australian Laboratory Services (Sydney)	277-289 Woodpark Rd, Smithfield, NSW 2164	Australia	lancy.cai@alsglobal.com
Peter Keating (Managing Director)	Bioscience	488 Nicholson Rd, Forrestdale, WA PO Box 5466, Canning Vale South , WA	Australia	bioscience@biosciencewa.com
Chris Gendle (Chemist)	CSBP Ltd – Soil and Plant	2 Altona St, Bibra Lake, WA 6163	Australia	chris.gendle@csbp.com.au
Nell Peisley (DNA Sequencing Coordinator)	CSIRO Analytical Chemistry Group - Agriculture	Clunies Ross St, Acton, ACT 2601 GPO Box 1600, Canberra, ACT 2601	Australia	nell.peisley@csiro.au
Claire Wright (ICP Technical Officer)	CSIRO Land and Water, Adelaide	Entrance 4 Waite Rd, Urrbrae, SA 5064 Private Bag 2, Glen Osmond, SA 5064	Australia	Claire.Wright@csiro.au
John Pengelly (Environmental Chemist)	CSIRO Land and Water Flagship	Wells Avenue, Charles Sturt University, Thurgoona, NSW 2640 POBox 789 Albury, NSW 2640	Australia	john.pengelly@csiro.au
Janine McGowan	CSIRO Soil, Carbon and Nutrient Cycling Lab, CSIRO Land and Water	Gate 4, Waite Rd, Urrbrae, SA 5064 PMB 2, Glen Orsmond SA 5064	Australia	janine.Mcgowan@csiro.au
Yvette Cheyne (Manager)	Dept of Environment and Science – Chemistry Centre	Block A - Level 3, 41 Boggo Road, Joe Baker Street, Loading Dock 3, Dutton Park, QLD 4102 Business Unit (ESP), GPO Box 2454, Brisbane, QLD 4001	Australia	Yvette.cheyne@des.qld.gov.au
Clarence Mercer (Technical Officer)	DPI Tamworth Soil Chemistry	4 Marsden Park Road, Calala, NSW, 2340	Australia	clarence.mercer@dpi.nsw.gov.au

Name (position)	*Facility*	*Street and/or Postal Address*	*Country*	*Email*
Subashini Munasinghe (Strategic Project and Technical Manager)	Dual Chelate Fertilizer Pty Ltd	162 New Guinea Road, Robinvale, Victoria, 3549	Australia	suba@dualchelate.com
Michael Smirk (Analytical Chemist)	Earth and Environment Analysis Laboratory (UWA)	University of Western Australia, 35 Stirling Highway, Crawley, WA 6009	Australia	Michael.Smirk@uwa.edu.au
Stephanie Cameron (Operations Manager)	East West EnviroAg	82 Plain St, Tamworth, NSW 2340	Australia	Stephanie.c@eastwestonline.com.au
Michael Glazier (Laboratory Manager)	Environmental and Analytical Laboratories, Charles Sturt University Boorooma Campus	Building 289 Nathan Cobb Drive, C/o Central Store, Binya Way, Wagga Wagga, NSW 2678	Australia	mglazier@csu.edu.au
Graham Lancaster (Laboratory Manager)	Environmental Analysis Laboratory	University Store, Military Road, East Lismore, NSW 2480 PO Box 5125, East Lismore, NSW 2480	Australia	Graham.Lancaster@scu.edu.au
Kellie Taylor (Lab Manager)	EP Analysis	26 Railway Tce, Cummins, SA 5631 PO Box 400, Cummins SA 5631	Australia	info@epanalysis.com.au
Richard Holdsworth (QA Chemist)	Intertek Genalysis	15 Davison Street, Maddington, WA, 6109 PO Box 144, Gosnells, WA, 6990	Australia	richard.holdsworth@intertek.com
Nicholas Heeny (Laboratory Systems Officer)	Logan City Council	96 Chetwynd Street, Loganholme, QLD, 4129	Australia	NicholasHeeney@logan.qld.gov.au
Stacey Hawkins (Supervisor)	MPL Laboratories	16 Hayden Court, Myaree, Western Australia, 6154	Australia	shawkins@mpl.com.au
Jack Milbank (Chief Innovation Officer)	Novum Lifesciences	1/5 Scotland Street, Bundaberg, QLD 4670 Locked Bag 3901, Bundaberg, QLD 4670	Australia	jack@novumlifesciences.com.au
Sally Granzin (Quality Assurance Coordinator)	NSW Deptartment of Primary Industries	1243 Brunxner Hwy, Wollongbar, NSW 2477	Australia	sally.granzin@dpi.nsw.gov.au
John Morritt (Lab Supervisor)	Nutrien Ag Solutions Ltd (pka Nutri Analytical – Landmark Operations)	Unit 2/34 Juna Drive, Malaga, WA, 6090	Australia	John.Morritt@Nutrien.com.au
Paul Kennelly (Laboratory Manager)	Nutrient Advantage Laboratory Services	8 South Rd, Werribee, VIC 3030	Australia	Paul.Kennelly@incitecpivot.com.au
Sarah Houston (Laboratory Manager)	Nutri-Lab Agricultural Labs	Lot 14 Troy Drive, Goondiwindi, QLD 4390 PO Box 782, Goondiwindi, QLD 4390	Australia	sarah@nutrilab.com.au
Rob Cirocco (Manager)	Phosyn Analytical	1/60 Junction Road, Andrews, QLD 4220 P.O.Box 2594, Burleigh MDC, QLD 4220	Australia	rcirocco@phosyn.com.au
Kevin Mincherton (General Manager)	Precision SoilTech	Unit 1/110 Robinson Ave, Belmont, WA 6104	Australia	kevin@precisionsoiltech.com.au
Allan Meyepa (Laboratory Quality Manager)	SGS Australia – Nottinghill	Unit 10, 585 Blackburn Road, Notting Hill, Melbourne, 3168	Australia	allan.meyepa@sgs.com
Pina Caminiti (Quality Co-ordinator)	SGS Environmental – Perth Airport – WA	28 Reid Road, Entrance C, Perth Airport, WA 6105	Australia	pina.caminiti@sgs.com

Name (position)	*Facility*	*Street and/or Postal Address*	*Country*	*Email*
Edward Ibrahim (Business Manager)	SGS Environmental – Alexandria	Unit 16, 33 Maddox Street, Alexandria, NSW 2015	Australia	edward.ibrahim@sgs.com
Maristela Ganzan (Quality Coordinator)	SGS Environmental Services – Portsmith Carins	Unit 2, 58 Comport Street, Portsmith, Cairns, QLD 4870	Australia	Maristela.Ganzan@sgs.com
Kristen Clancy (Senior Team Leader)	Soil and Water Environmental Laboratory – Dept of Planning, Industry and Environment (pka Soil Health and Archive Scientific Division, Office of Environment and Heritage Dept of Premier and Cabinet)	c/- Yanco Ag Institute – 2198 Irrigation Way East, Yanco, NSW 2703	Australia	Kristen.Clancy@environment.nsw.gov.au
Edward Mikail	SWEP Pty Ltd Analytical Laboratories	45-47 / 174 Bridge Rd, Keysborough, VIC 3173 PO Box 583, Noble Park, VIC 3174	Australia	tedmikhail@swep.com.au
My Chi Mai (Analytical Services Chemist)	Sydney Environmental and Soil Laboratory	16 Chilvers Rd, Thornleigh, NSW 2120 PO Box 357, Pennant Hills, NSW 1715	Australia	mychi@sesl.com.au
Michael Hall (Instrumentation Officer)	TrACEES – University of Melbourne	Level 4, Bldg 184, Parkville, VIC 3010	Australia	michael.hall@unimelb.edu.au
Joel Beloy (Laboratory Manager)	Tricor Analytical Lab Pty Ltd**	2 Greentek Court, Koorlong, VIC 3501	Australia	analysis@tricorlabs.com
Nana Satake (Scientific Manager)	University of Queensland - Analytical Services, Agriculture & Food Sciences	S327 (Reception) – Building 83 (Hartley Teakle), School of Agriculture and Food Sciences, University of Queensland, St. Lucia, Brisbane 4072	Australia	n.satake@uq.edu.au
Rozleen Deo (Techncial Officer)	Fiji Agricultural Chemistry Laboratory	Koronivia Research Station, Suva PO Box 77, Suva	Fiji	rozleen.deo@govnet.gov.fj
Dr. Deeksha Krishna (Assistant Professor)	Fiji National University Soil Science	Caff, Koronivia, Nausori, 1544	Fiji	deeksha.krishna@fnu.ac.fj
Doreen Pillay (Technical Officer)	Sugar Research Fiji	Visimiti Terrace, Drasa Avenue, Lautoka PO BOX 3560, Lautoka	Fiji	doreenp@srif.org.fj
Dr Vincent Lal (Laboratory Manager)	The University of the South Pacific - Fiji	Institute of Applied Sciences, Laucala (Lower) Campus, Laucala Bay road, Suva H91005083	Fiji	lal_v@usp.ac.fj
Dr Mohammad K Golabi (Soil Scientist)	University of Guam Soil Labs	College of Natural and Applied Sciences, University of Guam, Mangilao, GU96923	Guam	mgolabi@triton.uog.edu
Jose Carlos Leppe (Soil Analyst)	Analab – Asociacion Nacional Del Café	5TA. Calle 0-50 Zona 14, Edificio Del Café, Sotano 1, Analab	Guatemala	jose.cll@anacafe.org
Dr. Linca Angria (Quality Manager)	Indonesian Soil Research Institute (ISRI), Agricultural Research and Development	Laboratorium Penguji Balai Penelitian Tanah Jl., Tentara Pelajar No.12 Bogor	Indonesia	anggria_linca@yahoo.com
Mr. Takushi Oomoto	Nippon Total Science	Kansaikuko Sub-Station, Kobe Plant Protection Station CIQ Bldg., 1-banchi, Sensyukuko-naka, Tajiri-cho, Sennan-gun, Osaka 549-0011	Japan	oomoto@ntsc.co.jp

Name (position)	*Facility*	*Street and/or Postal Address*	*Country*	*Email*
Mr. Xaysatith Souliyavongsa (Deputy Chief of Soil Laboratory)	Department of Agricultural Land Management (DALAM)	Agricultural Land Use Planning Centre (ALUPC), DALAM, Ministry of Agriculture and Forestry, Nongviengkham Village, Xaitany District, Vientian	Lao Peoples Democratic Republic	xaysatith1@hotmail.com
Dr. Su Su Win	Department of Agricultural Research – Myanmar	Yezin, Nay Phi Taw, 15013	Myanmar	susuwinmyanmar@gmail.com
Leocadie Jamet (Manger)	Laboratoire des Moyens Analytiques – Nomea	101 Promenade Roger Laroque, Noumea, 98848	New Caledonia	leocadie.jamet@ird.fr
Brent Miller (Team Leader Agriculture)	Eurofins Food Analytics NZ Ltd, Auckland	35 O'Rorke Rd, Penrose, Auckland PO Box 12545, Penrose, Auckland 1642	New Zealand	Brentmiller@eurofins.co.nz
Tania Gunn	Genetic Technologies Ltd	3463 Ohaupo Rd, RD2, Rukuhia, Hamilton	New Zealand	tgunn@genetic.co.nz
Wendy Homewood (QA Officer Ag Division)	Hill Laboratories Ltd - Hamilton	28 Duke St, Frankton, Hamilton 3204 Private Bag 3205, Hamilton 3240	New Zealand	wendy.homewood@hill-labs.co.nz
Ngaire Foster (Laboratory Manager)	Landcare Research NZ Ltd	Cnr University Ave and Riddett Rd, Massey University Campus, Palmerston North 4472 Private Bag 11052, Palmerston North 4442	New Zealand	fostern@landcareresearch.co.nz
Chris Dunlop (Soil Scientist)	Plant and Food Research	Gerald Street, Lincoln, Canterbury, 7608 Private Bag 4704, Christchurch 8140	New Zealand	Chris.dunlop@plantandfood.co.nz
Edwin Njau	QLabs Ltd	4 Victoria St, Waipawa, Hawkes Bay 4210	New Zealand	lab@qlabs.co.nz
Eva Saunders	Ravensdown Ltd (ARL)	890 Waitangi Rd, Awatoto, Napier PO Box 989, Napier	New Zealand	eva.saunders@ravensdown.co.nz
Lisa Bullock	Terra Scientific	43a Morehouse Avenue, Addington, Christchurch 8011	New Zealand	lisa@terrascientific.co.nz
Kendra Newick (Laboratory Analyst)	Veritec	Scion – Te Papa Tipu Innovatoin Park, 49 Sala Street, Rotorua Private Bag 3020, Rotorua	New Zealand	kendra.newick@scionresearch.com
Joseph Kerage (Principle Chemist)	NARI Chemistry Laboratory	Boroko 111, National Capital District PO Box 8277, Boroko 111, National Capital District	Papua New Guinea	joseph.kerage@nari.org.pg
Sovera Guti (Laboratory Manager)	Unitech Analytical Services Laboratory	Department of Agriculture, PNG University of Technology, Morobe Province, 411	Papua New Guinea	sovera.guti@pnguot.ac.pg
Dr Gina P. Nilo (Chief, Laboratory Services Division)	Bureau of Soils and Water Management	Lab Services Division, Elliptical Road, Corner Visayas Avenue, Diliman Quezon City	Phillippines	ginapnilo@ymail.com
Fiame Leo (Manager Technical Service Div / Quality Manager)	Scientific Research Organisation of Samoa (SROS)	Plant & Food Technology Division, Nafanua Office PO Box 6597	Samoa	Fiame.Leo@sros.org.ws
Siaka Diarra (Associate Professor)	The University of the South Pacific - Samoa	School of Agriculture & Food Technology (SAFT), Alafua Campus, Apia, 685	Samoa	diarra_s@usp.ac.fj

Name (position)	*Facility*	*Street and/or Postal Address*	*Country*	*Email*
Ms. Juthamard Kaiphoem (Laboratory Manager)	Land Development Department, Thailand**	Office of Science for Land Development, 2003/61 Phaholyothin Road, Chatuchak, Bangkok	Thailand	juthamardkp1@gmail.com
Ms Piyanart Nuchniyom	Thaus Co Ltd	305 Moo 4 Soi Khun Vivian, Chang Wattana Rd, Thung Song Hong, Laksi, Bangkok 10210	Thailand	piyanart.nny@gmail.com
Gautam Kumar Upadhyay (Laboratory Manager)	PSN Life sciences International FZ-LLC	G0#4B, Laboratory Complex, Dubai Science Park, Al Barsha South 2, Umm Suqiem Rd PO Box 500349, Dubai	United Arab Emirates	gautam@psnl.ae
Do Duy Phai (Head of Central Analytical Lab)	Soils and Fertilizers Research Institute (SFRI) Vietnam	Central Analytical laboratory, SFRI, Le Van Hien St, Duc Thang, Bac Tu Liem, Ha Noi	Vietnam	phaidd.sfri@mard.gov.vn

Appendix 2: Summary examples of homogeneity data and statistical assessments for soil samples used in the ASPAC Soil ILPP in the 2020

Sample name		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
Sub-sample													
1	Rep 1	0.087	0.080	0.216	0.040	0.321	0.081	0.192	0.233	0.059	0.166	0.342	0.116
	Rep 2	0.085	0.081	0.218	0.038	0.328	0.079	0.188	0.260	0.058	0.173	0.341	0.116
2	Rep 1	0.086	0.081	0.217	0.042	0.326	0.080	0.191	0.255	0.055	0.160	0.347	0.114
	Rep 2	0.088	0.082	0.219	0.038	0.328	0.079	0.189	0.229	0.054	0.171	0.346	0.116
3	Rep 1	0.088	0.081	0.218	0.038	0.320	0.079	0.191	0.238	0.056	0.168	0.343	0.116
	Rep 2	0.087	0.081	0.219	0.037	0.326	0.078	0.178	0.246	0.058	0.169	0.346	0.114
4	Rep 1	0.087	0.081	0.218	0.039	0.325	0.078	0.192	0.213	0.058	0.163	0.340	0.113
	Rep 2	0.086	0.082	0.218	0.039	0.327	0.078	0.189	0.230	0.058	0.164	0.340	0.112
5	Rep 1	0.086	0.081	0.219	0.039	0.324	0.080	0.190	0.232	0.056	0.162	0.347	0.113
	Rep 2	0.088	0.082	0.217	0.039	0.327	0.080	0.190	0.230	0.056	0.163	0.342	0.111
6	Rep 1	0.087	0.081	0.217	0.040	0.321	0.081	0.189	0.210	0.056	0.175	0.343	0.113
	Rep 2	0.087	0.082	0.217	0.039	0.327	0.080	0.189	0.232	0.056	0.164	0.339	0.116
7	Rep 1	0.084	0.079	0.218	0.040	0.327	0.079	0.188	0.224	0.053	0.167	0.341	0.115
	Rep 2	0.084	0.082	0.217	0.039	0.332	0.080	0.189	0.250	0.055	0.177	0.344	0.113
8	Rep 1	0.083	0.080	0.216	0.039	0.329	0.078	0.190	0.237	0.053	0.163	0.339	0.120
	Rep 2	0.085	0.081	0.216	0.039	0.329	0.079	0.186	0.241	0.056	0.163	0.336	0.117
9	Rep 1	0.086	0.081	0.216	0.040	0.324	0.080	0.191	0.227	0.052	0.165	0.341	0.116
	Rep 2	0.085	0.081	0.217	0.039	0.327	0.080	0.188	0.241	0.056	0.167	0.342	0.114
10	Rep 1	0.087	0.081	0.217	0.040	0.324	0.079	0.188	0.226	0.054	0.170	0.347	0.117
	Rep 2	0.087	0.082	0.218	0.040	0.325	0.080	0.187	0.225	0.054	0.167	0.342	0.119

Mean	0.086	0.081	0.217	0.039	0.326	0.079	0.188	0.234	0.056	0.167	0.342	0.115
Analytical SD	8.9E-07	7.1E-07	6.5E-07	8.7E-07	9.3E-06	4.7E-07	1.2E-05	0.0002	1.8E-06	2E-05	4.7E-06	2.1E-06
Sampling SD	1.4E-06	0	3.1E-07	1E-07	0	1.3E-07	0	4.4E-06	2.2E-06	6.5E-07	4.6E-06	3.2E-06
SD proficiency data	0.0049	0.0084	0.014	0.068	0.118	0.0104	0.0095	0.0118	0.005	0.009	0.0123	0.009
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" 2020 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 2020: Air-Dry Moisture Content 2A1 (%)											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	2A1					1.02 ††	1.03 ††	1.03 ††	1.01				
10173	2A1	2.58 †	4.24	6.32	2.99	4.19	6.14	4.01	1.67	0.82 ††	0.77	2.3	3.32 ††
10181	2A1	3.59	5.54	7.99	3.89	4.18	6.74	4.46	1.67	1.26	1.05	2.98	4.61
20136	2A1									1.2	0.9	2.7	4.1
21088	2A1	1.83 ††	2.19 ††	3.51 ††	1.37 ††	3.6	5.8	3.9	1.5	1.19	0.91	2.58	4.07
21088	2A1	3.3	4.8	6.9	3.3	3.66	5.67	3.76	1.24				
21100	2A1	3.43	5.32	7.3	3.54	4.12	6.02	4.16	1.69	1.35	1.16	2.83	4.29
21115	2A1	2.99	4.62	6.92	3.21	3.78	6.18	4.07	1.49	1.11	0.88	2.61	4.03
21178	2A1					4.04	4.88 ††	3.98	4.53 ††				
21182	2A1	2.9	5.1	7	3.5	3.48	5.46	3.86	1.35	1.1	0.8	2.8	4.4
21190	2A1	3.61	5.49	7.71	3.86	1.04 ††	1.06 ††	1.04 ††	1.02	1.45	1.15	2.98	4.5
21193	2A1	3.48	5.18	7.37	3.65	3.89	6.07	4.32	1.4	1.63 ††	1.16	3.18	4.61
21230	2A1	3.44	5.03	7.27	3.7	3.99	6.72	4.56	1.59	1.18	0.99	2.92	4.5
50002	2A1									0.6 ††	0.8	2.87	1.1 ††
50005	2A1	3.26	4.49	6.5	3.36	3.49	5.67	3.74	1.31	1.17	0.941	2.64	3.91
50006	2A1	2.83	4.22	5.71	2.82	3.68	5.88	4	1.32				
50007	2A1	3.45	5.27	7.16	4.37	3.36	5.16 ††	3.64	1.28	1.26	0.99	2.65	4.13
50011	2A1	3.41	5.37	7.64	4.06	3.84	6.1	4.17	1.63	1.37	1.06	2.83	4.33
50012	2A1	2.51 †	4.47	6.34	3.11	2.88 ††	4.57 ††	2.32 ††	1.12	0.55 ††	0.69	1.85 ††	2.68 ††
50014	2A1	3.35	5.59	7.85	3.71	4.19	6.85 ††	4.36	1.66	1.22	0.995	2.86	4.47
50017	2A1	3.66	5.46	3.65 ††	3.89								
50019	2A1	3	4.6	6.7	3.2	3.6	5.8	4	1.3	1.2	0.95	2.8	4.1
50020	2A1	2.65	3.9	6.1	2.5	4	6.3	3.8	1.8	1.7 ††	1.4 ††	2.8	4.2
50023	2A1	3.41	5.28	7.58	3.89	4.07	6.1	4.43	1.53	1.48	1.13	2.99	4.63
50024	2A1	2.64 †	4.2	6.48	2.76	3.02 †	3.36 ††	3.15 ††	1.22	1.11	0.877	2.74	3.98
50025	2A1					4.1	6.2	4.3	1.7				
50027	2A1									1	0.83	2.52	3.66
50029	2A1	3.13	4.75	6.58	3.61	3.48	5.68	4.03	1.27	1.12	0.895	2.58	4.11
50031	2A1	3.8	5.7	8	4.4	4	6.5	4	1.5	1.3	1.1	3	4.8

50032	2A1	3.38		4.82		6.93		3.75		3.74		6.06		4.22		1.5		1.27		0.98		2.82		4.14	
50033	2A1	3.3		4.7		6.4		3.1		3.73		5.49		4		1.41		1.37		1.36	††	2.86		4.18	
50036	2A1									3	††	4.9	††	3.2	†	1		1.1		0.9		2.7		4.1	
50038	2A1	3.66		5.29		7.22		3.87		4.41		5.8		3.82		1.25		1.2		0.941		2.63		4.41	
50039	2A1	3.22		5.08		7.68		3.45		3.96		6		4.21		1.39		1.22		1.03		2.88		4.25	
52386	2A1	2.34	††	3.7		5.44		3.64																	
52435	2A1	2.87		4.14		6.29		2.93		3.15	†	4.69	††	3.11	††	1.13		1		0.82		2.2	††	3.45	††
52436	2A1	3.99	†	5.2		7.18		3.7		3.56		5.66		3.71		1.38		1.05		0.88		2.51		3.53	†
52437	2A1	1.43	††	2.44	††	3.04	††	1.53	††	1.62	††	3.35	††	1.94	††	0.84	††	1.67	††	1.72	††	3.72	††	4.68	
52491	2A1									4.26		5.8		4.43		1.58		0.1	††	0.94		2.86		4.16	
52508	2A1									3.05	†	5.27		3.39		1.23		1.14		0.849		2.52		4.12	
52526	2A1	2.22	††	3.67		5.01	†	3.05		3.5		5.8		3.8		1.3		1.33		1.14		2.59		3.89	
52527	2A1	1.2	††	2.9	††	5.7		2.2	††	3.6		6		4		1.4		1.4		1		2.6		3.7	
52565	2A1	3.4		5.3		7.7		3.6		3.9		5.8		4.3		1.5		1.3		1.1		3.1		4.5	
52632	2A1	3.21		33	††	7.15		3.27																	
52636	2A1	3.11		5.01		7.2		3.38		3.86		6.11		4.35		1.47		1.09		0.915		2.65		4.36	
52676	2A1									3.03	†	4.95	††	2.8	††	0.95									
52688	2A1	2.6	†	4.4		8.2		3		3.97		6.07		3.98		1.92		1.9	††	1.6	††	2.4		4.4	
52692	2A1	4	†	4		4	††	4		2.7	††	1	††	2.1	††	1		2.1	††	1.7	††	3		4.3	
52703	2A1	3.5		5.3		7.7		3.7																	
52808	2A1																	0.785	††	0.583	††	1.75	††	3.2	††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Electrical conductivity 1:5 soil-water (3A1) dS/m											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	3A1	0.108	0.162	0.199	0.111	0.165	0.198 †	0.229	0.118	0.0379	0.0703	0.5 ††	0.121 ††
10173	3A1	0.0978	0.149 †	0.18	0.101 †	0.164	0.188 ††	0.213	0.108 †	0.0371 ††	0.071	0.217	0.141
10181	3A1	0.106	0.164	0.209	0.109	0.174	0.233	0.23	0.12	0.0393	0.0783	0.215	0.149
20136	3A1									0.041	0.08	0.236 †	0.168 ††
20204	3A1	0.116	0.175	0.225	0.119	0.181	0.215	0.234	0.124	0.03 ††	0.076	0.213	0.142
21088	3A1	0.12	0.21 ††	0.25	0.12	0.17	0.27 ††	0.24	0.12	0.0413	0.072	0.212	0.16
21100	3A1	0.114	0.175	0.205	0.118	0.177	0.212	0.228	0.122	0.0377 ††	0.0721	0.212	0.145
21104	3A1	0.0927 ††	0.159	0.183	0.099 †					28.8 ††	53.8 ††	173 ††	108 ††
21115	3A1	0.107	0.166	0.2	0.105	0.181	0.221	0.23	0.122	0.04	0.08	0.22	0.148
21178	3A1	110 ††	180 ††	220 ††	120 ††	184 ††	226 ††	238 ††	134 ††	0.0419	0.0849	0.212	0.15
21182	3A1	0.115	0.175	0.236	0.116	0.19	0.225	0.231	0.127	0.039	0.07	0.204	0.131 †
21190	3A1	0.124	0.172	0.573 ††	0.121	0.104 ††	0.13 ††	0.137 ††	0.073 ††	0.0413	0.0822	0.225	0.175 ††
21193	3A1	0.105	0.17	0.203	0.115	0.168	0.2	0.216	0.119	0.036 ††	0.072	0.199 †	0.129 †
21229	3A1	0.11	0.18	0.24	0.11	0.184	0.24	0.248	0.126	0.045 ††	0.075	0.217	0.156
21230	3A1	0.101	0.162	0.194	0.109	0.174	0.213	0.221	0.121	0.0413	0.0703	0.201 †	0.132
21232	3A1	0.111	0.172	0.209	0.116	0.177	0.227	0.232	0.128	0.042	0.079	0.217	0.149
21234	3A1	0.116	0.183	0.119 ††	0.242 ††	0.177	0.233	0.228	0.13	0.033 ††	0.065 ††	0.011 ††	0.135
50002	3A1									0.1 ††	0.11 ††	0.1 ††	0.1 ††
50005	3A1	0.114	0.178	0.217	0.12	0.18	0.224	0.24	0.132	0.0425	0.0751	0.218	0.151
50006	3A1	0.12	0.2 †	0.27 ††	0.11	0.19	0.28 ††	0.24	0.13				
50007	3A1	0.112	0.179	0.221	0.112	0.186	0.26 ††	0.227	0.135	0.039	0.078	0.217	0.165 †
50011	3A1	0.119	0.194	0.24	0.115	0.17	0.22	0.225	0.118	0.037 ††	0.069	0.205	0.135
50012	3A1	0.13 ††	0.214 ††	0.272 ††	0.124	0.19	0.229	0.24	0.123	0.0424	0.0828	0.217	0.152
50013	3A1	0.109	0.174	0.22	0.113	0.178	0.222	0.224	0.126	0.04	0.072	0.208	0.14
50014	3A1	0.124	0.196	0.251	0.119	0.186	0.267 ††	0.257 †	0.128	0.041	0.077	0.221	0.161
50017	3A1	0.111	0.175	0.217	0.115								
50019	3A1	0.116	0.176	0.214	0.118	0.216 ††	0.282 ††	0.244	0.142 ††	0.08 ††	0.19 ††	0.39 ††	0.22 ††
50020	3A1	0.11	0.17	0.21	0.11	0.19	0.23	0.25	0.13	0.04	0.08	0.22	0.15
50023	3A1	0.108	0.171	0.221	0.114	0.175	0.218	0.224	0.122	0.039	0.079	0.218	0.143
50024	3A1	0.111	0.176	0.215	0.115	0.191 †	0.23	0.238	0.132	0.04	0.081	0.22	0.147
50025	3A1	0.108	0.168	0.205	0.111	0.174	0.216	0.219	0.118	0.041	0.076	0.214	0.154
50027	3A1	0.103	0.167	0.202	0.108	0.177	0.216	0.236	0.13	0.041	0.079	0.218	0.147
50029	3A1	0.111	0.179	0.228	0.11	0.171	0.227	0.231	0.12	0.0385	0.0693	0.216	0.148
50031	3A1	0.115	0.177	0.233	0.117	0.178	0.237	0.242	0.129	0.042	0.076	0.218	0.151
50032	3A1	0.111	0.175	0.212	0.115	0.183	0.213	0.226	0.123	0.04	0.078	0.215	0.145
50033	3A1	0.103	0.16	0.196	0.109	0.287 ††	0.437 ††	0.442 ††	0.205 ††	0.041	0.07	0.22	0.137

50036	3A1	0.107		0.165		0.201		0.109		0.174		0.199	†	0.223		0.12		0.042		0.079		0.216		0.148	
50038	3A1	0.105		0.193		0.232		0.116		0.196	††	0.244		0.245		0.148	††	0.045	††	0.088		0.241	††	0.15	
50042	3A1	0.089	††	0.156		0.198		0.105		0.151	††	0.18	††	0.188	††	0.111		0.037	††	0.072		0.231	†	0.121	††
50044	3A1									0.18		0.21		0.24		0.12		0.042		0.084		0.21		0.15	
52283	3A1	0.109		0.168		0.206		0.111		0.174		0.222		0.226		0.117		0.041		0.075		0.211		0.149	
52386	3A1	0.106		0.16		0.2		0.11																	
52387	3A1	0.126		0.186		0.207		0.199	††	0.175		0.21		0.233		0.117		0.0433		0.0773		0.233	†	0.154	
52435	3A1	0.124		0.19		0.24		0.128		0.193	†	0.229		0.223		0.141	††	0.043		0.074		0.212		0.128	††
52436	3A1	0.13	††	0.21	††	0.27	††	0.12		0.21	††	0.26	††	0.25		0.17	††	0.07	††	0.16	††	0.27	††	0.18	††
52437	3A1	0.08	††	0.16		0.2		0.11		0.16	†	0.17	††	0.2	††	0.11		0.04		0.08		0.23		0.14	
52491	3A1	0.122		0.19		0.244		0.124		0.167		0.224		0.225		0.116		0.042		0.081		0.224		0.148	
52494	3A1	0.118		0.193		0.241		0.119		0.202	††	0.225		0.243		0.133		0.042		0.083		0.225		0.162	
52508	3A1									0.181		0.246		0.218		0.17	††	0.0416		0.0771		0.222		0.154	
52526	3A1	0.136	††	0.198		0.225		0.116		0.18		0.228		0.234		0.125		0.0431		0.08		0.225		0.186	††
52527	3A1	0.135	††	0.18		0.216		0.116		0.196	††	0.247	†	0.251		0.129		0.049	††	0.098	††	0.235	†	0.167	†
52565	3A1	0.1		0.2	†	0.2		0.1	†	0.175		0.225		0.225		0.125		0.048	††	0.084		0.22		0.145	
52632	3A1	0.121		0.2	†	0.256	†	0.118																	
52636	3A1	0.0965		0.153		0.188		0.1	†	0.188		0.211		0.242		0.116		0.037	††	0.078		0.242	††	0.138	
52673	3A1	0.111		0.17		0.201		0.115		0.471	††	0.409	††	0.416	††	0.263	††	0.102	††	0.177	††	0.514	††	0.373	††
52676	3A1	140	††	209	††	236	††	129	††	0.193	†	0.223		0.23		0.134									
52691	3A1									0.172		0.262	††	0.243		0.119									
52692	3A1	0.12		0.17		0.22		0.11		0.19		0.22		0.23		0.13		0.042		0.084		0.227		0.146	
52700	3A1	0.112		0.139	††	0.167	††	0.095	††	0.315	††	0.245		0.296	††	0.118									

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Soil pH, 1:5 soil-water (4A1 + 4A3)											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	4A1	6.9 †	7.94	8.26	6.82	6.48	8.32	6.29	4.57	6.31	5.3	6.31	7.54
10166	4A1	7.15	8	8.43	6.87	6.68	8.35	6.43	4.79	6.42	5.54	6.45	7.68
10173	4A1	6.84 ††	7.62 ††	8.25	6.95	6.67	8.5	6.49	4.77	6.17	5.88 ††	6.22 ††	7 ††
10181	4A1	7.34	8.32	8.58	7.02	6.7	8.62 ††	6.56	4.77	6.44	5.58	6.47	7.9
20136	4A1									5.8 ††	5.05 ††	5.98 ††	7.17 ††
20204	4A1	7.23	8.08	8.38	6.95	6.66	8.32	6.47	4.68	6.24	5.43	6.41	7.64
21088	4A1	7.3	8.1	8.3	6.8	6.58	8.19	6.42	4.73	6.4	5.5	6.5	7.8
21100	4A1	7.1	8.06	8.35	6.86	6.71	8.52	6.48	4.71	6.42	5.51	6.44	7.8
21104	4A1	7.2	8.1	8.4	6.9					6.3	5.9 ††	6.4	7.7
21115	4A1	7.3	8.2	8.45	6.98	6.64	8.32	6.4	4.69	6.29	5.5	6.39	7.73
21178	4A1	7.2	8.1	8.4	6.9	6.71	7.88 ††	6.46	4.7	6.37	5.46	6.46	7.62
21182	4A1	7.2	8.2	8.5	7.1	6.64	8.24	6.7 ††	4.68	6.4	5.8 ††	6.3	7.6
21190	4A1	6.61 ††	7.38 ††	7.51 ††	7.56 ††	6.49	8.32	6.83 ††	4.64	6.3	5.31	6.29	7.64
21193	4A1	7.27	8.19	8.43	6.94	6.54	8.25	6.39	4.6	6.52	5.55	6.48	7.79
21215	4A1	6.7 ††	7.5 ††	7.2 ††	6.6 †	6.5	8.13	6.27	4.4 ††				
21229	4A1	7.24	8.26	8.51	7.02	6.67	8.45	6.52	4.68	6.44	5.54	6.45	7.82
21230	4A1	7.12	8.11	8.36	6.75	6.47	8.04 ††	6.1 ††	4.39 ††	6.01 ††	5.29	6.32	7.61
21232	4A1	7.06	8.08	8.46	6.93	6.51	8.29	6.29	4.66	6.34	5.44	6.35	7.69
21234	4A1	6.69 ††	7.98	6.48 ††	7.9 ††	6.49	8.17	6.11 ††	4.45 ††	5.94 ††	5.03 ††	5.98 ††	7.23 ††
50002	4A1									5.65 ††	7 ††	4.2 ††	3.8 ††
50005	4A1	7.24	8.16	8.39	6.85	6.56	8.38	6.45	4.7	6.34	5.58	6.45	7.74
50006	4A1	6.75 ††	7.65 ††	7.88 ††	7.27 †	6.67	7.54 ††	7.06 ††	5.28 ††				
50007	4A1	7.24	8.22	8.36	6.9	6.67	8.38	6.44	4.71	6.39	5.47	6.3	7.76
50011	4A1	7.28	8.26	8.54	6.96	6.7	8.52	6.49	4.71	6.52	5.65	6.53	7.89
50012	4A1	7.07	8.02	8.24	6.84	6.58	8.17	6.38	4.74	6.23	5.44	6.38	7.59
50013	4A1	7.19	8.14	8.37	6.8	6.58	8.37	6.45	4.65	6.3	5.5	6.4	7.7
50014	4A1	7.32	8.21	8.5	6.96	6.59	8.42	6.51	4.63	6.52	5.49	6.37	7.69
50017	4A1	7.37	8.3	8.49	6.99								
50019	4A1	8.3 ††	8.2	8 ††	6.5 ††	6.3 ††	6.6 ††	6.4	5.5 ††	6.85 ††	4.95 ††	5.6 ††	6.5 ††
50020	4A1	7.01	8.08	8.37	7.1	6.65	8.36	6.51	4.73	6.48	5.61	6.44	7.74
50023	4A1	7.17	8.13	8.43	6.94	6.65	8.36	6.38	4.73	6.3	5.42	6.37	7.68
50024	4A1	7.22	8.12	8.42	6.87	6.66	8.3	6.37	4.73	6.34	5.5	6.4	7.62
50025	4A1	7.42	8.2	8.37	7.1	6.63	8.3	6.5	4.63	6.3	5.52	6.42	7.62
50027	4A1	7.3	8.21	8.42	7	6.63	8.27	6.43	4.69	6.42	5.47	6.44	7.65
50029	4A1	7.24	8.22	8.49	6.94	6.65	8.46	6.46	4.7	6.41	5.57	6.46	7.79
50031	4A1	7.2	8.1	8.3	6.7	6.6	8.3	6.4	4.6	6.2	5.3	6.4	7.7

50032	4A1	7.15		8.15		8.39		6.76		6.54		8.27		6.37		4.59		6.28		5.5		6.36		7.54	
50033	4A1	7.32		8.31		8.55		6.9		6.5		8.25		6.31		4.58		5.8	††	5.41		6.39		7.6	
50036	4A1	6.7	††	7.9	†	6	††	7.1		6.6		8.1		6.6		4.8		6.3		5.4		6.2	††	7.6	
50038	4A1	6.56	††	7.46	††	7.91	††	6.34	††	6.2	††	7.78	††	5.98	††	4.32	††	5.85	††	4.95	††	5.87	††	7.15	††
50042	4A1	6.89	†	7.83	†	8.1		6.55	††	6.74		8.48		6.5		4.67		6.54		5.35		6.63	††	7.92	
50044	4A1									6.7		8.4		6.5		4.8		6.6		5.6		6.4		7.8	
52283	4A1	7.22		8.16		8.41		6.81		6.59		8.3		6.43		4.64		6.41		5.55		6.48		7.74	
52384	4A1	7.1		8.23		8.35		6.78																	
52386	4A1	6.9	†	7.8	†	8.1		6.9																	
52387	4A1	7.37		7.89	†	8.14		7.08		6.64		8.32		6.41		4.71		6.34		5.6		6.43		7.59	
52435	4A1	7.06		8.05		8.32		6.74		6.6		8.3		6.7	††	4.6		5.83	††	5.46		6.2	††	7.08	††
52436	4A1	7.09		7.92		8.15		6.82		6.69		8.37		6.43		4.47	††	5.47	††	4.56	††	5.73	††	7.16	††
52437	4A1	7.1		8.12		8.12		6.8		6.51		8.14		6.67	††	4.48	††	6.42		4.88	††	6.33		8.24	††
52491	4A1	7.3		8.27		8.5		6.91		6.66		8.44		6.6		4.7		6.43		5.54		6.33		7.5	
52494	4A1	7.05		8.06		8.3		6.73		6.61		8.43		6.37		4.58		6.13		5.23	††	6.22	††	7.57	
52508	4A1									6.72		7.9	††	6.3		4.49	††	6.22		5.24	†	6.37		7.64	
52526	4A1	7.21		7.99		8.3		7.08		6.7		8.2		6.6		4.8		6.41		5.49		6.42		7.72	
52527	4A1	7.2		8.2		8.3		7.1		6.6		7.8	††	6.4		4.7		6	††	5.4		6.2	††	7.3	††
52565	4A1	6.6	††	7.5	††	8	††	7.4	††	6.8		8.4		6.6		4.8		6.5		5.6		6.5		7.8	
52632	4A1	6.89	†	7.61	††	7.74	††	7.11																	
52636	4A1	7.25		8.09		8.42		6.92		6.63		8.38		6.43		4.73		6.42		5.59		6.47		7.42	
52673	4A1	6.18	††	7.41	††	7.78	††	6.87		5.78	††	6.72	††	5.82	††	4.04	††								
52676	4A1	6.68	††	7.67	††	7.84	††	6.76		6.01	††	7.7	††	5.69	††	4.58		5.51	††	5.13	††	5.56	††	6.68	††
52691	4A1									6.7		8.51		6.51		4.74									
52692	4A1	6.94		7.97		8.11		6.72		6.48		7.92	††	6.21	††	4.56	†	5.87	††	4.96	††	5.99	††	7.57	
52700	4A1	7.47		8.19		8.36		7.03		6.75		8.17		6.65	††	4.9	††								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: pH CaCl2 - Pooled (4B1 + 4B2 + 4B3 +4B4)											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10166	4B1	6.11	7.01	7.59	5.8	6	7.49	6.05	4.07	5.3	4.5	5.8	7.02
10181	4B2	6.11	7.32	7.83	5.77	6.04	7.87	6.1	4.08	5.41	4.55	5.86	7.24
20136	4B4									5.14 ††	4.23 ††	5.59 ††	6.77 ††
20204	4B2	6.12	7.31	7.77	5.73	6.02	7.67	6.1	4.05	5.42	4.48	5.87	7.12
21088	4B2	6.1	7.2	7.8	5.8	5.92	7.53	5.91	4.06	5.4	4.5	5.9	7.1
21100	4B4	6.08	7.21	7.72	5.8	6.31 ††	7.67	6.13	4.16	5.43	4.65 †	5.88	7.14
21178	4B3	6	7.2	7.7	5.7	6.05	7.71	6.05	4.02		4.56	6.11 ††	7.14
21182	4B1	6.2	7.4	8	5.9	6.53 ††	8.07 ††	6.41 ††	4.53 ††	5.8 ††	5 ††	6 †	7.1
21193	4B2	6.28 †	7.34	7.85	5.84	5.91	7.67	5.86	3.98	5.51	4.51	5.79	7.1
21229	4B2	6.23 †	7.31	7.74	6.04 ††	5.99	7.84	6	4	5.41	4.48	5.85	7.18
21230	4B2	6.08	7.26	7.79	5.7	5.62 ††	7.44	5.58 ††	3.64 ††	5.33	4.41	5.77	7.05
21232	4B2	6.12	7.32	7.83	5.84	6.01	7.69	5.87	4.21 †	5.44	4.78 ††	5.83	7.12
50005	4B1	6.08	6.99	7.53	5.61	5.84	7.57	5.78	4.06	5.3	4.49	5.81	7.04
50005	4B2	6.05	7.23	7.81	5.86	5.85	7.66	5.81	4.05	5.31	4.44	5.83	7.06
50011	4B2	6.05	7.27	7.83	5.74	5.95	7.75	5.92	3.94	5.32	4.51	5.79	7.06
50012	4B4	5.93 †	7.05	7.63	5.73	6.12	7.93	6.2	4.13	5.37	4.47	5.81	6.94
50013	4B2	6.15	7.21	7.75	5.72	5.91	7.63	5.98	4	5.4	4.5	5.8	7.1
50014	4B1	6.01	7.11	7.74	5.77	6.03	7.62	6.01	4	5.3	4.41	5.76	6.96
50017	4B2	6.19	7.38	7.88	5.82								
50019	4B1	6.7 ††	6.8 ††	7 ††	6.5 ††	5.4 ††	6.1 ††	5.9	3.4 ††	5.7 ††	4.95 ††	5.15 ††	6.2 ††
50020	4B4	6.09	7.17	7.69	6.13 ††	5.96	7.65	6.03	4.09	5.33	4.55	5.67	6.95
50023	4B2	6.09	7.34	7.91	5.92	5.91	7.61	5.84	4.03	5.21	4.39	5.73	7.02
50024	4B1	6.16	7.31	7.81	5.77	6.05	7.72	6.03	4.11	5.3	4.41	5.86	7.05
50027	4B1	6.12	7.2	7.71	5.78	5.94	7.58	5.97	3.95	5.32	4.4	5.78	6.96
50027	4B2	6.12	7.31	7.84	5.78	5.97	7.66	5.95	4	5.41	4.5	5.88	7.1
50029	4B3	6.09	7.21	7.77	5.73	5.93	7.64	5.93	3.95	5.29	4.44	5.81	7.03
50036	4B1	6	6 ††	6.2 ††	6 †	6	7.4	6.1	4	5.4	4.5	5.6 †	7.1
50044	4B2					6.2 †	7.9	6.1	4.2 †	5.6	5 ††	6 †	7.2
52317	4B3	6.07	7.12	7.65	5.66	5.92	7.58	5.93	3.98	5.45	4.53	5.89	7.21
52386	4B3	6	7.1	7.4 ††	5.7								
52387	4B1	5.97 †	7.1	7.63	6.17 ††	5.96	7.62	5.98	3.97	5.31	4.44	5.81	6.99
52491	4B2	6.11	7.28	7.83	5.72	6.01	7.72	6.06	4.04	5.47	4.46	5.74	6.85 †
52494	4B1	6.12	7.35	7.86	5.76	6.01	7.84	5.93	3.97	5.34	4.44	5.8	7.06
52526	4B1	5.9 †	7.09	7.53	5.57 †	6.3 ††	7.5	6.2	4	5.78 ††	5 ††	6.13 ††	7.22
52527	4B2	5.9 †	7.1	7.5	5.5 ††	6.1	7.7	6.1	4.1	5.4	4.4	5.8	6.9
52565	4B2	5.6 ††	6.5 ††	7.2 ††	6.4 ††	6.2 †	7.8	6.2	4.2 †	5.5	4.5	5.8	7.1

52636	4B1	6.31	††	7.16		7.52		5.93		5.98		7.47		6.02		3.94		5.41		4.48		5.72		6.75	††
52692	4B1	5.89	†	6.78	††	7.27	††	5.67		5.65	††	7.26	††	5.82		3.74	††	5.02	††	4.2	††	5.56	††	6.89	

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Water Ext Cl - Pooled (5A1 + 5A2 + 5A3) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20136	5A1									9.26	16.4	67.8	8.4
20204	5A1	18.1	22.6	23.3	30.3	11.1	8.46	55.1	24.5	8.7	18.5	65.7	10.2
21088	5A2	19.5	25.8	23.3	33.7	17.3	8.5	53.2	26.8	8.1	18.1	75.1	9.6
21100	5A2	21.3	55.4 ††	61.3 ††	92.9 ††	14.1	20.4 ††	54.2	16.1	11.7	17.9	106 ††	12.7
21104	5A1	155 ††	61.8 ††	55.6 ††	74.2 ††								
21115	5A2	20.8	23.7	19.2	97.5 ††	9.81	6.63	48.2	16.6	12	14.5	64.9	8.44
21178	5A3	16	20	19	28					8.55	14.7	68.9	7.8
21182	5A1	51 ††	40 ††	26	686 ††	24.5 ††	12.3	61.5	29.8 †	14	19	76 †	9
21193	5A1					12.5	1 ††	51.7	32.5 ††	27.4 ††	27.5 †	69.2	22.5 ††
21229	5A2	15.8	18.5	19.6	29.6	9.96	7.5	49.9	13	7.02	12.8	59	5.06
21230	5A1	18.5	23.6	20.4	36.2								
21232	5A1	21.7	23.8	21.1	29.5	13.2	12.5	50.5	16.3	19.4 ††	24.3	65.9	19.4 ††
50005	5A1	22.5	23.3	27.3	3.38 ††	12.4	10.7	54.1	17.5	15.6	18.3	66.4	11
50011	5A1	20.9	24.5	25.8	35	8.95	9.22	49	14.6	12.1	13.1	60.4	10.7
50012	5A2	19	23	20	66 ††	8.9	8.2	53	13	8	15	67	7.9
50013	5A1	19.3	24.1	25.7	32.9	16.2	10.2	58.1	26.4	10.1	20.8	73.8	9.05
50014	5A1	15.5	20.6	18.2	31.7	8.1	7.89	51	13.5	9.64	16.7	65.7	9.48
50019	5A1					1140 ††	843 ††	149 ††	695 ††				
50020	5A2	29 ††	29.5	26	273 ††	10		46.5	13.5	21.5 ††	14.5	74	12
50023	5A1	17.1	21.5	19	32.4	7.56	7.11	50.9	12.6	7.89	15.5	64.8	7.49
50024	5A3	17.1	20	18	29.6	9.82	10.1	51.9	15.4				
50025	5A1	15.3	19	17	29.3	8.83	10	59.6	11	10.9	13.2	52.5 ††	11
50027	5A1	16	20	16	32	3	7	55	12	10	14	65	7
50029	5A2	29.7 ††	31.9	26.7	79.4 ††	24.9 ††	19.6 ††	57.4	36.2 ††	18 ††	20.9	67.9	15.9
50031	5A1	19.6	23.8	21.8	34.4	9.6	9.7	53.5	15.1	10.2	17.3	65.9	12.7
50032	5A1	27 †	43 ††	39 ††	33	16	23 ††	58	15	11	20	65	12
50036	5A1	20	30	20	30					10	30 ††	90 ††	10
50042	5A1	55 ††	52 ††	40 ††	64 ††	114 ††	193 ††	166 ††	82 ††	83 ††	49 ††	167 ††	94 ††
50044	5A2					14	10	57	27	10	23	76 †	12
52386	5A1	10 ††	8 ††	8 ††	24 †								
52494	5A1	17.2	21	20	31.5	2.92	2.15 †	50.9	12.7	8.15	14.4	70.1	9.38
52508	5A1					6.25	13.7	11.8 ††	32.2 ††	3.6 †	6.7 ††	35.5 ††	13.7
52526	5A1	27.8 †	28.9	24.6	33			60	20		17.6	72.9	
52527	5A1	50 ††	30	30 †	40 †	14.5		59.4	26.5	15.3	32.2 ††	83.3 ††	19.6 ††
52565	5A2	17.2	17	20.9	33.5	24.8 ††	17.9 †	49.2	27.9 †	14.6	26.2	72.5	14.6
52632	5A2	11 †	28	31 †	23 †								

52691	5A2					17.2	14.2	52.5	25.9				
52692	5A1	212 ††	83 ††	256 ††		118 ††	29 ††	86 ††	27				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Organic Carbon — W&B (6A1) %											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	6A1	0.8	0.7	2.09	0.43	2.94	0.55	1.55	4.15	0.55	1.83	2.77	1.22
21100	6A1	0.576	0.578	1.73	0.325	2.98	1.23 ††	2.01 ††	3.59	0.521	1.66	2.59	1.25
21104	6A1									0.4	1.82	2.72	1.06
21178	6A1	0.99	0.89	2.6 †	0.52	2.55 †	0.603	1.51	3.56	0.544	2.37 ††	3.3 ††	1.39 ††
21190	6A1	0.65	0.61	2.28	0.2 ††	3.41 ††	0.606	1.93 ††	4.88 ††	0.49	1.97	3.01	1.02 †
21193	6A1	0.856	0.691	2.07	0.53	2.9	0.844	1.77	3.91	0.48	1.83	2.67	1.14
21215	6A1	1.3 ††	0.58	2.16	0.32	2.9	0.43	1.66	4.42				
21229	6A1	0.739	0.645	1.93	0.376	2.85	0.65	1.6	3.61	0.41	1.79	2.66	1.1
21232	6A1	0.854	0.73	1.96	0.484	3.18	0.78	1.84	4.18	0.56	1.98	2.63	1.08
21234	6A1	0.975	0.765	2.43	0.46	3	0.547	1.58	4.05	0.405	1.88	3.09 †	1.21
50002	6A1									1.37 ††	2.16 ††	1.81 ††	1.68 ††
50005	6A1	0.788	0.705	2.11	0.409	3.23	0.661	1.72	3.67	0.466	1.87	2.88	1.16
50006	6A1	0.6	0.4 ††	0.51 ††	0.89 ††	3.34 †	2.36 ††	4.64 ††	5.78 ††				
50007	6A1	0.9	1.09 ††	2.64 †	0.6	2.94	0.75	1.66	3.72	0.39	1.95	2.62	1.08
50011	6A1	0.795	0.695	2.07	0.439	2.36 ††	0.604	1.34 †	3.85	0.426	1.82	2.73	1.21
50012	6A1	0.769	0.627	2.03	0.449	2.82	0.723	1.55	4.62	0.465	1.9	2.58	1.17
50014	6A1	0.886	0.75	2.06	0.415	3.1	0.814	1.69	4.05	0.489	1.8	2.76	1.21
50020	6A1	1.03	0.83	2.55	0.41	3.05	0.75	1.6	3.7				
50025	6A1	0.813	0.787	1.92	0.48	2.42 ††	0.544	1.28 ††	2.94	0.367	1.34 ††	2.1 ††	0.86 ††
50027	6A1	0.84	0.74	2.04	0.43	2.96	0.72	1.68	4.16	0.48	1.77	2.77	1.2
50029	6A1	0.71	0.78	2.13	0.39	2.79	0.8	1.57	3.75	0.8 ††	1.48 ††	2.71	1.13
50031	6A1	0.976	1.05 ††	2.38	0.585	3.04	0.77	1.65	3.6	0.62	1.92	2.82	1.28
50032	6A1	0.667	0.587	1.73	0.368	2.66	0.55	1.53	3.39	0.43	1.8	2.12 ††	0.823 ††
50038	6A1	0.779	0.654	1.81	0.487	5.37 ††	1.63 ††	3.13 ††	7.75 ††	0.429	1.5 ††	2.19 ††	1.36 ††
52384	6A1	1.62 ††	1.3 ††	3.99 ††	0.92 ††								
52386	6A1	0.96	0.85	2.5	0.55								
52435	6A1	0.88	0.73	2.13	0.48	2.7	0.63	1.57	3.41	0.35	1.59 ††	2.46	1.1
52436	6A1	0.9	1.86 ††	0.9 ††	0.44	3.78 ††	0.95	2.07 ††	4.66	0.5	2.14 ††	3.23 ††	1.43 ††
52437	6A1	0.95	0.88	2.23	0.53	3.36 †	0.84	1.89 ††	3.85	0.54	2.17 ††	3.05	1.25
52673	6A1	1.49 ††	0.99 †	3.3 ††	0.66 ††	5.38 ††	1.08 ††	2.73 ††	6.53 ††	0.57	2.35 ††	3.12 ††	1.59 ††
52676	6A1	9.18 ††	8.25 ††	24 ††	4.72 ††	3.04	0.92	1.73	4.56				
52692	6A1	0.74	0.75	2.05	0.49	2.69	0.73	1.57	2.19 ††	0.66	2.92 ††	4.35 ††	1.97 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Total Carbon — Dumas (6B2) %											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	6B2	0.879	0.752	2.36	0.432	3.24	0.849	1.77	4.49	0.495	1.86	2.87 ††	1.16 ††
8888	6B2	0.854	0.739	2.41	0.408	3.28	0.842	1.72	4.14	0.424	1.87	2.98	1.4
10156	6B2					3.22	0.81	1.8	4.04	0.41	1.99	3.07	1.37
10173	6B2	0.868	0.753	2.46	0.459	3.36	0.911	1.78	4.38	0.474	1.98	2.96	1.35
10181	6B2	0.951	0.812	2.5	0.496	3.41	0.837	1.89	4.47	0.509	1.99	3.13	1.49
20204	6B2	1.05 ††	0.773	2.64	0.453	3.54	0.915	1.99	4.57	0.49	2.05	3.18	1.53
21100	6B2	0.975	0.866 ††	2.6	0.518	3.57	0.957	1.98	4.4	0.5	1.98	3.1	1.54
21229	6B2	0.91	0.78	2.42	0.459	3.37	0.91	1.86	4.38	0.49	2.02	3.11	1.4
21230	6B2	0.922	0.778	2.57	0.423	3.35	0.903	1.91	4.29	0.435	1.97	3.05	1.44
21232	6B2	0.993 †	0.847	2.4	0.506	3.2	0.937	1.82	4.04	0.525	2.08	3	1.47
50005	6B2	0.932	0.788	2.37	0.494	3.22	0.884	1.82	4.65	0.466	2.05	3.09	1.44
50011	6B2	0.917	0.78	2.49	0.437	3.32	0.854	1.9	4.31	0.481	2.07	3.17	1.52
50012	6B2	0.917	0.805	2.59	0.448	3.48	0.901	1.91	4.11	0.444	1.95	3.11	1.45
50014	6B2	0.952	0.823	2.6	0.476	3.36	0.91	1.9	4.53	0.464	2.02	3.19	1.57
50017	6B2	0.902	0.798	2.47	0.447								
50020	6B2	0.97	0.84	2.76	0.49	3.53	0.99	1.97	4.55	0.52	2.03	3.15	1.6
50024	6B2	0.919	0.807	2.57	0.461	3.34	0.901	1.87	4.42	0.452	1.97	3.11	3.98 ††
50027	6B2					3.6	1.12 ††	1.85	5 ††	0.51	2.14 ††	3.05	1.32
50029	6B2					3.51	0.996	1.98	4.54	0.558 ††	2.15 ††	3.25	1.54
50033	6B2	0.93	0.8	2.55	0.45	3.36	0.89	1.88	4.05	0.459	1.99	3.15	1.49
50039	6B2	0.97	0.83	2.5	0.48	3.38	0.93	1.92	4.28	0.47	1.94	3.1	1.48
52283	6B2	0.922	0.806	2.43	0.451	3.37	0.891	1.89	4.23	0.472	2.05	3.14	1.46
52386	6B2	0.84 ††	0.71 ††	2.2	0.41								
52491	6B2	0.929	0.793	2.43	0.453	3.28	0.869	1.83	4.15	0.473	1.95	3.01	1.46
52543	6B2									0.418	1.97	2.99	1.42
52565	6B2	0.9	0.7 ††	2.3	0.4	3.2	0.9	1.8	4.3	0.45	1.9	2.9 ††	1.4
52632	6B2	0.9	0.8	2.6	0.4								
52636	6B2	0.896	0.762	2.45	0.461	3.26	0.826	1.84	4.74	0.465	2.08	3.05	1.59
52676	6B2									0.482	1.94	2.95	1.5
52703	6B2	1.1 ††	0.929 ††	2.74	0.436								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Total Organic Carbon - Pooled (6B1 + 6B3 + 6B5) %											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	6B3	0.86	0.73	2.38	0.36								
20136	6B3									0.446	2.05	3.01	1.19
20204	6B3	0.715	0.61 ††	2.15	0.435	3.17	0.725	1.64	3.96	0.44	2.06	3.08	1.44
21088	6B1	0.851	0.808	2.24	0.497	2.92	0.77	1.7	4.26	0.524	1.94	3.01	1.37
21100	6B3	0.989	0.863	2.58	0.52	3.41	0.799	1.9	4.39	0.448	2	3.18	1.48
21115	6B3									0.52	1.91	2.94	1.4
21182	6B1	0.92	0.74	2.28	0.46	2.9	0.659	1.64	3.89	0.42	1.96	3.05	1.43
21229	6B1					3.15	0.75	1.75	4.27	0.45	1.96	2.83 †	1.28
21230	6B3	0.915	0.77	2.48	0.409	3.3	0.041 ††		4.26	0.435	1.97	3.05	1.42
50005	6B3	0.911	0.743	2.11	0.481	3.19	0.717	1.8	4.64	0.461	2	3.01	1.43
50011	6B3	0.84	0.776	2.28	0.437	2.91	0.8	1.76	4.45	0.426	1.82	2.73 ††	1.21
50012	6B3	0.895	0.803	2.53	0.462	3.5	0.78	1.84	4.2	0.466	1.95	3.15	1.49
50014	6B3	0.949	0.815	2.52	0.428	3.25	0.814	1.85	4.6	0.455	2.03	3.14	1.51
50020	6B3	1.05	0.85	2.66	0.48	3.57	0.9	1.64	4.64	0.5	2.04	3.19	1.57
50023	6B3	0.92	0.78	2.53	0.45	3.38	0.79	1.88	4.34	0.47	1.98	3.12	1.47
50027	6B3					3.6	0.71	1.85	5 ††	0.51	2.14	3.05	1.19
50036	6B1	1	0.8	2.3		3.3	1 †	2.4 ††	4.6		2.1	2.9	1.2
50039	6B3	0.97	0.83	2.5	0.48	3.38	0.81	1.92	4.28	0.47	1.94	3.1	1.48
52508	6B1					4.78 ††	2.24 ††	2.34 ††	4.2	0.59 ††	1.87	2.99	1.68 ††
52526	6B1	0.84	0.73	1.86 ††		3.2	0.7	1.7	4		2.06	3.01	1.23
52527	6B3	0.9	0.8	2.5		3.65	0.897	1.98	5.01 ††	0.5	2.2 ††	3.3 ††	1.5
52565	6B3	0.8	0.7	2.2	0.4	3.1	0.7	1.8	4.1	0.43	1.8	2.9	1.3

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Total N — Pooled (7A1 + 7A2) %											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10181	7A2					0.303	0.0736	0.176	0.205	0.0472	0.163	0.328	0.109
21088	7A2	0.0768	0.074	0.183	0.03	0.28	0.06	0.17	0.21	0.0364	0.143	0.289	0.1
21104	7A1	0.095	0.091	0.214	0.043					0.04	0.2 ††	0.38 ††	0.13
21178	7A1	0.095	0.088	0.2	0.04					0.0384	0.139	0.23 ††	0.105
21182	7A2	0.09	0.09	0.22	0.004 ††	0.336	0.0904	0.206	0.22	0.0458	0.168	0.314	0.116
21190	7A1	0.058	0.044	0.09 ††	0.015	0.277	0.104	0.176	0.199 †	0.031	0.156	0.286	0.097
21215	7A1	0.072	0.010 ††	0.262 †	0.045	0.41 †	0.123 ††	0.293 ††	0.331 ††				
21229	7A2	0.09	0.08	0.222	0.04	0.32	0.076	0.185	0.22	0.044	0.163	0.334	0.1
21232	7A1	0.0844	0.082	0.194	0.038	0.304	0.092	0.179	0.213	0.062 ††	0.174	0.321	0.115
21234	7A1	0.0846	0.07	0.167	0.03	0.327	0.071	0.192	0.222	0.043	0.155	0.321	0.1
50002	7A1									0.18 ††	0.16	0.14 ††	0.18 ††
50006	7A1					0.0064 †	0.0022 ††	0.0037 ††	0.0067 ††				
50007	7A1	0.09	0.08	0.22	0.04	0.31	0.08	0.19	0.27 ††	0.04	0.059 ††	0.321	0.107
50014	7A2	0.0827	0.076	0.221	0.033	0.333	0.088	0.203	0.221	0.0395	0.162	0.328	0.109
50031	7A2	0.104	0.09	0.252	0.127 ††	0.323	0.085	0.195	0.22	0.056	0.177	0.358	0.136
50036	7A1	0.077	0.074	0.197	0.03	0.296	0.083	0.17	0.19 †	0.05	0.16	0.31	0.11
50038	7A1	0.101	0.095	0.239	0.072 ††	1.89 †	5.44 ††	1.16 ††	1.27 ††	0.013 ††	0.05 ††	0.104 ††	0.033 ††
50044	7A1					0.33	0.082	0.2	0.23	0.0421	0.17	0.35	0.11
52386	7A2	0.086	0.091	0.21	0.042								
52436	7A1	0.09	0.08	0.21	0.05	0.31	0.08	0.2	0.22	0.06 †	0.17	0.33	0.1
52437	7A1	0.07	0.08	0.18	0.04	0.312	0.0952	0.211	0.224	0.1 ††	0.32 ††	0.62 ††	0.22 ††
52508	7A1					0.36	0.087	0.209	0.214	0.07 ††	0.187	0.365	0.134
52543	7A1									0.043	0.161	0.318	0.098
52636	7A1	0.069	0.061	0.206	0.022	0.342	0.066	0.191	0.268 ††	0.017 ††	0.172	0.367	0.089
52692	7A3	0.08	0.06	0.15 †	0.04	0.2 †	0.07	0.16	0.14 ††	0.05	0.11 ††	0.18 ††	0.07 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Total N – Dumas (7A5) %											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	7A5	0.075 †	0.068	0.203	0.028	0.319	0.08	0.178	0.234	0.044	0.162	0.309 †	0.085 ††
8888	7A5	0.098	0.09	0.218	0.043	0.316	0.092	0.164 ††	0.214	0.048	0.154	0.328	0.105
10156	7A5	0.095	0.089	0.227	0.049	0.33	0.09	0.2	0.23	0.03 ††	0.16	0.33	0.1
10173	7A5	0.0857	0.085	0.235	0.054 †	0.34	0.0902	0.18	0.238	0.0504	0.17	0.328	0.0945
10181	7A5	0.0953	0.088	0.227	0.047	0.332	0.0934	0.185	0.237	0.0555	0.175	0.351	0.123
20136	7A5									0.0481	0.146 ††	0.292 ††	0.109
20204	7A5	0.0836	0.075	0.22	0.027	0.339	0.077	0.191	0.231	0.038	0.174	0.346	0.113
21088	7A5	0.0743 ††	0.070	0.205	0.027	0.314	0.072	0.18	0.212				
21100	7A5	0.08	0.076	0.226	0.033	0.317	0.0679	0.165	0.21	0.0345 †	0.143 ††	0.322	0.0987
21229	7A5	0.09	0.08	0.202	0.049	0.329	0.086	0.181	0.231	0.057	0.175	0.345	0.108
21230	7A5	0.104 ††	0.075	0.223	0.042	0.274 ††	0.0559	0.157 ††	0.18 ††	0.0282 ††	0.145 ††	0.307 †	0.0958
50005	7A5	0.0906	0.083	0.25	0.028	0.307	0.0668	0.172	0.229	0.0378	0.168	0.339	0.112
50011	7A5	0.089	0.085	0.215	0.04	0.325	0.081	0.192	0.22	0.047	0.167	0.347	0.117
50012	7A5	0.0901	0.085	0.235	0.039	0.346	0.0827	0.198	0.213	0.0651 ††	0.186	0.388 ††	0.147 ††
50013	7A5	0.087	0.087	0.213	0.035	0.4 ††	0.091	0.194	0.227	0.044	0.154	0.321	0.103
50014	7A5	0.0873	0.082	0.232	0.035	0.336	0.0777	0.195	0.234	0.0465	0.187	0.353	0.147 ††
50017	7A5	0.0881	0.085	0.218	0.034								
50019	7A5	0.083	0.076	0.21	0.033	0.332	0.0734	0.192	0.234	0.0516	0.172	0.348	0.118
50020	7A5	0.11 ††	0.1	0.25	0.06 ††	0.35	0.12 ††	0.2	0.36 ††	0.06 †	0.18	0.36	0.13
50023	7A5	0.09	0.09	0.23	0.04	0.33	0.08	0.19	0.22	0.05	0.17	0.35	0.12
50024	7A5	0.099	0.093	0.246	0.044	0.351	0.093	0.2	0.246	0.045	0.176	0.356	0.116
50027	7A5	0.086	0.099	0.203	0.069 ††	0.344	0.09	0.188	0.267 ††	0.05	0.172	0.323	0.106
50029	7A5	0.0838	0.073	0.227	0.025	0.339	0.0708	0.188	0.225	0.0476	0.181	0.356	0.117
50033	7A5	0.086	0.08	0.226	0.035	0.326	0.079	0.191	0.207	0.039	0.164	0.342	0.111
50039	7A5	0.086	0.079	0.22	0.03	0.324	0.063	0.182	0.208	0.042	0.167	0.346	0.111
52283	7A5	0.092	0.082	0.209	0.035	0.321	0.079	0.19	0.212	0.041	0.169	0.322	0.108
52491	7A5	0.0861	0.077	0.226	0.035	0.321	0.0781	0.187	0.215	0.0458	0.167	0.336	0.115
52526	7A5	0.092	0.092	0.213	0.038	0.332	0.097	0.185	0.206	0.0475	0.157	0.26 ††	0.12
52527	7A5	0.083	0.077	0.198	0.034	0.345	0.087	0.204	0.217	0.05	0.164	0.347	0.115
52565	7A5	0.1 †	0.1	0.2		0.33	0.09	0.2	0.24	0.052	0.17	0.35	0.12
52632	7A5	0.12 ††	9.24 ††	8.86 ††	4.09 ††								
52676	7A5									0.048	0.164	0.33	0.109
52703	7A5	0.082	0.095	0.293 ††	0.051								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Water Soluble Nitrate N - Pooled (7B1 +7B2) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	7B1	4.13	4.04 ††	1.71 ††	2.99	0.65	8.05	65.7	0.2 ††	5.67	1.33	0.402	33
21115	7B1	7	6.63	1.7 ††	2.9	1.22	8.28	68	5.52	5.42	0.44	0.51	28
21178	7B1	4.6	6	5.6	2.3					5.14	0.05	0.05 †	27.5
21182	7B1	6	1 ††	4		1	7	58	5				
21232	7B1	8.28	6.98	6.82	2.64	1.29	7.82	65.5	5.6	5.95 †	1.22	1.55 ††	31.6
50005	7B1	10.7	6.58	6.16	1.93	0.895	7.94	60.1	5.98	4.11 ††	1.12	0.515	30.9
50013	7B1	6.58	4.74 ††	3.89	2.25	0.7	7	62.9	3.3 †	5	0.075		28.5
50014	7B1	8.58	6.53	6.5	2.56	1.35	7.96	66.1	5.83	5.22	0.624	0.631	31.7
50020	7B1	8.65	6.95	5.95	5.65 ††		9.35 †	88.5 ††	5.95	6.1 †			32
50025	7B1	8.83	7	6.5	3.25	2.13 †	9.5 ††	71	6.83	7 ††	2.2 ††	2.4 ††	32
50029	7B1	5.92	6.14	5.66	2.18	0.931	7.68	65.5	5.17	5.08	0.557	0.528	30.8
50031	7B1	5.5	6.4	5.8	2.8	1.2	7.6	68	4.3	5.1	0.5	0.49	30.1
50032	7B1	9.3	11 ††	11 ††	3.4	5.2 ††	22 ††	72	6	5.6	1.5	0.53	31
50036	7B1						0.4 ††			4.9			31
50042	7B1	13	12 ††	16 ††	10 ††	20 ††	32 ††	30 ††	12 ††	33 ††	42 ††	49 ††	75 ††
50044	7B1					0.5	12 ††	66	37 ††	5.1			28
52526	7B1	4.8	4.9 ††	3.9	2.2	0.6	8	68.8	3.5 †	4.6	0.1		28.7
52527	7B1	4.6	6.2	4.6	1.1 †	0.6	8.3	66.3	3.7	5	0.2	0.1 †	29.4
52543	7B1									4.3 †	0.24	0.28	26
52565	7B1	6.5	6.8	6.6	2.5	2.8 ††	8	63.5	6.5	5.3	0.5	1.6 ††	29.1
52632	7B1	8.23	9.24 ††	8.86 †	4.09 †								
52691	7B2					0.976	6.67 †	59.2	4.93				
52692	7B1	19 ††	26 ††	113 ††	32.3 ††								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: KCl Extractable Nitrate N — autocolour (7C2) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	7C2	7.14	6.21	5.82	2.23	0.924	6.98	61.7	4.87 †	4.99	0.308	0.328	26.6
8888	7C2	4.76	4.53 ††	4.49 †	1.68					4.77	0.596	0.526	24.8
10173	7C2	9.14	6.23	5.99	2.35	1.41	9.95 ††	76.4 ††	6.08	5.86	0.503	0.588	26.9
10181	7C2	7.42	6.23	5.68	2.02	1.07	7.12	64	4.26 ††	4.62	0.067	0.205	27.6
20136	7C2									5.65	0.477	0.425	31.4
21088	7C2	5.95	6.6	5.74	2.78	1.46	7.11	63.7	4.63 †	4.94	0.41	0.42	30.8
21100	7C2	7.56	5.94	6.87	1.64	1.19	7.96	76.4 ††	4.9 †	5.11	0.935	0.918	31.4
21182	7C2	9.1	7.1	7.2	3	1.33	7.66	70.4	5.63	4.9	1	0.9	31
21193	7C2	6.49	7.42 †	6.42	2.89	1.3	8.4	62.3	5.8	5.42	1.18 †	0.74	27.6
21229	7C2	7.2	6.3	5.8	2.5	1.4	7.7	61.9	6.1	5.25	0.69	0.59	27.5
21230	7C2	6.17	6.6	6.83	4.01 ††					11.8 ††	5.81 ††	5.68 ††	32.1
21232	7C2	5.8	5.9	6.3	2.1	1.35	7.42	63.4	5.68	5.5	1.22 ††	0.976	28.4
50005	7C2	10.2	6.83	6.14	1.86	0.901	8.11	61.7	6.02	4.66	0.533	0.419	29.4
50011	7C2	8.43	6.28	6.29	2.4	1.08	7.45	59.6	5.8	5.02	0.335	0.458	27.9
50012	7C2	6.4	6.1	5.9	2.3	0.959	7.4	67	3.2 ††	4.9	0.276	0.316	29
50014	7C2	9.54	7.55 †	7.54	2.68	1.81 ††	9.06 ††	67.7	6.25	4.63	0.869	0.751	28.8
50017	7C2	12.9 ††	3.58 ††	13.7 ††	9.97 ††								
50019	7C2	8	9 ††	8 †	4 ††								
50023	7C2	5.58	6.28	6.28	2.47	1.19	7.66	64	5.68	5.11	0.42	0.46	28.7
50024	7C2	6.93	6.77	6.54	2.58	1.05	6.83	64.3	5.39	5.02	0.84	0.73	29
50027	7C2	5.7	5.8	5.6	2.3	1.3	7	65.7	5.8	4.6	0.4	0.41	27.9
50031	7C2	5.7	6.8	6.5	2.09	1.04	8.7 †	67.6	5.9	5.8	0.86	0.98	30.4
50033	7C2	7.6	7.2	7.6	3	1.1	7.5	58.9	5.2	4.8	0.4	0.5	29.1
52491	7C2	8.43	6.6	6.28	2.59	1.31	7.91	65.9	5.89	5.29	0.22	0.12	29.8
52494	7C2	6.89	6.38	5.65	2.65	1.23	7.24	64.9	5.98	5.29	0.355	0.467	29.6
52688	7C2	5.2	4.02 ††	4.23 ††	1.91	4.1 ††	6.07 †	57.7	4.11 ††	4.39	0.19	0.94	31.2

Lab. Code #	Method Codes	Soil sample identification and values for 2020: KCl Ext. Ammonium N – autocolour (7C2) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	7C2	13.3	7.5 †	7.6	5.8	146	19.5	24.5	30.5	3.25	66.2	176	7.05
8888	7C2	13.9	10.1	11.8	5.4					2.43	65.9	147 ††	9.34 ††
10173	7C2	11.6	9.16	11.2	4.89	165	24.9	29.2	31.7	2.06	53.9 ††	143 ††	6.08 †
10181	7C2	16	11	13	5.58	169	24	27	30	3.38	65	195	7.67
20136	7C2									1.88	64.6	170	7.79
20204	7C2	18 ††	10.8	22.3 ††	3.12 ††	152	17.9	19.1	28.7	3.94 ††	59.1 †	185	6.74
21088	7C2	12	8.37	9.48	4.72	133	18.8	21.4	20.2	1.72	55 ††	146 ††	6.32
21100	7C2	12.5	9.99	13.1	4.5	170 †	25.7	26.9	32.4	1.79	66.4	188	7.26
21178	7C2	14	12	12	7.4 ††	141	21.6	22.7	22.3	4.82 ††	62.9	184	10.9 ††
21182	7C2	12	9	14	4	156	20.9	22.9	24.9	1	63	190	8
21193	7C2	14.8	11.8	12.5	5.94	146	31.7 ††	24.1	28	2.41	63.7	183	8.25
21229	7C2	11.5	7.9	8.8	4.3	133	15.6	16.9 ††	20.5	2.24	62.8	172	7.17
21230	7C2	13.8	10.3	12.4	5.03					2.55	69.4 †	202	8.62
21232	7C2	13.7	10.2	13.1	5.25	140	21.8	25.4	26.6	2.03	63.6	180	8.38
50005	7C2	12	8.98	11.7	5.26	136	18	20.1	23.4	1.14	63.7	178	7.04
50011	7C2	13.4	9.95	11.1	5.37	152	21.7	24.5	29.2	2.21	53.8 ††	186	7.11
50012	7C2	13	9.9	12	5.1	158	23	24	28	1.5	66	178	7.7
50014	7C2	13.2	10.3	13.6	6.38	156	22.7	26.4	28	1.99	64.2	190	7.38
50017	7C2	9.8	8.02	15.9	5.48								
50019	7C2	15.9	13.2 ††	16.3 ††	7.4 ††								
50020	7C2	14	6.1 ††	8		193 ††	19.1	22.8	31.1		71.5 ††	207 †	7.61
50023	7C2	13.4	10.2	13.3	5.23	150	23.7	26.4	30.3	2.06	64.5	189	8.27
50024	7C2	12.3	9.64	11.7	4.88	148	21.1	24.5	25.5	1.56	63.7	177	7.55
50027	7C2	12.9	9.7	11.2	5.1	148	20.7	22.8	26.4	1.6	64.1	185	8.3
50031	7C2	13.6	10.4	15.1	8.35 ††	155	24.5	26.5	28.1	1.52	70 †	196	7.86
50032	7C2	12	7.8 †	9.29	5.95	147	15.8	17.5 ††	20.2	3.42 †	66.3	190	7.07
50033	7C2	15	11	11	5.9	154	23	26.4	28.8	1.7	67	188	7.4
52386	7C2	15	13 ††	16	7.9 ††								
52491	7C2	12.5	9.69	9.92	4.56	165	23.8	24.9	28.4	1.55	65.2	184	6.9
52494	7C2	11.6	9.49	11.3	5.4	143	22.2	23.4	27.9	1.58	66.6	177	6.9
52526	7C2	14.5	11.5	13.4	5.7					2.37	90.2 ††	237 ††	9.36 ††
52565	7C2	11.8	9.5	11.4	4.8	151	21.7	24.9	31.2	1.5	64.9	192	7.6
52688	7C2	9.95	5.98 ††	8.44	3.5 †	118 ††	19.6	22.4	23.9	2.21	25.2 ††	146 ††	7.12

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Total P - Pooled %											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	Not Specified					0.574 ††	0.172 ††	0.431 ††	0.134 ††	0.0197	0.283 ††	0.058	0.0187
10181	Not Specified					0.0969	0.0241	0.0736	0.0146	0.0146	0.0248	0.0877	0.0182
20136	Not Specified									0.0169	0.0248	0.0905	0.018
20204	Not Specified	0.017	0.018	0.087	0.004	0.083	0.021	0.068	0.0127	0.003 ††	0.0246	0.0769	0.0172
21088	Not Specified	0.022 ††	0.023 ††	0.080	0.006	0.09	0.02	0.06	0.02 ††	0.0158	0.026	0.0918	0.0217
21100	Not Specified	0.017	0.016	0.098	0.003	0.086	0.0207	0.0746	0.0133	0.011	0.0208	0.0808	0.0144
21178	Not Specified	0.016	0.015	0.09	0.003	0.0769	0.0214	0.0744	0.0126	0.00977	0.0207	0.0537	0.014
21182	Not Specified	0.022 ††	0.024 ††	0.1	0.007	0.101	0.029 †	0.083	0.016	0.0181	0.0291	0.1	0.0213
21229	Not Specified	0.017	0.017	0.083	0.005	0.084	0.0225	0.0684	0.0125	0.0131	0.0233	0.0794	0.0166
21230	Not Specified	0.016	0.018	0.090	0.005	0.0708	0.0196	0.0588	0.0094	0.0118	0.0206	0.0828	0.0166
21232	Not Specified	0.019	0.020	0.096	0.006	0.094	0.025	0.077	0.015	0.0155	0.0254	0.0879	0.0196
50005	Not Specified	0.017	0.018	0.086	0.004	0.0876	0.0222	0.069	0.0127	0.0129	0.0237	0.0803	0.0165
50006	Not Specified	0.047 ††	0.071 ††	5.37 ††	0.008	0.0044 ††	0.0017 ††	0.004 ††	0.0009 ††				
50011	Not Specified	0.015	0.015	0.071	0.005	0.0734	0.0144 †	0.0595	0.0122	0.011	0.0226	0.0706	0.0131
50012	Not Specified					0.079	0.017	0.07	0.012				
50013	Not Specified	0.018	0.018	0.084	0.005	0.0956	0.0234	0.0638	0.0151	0.0147	0.0249	0.0785	0.0169
50017	Not Specified	0.018	0.019	0.005 ††	0.005								
50019	Not Specified	0.015	0.017	0.093	0.006	0.0764	0.0201	0.0665	0.0135				
50020	Not Specified	0.017	0.02	0.103 †	0.006	1 ††	0.04 ††	0.096 ††	0.02 ††	0.011	0.023	0.073	0.015
50024	Not Specified	0.016	0.016	0.085	0.003	0.076	0.018	0.066	0.012	0.0127	0.0249	0.0774	0.016
50027	Not Specified	0.016	0.017	0.084	0.003	0.0831	0.0228	0.0707	0.0138	0.0198	0.0214	0.0795	0.0269 ††
50031	Not Specified	0.021 †	0.022 †	0.084	0.007	0.094	0.026	0.076	0.015	0.017	0.027	0.088	0.022
50036	Not Specified	0.013	0.012 ††	0.065 ††	0.003	0.076	0.016	0.056	0.013	0.01	0.02	0.07	0.02
50044	Not Specified					0.064	0.02	0.067	0.011	0.011	0.02	0.066	0.016
52491	Not Specified	0.017	0.018	0.087	0.006	0.0744	0.02	0.0627	0.0112	0.0123	0.0213	0.0787	0.0166
52526	Not Specified	0.018	0.019	0.102	0.005	0.116 †	0.0282	0.0721	0.0177	0.0179	0.0239	0.0728	0.021
52527	Not Specified	0.019	0.019	0.069 †	0.007	0.0918	0.0263	0.0788	0.0178	0.0195	0.029	0.086	0.021
52565	Not Specified					0.0867	0.0289 †	0.0725	0.0106	0.0142	0.0207	0.0977	0.0224
52636	Not Specified	0.014	0.016	0.081	0.004	0.074	0.02	0.066	0.011	0.009	0.017	0.057	0.013
52692	Not Specified	0.2 ††	0.2 ††	0.3 ††	0.14 ††					0.02	0.03	0.1	0.02

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Colwell Extractable P — Pooled (9B1 + 9B2) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	9B1	20.1	20.4	61.8	11.2	50	22.2	60.5	42.5 ††	15.4 ††	35.1	96.8	18.1
21088	9B1	20.8	21.8	63.6	5.2	43.7	20	58.8	26.7	9.3	38.6	93.3	21.6
21100	9B1	20.6	21	63.5	6.67	53.5	21.5	68	25.4	11	38.2	114	19.4
21115	9B2	17.1 ††	18.1	68.9	3.3	50.2	17.3	64	23.9	13.5	40	105	23.4
21178	9B1	21.5	21.7	69	7.02	49.3	22.3	68.6	28.9	9.81	35.6	94.3	15.4
21182	9B1	14 ††	14 ††	57	1 †	46.1	18.6	53.2	17.4 ††	8	19 ††	79	12 †
21193	9B1	23.4	23.2	72.7	4.7	48	20.5	63.1	35.2	3.95 ††	40.2	103	15.2
21229	9B2	19.3	18.7	60.3	5.7	46.1	18.5	54.8	24.4	10.9	31.2	90.4	16.5
21230	9B1	21.3	20.8	101 ††	6.86					9.9	34.1	101	18.1
21232	9B1	21.5	22.5	62.4	10.4	41.3	23.1	60.7	35.8	10.6	34.4	87.8	18.6
50005	9B1	20.6	23.4	64	6.86	33.8	21.4	46.7	24.5	11.2	36	94.2	19.1
50011	9B1	21.9	22.8	67	6.8	44.3	20	59.6	27.2	8.7	32.4	93.9	16.6
50012	9B2	24	27	77 †	8	54	26 ††	74	34	8.3	34	90	19
50013	9B1	20.3	20.1	58	5.42	37.3	16.7	54.9	20.5	8	32	98	19
50014	9B2	23.2	24.4	66.2	7.63	45.3	21.2	66.5	30.9	10.4	38.6	101	21.8
50017	9B1	21.4	24.8	62.8	3.37								
50019	9B1	19	19	66	4					12.6	43.9	130 ††	24.9
50020	9B1	22.5	21	65		32 ††	14.5 ††	48	24.5		28.5	70.5 ††	15.5
50023	9B1	24.8 †	27.3 †	73.8	9.31	45.5	22.3	59.7	30.5	9.53	37.7	100	21.7
50024	9B1	20.3	23.7	78.1 †	4.5	42.5	17.9	63.1	23.5	9.06	20.9 ††	87.2	17.5
50025	9B1	19	19.7	57	5	36	19.5	52	24.7	11.5	32.5	80	21
50027	9B2	19.6	20.1	60.9	5.5	44	19.5	60.5	29.3	7.9	34.5	94.5	17.8
50029	9B1	22.5	21.2	65.5	11.1	44.1	21.6	60	33.7	12.9	42.3	100	20.6
50031	9B1	22	24	66	7	51	23	69	29	8.8	33.6	86	17.4
50032	9B1	27.2 ††	26.1	69.5	14.9 ††	45.6	21.7	60.9	29.4	9.85	32.7	86.5	19
52283	9B1	21.3	21.6	51.3 ††	4.34	49.3	20.3	36.1 ††	22	30.8 ††	34.9	95.2	19.2
52387	9B1	31 ††	31 ††	80 ††	16 ††	47.8	22	62.3	29.1	13.4	38.4	105	25.3
52494	9B2	21.4	21.3	56.8	6.8	36.6	19.3	54.2	25.2	7.2	25.8	75.1	15.8
52543	9B1									11	43.2	113	27.2 ††
52632	9B1	18.6	18.2	64	0.453 †								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Olsen Extractable P — Pooled (9C1 + 9C2) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
8888	9C2	7.78	8.74	22.7	2.25	11.5	8.68	22.1	19.8	3.67	15.7	30.4	8.9
10173	9C2	8.02	9.57	23.3	2.75	13.3	9.29	22.4	20.9	3.54	19.6	35.7	8.39
10181	9C2	9	9.87	26	2.91	15	9.9	27	21	5.08 ††	20.6	40	9.9
21100	9C1	8.5	9.91	27.9	2.36	14.9	10.1	25.9	22.7	3.95	20.6	41.8	10.7
21115	9C2	9.2	10.8	28.3	1.9	15	9.83	26.3	22	4.15	22.1	39.8	10.4
21178	9C1	9.1	10.3	24	2.4	8.38	13.6 ††	14.2 ††	9.16 ††	2.73 †	18.8	30.6	8.61
21190	9C1	34.8 ††	46.7 ††	382 ††	0.083 ††	11	7.3 †	19.8	19.1	3.6	19.8	39	8.8
21215	9C1	14.1 ††	3.77 ††	2.56 ††	9.93 ††	9.98	9.32	15.8 †	15 ††				
21229	9C2	7.4	8.5	24.7	1.67	11.5	7.7	21.1	18.7	3.46	17.3	34	8.44
21232	9C1	8.49	9.75	25.5	3.36	11.7	9.13	20.7	20.9	3.55	18.5	32.2	8.78
21234	9C1	10.1	10.9	27.3	0.535 ††	20.9 ††	9.41	35.7 ††	22.9	4.35 †	23.1	43.8	11.2
50002	9C1									1.73 ††	4.27 ††	2.57 ††	1.35 ††
50005	9C1	8.33	9.99	24.7	2.48	10.4	10.1	20.5	17.9	3.6	18.3	37.1	9.52
50007	9C1	9.81	10.6	28.7	1.49	17.5	11.7 ††	29.9 ††	24.1	4.3	21.5	43	10.4
50011	9C1	8.97	9.27	27.2	0.445 ††	13	8.64	22.4	20.9	4.02	20	36.4	9.1
50012	9C2	9.1	12	30	2.7	15	10	30 ††	22	3.2	18	33	9.7
50013	9C1	7.66	8.6	24.5	1.14	12	9.37	22.7	20.2	2.3 ††	14.6	31.8	6.9 †
50014	9C2	9.24	10.6	27.7	2.66	12.5	9.37	22.3	20.6	3.49	19.4	33.7	9.46
50017	9C2	8.82	10.6	22.1	1.61								
50019	9C1	58 ††	89 ††	81 ††	132 ††					7 ††	27 ††	52 ††	14 ††
50020	9C1			20.5		13.5		26	25 †		23	34.5	
50023	9C1	9.49	11.5	29.5	2.97	13.4	10.5	23.5	21.1	3.77	20.2	37.2	10.4
50027	9C2	8.4	9.6	22.8	2.8	13.8	9.3	24.3	21.4	3.5	19.8	38	9.2
50029	9C1	7.92	9.41	25.3	2.55	13.1	8.76	19.3	19.2	3.32	21.2	36	9.26
50033	9C2	7.4	9.2	25.4	2.1	12.7	9.3	23.2	19.4	3.38	18	34.8	10.1
50038	9C1	0.807 ††	0.873 ††	2.18 ††	0.221 ††	543 ††	139 ††	394 ††	240 ††	229 ††	242 ††	565 ††	172 ††
50044	9C2					15	16 ††	28	22		18	30	
52435	9C1	5.33 ††	5.73 ††	15.2 ††	1.62	8.98	6 ††	16.4	11.5 ††	2.33 ††	11.7 ††	25.8	6.36 ††
52437	9C1	44.8 ††	50.8 ††	57.3 ††	27.8 ††	20.9 ††	15.7 ††	34.2 ††	26.2 ††	8.89 ††	23.3	81.5 ††	17.7 ††
52491	9C2	8.53	8.95	24.8	2.09	13.4	9.59	23.8	18	3.92	15.9	32.6	10.3
52565	9C2	9.7	11.4	26.9	3.4	11.1	7.2 ††	21.8	19.6	2.9	17.5	29	8.3
52673	9C2	42.3 ††	50.2 ††	70.5 ††	29.5 ††	14.9	9.95	19.3	16.4 ††	5.6 ††	17.4	22.8 ††	8.6
52676	9C2					13	10	24	21	4	19	36	10
52692	9C1	12.3 ††	13.3 ††	33.9 ††	2.52	24 ††	15 ††	41 ††	37 ††	6 ††	28 ††	45 †	13 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Bray-1 Extractable P — Pooled (9E1 + 9E2) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	9E1	12.3	14.4	40	2.7	22.1 ††	14.4	53.6	24.4				
10166	9E1	11.1	13.7	29.5	1.49	8.16	5.29	34.7	15.4	3.22	14	48.5	13.4
20204	9E1	10.1	11	29	2.11	12.9	8.9	45.1	25.2	5.29	17.2	52.3	15.1
21100	9E1	10.9	13.2	33.5	2.05	17	23	47.2	17.3	4.88	27.9	59.5	13.6
21178	9E1	12	21 ††	250 ††	1.4	14.3	45.8 ††	41.8	20.4	0.338	0.237	55.2	10.1
21229	9E2	11.2	12.6	35.1	1.51	12.3	6.6	33.6	18.9	3.89	18.7	51.2	10.1
50005	9E1	11.7	14.3	103 ††	2	9.94	13.6	30.6	9.26	5.74	15.8	55.1	16.7
50007	9E1	12.4	14.3	37.6	1.72	12.5	10.5	49.6	21.9	3.61	16.1	56.6	15.5
50012	9E2	12	14	35	1.9	12	10	42	17	3.3	13	49	13
50013	9E1	9.23 ††	7.97 ††	21.8	1.71	10.6	7.53	33.3	17	3.9	11.5	43.2	9.9
50019	9E1					14.8	15.8	20.6	6.23				
50020	9E1	13.5	19 ††	69 ††		12.5		49	23.5	6	23	65.5	14.5
52436	9E1	9.37	9.1 ††	22.3	0.5 ††	3.85 ††	1.59	28.1	23.2	2.63	17.3	26 ††	5.48 ††
52437	9E1	20.7 ††	15.9	18.6	14.7 ††								
52526	9E1	13.6	13.1	24.9	1.31	14.1	10.7	43.2	25.1	6.06	26.9	50.4	13.1
52692	9E1	11.3	6.45 ††	20.9	1.23	6	3	37	24	3	17	37 ††	11
52703	9E1	18 ††	21 ††	59 †	3.8 ††								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Acid Extractable P — Pooled (9G1 + 9G2) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	9G1	31.6	36.3	526	12	100	53.9	239	32.7	12.9	38.5	158	36.6
21088	9G2	20	27	570	5	82	50	210	24	6.3 ††	27 ††	151	33.9
21100	9G2	35.5	44.4 ††	478	1.91	91.3	69.9	198 ††	34.3	5.53 ††	32.5	169	23.1 ††
21178	9G2	28.1	34.4	442	5.66	128 ††	62	233	37.6	12.4	44	179	34.4
21229	9G2	18	25.3	452	9.3	103	46.6	254	25.3	11	33	163	30.6 †
21232	9G2	23.3	29.6	525	3.88	98.7	47.9	214	25.6	15.1	43.6	188	34.1
50005	9G2	24.7	30.3	428	2.81	106	47.7	228	26.8	9.15	38.7	166	34.5
50011	9G2	22.9	26.2	389	4.92	90.9	60.3	226	31.4	45 ††	52 ††	152	60.3 ††
50012	9G2									11	38	160	34
50014	9G2	24.3	30.1	489	5.2	102	55.1	231	33.7	12.2	42.1	174	35.1
50019	9G1									162 ††	276 ††	840 ††	204 ††
50020	9G1	46.5 †	29.5	549	17 †	103	50	232	19.6 ††	12.5	23.9 ††	137	25.2 ††
50025	9G1	30.4	38.1	522	9.43	116	60	239	34	11	41	171	36
50027	9G2	23.6	30.2	496	8.6	92.9	52.4	217	30.1	12.6	39.4	161	33.8
50029	9G1	22.3	28.8	468	4.58	98.5	50.3	235	30.9	13.8	40.9	153	30.9 †
50031	9G2	29	35	520	7.5	96	57	236	32	11	41.9	188	34.8
50032	9G1	28.2	32.9	440	14	116	64.4	214	39.1	15.1	45	165	37.7 †
52543	9G2									15	43.4	173	29.9 †
52632	9G1	18.3	17 †	468	0.25								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Phosphorus buffer index - Colwell (9I2a + 9I2b + 9I2c) L/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	9I2a	30.8 ††	51.1 ††	64.1 ††	120 ††	169	120	73	62.9	51.4 ††	82.5	99.9	59.2
21088	9I2a	56.1 †	87.7	88	135	157	106	65.9	52.2	37.1	84.1	94.3	54.2
21100	9I2a	54.3 †	85.5	100	136	161	130 †	86.4 ††	66.9 †	32.7 †	72.5 ††	93.6	47.8
21178	9I2a	46.1 ††	78.9 ††	74.3 ††	124 ††	153	99.2 †	59.7	52.3	38.9	74.6 †	85.7	42.7
21193	9I2a	62	97	99	138	166	117	70	61	40.2	89.7 †	113 †	62.1
21229	9I2a	67.6	97	99.2	141 †	171	116	64.9	51.3	41.3	78.1	104	59.6
50005	9I2a	63	93.6	92.3	137	139	109	60	47.5	40.2	82	95.7	62.4
50011	9I2a	63.5	94.1	92.6	134	155	111	62.2	47	42.5	81.2	103	61.1
50012	9I2a	65.2	91.1	98.8	140	183	117	79.1	51.8	34.1 †	76 †	97	52.2
50014	9I2b	59	87	88	138	147	102	71	46	41	83	103	56
50017	9I2a	62.7	99.8	88.1	125 ††								
50019	9I2a	62	93	94	132 †					49.4 ††	94.2 ††	133 ††	84.1 ††
50020	9I2a	64.5	95.5	95	136	156	113	68.5	54.5		28.5 ††	70.5 ††	15.5 ††
50025	9I2a	71.9 ††	101	97.5	145 ††	152	112	70.1	55.7	35.3	81	97	56.1
50027	9I2b	60.9	92.5	95.9	138	156	114	71.9	53.2	39.9	81.2	100	54.8
50029	9I2b	62.3	93.5	95.1	137	164	116	66.7	54.9	38.8	82.2	102	53.6
50031	9I2a									36.5	79.8	92.6	49.5
50032	9I2a	83.7 ††	114 ††	111 ††	159 ††	166	129 †	88.7 ††	74.6 ††	44.2	90.5 ††	99.3	72.2 †
52494	9I2a	63.9	97.5	100	136	175	110	66	47.2	40.1	81	96.5	55.4

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Phosphorus buffer index - Unadj (9I4a + 9I4b + 9I4c) L/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
21088	9I4a	52.4	83.5	76.1	134	147	102	55.5	47.5	35.6	76.7	76.7	50.4
21100	9I4b	50.5	81.3	87	134	149	125 †	73.6 ††	61.7	33.6	65.6	75.7	44.5
21178	9I4c	43 †	75	62 ††	123 ††	142	95 †	48.1	47.5	37.3	68	68.4	40.1
21193	9I4a	58	93	85	137	155	113	59	55	40.2	81.6	90.8	58.6
21232	9I4a	70	99.2	87.7	147 ††	148	108	56.1	48.6	33.5	71.5	79.1	48.8
50005	9I4a	59.3	89.1	80.2	136	132	105	51.9	43.4	38.4	75.4	78.5	59.1
50011	9I4c	59.6	89.7	79.9	133	145	107	51.8	42.4	41	75.2	85.2	58.1
50014	9I4b	55	83	76	136	137	97	59	41	40	76	84	52
50017	9I4a	61.4	95.7	81.4	120 ††								
50025	9I4a	68.4	97.3	86.4	144 ††	149	109	60.8	53	34	71	79.4	48.3
50027	9I4b	57.6	90.1	83.8	136	146	110	57.6	50.3	40.5	77.9	89.2	52.1
50029	9I4b	58.3	89.4	82.6	134	154	111	56.1	49.1	36.5	74.2	82.8	49.7
50031	9I4a									35.1	73.5	76.4	46.5
50032	9I4a	78.5 †	109	97.1 †	155 ††	155	124 †	77.6 ††	69.2 ††	43.8	86.8 ††	78	57

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Phosphate Extractable S – Pooled (10B1 + 10B2 + 10B3) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10173	10B3	15.2	13.8	25.1	17.9	40.9	12.3 †	19.7 †	21.2	8.11	14.5 ††	64.9	11.3
21088	10B3	15	13.8	24.4	19.3	49.5	15.1	24.3	22.2	8.27	18.6	69.6	11
21100	10B3	12.4 ††	10.8 ††	19.8 †	14.3 ††	47.3	15.7	23.3	21.5	7.26	16.5	61.5	13
21229	10B1	14.5	12.6 †	24.3	17.8	46.8	15.4	24.9	23	7.88	18.4	64.7	10
21232	10B3	15.3	14.1	24.7	19.8	49.7	15.2	24.5	22.6	8.26	18.3	72	11.4
50011	10B3	15.5	13.5	24.7	20.5	49.5	15.5	25	22.7	8.62	18.9	69.9	10.9
50014	10B3	16.3	14.4	24.1	19.5	47.2	14.2 †	23.8	22.1	8.73	19.1	71.3	10.7
50020	10B3					41	13.5 †	20.5	17.5 ††		17	70	12
50025	10B3	16.1	14.7	26.2	20.3	46.9	15.4	22.6	21.1	7.94	17.5	66	10.3
50027	10B3	15	14.1	24.1	19	51.8	15.3	25.1	22.8	7.7	18.1	63	11.5
50029	10B3	15.8	15.2	28 †	20.3	47.5	14.8	21.6	20.4	8.7	16.6	68.6	10.5
50031	10B3					52.7	17 †	26.3	24.3				
50032	10B1	5 ††	12 †	13.3 ††	22.3	16.2 ††	19.1 †	5 ††	5 ††	10.2 ††	17.5	59.6	9.23
52283	10B3	14.8	14.1	7.53 ††	24.2 †	38.6 †	15.3	12.4 ††	9.67 ††	9.54	18.2	94.5 ††	10.1
52384	10B3	7.46 ††	3.9 ††	13.2 ††	15.3 †								
52632	10B1	0.027 ††	6.9 ††	30.5 ††	23.8 †								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: KCl_{40} Extractable S (10D1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	10D1	16.6 ††	18.6 ††	30.1	13.4	37.1	12.2	17.6	19.4	9.13 ††	11.6	55.9	9.1
21088	10D1	10.7	11.3	21.2	11.1	41.7	13.7	20	22.1	7.1	12.9	62.9	9.4
21100	10D1	9.4	10.1	19.4	14.3	34.9	12.1	16.9	21.5	6.97	12.3	55.7	13 ††
21178	10D1	13	13	25	12	46.6	15.4	22.6	25.6	6.96	12.7	61.8	9.62
21229	10D1	10.5	9.53	20.6	9.95	36.1	13.3	17.3	18.1	6.9	10.2 ††	59.1	8.37
21232	10D1	12.2	11.9	23.7	11.7	43	14	20.8	22.7	6.86	12.9	63.1	9.75
50005	10D1	11.1	10.9	19.8	11.2	35.6	37.4 ††	29.8 ††	8.4 ††	11.3 ††	11.5	55.1	8.38
50011	10D1	10.6	10.2	20	10.3	35	12.1	17.4	18	6.47	7.24 ††	56.8	8.48
50012	10D1	11	12	24	11	45	15	22	23				
50013	10D1	14.3	14.1	29.4	13.3	39.7	13	19.2	20.5	6.7	14	65	9.6
50017	10D1	10.2	9.32	14.9	9.28								
50020	10D1	12	14	20.5	12								
50024	10D1	11.1	11	23.2	10.4	41.2	12.6	19.6	21.1	6.3	13.1	61.4	9.3
50027	10D1	14.8 ††	13.8	25.3	13.4	35.9	13.3	18.8	18.8	8.2 ††	12.8	58.7	12.5 ††
50038	10D1									5.75 ††	11.5	63.5	7.64 ††
52494	10D1	12.1	12.1	24.5	11.5	45.3	14.1	21.1	22.7	7.27	13.5	62.7	9.6

Lab. Code #	Method Codes	Soil sample identification and values for 2020: DTPA Extractable Fe (12A1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10166	12A1	27.6	11.8	23.5 ††	44.1	51.7	11.5	77.1	350	55.3	434	113	12.2 †
20204	12A1	29.8	11	14.5	43.3	67.4	11.8	86.9	366	61.3	429	129	10.1
21088	12A1	31.2	13.7	18.2	54.7	64.4	10.6	91.2	376	51.3	440	125	9.68
21100	12A1	27	10.6	14.1	40.7	81.2	9.9	88.2	433 †	55.9	432	175 ††	9.23
21178	12A1	27	11	15	44	49.8	9.15	83.7	295 †	50.3	383	89.8 ††	7.08 †
21190	12A1	36.9 ††	14.9 †	20 ††	51.5	75.2	7.34	76.8	416	73.9 ††	647 ††	55.5 ††	14.6 ††
21193	12A1	28.4	10.7	14.7	51.5	55.6	8.95	78.3	397	60.6	488 †	132	8.26
21229	12A1	32	11.3	15	50.2	64.2	9.96	79.3	360	55.5	412	122	9.53
21232	12A1	28.6	11.5	14.8	47.1	63	9.94	79.2	367	52	441	129	9.25
21234	12A1	33.3	11.2	12.1	51.6	104 ††	7.45	81.1	362	61.5	617 ††	164 ††	10.8
50002	12A1									12.7 ††	5.96 ††	11.8 ††	20.1 ††
50005	12A1	33	13.1	18.9	55.2	91.5 †	12.6	92.9 †	389	59.6	416	136	11
50006	12A1	33.2	12.8	16.2	44.4	85 †	0.43 ††	36 ††	415				
50007	12A1	29.3	10.2	14.7	37.5	68.5	10.3	92.5 †	347	70.5 ††	523 ††	145 †	11.6
50011	12A1	29.6	11.5	16	43.2	57.3	13.8	79.3	369	49.8	357 ††	110	12.8 ††
50012	12A1	30	13	19	46	73	14	117 ††	389	61	454	117	13 ††
50013	12A1	28.3	9.98	13.1	47.2	66.1	9.79	96.1 †	402	64.2	531 ††	128	10.1
50014	12A1	28.8	9.04	13.2	43.8	60.3	7.79	85	327	55.2	472	125	9.13
50017	12A1	19.7 ††	19.7 ††	11.8	26.9 ††								
50020	12A1	24.5	9.9	16	32 †	77	13	102 ††	368	43.5	417	117	8.6
50024	12A1	25.4	10	13.1	36.8	59.7	10.4	83.8	397	55.8	502 ††	125	9.62
50025	12A1	29.1	11.6	14.5	48.9	14.5 ††	5.11 ††	21.4 ††	105 ††	53	440	137	8.76
50027	12A1	26.5	10.4	13.8	38.2	56.9	10.8	81.8	362	59.4	432	117	11
50029	12A1	30.5	11.7	16.4	44.2	59	10.2	82.9	351	58.8	444	118	9.48
50031	12A1					47.3	5.7 ††	71.7 †	264 ††				
50032	12A1	31.1	12.7	16.3	49.3	58.1	10.7	80.5	356	58	364 ††	119	9.5
50038	12A1	26.7	9.65	11.9	41.1	75.7	9.5	89	349	57.7	376 †	135	8.11
52283	12A1	32.5	12.8	22.3 ††	26.9 ††	76.4	12.5	60.1 ††	419	102 ††	428	127	10.4
52384	12A1	31.3	10.3	13.5	46.8								
52387	12A1	25.6	8.98	11.1	51.9	66.7	10.4	104 ††	361	60.5	413	118	10.2
52494	12A1	27.9	11.2	15.6	38.5	53.5	11.4	84.9	339	56	381	99.2 †	9.56
52632	12A1	32.7	12.9	16	52.5								
52636	12A1	26.1	13.6	14.2	60.7	163 ††	11.6	82.2	509 ††	56.5	414	294 ††	8.22
52692	12A1	1.56 ††	10.2	8.59 ††	39.2	7.77 ††	22.3 ††	78.1	133 ††	60.4	290 ††	19.2 ††	8.7
52703	12A1	33	14	18	53								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: DTPA Extractable Cu (12A1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10166	12A1	2.04	1.96	3.72	0.17	1.31 †	1.46 ††	2.59	0.82 ††	0.363 ††	0.793 ††	1.28 ††	1.41 ††
20204	12A1	1.88	1.69	2.79	0.093	1.65	1.83	2.62	0.713 ††	0.2	0.66	0.82	0.96
21088	12A1	2.08	2.08	3.29	0.092	1.55	2.01	3.03	0.39	0.182	0.606	0.793	1.05
21100	12A1	1.77 ††	1.69	3.04	0.026	1.54	2.03	2.99	0.444	0.16	0.597	0.815	1
21178	12A1	2.1	2	3.6	0.09	1.62	2.08	3.15	0.355	0.192	0.576	0.692	0.92
21190	12A1	2.62 ††	2.25	3.65	0.381 ††	1.38	1.93	2.61	0.281 †	0.175	0.56	0.735	0.985
21193	12A1	2.05	1.86	3.46	0.1	1.48	1.93	2.63	0.38	0.22	0.69	0.91	1.11
21229	12A1	2.03	1.86	3.13	0.070	1.67	1.99	2.73	0.365	0.189	0.607	0.791	0.982
21232	12A1	2.19	2.04	3.31	0.086	1.51	1.91	2.64	0.387	0.187	0.58	0.723	0.927
21234	12A1	2.42 ††	2.21	3.77	0.175	1.83	1.73 †	2.28	0.495	0.258	0.753	1.07 ††	1.19 †
50002	12A1									0.18	0.21 ††	0.32 ††	0.08 ††
50005	12A1	2.03	1.89	3.07	0.136	1.77	2.18	3.15	0.464	0.149	0.599	0.781	0.963
50006	12A1	2.18	2.2	3.74	0.203 †	1.7	1.1 ††	1.5 ††	0.3				
50007	12A1	2.32 †	2.19	3.64	0.1	1.86	2.26	3.18	0.47	0.19	0.7	0.95 ††	1.19 †
50011	12A1	2.08	1.85	3.06	0.058	1.49	1.88	2.63	0.368	0.202	0.471 ††	0.675 ††	0.802 †
50012	12A1	2.2	2	3.6	0.098	1.8	2.2	3.6	0.4	0.241	0.659	0.788	1.1
50013	12A1	2.07	1.98	3.5		1.56	2.09	2.98	0.392	0.21	0.65	0.83	1.03
50014	12A1	2.28	2.13	3.52	0.098	1.64	2.21	2.97	0.403	0.223	0.659	0.829	1.05
50017	12A1	1.42 ††	1.71	2.24 ††	0.055								
50020	12A1	2	1.95	3.1		2.15 ††	2.25	3.15			0.76	1.1 ††	1.15
50024	12A1	2.06	1.93	3.25	0.093	1.69	2.01	2.88	0.404	0.22	0.649	0.831	1
50025	12A1	1.88	1.74	2.93	0.1	0.474 ††	1.69 ††	1.72 ††	0.047 ††	0.212	0.579	0.737	0.921
50027	12A1	2	1.83	3.07	0.17	1.7	1.96	2.88	0.5	0.29 †	0.68	0.83	1.01
50029	12A1	2.17	2.04	3.33	0.139	1.69	2.06	2.86	0.484	0.287 †	0.7	0.857	1.05
50031	12A1					1.3 †	1.76	2.56	0.32				
50032	12A1	2.11	2.02	3.52	0.14	1.67	2.04	2.89	0.4	0.22	0.61	0.83	1.03
50038	12A1	2.15	2.19	3.85	0.105	1.75	2.14	2.98	0.464	0.431 ††	1.03 ††	1.41 ††	1.65 ††
52283	12A1	2.08	1.89	3.06	0.103	1.64	1.92	2.53	0.456	0.201	0.608	0.785	0.937
52384	12A1	2.57 ††	2.09	3.77	0.19								
52387	12A1	2.19	2.06	3.38	0.06	1.72	2.34 ††	3.26	0.41	0.247	0.647	0.96 ††	1.25 ††
52494	12A1	2.17	2.05	3.51	0.096	1.76	2.12	3.42	0.4	0.22	0.56	0.76	0.94
52632	12A1	2.22	2.05	3.52	0.1								
52636	12A1	2.02	1.78	3.3	0.056	1.52	1.95	2.53	0.487	0.174	0.639	0.777	0.867
52692	12A1	0.63 ††	0.9 ††	0.8 ††	0.72 ††	0.87 ††	0.69 ††	0.75 ††	0.95 ††	0.42 ††	2.03 ††	2.78 ††	1.05
52703	12A1	2.1	2	3.7	0.094								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: DTPA Extractable Mn (12A1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10166	12A1	186	67.5	122	1.86	366	46.4	67.3	46.8	21.1	5.06	194	60.6
20204	12A1	151	58.7	96	1.9	344	55	64.2	51.7	24.8	5.41	189	57.3
21088	12A1	172	65.9	117	1.96	376	49.4	79.1	55.1	24.6	5.72	217	65.6
21100	12A1	157	58.6	104	1.71	372	49.9	79	55.3	23.3	4.91	200	59.5
21178	12A1	160	57	106	1.7	347	45.4	68.9	47.7	24	5.04	192	54.8
21190	12A1	157	87.2 ††	97.7	4.19 ††	462 ††	39.9	67	56	35.4 ††	8.67 ††	122 ††	86.1 ††
21193	12A1	208 ††	71.7 †	130 †	2.14	380	49.1	71.3	51.7	23.9	5.31	200	58.3
21229	12A1	164	57.7	98.4	1.76	363	48.3	73	50.4	24.8	5.15	192	60.2
21232	12A1	175	61.3	105	1.83	373	44.9	73.2	51.9	24.8	5.59	215	58.8
21234	12A1	195	66.9	113	2.25	310 ††	38.2	64.9	40.9 †	30.2 ††	5.22	207	56.7
50002	12A1									6.04 ††	5.08	7.28 ††	4.37 ††
50005	12A1	147	63.8	94.8	2.13	366	52.6	88 ††	70.3 ††	25	5.43	185	55.4
50006	12A1	112 ††	66.4	98	5.37 ††	76 ††	18 ††	42 ††	30 ††				
50007	12A1	180	60.8	107	1.5	421 ††	66.1 ††	85.4 †	50.1	29.5 ††	5.6	227	79.5 ††
50011	12A1	174	58.4	103	1.76	363	47.6	74.3	51	21.6	4.86	194	57.8
50012	12A1	172	62	110	1.9	408 †	56	75	53	23	5.5	212	62
50013	12A1	148	52.4	94.8		336	46.5	65	46.9	22	4.64 ††	182	53.8
50014	12A1	163	56.4	104	1.76	339	43.9	72.1	49.3	24.6	5.46	211	61.9
50017	12A1	8.38 ††	28.4 ††	52.7 ††	3.64 ††								
50020	12A1	165	58.5	104	1.7	418 ††	56.5	73.5	47.5	24.5	5.2	213	58.5
50024	12A1	169	61.5	101	1.93	395	52.2	74.8	55	26.7	5.8	219	64.5
50025	12A1	115 ††	40.8 ††	71.3 ††	1.32	150 ††	33.2 ††	50.1 ††	26 ††	20.3 ††	4.39 ††	173	49.5
50027	12A1	163	59.1	98.2	2.08	365	47.6	69.4	49.9	26.7	5.39	205	61.2
50029	12A1	162	60	93.7	1.91	369	47.4	68.6	52.6	25.6	5.61	198	59.4
50031	12A1					359	42.2	82.5	52.1				
50032	12A1	178	64.5	127	2.2	354	50.8	72	47.2	24.8	5.4	189	52
50038	12A1	148	51.8	83.1	1.25 ††	266 ††	44.1	51.5 ††	34.2 ††	24.9	4.99	180	64.4
52283	12A1	150	65.4	84.5	1.68	348	54.2	74.6	50.1	22.8	5.45	195	54.6
52384	12A1	167	60.2	106	2.42								
52387	12A1	192	64.9	115	1.88	375	72.4 ††	77.9	47	25.8	5.23	217	58.6
52494	12A1	181	59.2	99.8	1.7	380	56.7	70.8	46.3	23.4	5.3	206	55.6
52632	12A1	189	65.8	114	1.4								
52636	12A1	191	64.3	118	1.94	409 †	52	80.6	50.4	22.2	4.71 †	177	49.3
52692	12A1	58.2 ††	27.9 ††	24.5 ††	1.02 ††	75.1 ††	22.2 ††	43.9 ††	31.3 ††	18.7 ††	3.9 ††	140 ††	28.5 ††
52703	12A1	197	71	121									

Lab. Code #	Method Codes	Soil sample identification and values for 2020: DTPA Extractable Zn (12A1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10166	12A1	0.857	0.407	1.42 †	0.207					0.793	2.7	4.11	0.647 ††
20204	12A1	0.635 †	0.188 ††	0.83	0.021 ††	9.39	0.32	1.76	3.37	0.72	2.5	3.9	0.506
21088	12A1	0.755	0.476	1.3	0.247	9.14	0.31	2.22	3.77	0.7	2.56	3.82	0.468
21100	12A1	0.707	0.182 ††	1.03	0.017 ††	9.41	0.294	2.24	3.99	0.604	2.57	3.81	0.239 ††
21178	12A1	0.73	0.35	1.1	0.18	8.89	0.277	2.09	3.42	0.762	2.39	3.35	0.428
21190	12A1	0.801	0.798 ††	1.62 ††	0.386 ††	9.38	0.382	2.23	3.86	0.435 ††	2.5	3.95	0.29 ††
21193	12A1	0.82	0.45	1.29	0.18	9.05	0.3	1.96	4.27	0.6	2.24	4.04	0.42
21229	12A1	0.768	0.39	0.989	0.162	9.82	0.273	2.04	3.87	0.734	2.62	3.87	0.436
21232	12A1	0.75	0.367	1.05	0.13	8.81	0.297	1.98	3.59	0.64	2.48	3.6	0.43
21234	12A1	0.949 †	0.467	1.27	0.263	6.73 ††	1.06 ††	3.45 ††	11.3 ††	0.68	2.35	3.76	0.422
50002	12A1									0.95	0.02 ††	0.2 ††	0.32 ††
50005	12A1	0.851	0.375	0.597 ††	0.098	9.48	0.369	2.19	4.04	0.963	2.57	3.98	0.473
50006	12A1	0.88	0.429	1.36	0.104	6.8 ††	0.15 ††	1.3 ††	2.1 ††				
50007	12A1	0.95 †	0.47	1.33	0.24	9.76	0.36	2.32	3.81	0.58	2.54	4.08	0.57 ††
50011	12A1	0.832	0.398	1.1	0.132	9	0.326	2.09	3.59	0.642	1.98 ††	3.46	0.4
50012	12A1	0.658	0.362	1.2	0.158	11 ††	0.39	2.8 ††	3.8	0.779	2.6	4.1	0.5
50013	12A1					8.45	0.258	1.93	3.35	0.66	2.46	3.49	0.38
50014	12A1	0.848	0.413	1.32	0.2	8.68	0.363	2.11	3.47	0.648	2.54	3.77	0.419
50017	12A1	0.284 ††	0.611 ††	1.02	0.214								
50020	12A1	1.3 ††	0.9 ††	1.45 ††	0.56 ††	10	0.86 ††	2.65 ††	4.1	1.25 ††	2.85 ††	4.05	0.95 ††
50024	12A1	0.765	0.341	1.03	0.153	9.42	0.33	2.24	3.58	0.69	2.4	3.64	0.45
50025	12A1	0.726	0.353	1.09	0.241	5.76 ††	0.308	1.66	0.694 ††	0.803	2.38	3.27 †	0.428
50027	12A1	0.79	0.38	1.05	0.21	9.18	0.38	2.1	3.39	0.84	2.62	3.92	0.47
50029	12A1	0.755	0.358	1.04	0.233	9.23	0.355	2.03	3.86	0.794	2.7	3.77	0.497
50031	12A1					7.96 †	0.268	1.95	3.36				
50032	12A1	0.9	0.48	1.28	0.3 †	8.9	0.43	2.53	3.61	0.74	2.49	4.02	0.53
50038	12A1	0.694	0.439	1.06	0.178	7.08 ††	0.306	1.73	2.65 ††	0.9	2.59	3.65	0.62 ††
52283	12A1	0.771	0.405	1.01	0.197	9.6	0.332	2.01	3.25	0.725	2.56	3.93	0.452
52384	12A1	0.55 ††	0.5	0.78 †	1 ††								
52387	12A1	0.86	0.41	1.15	0.17	10.6 ††	1.63 ††	2.51	3.54	0.875	2.4	3.77	0.553
52494	12A1	0.838	0.474	1.21	0.144	10.8 ††	0.32	2.48	3.5	0.64	2.64	3.82	0.46
52632	12A1	0.8	0.4	1.1	0.2								
52636	12A1	0.808	0.475	1.19	0.181	9.63	0.401	2.07	3.52	0.677	1.57 ††	3.13 ††	0.542
52692	12A1	0.97 †	0.71 ††	1.55 ††	0.54 ††	3.69 ††	0.84 ††	2.74 ††	2.72 ††	0.76	2.47	2.87 ††	0.59 ††
52703	12A1	0.642 †	0.306	0.986	0.104								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: CaCl2 Extractable B (12C1 + 12C2) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10166	12C1	0.88 †	1.05 ††	0.941 ††	1.25 †	0.752	0.333 ††	0.534	1.27 ††	0.188	0.403	0.765	0.587
10173	12C2	1.33	1.93	2.03	2.06	0.89	0.56 †	0.84	0.49	0.14	0.17	0.87	0.94
20204	12C2	1.25	1.86	1.57	2.11	0.933	0.783	0.96	1.41 ††	0.327 ††	0.3	0.8	0.77
21088	12C2	1.66 †	2.11	2.58	2.1	0.94	0.79	0.52	0.58	0.172	0.335	1.05 ††	0.725
21100	12C2	1.04	1.14 ††	1.05 ††	1.64	0.767	0.255 ††	0.701	0.882	0.232 ††	0.364	0.876	0.734
21178	12C2	1.4	2.1	2.1	1.8	1.02	0.991	0.843	0.586	0.148	0.344	1.16 ††	1.21 ††
21229	12C2	1.3	1.77	1.94	2.14	0.808	0.793	0.74	0.729	0.126	0.294	0.793	0.791
21232	12C2	1.41	2.01	2.15	2.38	1.03	0.907	0.897	0.437	0.165	0.15 †	0.873	0.915
50005	12C2	1.35	2.05	2.01	2.1	0.981	0.951	0.829	0.766	0.224 ††	0.288	0.782	0.771
50011	12C2	1.24	1.84	1.99	2.08	0.811	0.866	0.76	0.745	0.146	0.321	0.711	0.726
50012	12C2	1.5	2.2	1.9	2.6	1.2	1	1	0.72	0.144	0.386	0.839	0.686
50014	12C2	1.34	1.97	1.71	2.2	1.14	0.877	0.943	0.699	0.153	0.315	0.974 †	0.981
50017	12C2	1.12	1.21 †	1.97	1.31 †								
50020	12C2	2.83 †	2.77 ††	3.89 ††	3.75 †	1.11	1.29 ††					1.03 ††	1.18 ††
50025	12C2	1.72 †	2.25	2.21	2.4	1.04	1.09 †	0.939	0.304	0.153	0.097 ††	0.587 ††	0.896
50027	12C2	1.25	1.67	1.62	1.64	0.8	0.83	0.81	0.57	0.11	0.26	0.79	0.89
50029	12C2	1.03	1.76	2.34	1.56	0.869	0.806	0.742	0.471	0.147	0.212	0.826	0.675
50032	12C1	1.25	1.88	1.79	2.18	1.29	0.95	1.01	1.03	0.19	0.3	0.827	0.87
50038	12C2									1.39 ††	1.52 ††	0.62 ††	0.39 ††
52386	12C2	0.04 †	0.05 ††	0.06 ††	0.11 †								
52494	12C2	1.54	2.3	2.14	2.26	0.92	0.82	0.86	0.68	0.12	0.28	0.66 †	0.5
52526	12C1	1.42	2.45	2.35	2.13	1.6 ††	0.7	0.7	0.4		0.25	1.09 ††	1.07
52632	12C1	1.6	1.8	2.2	2.6								
52692	12C1	1.42	1.73	2.15	1.81	1.82 ††	1.22 †	1.73 ††	4.4 ††	0.17	1.58 ††	2.33 ††	1.47 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Exchangeable Ca — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	15A1	6.76	13.2 †	20.2	8.55	10.2	27.9	15.2	3.41	2.14	0.98	11.8	17
21104	15A1	3.36 ††	7.61 ††	11.3 ††	5.03 ††								
21178	15A1	7.5	15	23	9.5	10.5	31.5	15.5	3.36	2.2	1.07	12.4	19.6 †
21182	15A1					9.75	29.4	14.9	2.52	2.14	0.96	12.1	17.9
21193	15A1	7.67	16.3	23.4	10.5	12.4 ††	36.4	19.2 ††	3.85 ††	1.88	0.62 ††	13.3 ††	19.2
21232	15A1	7.6	15.9	22.6	10.2	9.74	28.7	15	2.98	2.26	1.07	12	18
50002	15A1									6.06 ††	1.44 ††	48.9 ††	1.11 ††
50005	15A1	7.56	15.3	19.3	9.44	9.52	26.9	14	2.6	2.12	0.964	11.2	17
50011	15A1	7.05	15.1	22.2	9.63	10.1	30.3	15.6	3.09	2.27	0.869	11.7	18.6
50013	15A1	6.87	14.1	19.7	9.02	9.34	28.3	14.1	2.7	2.1	0.9	11	15.6 †
50014	15A1	7.7	16	24.5	9.63	10.3	31.2	15.1	2.75	2.1	0.92	11.6	17.7
50017	15A1	7.59	14.8	29.4 ††	4.05 ††								
50019	15A1	7.25	14.8	21.6	8.9	13.4 ††	37.3 ††	18.7 ††	3.18	1.64 ††	0.61 ††	10.6	17.9
50020	15A1	6.56 ††	14.4	16.7	8.53					2.27	1.01	13.1 †	20.8 ††
50023	15A1	7.45	15.8	23.7	10.2	10.4	32.3	15.8	2.96	2.22	1.06	13.8 ††	19.5
50031	15A1	7.69	16.1	23.8	9.81	10.2	31.3	15	3.18	2.12	0.92	11.1	17.5
50036	15A1	7.9	15.5	19	10.2	9.4	25.8	15.4	3	2.1	0.9	9.9 †	15.8
50038	15A1	1.36 ††	2.9 ††	2.15 ††	1.71 ††	1.67 ††	3.37 ††	2.75 ††	0.289 ††	2.08	0.957	10.2	15.4 ††
50044	15A1					8.3	25	14	2.8	1.9	0.95	10	14 ††
52283	15A1	7.44	15.3	20.7	9.91	9.72	30.2	13.9	2.73	2.31	1.04	11.3	17.2
52386	15A1	7.72	15.3	19.3	9.62								
52387	15A1	5.28 ††	10.9 ††	16.8	6.79 ††	3.24 ††	7.07 ††	4.3 ††	1.07 ††	1.92	0.779	9.31 ††	15.7
52494	15A1	7.03	14.4	21.6	9.11	9.39	27.3	14.3	2.91	2.03	0.898	11.4	17.1
52526	15A1	6.87	14.1	20.7	9.44	10.7	32	15.5	3.2	2.08	1.02	11.1	17.3
52527	15A1	7.48	15.5	22.3	9.78	10.2	32	15.7	3.15	2.21	1.03	11.5	17.8
52676	15A1	7.58	15.7	22	9.31	9.67	31	15.2	2.58				
52691	15A1					9.49	28	14.2	3.12				
52692	15A1	6.6 ††	13.5 †	18.7	8.77	10.5	25.6	15.1	3.47	2.76 ††	1.53 ††	11.1	10.8 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Exchangeable K — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	15A1	1.06	1.25	0.901	1.26	1.4	1.34	0.62	0.243	0.143	0.14	0.718	0.509
21104	15A1	1.06	1.26	0.803	1.32								
21178	15A1	1.1	1.3	0.8	1.3	1.58	1.39	0.59	0.2	0.15	0.15	0.715	0.505
21182	15A1					1.24	1.21	0.513 ††	0.123 ††	0.14	0.13	0.71	0.47 †
21193	15A1	1.03	1.15	0.76	1.28	1.6	1.4	0.68 ††	0.27	0.185 ††	0.178 †	0.7	0.5
21232	15A1	1.14	1.32	0.853	1.42	1.41	1.22	0.596	0.268	0.167 †	0.156	0.762 †	0.531 †
50002	15A1									4.01 ††	1.28 ††	4.84 ††	1.92 ††
50005	15A1	1.09	1.28	0.777	1.26	1.31	1.17	0.569	0.354 ††	0.143	0.129	0.741	0.503
50011	15A1	1.09	1.27	0.817	1.38	1.56	1.35	0.634	0.266	0.162	0.115	0.713	0.539 †
50013	15A1	1.07	1.22	0.8	1.26	1.44	1.26	0.601	0.253	0.2 ††	0.2 ††	0.8 ††	0.6 ††
50014	15A1	1.2	1.36	0.894	1.4	1.58	1.36	0.628	0.242	0.139	0.133	0.725	0.503
50017	15A1	1.19	1.24	1.39 ††	0.148 †								
50019	15A1	1.07	1.2	0.84	1.3	1.39	1.69 ††	0.77 ††	0.22	0.1 ††	0.08 ††	0.58 ††	0.52
50020	15A1	0.98 ††	1.14	0.69 †	1.13 †					0.15	0.14	0.88 ††	0.57 ††
50023	15A1	1.27 ††	1.52 ††	0.94	1.5 †	1.56	1.34	0.61	0.25	0.17 †	0.14	0.84 ††	0.56 ††
50031	15A1	1.12	1.31	0.837	1.37	1.47	1.3	0.606	0.246	0.141	0.129	0.709	0.495
50036	15A1	1.1	1.2	0.8	1.3	1.4	1.2	0.6	0.2	0.1 ††	0.1 ††	0.6 ††	0.5
50038	15A1	0.228 ††	0.317 ††	0.076 ††	0.264 †	0.278 ††	0.161 ††	0.132 ††	0.03 ††	0.1 ††	0.09 ††	0.32 ††	0.22 ††
50044	15A1					1.5	1.2	0.6	0.27	0.15	0.15	0.69	0.5
52283	15A1	1.12	1.24	0.88	1.39	1.67	1.28	1.02 ††	0.486 ††	0.145	0.131	0.712	0.502
52386	15A1	1.11	1.25	0.76	1.3								
52494	15A1	1.09	1.25	0.835	1.31	1.4	1.24	0.551 †	0.237	0.135	0.121	0.678 †	0.488
52526	15A1	1.07	1.23	0.84	1.29	1.4	1.3	0.6	0.3	0.147	0.145	0.721	0.528 †
52527	15A1	1.18	1.36	0.95	1.4	1.44	1.4	0.696 ††	0.29	0.177 ††	0.157	0.738	0.57 ††
52676	15A1	1.13	1.34	0.9	1.31	1.34	1.37	0.67 †	0.22				
52691	15A1					1.6	1.41	0.732 ††	0.342 ††				
52692	15A1	1.06	1.16	0.8	1.18	1.52	1.27	0.73 ††	0.36 ††	0.15	0.15	0.73	0.5

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Exchangeable Mg — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	15A1	6.75	11	26.1	5.29	1.19	8.31	4.8	1.41	1.55	0.65	1.59	8.49
21104	15A1	3.35 ††	5.71 ††	13.7 ††	2.64 ††								
21178	15A1	7	12	28	5.3	1.22	9.75 ††	5.28	1.44	1.52	0.685	1.63	9.3 ††
21182	15A1					1.03	8.2	4.33	0.967 ††	1.41	0.6	1.54	8.3
21193	15A1	7.43 †	12.8	31	5.99 †	1.15	8.78	5.03	1.28	1.6	0.62	1.61	8.85 †
21232	15A1	6.97	11.7	27.5	5.61	1.08	8.17	4.61	1.27	1.59	0.694	1.63	8.69
50002	15A1									1.17 ††	0.81 ††	3.79 ††	0.65 ††
50005	15A1	6.81	11.6	22.2 †	5.28	1.06	8.1	4.44	1.18	1.51	0.631	1.53	8.43
50011	15A1	6.47 †	11.2	27.3	5.36	1.13	8.53	4.79	1.31	1.52	0.539	1.57	8.83 †
50013	15A1	6.64	11	25.3	5.18	1.07	8.08	4.46	1.18	1.5	0.6	1.5	7.2 ††
50014	15A1	7.42 †	12.2	30.3	5.59	1.19	8.9	4.74	1.23	1.45	0.6	1.54	8.45
50017	15A1	8.38 ††	10.4	4.12 ††	2.48 ††								
50019	15A1	6.42 ††	10.5	25.5	4.89	1.16	8.36	4.78	1.19	1.43	0.68	1.44	8.86 †
50020	15A1	6.88	11.4	24.9	5.38					1.73 ††	0.72	2 ††	10.9 ††
50023	15A1	7.09	11.8	27.7	5.84	1.17	8.77	4.83	1.26	1.62	0.7	1.87 ††	9.41 ††
50031	15A1	7.04	12.1	29.9	5.53	1.14	8.9	4.68	1.27	1.48	0.6	1.55	8.71
50036	15A1	6.8	11.2	24.6	5.3	1.1	8	4.8	1.2	1.6	0.6	1.4	8.5
50038	15A1	1.29 ††	2.33 ††	2.42 ††	1.02 ††	0.198 ††	0.872 ††	0.928 ††	0.182 ††	1.33 †	0.552	1.34 ††	7.29 ††
50044	15A1					1.1	7.7	4.4	1.3	1.4	0.64	1.4	7.7 ††
52283	15A1	6.85	11.5	26.2	5.53	1.09	8.43	4.01	1.09	1.56	0.655	1.54	8.49
52386	15A1	7.09	11.7	27.2	4.83 †								
52387	15A1	8.7 ††	12.8	31	5.92 †	0.75 ††	5.17 ††	2.81 ††	0.78 ††	1.54	0.528	1.49	8.43
52494	15A1	6.81	11.4	27.4	5.37	1.02	7.9	4.49	1.27	1.5	0.576	1.54	8.34
52526	15A1	6.96	11.6	28.3	5.61	1.1	8.4	4.6	1.2	1.4	0.652	1.51	8.48
52527	15A1	6.93	11.8	28.2	5.45	1.11	8.91	4.97	1.32	1.52	0.628	1.5	8.56
52676	15A1	6.79	11.2	27.4	5.08	1.08	7.53	4.22	1.18				
52691	15A1					1.12	8.65	4.88	1.33				
52692	15A1	4.72 ††	4.91 ††	5.04 ††	4.64 ††	1.6 ††	3.66 ††	3.57 ††	1.73 ††	1.93 ††	0.96 ††	2.28 ††	8.38

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Exchangeable Na — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	15A1	1.3	1.92	0.986	0.049 ††	0.098	1.2	0.154 ††	0.049	0.26 ††	0.093	0.38	0.412
21104	15A1	1.57	2.28	0.883	1.8								
21178	15A1	1.5	2.2	0.9	1.7	0.09	1.22	0.02 †	0.06	0.195	0.11	0.4	0.415
21182	15A1					0.154 †	0.754 ††	0.0988 ††	0.0786	0.18	0.1	0.4	0.44
21193	15A1	1.21 ††	1.96	0.73 †	1.46 †	0.099	1.03	0.045	0.077	0.134 ††	0.038 ††	0.35	0.29 ††
21232	15A1	1.61	2.4	0.919	1.87	0.12	1.12	0.043	0.093	0.219	0.124 †	0.441	0.441
50005	15A1	1.49	2.22	0.799	1.66	0.108	1.07	0.0403	0.0734	0.185	0.0954	0.396	0.401
50011	15A1	1.46	2.22	0.882	1.82	0.115	1.15	0.045	0.091	0.205	0.087	0.378	0.402
50013	15A1	1.57	2.34	0.933	1.85	0.113	1.2	0.0453	0.0847	0.2	0.1	0.4	0.2 ††
50014	15A1	1.6	2.39	0.969	1.84	0.152 †	1.23	0.0803 ††	0.115 †	0.177	0.0927	0.381	0.378
50017	15A1	1.54	2.09	0.357 ††	0.094 ††								
50019	15A1	1.61	2.5	0.98	1.77	0.11	1.27	0.06 †	0.07	0.16	0.06 ††	0.34	0.39
50020	15A1	1.44	2.29	0.83	1.64					0.18		0.44	0.46
50023	15A1	1.73	2.67	1	1.96	0.12	1.18	0.06 †	0.09	0.21	0.12	0.45	0.43
50031	15A1	1.52	2.29	0.891	1.85	0.102	1.17	0.041	0.074	0.177	0.091	0.367	0.375
50036	15A1	1.6	2.4	0.9	1.8	0.1	1.2			0.2	0.2 ††	0.3 ††	0.4
50038	15A1	0.356 ††	0.627 ††	0.096 ††	4.08 ††	0.032 ††	0.162 ††	0.023 †	0.018 ††	0.86 ††	0.85 ††	1.42 ††	0.97 ††
50044	15A1					0.1	1.1	0.043	0.087	0.19	0.1	0.37	0.37
52283	15A1	1.5	2.21	0.861	1.77	0.112	1.15	0.038	0.081	0.203	0.098	0.391	0.402
52386	15A1	1.65	2.36	0.97	1.84								
52387	15A1	1.21 ††	1.86	0.62 ††	1.42 ††	0.12	1.02	0.028 †	0.027 ††	0.152	0.069 ††	0.42	0.411
52494	15A1	1.47	2.18	0.892	1.73	0.077	1.1	0.033	0.061	0.218	0.095	0.436	0.611 ††
52526	15A1	1.43	2.09	0.87	1.73	0.1	1.3			0.189	0.106	0.402	0.419
52527	15A1	1.45	2.23	0.89	1.73	0.131	1.18		0.123 ††	0.246 ††	0.143 ††	0.421	0.445
52676	15A1	1.52	2.26	0.96	1.78	0.06 ††	1.22	0.03	0.06				
52691	15A1					0.329 ††	1.33	0.23 ††	0.266 ††				
52692	15A1	1.76 ††	2.33	1.24 ††	1.97	0.44 ††	1.62 ††	0.43 ††	0.39 ††	0.13 ††	0.15 ††	0.33	0.33 †

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Exchangeable Ca — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
8888	15D3	7.06	15	20.1	9.31	9.68	28.4	15	2.82	2.24	1.03	11.7	17.6
10166	15D3	7.14	12.8 ††	17.2 ††	8.12 ††	10.8	29.1	16	3.07	2.36	1.07	12.2	14.9 ††
10173	15D3	7.1	15.2	21.7	9.6	10.9	30.7 †	16	3.34	2.04	1.09	12.3	18.1
10181	15D3	7.04	15	19	9.07	9.61	25 ††	15	2.56	2.2	0.989	11.6	17.1
20136	15D3									1.95	1.01	12.1	19
20204	15D3	7.13	14.9	21.6	9.41	9.65	28.7	14.5	2.29	2.03	0.934	11.6	17.3
21088	15D3	6.95	14.8	21	8.82	9.6	29.2	14.3	2.4	2.07	0.977	11.2	16.8
21100	15D3	6.81 ††	13.8 ††	18.3 †	8.24 ††	9.92	29.1	15	2.66	2.06	0.897	11.4	16.9
21182	15D3	7.22	15.6	23.3	7.46 ††								
21190	15D3	8.18 ††	15.6	36.3 ††	12 ††	36.1 ††	36.9 ††	15.8	3.19	2.09	0.994	11.4	15.7
21229	15D3	7.23	15.1	21.2	9.33	9.79	28.7	14.8	2.55	2.04	0.87	11.2	18.1
21234	15D3	7.25	15.3	23.1	9.62	10.2	30.8 †	16.2	3.13	1.94	0.897	10.3	15.6
50005	15D3	7.27	14.8	22.3	10.1 †	10.1	27.6	14.2	2.8	2.13	0.979	11.1	16.8
50006	15D3	10 ††	17.4 ††	29.3 ††	12.9 ††	12.5 ††	34.1 ††	18.9 ††	3.53 ††				
50007	15D3	6.92	14	19.8	8.78	8.32 ††	21.4 ††	22.2 ††	8.85 ††	2.08	1.03	10.7	19
50011	15D3	7.26	15.2	21.8	9.45	10.5	29.6	16.2	2.85	2.23	0.926	12.1	18.4
50020	15D3					10.9	30.8 †	17.1	2.65				
50024	15D3	7.13	14.7	20.6	9.18	10.4	28.7	15.7	2.84	2.19	1.02	11.9	17.5
50025	15D3	7.17	14.6	20	9.16	9.44	26.1 †	14.7	2.65	2.17	0.98	11.4	17.6
50027	15D3	7.12	14.7	20.5	9.2	10.1	27.7	15.4	2.98	2.18	1.01	11.4	17.9
50029	15D3	7.58 ††	15.3	21	9.69	10.3	28.2	15.7	2.98	2.3	1.07	11.6	17
50032	15D3	7.44	15.7	22.8	9.2	10.3	32.1 ††	16.2	2.76	2.27	0.952	12.6	17.7
52491	15D3	7.43	15.8	21.6	9.8	9.88	28.4	15.2	2.75	2.08	0.92	11	16.5
52508	15D3					7.96 ††	23.2 ††	13.5	2.3	2.28	1.02	10.7	18.1
52632	15D3	9.39 ††	19.3 ††	27.1 ††	12.5 ††								
52673	15D3	8.87 ††	16.6 ††	28.7 ††	12.6 ††	13.3 ††	39.4 ††	17.2	5.63 ††	1.97	1.01	2.78 ††	6.5 ††
52703	15D3	8.31 ††	17.7 ††	24.9 †	10.2 †								
52808	15D3									3.28 ††	1.41 ††	18.9 ††	29.3 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Exchangeable K — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
8888	15D3	1.09	1.25	0.808	1.31	1.48	1.26	0.597	0.252	0.148	0.132	0.692	0.501
10166	15D3	1.12	1.24	0.753	1.38	1.6 †	1.29	0.638	0.263	0.142	0.128	0.719	0.495
10173	15D3	1.13	1.26	0.806	1.34	1.47	1.34	0.643	0.286	0.154	0.163 ††	0.747 †	0.529
10181	15D3	1.02	1.12	0.713	1.18	1.46	1.14	0.549	0.224	0.141	0.143	0.699	0.468
20136	15D3									0.131	0.134	0.701	0.521
20204	15D3	1.09	1.29	0.84	1.3	1.35	1.25	0.52	0.243	0.122	0.113 †	0.77 ††	0.5
21088	15D3	1.07	1.28	0.838	1.24	1.4	1.3	0.6	0.2	0.141	0.135	0.698	0.507
21100	15D3	1.03	1.16	0.738	1.22	1.45	1.26	0.577	0.211	0.137	0.134	0.636 ††	0.47
21182	15D3	1.04	1.24	0.81	0.99 ††								
21190	15D3	1.15	1.26	0.865	1.41	1.46	1.23	0.576	0.247	0.158	0.121	0.713	0.611 ††
21229	15D3	1.09	1.21	0.741	1.28	1.44	1.19	0.564	0.241	0.146	0.125	0.694	0.494
21234	15D3	1.09	1.18	0.749	1.15	1.48	1.16	0.374 ††	0.274	0.158	0.121	0.736 †	0.529
50005	15D3	1.08	1.26	0.832	1.32	1.37	1.21	0.583	0.25	0.141	0.131	0.688	0.491
50006	15D3	1.19	1.32	0.88	1.35	1.53	1.33	0.73 ††	0.33 ††				
50007	15D3	1.03	1.14	0.77	1.2	1.27 ††	1.16	0.59	0.26	0.15	0.15 †	0.75 ††	0.62 ††
50011	15D3	1.12	1.25	0.795	1.34	1.56	1.35	0.653	0.28	0.161	0.141	0.748 †	0.525
50020	15D3					1.25 ††	0.96 ††	0.48 ††	0.18 ††				
50024	15D3	1.01	1.14	0.72	1.21	1.37	1.13	0.551	0.228	0.14	0.14	0.63 ††	0.44
50025	15D3	1.08	1.2	0.757	1.28	1.47	1.19	0.583	0.234	0.3 ††	0.128	0.638 ††	0.466
50027	15D3	1.03	1.18	0.749	1.26	1.43	1.25	0.605	0.252	0.134	0.129	0.695	0.476
50029	15D3	1.22 ††	1.49 ††	1.01 ††	1.43	1.51	1.23	0.673 ††	0.229	0.128	0.11 ††	0.709	0.54
50032	15D3	1.07	1.17	0.739	1.29	1.42	1.16	0.564	0.252	0.137	0.133	0.67	0.5
52435	15D3	1.1	1.85 ††	1.34 ††	2.03 ††	1.18 ††	0.93 ††	0.35 ††	0.13 ††	0.12	0.11 ††	0.4 ††	0.34 ††
52436	15D3	1.11	1.35	0.82	1.48 †	1.49	1.29	0.58	0.26	0.14	0.14	0.74 †	0.48
52437	15D3					1.5	1.28	0.638	0.276	0.284 ††	0.235 ††	0.813 ††	0.631 ††
52491	15D3	1.12	1.26	0.783	1.36	1.51	1.23	0.6	0.265	0.145	0.138	0.702	0.486
52632	15D3	1.01	1.1	0.7	1.11 †								
52673	15D3	1.96 ††	1.49 ††	1.14 ††	2.39 ††	2.45 ††	2.34 ††	1.01 ††	0.09 ††	0.03 ††	0.03 ††	0.185 ††	0.155 ††
52703	15D3	1.07	1.17	0.737	1.28								
52808	15D3									0.198 ††	0.173 ††	0.869 ††	0.677 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Exchangeable Mg — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
8888	15D3	6.47	11.1	24.9	5.14	1.07	8.4	4.69	1.26	1.49	0.642	1.5	8.11
10166	15D3	7.12	11.2	31.7 ††	5.66	1.18	8.86	4.72	1.25	1.72 ††	0.701	1.61	9.99
10173	15D3	6.91	11.1	26.4	5.37	1.31 ††	8.8	4.7	1.49 ††	1.57	0.704	1.65	8.99
10181	15D3	6.63	11	1.59 ††	5.11	1.07	7.83	4.03 ††	1.06 †	1.59	0.683	1.65	9
20136	15D3									1.35 †	0.645	1.52	8.5
20204	15D3	6.72	11.1	24.6	5.28	1.12	8.07	4.44	1.11 †	1.53	0.683	1.69	8.78
21088	15D3	6.44	11.2	26.2	5.08	1	7.6	4.3 †	1 †	1.41	0.588	1.45	7.88
21100	15D3	6.4	10.5 †	23.6	4.83	1.09	8.07	4.58	1.17	1.49	0.601	1.49	8.32
21182	15D3	6.29	10.9	26.9	3.81 ††								
21190	15D3	7.16	11.1	21.8 ††	5.34	1.05	8.32	4.78	1.25	1.53	0.72	1.62	7.73
21229	15D3	6.56	11.1	27.1	5.17	1.06	7.78	4.37	1.16	1.47	0.598	1.56	8.53
21234	15D3	9.8 ††	16 ††	35.8 ††	7.58 ††	1.47 ††	9.96 ††	5.34 ††	1.58 ††	1.84 ††	0.82 ††	1.89 ††	10.6 ††
50005	15D3	6.71	11.4	25.2	5.8 †	1.09	8.18	4.68	1.23	1.5	0.613	1.51	8.22
50006	15D3	6.77	9.58 ††	20.4 ††	5.17	0.94 †	6.77 ††	4.62	1.05 †				
50007	15D3	6.65	10.8	22.3 †	5.93 ††	0.71 ††	8.12	3.94 ††	0.62 ††	1.12 ††	0.16 ††	1.16 ††	7.31
50011	15D3	6.86	11.5	27.7	5.39	1.17	9.11	5.09 ††	1.32	1.6	0.626	1.64	9.09
50020	15D3					1.25 †	9.09	5.35 ††	1.22				
50024	15D3	6.53	10.6	23.2	5.1	1.09	7.72	4.55	1.22	1.51	0.67	1.53	7.96
50025	15D3	7.08	11.4	25.4	5.46	1.15	8.31	4.77	1.24	1.6	0.716	1.69	8.43
50027	15D3	6.53	11	27.2	5.24	1.02	8.2	4.74	1.27	1.51	0.666	1.56	8.4
50029	15D3	6.84	11.5	27.9	5.22	1.06	8.06	4.57	1.24	1.49	0.626	1.45	7.98
50032	15D3	6.8	13.9 ††	28	5.49	1.11	8.5	4.7	1.4 †	1.58	0.637	1.58	8.95
52491	15D3	7.07	12 †	27.5	5.62	1.12	8	4.64	1.31	1.33 †	0.55	1.32 †	8.24
52508	15D3					1.72 ††	11.8 ††	4 ††	0.91 ††	1.95 ††	0.79 †	2.43 ††	9.06
52632	15D3	6.5	11.7 †	27	5.24								
52673	15D3	5.39 ††	8.1 ††	20.7 ††	4.87	1.34 ††	6.99 ††	3.81 ††	1.74 ††	0.465 ††	1.25 ††	6.03 ††	5.22 ††
52703	15D3	6.67	11.3	31.6 ††	5.23								
52808	15D3									2.62 ††	1.09 ††	2.53 ††	14.4 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Exchangeable Na — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
8888	15D3	1.47	2.2	0.873	1.75	0.116	1.11	0.062	0.103	0.213 †	0.119 ††	0.382	0.393
10166	15D3	1.25 ††	1.82 †	0.732	1.46 ††	0.11	0.902 ††	0.073 †	0.09	0.168	0.112	0.348	0.347
10173	15D3	1.5	2.07	0.817	1.73	0.15 ††	1.2 †	0.186 ††	0.045	0.187	0.093	0.375	0.345
10181	15D3	1.4	2	0.79	1.64	0.0956	1.02 †	0.0428	0.072	0.184	0.101	0.355	0.351
20136	15D3									0.166	0.0967	0.376	0.381
20204	15D3	1.49	2.21	1.08 ††	0.87 ††	0.157 ††	1.31 ††	0.147 ††	0.103	0.254 ††	0.108	0.39	0.388
21088	15D3	1.5	2.36	0.913	1.75	0.1	1.1	0.1 ††	0.1	0.174	0.09	0.38	0.421
21100	15D3	1.34 †	1.99	0.77	1.56	0.114	1.08	0.0364	0.0561	0.177	0.101	0.345	0.357
21182	15D3	0.99 ††	1.5 ††	0.57 ††	0.99 ††								
21190	15D3	1.51	2.31	0.864	1.7	0.071 ††	1.1	0.016	0.044	0.314 ††	0.347 ††	0.461 ††	0.503 ††
21229	15D3	1.51	2.26	0.832	1.76	0.101	1.06	0.0353	0.0731	0.18	0.0959	0.38	0.395
21234	15D3	1.35	1.84	0.804	1.7	0.179 ††	1.1	0.109 ††	0.144 ††	0.151	0.074 ††	0.316 †	0.297
50005	15D3	1.45	2.22	0.847	1.65	0.115	1.08	0.05	0.0846	0.196	0.0922	0.373	0.39
50006	15D3	0.52 ††	1.67 ††	0.57 ††	1.28 ††	0.09	1.02 †	0.05	0.06				
50007	15D3	1.42	2.08	0.96	1.68	0.14 †	1.26 ††	0.13 ††	0.42 ††	0.2	0.11	0.44 ††	0.48 ††
50011	15D3	1.5	2.25	0.873	1.76	0.112	1.21 †	0.042	0.087	0.201	0.102	0.398	0.406
50020	15D3					0.11	1.01 †						
50024	15D3	1.41	2.11	0.81	1.65	0.091	1.04	0.037	0.07	0.178	0.097	0.36	0.353
50025	15D3	1.53	2.25	0.88	1.77	0.127	1.1	0.062	0.094	0.222 †	0.14 ††	0.403	0.413
50027	15D3	1.39	2.1	0.823	1.64	0.0946	1.1	0.041	0.082	0.18	0.0957	0.366	0.362
50029	15D3	1.45	2.27	0.971	1.7	0.115	1.2 †	0.052	0.0764	0.141 †	0.0699 ††	0.357	0.389
50032	15D3	1.55	2.37	0.907	1.8	0.09	1.03	0.033	0.07	0.172	0.091	0.35	0.38
52491	15D3	1.53	2.32	0.889	1.84	0.103	1.09	0.0381	0.0803	0.177	0.093	0.351	0.352
52632	15D3	1.1 ††	1.65 ††	0.69 †	1.4 ††								

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Exchangeable Al — 1M KCl (15G1) cmol+/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	15G1	0.0054	0.002	0.001	0.007	0.0071	0.006	0.0082	0.253	0.0083	0.333	0.006	0.007
21088	15G1	0.005	0.005	0.005	0.005	0.01	0.01	0.01	0.35	0.01	0.35	0.01	0.005
21100	15G1	0.0069	0.007	0.004	0.0157	0.0113	0.010	0.00434	0.302	0.0229	0.417	0.0242 ††	0.0115
21229	15G1	0.0149	0.018	0.011	0.0152	0.0109	0.001	0.00406	0.345	0.043	0.375	0.00657	0.00603
21232	15G1	0.038 †	0.035 ††	0.021	0.067 †	0.055 ††	0.036 ††	0.033 ††	0.436	0.057	0.433	0.077 ††	0.029 ††
50005	15G1	0.0059	0.005	0.015	0.0205	0.0133	0.007	0.0121	0.164 †	0.00942	0.329	0.00673	0.00579
50011	15G1	3 ††	0.005	0.005	0.003	0.002	0.005	0.003	0.318	0.0031	0.289	0.003	0.003
50013	15G1								0.39		0.4		
50014	15G1	0.0155	0.015	0.016	0.0156	0.001	0.001	0.001	0.264	0.0202	0.374	0.001	0.001
50017	15G1	0.007	0.009	0.011	0.014								
50027	15G1	0.005	0.002	0.002	0.005	0.005	0.002	0.005	0.398	0.005	0.41	0.005	0.002
50029	15G1	0.0288	0.060 ††	0.031	0.0723 †	0.0524 ††	0.041 ††	0.0424 ††	0.415	0.042	0.261	0.0683 ††	0.0437 ††
50032	15G1	0.014	0.008	0.009	0.025	0.004	0.004	0.023 †	0.369	0.036	0.444	0.009	0.012
50044	15G1								0.069 ††				
52494	15G1	0.034 †	0.017	0.017	0.034	0.0925 ††	0.001	0.0308 †	0.308	0.0154	0.463	0.0617 ††	0.001
52526	15G1										0.454		
52527	15G1	0.578 ††	0.511 ††	0.378 ††	0.6 †						0.344		

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable Al – Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	605	849	542	849	918	684	813	400	517	650	878	538
8888	18F1	535 †	753	496	777 ††	949	688	807	430	529	687	885	548
10156	18F1	535 †	728 †	581	710 ††	862	663	740	318 †	484	584	889	534
21100	18F1	554 †	815	530	840	931	714	798	466	526	717	925	517
21178	18F1	570	860	550	850	1040	800 ††	934 ††	445	518	634	910	557
21229	18F1	617	862	582	838	944	703	805	426	513	650	896	542
21232	18F1	613	850	554	852	866	676	775	397	496	644	820 ††	515
50005	18F1	632	841	559	856	1000	680	775	356	584 ††	635	893	549
50011	18F1	603	796	491	855	1000	712	787	432	532	236 ††	933	497
50014	18F1	630	850	588	876	973	743 †	872 ††	423	519	689	894	529
50020	18F1	624	814	574	856	899	683	780	398	463 ††	532	836	484
50024	18F1	608	818	517	837	842	640	746	376	516	637	930	530
50027	18F1	603	807	535	819 †	937	697	788	422	523	661	871	522
50042	18F1	432 †	553 ††	349 ††	618 ††	527 ††	387 ††	458 ††	260 ††	357 ††	181 ††	463 ††	290 ††
52283	18F1	611	858	535	847	950	684	798	399	482	618	902	558
52491	18F1	580	765	494	755 ††	897	669	747	408	502	605	846	547
52565	18F1	613	858	507	839	818	596 ††	704 ††	362	432 ††	557	731 ††	508
52636	18F1	470 †	648 ††	417 †	665 ††	964	748 †	810	428	506	596	909	504

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable B – Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	1.02	2.08	2.97	1.66	0.62	1.17	0.68	0.256	0.094	0.123	0.577	0.88
8888	18F1	0.826	1.7 †	2.47 †	1.42	0.57	1.07	0.613	0.233	0.226	0.243	0.678	0.96
10156	18F1	0.7 ††	1.5 ††	2.1 ††	1.1 ††	0.7	1.15	0.82	0.4 †	0.17	0.22	0.66	0.84
21100	18F1	1.01	2.33 †	3.33	1.74	0.671	1.27	0.702	0.255				
21178	18F1	1	2.2	3.4	1.9	0.386 ††	1.01	0.63	0.153	0.01	0.05	0.424	0.705 †
21229	18F1	1.05	2.01	3.43	1.51	0.787	1.31	0.72	0.256	0.167	0.155	0.617	0.951
21232	18F1	0.877	2.48 ††	3.18	1.71	0.553	1.46	0.29 ††	1.18 ††	0.447 ††	0.648 ††	0.797	1.19 ††
50005	18F1	1.08	2.08	3.01	1.83	0.695	1.11	0.777	0.577 ††	0.177	0.252	0.557	0.866
50011	18F1	1.21	2.01	3.1	1.83	0.837	1.15	0.924 †	0.955 ††	0.258	0.225	0.791	0.909
50014	18F1	1.06	2.13	3.15	1.78	0.663	1.28	0.732	0.242	0.068	0.117	0.59	0.922
50020	18F1	0.99	2.05	3.35	1.8	0.75	1.5	0.86				0.83	1.2 ††
50024	18F1	0.81	1.73 †	2.6	1.47	0.458	0.897	0.491	0.221	0.04	0.12	0.53	0.73
50027	18F1	0.942	1.93	2.99	1.63	0.603	1.16	0.639	0.274	0.113	0.25	0.593	0.887
50042	18F1	0.92	2.02	3.19	1.54	0.67	0.93	0.59	0.17	0.16	0.09	0.38	0.5 ††
52283	18F1	1.03	1.91	1.88 ††	0.41 ††	0.761	1.23	0.671	0.297	0.115	0.162	0.463	0.851
52491	18F1	0.887	2.02	2.91	1.53	1.15 ††	1.74 ††	0.969 ††	0.33	0.189	0.174	0.831	1.25 ††
52565	18F1	1	2.2	2.7	1.7	0.6	1	0.5	0.2	0.01	0.01	0.3	0.6 ††
52636	18F1	1.21	1.99	3.05	1.62	0.67	1.23	0.66	0.16	0.087	0.111	0.633	0.928

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable Ca – Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	1370	2790	4000	1680	1980	5800	3050	540	413	191	2260	3420 †
10156	18F1	1090 ††	2240 ††	3980	1320 ††	1710 ††	5430	2400 ††	425 ††	385	187	2250	3500
21100	18F1	1380	3160	4100	1870	1980	5770	3090	591	474	229	2530 †	3810 †
21178	18F1	1400	3000	4700	1800	2130	6140	3210	599	450	214	2420	3660
21229	18F1	1400	3030	4630	1760	2040	5960	3220	592	447	219	2360	3780
21232	18F1	1560 †	3060	4530	1950	2200	6560 ††	3240	645 ††	468	224	2400	3640
50005	18F1	1450	3010	4560	1860	1880 ††	5920	2970	466 ††	487	203	2330	3640
50011	18F1	1430	2800	3990	1930	2040	5640	3060	620	462	159	2420	3650
50014	18F1	1470	2930	4430	1840	2090	5900	3140	577	436	212	2360	3600
50020	18F1	1340	2670	4120	1630 †	2100	5840	3200	589	414	169	2300	3360 †
50024	18F1	1500	2990	4250	1860	2100	5440	3020	589	433	199	2400	3520
50027	18F1	1450	2910	4360	1780	2090	5780	3100	604	453	219	2400	3650
50042	18F1	1420	2840	4620	1760	1930 †	5610	2880	613	352	106 ††	1510 ††	2300 ††
52283	18F1	1450	2920	4380	1830	2120	5850	3240	606	503	214	2400	3680
52384	18F1	7.94 ††	16.6 ††	24.9 ††	5.66 ††								
52491	18F1	1460	3060	4700	1830	2010	5600	2980	503 ††	402	180	2300	3470 †
52565	18F1	1360	2860	4080	1880	2070	5300	3010	576	402	186	2160 †	3260 ††
52636	18F1	1430	2730	3740	1720	2120	5720	3070	575	472	227	2400	3610

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable Cu - Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	2.42	3.18	6.94	0.22	2.79	3.45	4.93	0.608	0.4	0.58	1.31	1.66
8888	18F1	2.28	3.23	6.84	0.122	2.79	3.44	4.41	0.488	0.32	0.384	1.21	1.66
10156	18F1	1.9	2.8	4.7	0.4 ††	2.4 ††	3.01	3.85	0.72	0.36	0.25	1.25	1.65
21100	18F1	2.18	3.26	6.86	0.080	3.05 †	3.69	4.82	0.546	0.274	0.229	1.21	1.52
21178	18F1	2.5	3.7	7.5	0.15	3.36 ††	4.31 ††	5.59	0.35	0.36	0.243	1.42	1.93 ††
21229	18F1	2.28	3.26	6.75	0.056	2.68	3.36	4.43	0.124	0.276	0.198	1.22	1.66
21232	18F1	2.33	3.17	6.77	0.073	2.75	3.46	4.48	0.21	0.32	0.167	1.2	1.66
50005	18F1	2.32	3.18	5.63	0.278 †	2.77	3.62	4.29	0.256	0.585 ††	0.338	1.34	1.77
50011	18F1	2.38	3.11	6.64	0.098	2.81	3.42	4.35	0.588	0.558 ††	0.203	1.36	1.84 †
50014	18F1	2.65	3.44	7.79	0.131	3.05 †	3.77	4.9	0.528	0.347	0.304	1.28	1.68
50020	18F1	2.85	3.75	8.2		3.55 ††	4.5 ††	4.85	0.54		0.61	1.55 ††	2.2 ††
50024	18F1	2.01	2.74	5.24	0.102	2.29 ††	2.77 †	3.69	0.199	0.32	0.35	1.32	1.65
50027	18F1	2.47	3.39	7.34	0.156	2.84	3.57	4.56	0.394	0.439	0.527	1.4	1.74
50042	18F1	1.92	2.59 ††	5.29	0.06	2 ††	2.3 ††	3.2	0.03	0.15 ††	0.04	0.43 ††	0.59 ††
52283	18F1	2.33	3.26	6.98	0.105	2.74	3.52	4.65	0.458	0.182	0.384	1.24	1.62
52384	18F1	3.43 ††	4.76 ††	9.98 ††	0.39 ††								
52491	18F1	2.19	2.99	6.36	0.069	2.31 ††	2.93	3.8	0.316	0.221	0.333	1.09	1.55
52565	18F1	2.5	3.4	5.9	0.2	2.7	3.1	4.1	0.6	0.3	0.4	1.3	1.7
52636	18F1	2.13	2.64 †	5.87	0.426 ††	2.7	3.61	4.85	0.399	0.298	0.206	1.16	1.48 †

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable Fe – Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	129	97.8	208	141	157	75.6	278	570	303	604	256	85.8
8888	18F1	133	93.7	209	145	164	70.4	275	628	347	595	281	79
10156	18F1	115	83	442 ††	106	164	80.9	221	37 ††	251	332 ††	194 ††	64.2
21100	18F1	109	82.6	193	133	146	75.6	262	621	295	642	274	74.3
21178	18F1	130	100	210	150	197 ††	89.9	301	603	309	533	260	84.9
21229	18F1	143	99.3	223	159	151	77.2	259	520	326	539	271	82.6
21232	18F1	126	89.2	197	142	156	75.8	266	560	319	544	251	76.2
50005	18F1	149	92.9	159	144	87.8 ††	13.2 ††	131 ††	299 ††	355	547	259	82.1
50011	18F1	136	91.3	195	127	173	79.4	251	410	299	226 ††	251	67.9
50014	18F1	153	101	225	154	188 ††	87.1	304	655	316	625	271	78.8
50020	18F1	160	109	258	154	169	85	291	594	261	513	242	67.5
50024	18F1	127	87.8	171	131	132 †	66.1	226	469	335	569	288	85.6
50027	18F1	142	102	224	152	157	78.3	283	582	369	598	264	88.1
50042	18F1	107	71 ††	126 ††	117	122 ††	51 ††	187 ††	384 †	226	144 ††	146 ††	39 ††
52283	18F1	154	97.5	194	142	160	78.4	281	611	280	554	271	80.8
52384	18F1	188 †	129 ††	267 ††	189 ††								
52491	18F1	137	93.5	211	129	150	68.5	243	514	285	517	255	80.7
52565	18F1	153	103	224	154	156	64.9	231	542	279	443	221	67.7
52636	18F1	102	69.6 ††	160	124	159	84	281	629	334	495	247	65.8

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable K – Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	408	445	290	462	551	448	222	93.4	58.5	50.2	252	177
10156	18F1	346 ††	394 †	237 ††	421 ††	462 ††	379 ††	182 ††	75.5 ††	59.3	51.3	255	183
21100	18F1	423	502 ††	285	537 ††	608 ††	484 †	243 †	106	64.5 †	58.4 †	282	190
21178	18F1	400	450	280	470	577 †	466	227	99.8	58.5	51.4	249	181
21229	18F1	402	465	279	487	540	440	220	93.8	57.9	51.6	256	187
21232	18F1	420	456	287	498	532	446	219	95.8	62.6	54.5	262	191
50005	18F1	392	465	302	472	477 ††	428	272 ††	81.8	72.7 ††	52.5	268	199
50011	18F1	408	432	261	472	548	444	221	96.5	64.1 †	16.5 ††	270	201
50014	18F1	424	446	285	491	584 †	463	227	97.8	59.2	51.9	256	182
50020	18F1	338 ††	371 ††	233 ††	385 ††	550	452	215	93	59	45	237	170
50024	18F1	413	460	278	480	542	448	213	90.6	51.1 †	43.6 †	233	166
50027	18F1	395	443	282	468	530	458	236	97.5	60.2	53.8	265	191
50042	18F1	112 ††	154 ††	93 ††	145 ††	275 ††	281 ††	108 ††	45 ††	22 ††	11 ††	92 ††	69 ††
52283	18F1	403	446	301	478	545	447	219	89.6	62.4	50.8	263	198
52384	18F1	1.12 ††	1.3 ††	0.82 ††	1.42 ††								
52491	18F1	428	461	275	492	551	440	217	83.8	58.7	47.6	250	180
52565	18F1	381	446	251 †	480	506 †	396 ††	203	92	52.8 †	46.4	243	174
52636	18F1	414	417	270	476	677 ††	559 ††	271 ††	121 ††	73.4 ††	63.1 ††	308 ††	210

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable Mg – Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	839	1420	3890	619	129 †	1040	550	143	184	75.3	183 †	1070
10156	18F1	583 ††	978 ††	3010 †	455 ††	105 ††	827 †	428 ††	106 ††	182	75.8	193	1080
21100	18F1	798	1530 †	3610	696	142	1050	576	153	203	83.6	204 †	1110
21178	18F1	780	1400	3600	590	149 †	1050	555	160	192	78.9	198	1040
21229	18F1	835	1440	3670	649	137	1040	564	149	182	80.7	191	1100
21232	18F1	860	1420	3710	670	145 †	1040	580	160	192	81	190	1060
50005	18F1	875	1490 †	4090	713	136	1030	538	152	211	77.2	184	1080
50011	18F1	858	1570 †	3920	637	135	1060	567	150	194	24.4 ††	193	1180 †
50014	18F1	825	1410	3690	651	139	1070	575	150	191	80.4	196	1090
50020	18F1	778	1330 †	3780	618	141	1080	563	157	185	67.5	191	1040
50024	18F1	828	1410	3970	635	130	1000	537	142	174	69	179 ††	1030
50027	18F1	848	1420	3860	662	139	1060	581	158	198	85.1	191	1110
50042	18F1	577 ††	884 ††	1870 ††	435 ††	91 ††	581 †	329 ††	101 ††	93 ††	8.8 ††	83 ††	399 ††
52283	18F1	835	1420	3340	655	137	1010	583	155	204	76.5	194	1090
52384	18F1	7.67 ††	13.9 ††	38.4 ††	6.8 ††								
52491	18F1	834	1410	3750	638	135	971	548	127 †	191	76.3	194	1030
52565	18F1	854	1510 †	3590	704	135	969	579	159	195	82.6	197	1110
52636	18F1	808	1220 ††	3340	608	163 ††	1220 †	658 ††	177 †	216	88.3	220 ††	1190 †

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable Mn – Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	359	232	308	3.87 ††	584	408	74.1	44.2	36.7	5.18	233	281
8888	18F1	398 ††	248	349	2.25	650	444	77.2	48.3	45.3	6.16	257	307
10156	18F1	246 ††	184	214	1.3 ††	584	423	70.2	38.8	48.6	5.69	245	214
21100	18F1	333	228	315	2.39	605	420	87.9	51	39.6	6.75 †	252	271
21178	18F1	340	230	310	2.3	644	463	86.1	53.6	41.2	5.81	254	293
21229	18F1	355	245	322	2.49	550	340	83.5	53.6	41.9	5.91	252	277
21232	18F1	342	214	290	2.47	570	362	79	49.7	40	5.88	234	252
50005	18F1	343	234	270	3.27 ††	561	389	103 ††	71.1 ††	47.7	5.91	245	306
50011	18F1	376	219	314	4.5 ††	636	404	75.2	45.6	37.8	3.69 ††	256	282
50014	18F1	415 ††	255	349	2.25	679	509 ††	80.6	47.8	41.1	5.82	257	295
50020	18F1	398 ††	243	342	2.35	604	424	78	48	35.5	4.4 ††	233	250
50024	18F1	325	196	235	2.25	514	348	69.2	43.7	46.4	5.3	252	290
50027	18F1	345	234	305	2.9 †	510	381	75.2	45.9	36.8	5.61	228	259
50042	18F1	331	180	243	7 ††	586	284	71	45	34	8 ††	170 ††	163 ††
52283	18F1	359	235	309	2.19	572	383	58.1	38.1	40.7	6.02	251	304
52384	18F1	461 ††	313 ††	394	1.25 ††								
52491	18F1	356	225	311	2.01	541	337	77.2	42.6	38.7	5 †	241	277
52565	18F1	324	201	242	2.1	468	286	66.4	44	35.7	4.8 †	214	237
52636	18F1	323	177	248	3.49 ††	685	403	83.6	53.7	52	6.14	223	218

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable Na - Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	331	488	185	371	21.1	236	9.07	17.2	44.4	21.6	78.6	83.2
10156	18F1	260 ††	386 ††	157	310 ††	17.9	187 ††	7.66	35.1 ††	39	20.6	72.7	75.7
21100	18F1	345	581 ††	199	450	25.2	267	11.9	20.1	55.3 ††	29.6 ††	96.5	95.6
21178	18F1	340	520	240 †	410	26	280	9.66	18.2	46.6	23.3	90.1	98.8
21229	18F1	331	514	197	413	22.7	255	9.72	19.6	45.9	23.9	86.2	88.9
21232	18F1	352	512	210	418	36.2 ††	266	19.3 ††	28.2 ††	48.2	25.2	85.2	92.7
50005	18F1	325	502	223	394	29.3	256	15	21.6	37.7	23.5	90.3	91.6
50011	18F1	389 ††	517	267 ††	456	31.8 †	246	11.2	28.1 ††	47.2	7.86 ††	86.5	97.5
50014	18F1	338	493	193	400	22.4	251	9.08	18	44	22.8	81	84.7
50020	18F1	300	457 †	182	360	21	237		18.5	41	16	77	80.5
50024	18F1	334	501	190	390	20.8	244	6.7	15.3	42.8	20.8	83.1	85.6
50027	18F1	321	481	190	376	24.7	250	11.8	19.3	44.8	25	87.3	89.2
50042	18F1	358	616 ††	255 ††	459	83 ††	555 ††	52 ††	59 ††	80 ††	39 ††	151 ††	167 ††
52283	18F1	322	495	174	367	23.3	249	8.89	18.8	46.2	21.3	82.6	86.5
52491	18F1	347	508	190	402	23	239	8.47	14.6	45.2	21	82.7	86.5
52565	18F1	310	495	146 †	398	26.3	228	11.8	20.8	42.7	21.4	80.5	84.4
52636	18F1	324	447 ††	173	381	16.7	30 ††	16.1 ††	16.6	41.2	19.9	71.3	66.2 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable P - ICP — Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	18.9	23.7	90.2	3.21	25.5	18.5	81.3	30.8	8.18	51.4	110	21.5
8888	18F1	18.3	23.2	93.6	3.33	26.3	19.4	75.2	31.5	7.59	45.2	99.4	20.7
10156	18F1	23 ††	34 ††	199 ††	2.9	33.6 ††	32.9 ††	93.7	32.6	7.99	38.2	110	31 ††
21100	18F1	17.5	26.9	90.7	4.3 ††	26.5	22.7	78.6	34.7	8.33	50	111	24.6
21178	18F1	18	25	120	3.2	27.7	24.6 ††	91.2	34.8	8.52	44	112	25.4
21229	18F1	18.9	23.9	102	3.38	25.6	20.7	76.4	28.5	7.49	40.8	108	23.3
21232	18F1	19.2	24.1	102	3.01	24.9	20.4	76.6	30.5	8.31	42.3	103	23.6
50005	18F1	18.7	22.7	92	2.51	23.5	18.2	63.5	27.2	9.1	42.9	109	23.4
50011	18F1	18	20.7	87.1	2.67	24.6	18	70.1	31.2	8.56	23.4 ††	112	22.1
50014	18F1	17.1	21.4	95.6	1.31 ††	26.4	20	82.3	32.7	8.32	49	112	23
50020	18F1	18.5	22	106		25.5	18.5	68	28		47	105	21
50024	18F1	18.4	22.2	93.6	2.7	25.9	19.2	79.1	30.3	8.12	46.9	113	22.2
50027	18F1	17.3	21	94.6	2.3	24.2	17.7	77.8	33.2	8.05	48.4	104	21.6
50042	18F1	3.08 ††	0.77 ††	3.45 ††	3.17	4.2 ††	4.1 ††	6.1 ††	5.4 ††	7.4	2.1 ††	5.4 ††	1.9 ††
52283	18F1	18.4	23.9	112	2.66	25.1	19.3	75.6	28.7	6.91	41.2	104	25.1
52384	18F1	21.5 ††	29.4	104	3.55								
52491	18F1	18.2	21.5	104	2.77	22.8	18.3	68.8	28.5	8.87	46.6	102	24.6
52508	18F1					612 ††	152 ††	570 ††	99.5 ††	10 ††	19 ††	31 ††	24
52565	18F1	18.3	25.1	126 ††	0.9 ††	29.9 ††	26.2 ††	74.4	31.2	5.4 ††	41.7	114	32.5 ††
52636	18F1	17.6	21.1	83.3	3.45	30 ††	25.2 ††	86.3	37.7	7.13	41.4	106	24.9

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable S - Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	15.8	14.4	28.1	16.6	47.4	20.7	31.3	22.7	8.35	23.4	72.8	12.2
10156	18F1	90 ††	94 ††	98 ††	92 ††					71.9 ††	89.5 ††	124 ††	102 ††
21100	18F1	10.2	13.8	24.5	15.4	53.5	23.6	31.2	24.5	5.72 †	18.1	56 ††	9.62
21178	18F1	15	15	29	17	47.6	23	31.7	22.6	8.57	20.8	73.3	13.6
21229	18F1	13.4	12.5	25.6	15.6	43.8	18.4	28.8	21.6	6.75	21.1	70.1	11.5
21232	18F1	21.9 ††	14.5	29.2	16.7	46.7	22.5	29.2	22.4	8.89	20.8	69.1	12.5
50005	18F1	14.3	13.4	26	15.4	39.6	20.8	27.2	21.1	9.61	21.2	72.8	12.6
50011	18F1	12.9	11.3	23.6	14.5	45.9	20.3	28.2	23.6	8.83	7.02 ††	70.8	11.5
50014	18F1	14.7	13.1	30.2	18.3	49.3	21.5	31.7	24.3	8.39	23.7	71.7	12.2
50020	18F1			28		50	23	30	25.5			66	
50024	18F1	13.9	15	30.4	16	48.8	30.6 †	34.4	22.4	7.84	21.2	71.1	15
50027	18F1	12.3	12.4	26	16.3	41.7	19.5	25.7	22.4	7.5	23	69.1	10.7
50042	18F1	2.92 ††	3.26 ††	10.2 ††	4.3 ††	9.7 ††	0.89 †	3.9 ††	3.5 ††	1.3 ††	3.1 ††	40 ††	3.5 ††
52283	18F1	13.7	14	6.96 ††	17	44.5	21.2	28.4	14.2 ††	12.2 ††	22.1	71.6	14.5
52491	18F1	19.6 †	19 ††	35.6 †	23 ††	49.6	27 †	32.7	21.7	8.44	18.6	61.8 ††	17.5
52565	18F1	15.7	15.5	26.5	15.2	45.7	26.5	28.4	22.2	8	19	69	16.3
52636	18F1	11.8	7.79 ††	16.8 †	8.13 ††	41.1	20.7	27	23.5	10.4 †	22.2	71	14.4

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable Zn — Mehlich3 (18F1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
22	18F1	1.29	0.7	3.19	0.268	12.1	0.693	3.83	3.17	0.848	2.78	5.04	0.946
8888	18F1	1.24	0.604	3.5	0.178	12.1	0.76	3.93	3.99	0.867	2.82	5.14	0.928
10156	18F1	1.7 †	3.2 ††	4.2	0.3	14.9	3.16 ††	5.21	3.31	1.15	2.76	5.79	7.76 ††
21100	18F1	1.06	0.617	3.33	0.093	13.9	0.929	4.48	3.71	1.08	3.04	6.02	1.3
21178	18F1	1.4	0.76	3.5	0.29	13.8	0.925	4.57	3.27	1.11	2.97	5.81	1.2
21229	18F1	1.32	0.697	3.51	0.178	12.5	0.749	4.39	3.35	0.774	3.13	5.36	0.957
21232	18F1	1.38	0.713	3.65	0.23	13.2	0.983	4.51	3.53	1.15	3.26	5.81	1.21
50005	18F1	1.36	0.776	3.42	0.307	11.2	0.889	3.6	3.34	1.03	3.01	5.38	1.06
50011	18F1	1.95 ††	1.26 ††	3.99	0.954 ††	12.4	0.77	3.87	3.54	1.09	0.942 ††	5.49	1.09
50014	18F1	1.46	0.741	3.88	0.23	13.3	0.818	4.27	3.57	1.21	3.02	5.34	0.996
50020	18F1	1.4		4.1		13		4.1	3.3	1.1	2.6	5.2	
50024	18F1	1.23	0.61	3.09	0.193	10.7	0.77	3.55	2.67	0.84	2.99	5.32	0.97
50027	18F1	1.38	0.67	3.76	0.253	12.5	0.832	3.83	2.63	1.01	2.99	5.55	1.07
50042	18F1	0.82 ††	0.29 ††	1.67 ††	0.02 ††	7.5 ††	0.19 ††	1.7 ††	1.7 ††	0.15 ††	0.29 ††	2 ††	0.25 ††
52283	18F1	1.41	0.738	3.82	0.233	12.5	0.833	4.01	3.69	1.02	3.12	5.41	1.08
52384	18F1	1.77 †	1.19 ††	5.38 ††	0.61 ††								
52491	18F1	2.23 ††	2.32 ††	5.82 ††	1.34 ††	11.3	0.668	3.51	2.96	0.872	2.74	5.55	1.03
52565	18F1	1 †	0.8	2.7	0.1	11.9	0.5 †	3.6	3.3	0.8	2.9	4.9	0.7
52636	18F1	1.26	1.03 †	2.43	0.177	14.6	0.994	5.06	0.313 ††	0.55	3.67 ††	6.56 ††	1.26

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Extractable K — Bicarbonate (18A1) mg/kg											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20204	18A1	399	368	285	427	565	414	270	99.9	42.1 †	56.1	271	201
21088	18A1	462	414	312	455	553	398	293	99.1	59.8	49.1	269	180
21100	18A1	407	334	340	452	626 †	433	350	105	60.2	60	308	161
21178	18A1	450	440	330	440					66	62	294	212
21193	18A1	408	411	323	431	554	368	253	114	16 ††	49	299	240 ††
21229	18A1	438	410	322	449	578	386	290	85.1	71.2	46.7	276	198
21232	18A1	449	518	335	557 ††	551	475	233	105	64.8	60	295	201
50005	18A1	399	463	430 ††	687 ††	528	366	230	98.7	299 ††	55.2	268	177
50011	18A1	439	414	314	441	613	419	308	108	74.4	65.8	283	200
50017	18A1	386	368	299	383 †								
50020	18A1									1 ††			
50024	18A1	400	392	333	464	583	414	281	88.6	66.4	64.2	287	190
50025	18A1					1.46 ††	1.19 †	0.583 ††	0.234 ††	0.129 ††	49.8	260	183
50027	18A1	402	379	293	399	529	379	280	100	68	49	270	174
52387	18A1	366	322	258	383 †	415 ††	237 †	176	69.4 †	49.7	45.7	238	159
52437	18A1	328	334	306	336 ††								
52494	18A1	382	336	260	349 ††	564	326	243	89	55	51	265	173

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Total Organic Matter (6G1) %											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	**ASS 2003-2**	**ASS 2003-3**	**ASS 2003-4**	**ASS 2006-1**	**ASS 2006-2**	**ASS 2006-3**	**ASS 2006-4**	**ASS 2009-1**	**ASS 2009-2**	**ASS 2009-3**	**ASS 2009-4**
20136	6G1									0.767	3.53	5.17	2.05
21088	6G1	1.46	1.39	3.85	0.854					0.79	3.33	5.19	2.35
21115	6G1	3.73 ††	4.6 †	7.6 ††	2.48 ††	10.4	4.97 ††	5.52 ††	8.09	2.23 ††	4.38 ††	8.26 ††	4.63 ††
21182	6G1	1.6	1.3	3.9	0.8	4.99	1.13	2.82	6.69	0.7	3.4	5.2	2.5
50005	6G1	1.68	2.41	4.42	0.918	6.47	1.32	3.45	7.34	0.931	3.94	6.17 ††	2.42
50020	6G1	7.7 ††	10.4 ††	17 ††	8.82 ††	5.83	1.45	2.69	7.74	0.85	3.47	5.42 †	2.68
50029	6G1	1.85	2.31	5.24	1.86 ††	7.93	2.82 †	4.16	7.52	0.974	3.65	6.16 ††	2.53
50036	6G1	1.7	1.5	4	0.8	5.7	1.6	4.1	8		3.6	5 †	2.1
52494	6G1	2.12	2.32	5	2.36 ††	7.91	2.47	3.83	7.81	1.14	3.79	6.56 ††	2.86
52508	6G1					8.25	3.85 ††	4.03	7.24	1.02	3.22	5.15	2.9
52526	6G1	1.4	1.26	3.21	0.76	5.6	1.2	2.9	7	0.83	3.55	5.18	2.13
52565	6G1									0.75	3.2	5 †	2.2
52676	6G1					11.1	4.95 ††	6.54 ††	7.62				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Aluminium (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2									19900	10300 ††	27500	32800 †
20136	17C1									8370	3190	13300	10200
20204	17C1					31300	3650	15300	4480	112	4020	14600	15900
21088	17C1	16500	27400	21300	26800	32800	28600	13400	3120	9560	3810	14900	11300
21100	17C1	14400	24900	22100	24900	34100	28700	14900	3130	10200	4510	16800	13300
21178	17C1	14600	24500	22600	27000	33900	32000	15500	3350	8970	3900	12400	11000
21229	17B1	30600	42100	26800	59300	33800	39200	19100	5390	14300	7000	20000	23500
21230	17B2	37600	55600	38000 ††	66500	41600	54000	23900	4690	19500	9160 †	31000 ††	37000 ††
50005	17B2	28800	37400	24800	47800	31700	37100	20500	6910	15400	6440	22000	21400
50011	17B2					44700	50800	26800	7140 ††	21100	10500 ††	32300 ††	39600 ††
50012	17C1	8540	16700	19200	17600	27800	21300	11800	2370	7070	3080	11800	8780
50017	17B2	70000 †	43200	35100	72200								
50019	17B1									9410	4560	17400	13800
50020	17B1	11900	20900	20500	23600	41600	38700	20400	4560	14.5	4220	16600	12600
50024	17C1	28800	41000	27700	52900	36200	35700	17400	4040	15000	6600	21000	20800
50036	17B1					20900 †	16600	10600	2080	8140	3750	13600	
50044	17B1					24000	28000	14000	3200	10600	4550	14900	13700
52491	17B1					36900	46100	26200	7410 ††	20300	9940 ††	28900 †	34300 †
52508	17B1					17100 ††	13400	9710	1590	6630	4700	12100	8260
52565	17B2	33800	47900	31600	62100	33900	38300	18600	4380	14800	6940	21800	25200
52636	17B1	24300	35400	24300	48100	28600	29900	34500 ††	3020	13800	6110	18600	23000
52691	17C1					27100	20000	11300	2160				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Arsenic (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					2.9 †	2.8	2.6	0.39	2.86	0.417	3.86	1.11
20136	17C1									2.52		3.16	1.12
20204	17C1	2.07	2.14	2.24	1.49	8.31 †	5.78	4.03	0.66	2.98	0.248	3.03	1.17
21088	17C1	2.4	2.3	4.1	2.8	5.86	4.08	3.87	0.77	2.6	0.17	3.07	1.1
21100	17C1	3.11	3.44	4.25	3.75	5.59	4.97	4.4	0.731	3.27	0.343	3.62	1.33
21178	17C1	3.4	3.6	4.9	3.5	5.41	3.92	4.37	0.625	4.66 ††	0.84 ††	5.21 ††	3.73 ††
21229	17B1	2.59	2.69	4.69	3.94	5.16	3.89	4.46	0.796	2.73	0.298	3.5	1.15
21230	17B2	4.55	5.86	4.99	5.31	5.67	5.05	3.48	1.22 ††	2.53		3.05	1.29
50005	17B2	3.31	3.02	3.01	3.77	4.42	4.87	5.08	1.2 ††	2.97	0.401	3.09	1.23
50011	17B2	3.67	4.27	5.32	5.13	4.86	3.88	3.76	0.555	3.02	0.436	3.71	1.19
50012	17C1	0.627	0.703	1.8	2.1	5.1	4.2	3.3	0.88	2.8	0.372	3.2	1.2
50012	17C1	3.2	3.5	4.55	3.68								
50019	17B1									2.41	0.4	2.92	1.82 ††
50020	17B1	5		5		10 ††				74 ††	1 ††		
50024	17C1	3.39	3.76	4.05	4.22	5.7	5.1	4.7	0.6	4.5 ††	0.2	3.3	2.1 ††
50036	17B1					7							
52240	17C1	2	2	2	2								
52491	17B1									3.44	0.093	4.39 ††	0.833 ††
52565	17B2	3.8	4.3	4.2	4.7	4.83	5.69	4.07	0.83	3.43	0.56	3.87 †	1.8 ††
52691	17C1					6.44	5.6	4.77	0.7				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Boron (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					5.6	10.1	16.8	3.8	2.43	1.09	16.1	4.77
21088	17C1	11.4	16.2	28.7 ††	19.6	3.22	2.72	3.2	1.44	1.56	0.42	4.07	1.36
21100	17C1	3.45	6.47	10.9	6.48	2.94	3.62	4.06	1.36	0.53	0.0129	3.89	0.506
21178	17C1	4.3	6.8	12	7.8	1.75	3.58	4.78	1.73	1.5	1.23	5.89	1.77
21229	17B1	6.75	10.5	9.46	28.6	0.761	3.86	9.75	3.19	0.766	0.496	6.23	1.1
50005	17B2	12	15.2	19.3 †	23.9	14.2 ††	20.2 †	19.7	3.99	1.74	0.555	5.91	3.16
50011	17B2					7.06	14 †	19.2	5.45 †	1.32	1.19	19.2	5.54
50012	17C1	1.8	3.8	12	4.9	1.7	2.2	2.6	1.6	0.11	0.198	2.2	1.2
50017	17B2	6.44	8.8	9.83	17.3								
50020	17B1	12.3	23.4	36.1 ††	31.3	6.19	9.35	9.86		12 ††			
50024	17C1	11	15	13	26	5.6	8.2	9.6	2.2	1.7	4.8 ††	14.7	4.8
50036	17B1					0.2							
50044	17B1					24 ††	23 ††	24	24 ††				
52491	17B1					13.8 ††	22 ††	27	7.81 ††	0.859	0.488	9.93	2.39
52508	17B1									0.00215		0.00221	
52565	17B2	7.3	12.3	13.1	25.1	3.2	7.2	9.9	1.3	1.29	0.73	14.4	5.3
52636	17B1	1.56	4.8	1.58 ††	11.1	1.82	3.34	7.22	0.433	1.47	1.09	16.9	4.97
52691	17C1					2.02	2.11	2.37	0.601				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Calcium (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					3130	8550	4830	697	488	195 ††	3680	3720
20136	17C1									453	253	3220	4030
21088	17C1	1480	3030	8560 ††	1790	2830	7960	3890	753	434	259	3140	3580
21100	17C1	1660	3520	10200	1910	3190	8340	4470	752	530	295	3700	4440
21178	17C1	1740	3430	10200	2080	3210	9080	4510	773	505	236	2730	4370
21229	17B1	1620	3300	10700	1970	3100	8160	4760	799	557	281	4000	4290
21230	17B2	1500	3200	10400	1690	1580 ††	4840 ††	2530 ††	278 ††	311 ††	117 ††	2650	2430 ††
50005	17B2	1580	3390	11800	1770	3540	8990	5440	710	555	278	3760	4460
50011	17B2					355 ††	874 ††	512 ††	80.7 ††	571	301	4340	4600
50012	17C1	1520	3230	10600	1990	2970	7880	4140	711	495	270	3290	4690
50017	17B2	1680	3400	11300	1920								
50019	17B1					2810	7610	4150	687	474	242	3460	4280
50020	17B1	1590	3430	10400	2160	4030 ††	10400 ††	5840 †	854	509	272	3800	4300
50024	17C1	1870	3760	11300	2160	3640	9440	5100	911	603	327	4110	4640
50027	17B2	1610	3190	10600	1930	3130	7270	4860	796	518	252	3830	3990
50036	17B1					3270	8400	4420	790		300	3740	4710
50044	17B1					2500 †	7500	3900	600	501	274	3240	3900
52491	17B1					2920	7270	4380	671	576	270	4710	4320
52508	17B1					2400 ††	7160	4130	498 †	614	4040 ††	3710	4790
52565	17B2	1710	3470	11300	2030	3240	8210	4590	766	563	285	3900	4060
52636	17B1	1430	3010	9570	1780	2940	8030	4420	682	470	251	3220	4210
52691	17C1					2980	7400	3950	671				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Cadmium (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					0.34 ††	0.064	0.374 ††	0.035				
20204	17C1	0.327 †	0.51 ††	1.33 ††	0.665 ††	0.74	0.13 ††	0.29 ††	0.07 ††	0.0687	0.075	0.43	0.11 ††
21088	17C1	0.05	0.05	0.6	0.05 †	0.74	0.09	0.55	0.03	0.04	0.03	0.29	0.02
21100	17C1	0.028	0.034	0.573	0.026	0.641	0.046	0.598	0.025	0.0385	0.0576	0.362	0.0512
21178	17C1	0.03	0.03	0.56	0.02	0.671	0.06	0.623	0.033	0.012	0.056	0.362	0.0375
21229	17B1	0.0679	0.104	0.68	0.018	0.613	0.062	0.535	0.0269	0.028	0.0875	0.319	0.0643
21230	17B2	0.00689	0.002	0.214 †	0.002 †	0.347 ††		0.349 ††					
50005	17B2	0.202 †	0.237 †	0.913 †	0.347 ††	0.638	0.069	0.658	0.038	0.0327	0.0993	0.329	0.0383
50011	17B2	0.0312	0.032	0.574	0.024	0.681	0.057	0.627	0.0321	0.0116	0.0593	0.354	0.0439
50012	17C1	0.115	0.153	1.1 ††	0.312 ††	0.71	0.05	0.59	0.05 †	0.0305	0.0325	0.344	0.0905 †
50012	17C1	0.0267	0.030	0.576	0.024								
50019	17B1									0.182 ††	0.194 ††	0.412	0.214 ††
50020	17B1	0.5 †		0.5		1.09 ††						1.5 ††	
50024	17C1	0.024	0.023	0.491	0.018	0.67	0.09	0.6	0.03	0.001	0.054	0.305	0.021
50044	17B1					0.5 †		0.6				0.33	
52240	17C1	2 †	2 ††	2 ††	2 ††								
52491	17B1									0.053	0.068	0.402	0.045
52565	17B2	0.1	0.1	0.6	0.1 †	0.51 †	0.25 ††	0.48 †	0.25 ††	0.019	0.054	0.378	0.047
52636	17B1	0.732 †	0.785 ††	0.85	0.632 ††								
52691	17C1					0.676	0.055	0.608	0.0239				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Cobalt (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					10.8 ††	11.6 ††	4.36	0.57	4.87	0.82	20.3	13
20136	17C1									4.85		19.6	11.3
20204	17C1	0.015 †	0.006 ††	0.005 ††	0.01 ††	17.6	15.2	16.6 ††	25.8 ††	13.7 ††	0.065	18.1	12.3
21088	17C1	9.4	9	47.7	5.1	16.5	15.9	5.62	0.74	4.22	0.35	19.3	10.8
21100	17C1	9.61	9.63	53.4	5.03	18.6	18.8	6.78	0.865	4.72	0.401	22.7	12.5
21178	17C1	10	10	55	5.9	20.2	21.4	7.55	0.996	5.1	0.564	17.5	13.4
21229	17B1	8.16	7.94	46.6	6.72	14.9	17.5	6.91	1.19	5.15	0.765	20.2	12.5
21230	17B2	10.7	10.6	51.3	7.3	17.2	18.4	5.84	0.542	4.72	0.37	20.9	13.8
50005	17B2	9.62	9.26	46.5	6.55	14.4	19.2	8.3	1.57	5.32	0.609	18.9	12.2
50011	17B2	11.5	11.4	58.4	7.96	18.3	18.5	6.61	1.05	4.61	0.718	19.9	12.4
50012	17C1	8.1	8.6	50	5	19	18	6	0.91	4.2	0.311	20	12
50019	17B1									5.04	0.475	20.2	11.8
50020	17B1	10.8	12	60	7.38	22.9 †	22.9 ††	7.94				22.1	13.6
50024	17C1	10.6	9.7	47.7	6.2	19.5	18.4	6.7	1	5.2	0.81	20.5	12.8
50036	17B1					17	17	6		4		22	12
50044	17B1					11 ††	13 †					19.4	11.6
52491	17B1					17.6	16.9	6.59	1.59	5.26	0.447	22.3	13.1
52565	17B2	10.2	10.1	49.8	7.1	19.6	19.1	6.5	1.2	5.46	0.91	24.6 ††	14.8 ††
52636	17B1	7.93	7.96	41.6	4.38	16	15	5.42	1.34	4.89	0.555	15.6 ††	9.79 ††
52691	17C1					17.6	15.8	5.77	0.731				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Chromium (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					5.19 ††	13.2	10.9	23.1 ††	61	13.2	25.5	37.6
20136	17C1									53.5	9.1	13.4	22.3
20204	17C1	46.7	36	231	50.2	17.2	40.7	26.9	93.7	60	10.4	16.8	30.4
21088	17C1	44.6	29.6	228	37.3	15.5	28.9	22.8	93.2	52.5	8.2	12.8	21.4
21100	17C1		31.6	255	39.1	16.6	34.8	25.9	87.5	60.4	9.55	15.3	23.6
21178	17C1	50	32	266	44	19.8	42.8	29	101	62.2	9.6	12.9	25.8
21229	17B1	55.4	36.6	271	62.2	15.4	41.1	30.5	99.4	64.5	11.5	19.3	31
21230	17B2	65.4	51.9	318	65.4	19.8	48.4	36	99.7	70.8	17 ††	30.4 ††	45.7
50005	17B2	49.4	35.1	243	49.6	14.7	32.1	29.9	79.4	50.4	10.8	15.3	26.9
50011	17B2	63.3	49.8	320	71.5	20	46	34	101	63.8	11.9	24.8	36.6
50012	17C1	40	26	248	34	17	30	23	95	59	9.8	13	23
50019	17B1	33.9	26.2	277	31.8	19	32.7	26.8	75	84.6 ††	11.8	15.9	35.8
50020	17B1	48.8	36.4	267	45.1	20.8	49.4	37.9	109	67.6	11.7	18.5	28.7
50024	17C1	56	39	254	62	16.8	40.2	28.1	99.1	68.9	11.5	21	31.2
50036	17B1					14	24	17	76	56	8	12	22
50044	17B1					13	32	23	84	62.2	10.1	15.5	28
52240	17C1	51.8	38	260	48.7								
52491	17B1					19.2	44.1	36.4	94.3	66.3	9.54	22.6	37.3
52508	17B1					19.3	27.4	24.5	87.6	65.6	14.6	16.6	24.2
52565	17B2	57	44.4	287	61.6	15.8	42.9	29.5	90.6	59.2	12.2	21.8	33.5
52636	17B1	51.2	37.9	235	56	17.7	41.4	32	89.8	55.3	10.9	20.2	30.5
52691	17C1					16.2	28.4	23	85.9				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Copper (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	**ASS 2003-2**	**ASS 2003-3**	**ASS 2003-4**	**ASS 2006-1**	**ASS 2006-2**	**ASS 2006-3**	**ASS 2006-4**	**ASS 2009-1**	**ASS 2009-2**	**ASS 2009-3**	**ASS 2009-4**
10156	17B2					13.3	16.4	19.4	5.41	2.64	2.67	11.1	11.3
20136	17C1									1.33	2.1	8.14	8.58
21088	17C1	13.1	17.7	36.3	1.1	13.8	16.2	20.6	4.09	2.4	2.6	9.84	9.49
21100	17C1	13.9	18.7	37.3	1.05	15.3	18.5	22.8	4.2	2.3	2.76	11.3	10.4
21178	17C1	14	19	42	0.95	14.9	20.2	23.3 †	4.36	2.06	2.34	8.58	11.1
21229	17B1	15.1	18.1	32.6	1.39	13.9	18.4	20.6	5.21	2.73	2.74	11.8	12.2
21230	17B2	15.2	19.6	35.5	0.041	15.4	19.3	21	3.73	1.69	2.02	11.5	12.7
50005	17B2	16.9	19.9	35.4	2.52 ††	15.2	19.2	21.5	5.57	2.49	2.84	11.3	12.1
50011	17B2					18.4 ††	22	25.6 ††	5.03	0.851 ††	2.48	10.5	12.5
50012	17C1	12 †	17	39	0.815	14	17	21	3.9	2.1	2.5	9.6	11
50017	17B2	14.6	21.2	38.6	0.836								
50019	17B1	7.9 ††	11.4 ††	29.1	0.2	17.8 ††	20.4	25 †	5.24	1.81	2.44	10.2	9.85
50020	17B1	13.3	19.2	40.8	1.49	29.6 ††	31.4 ††	32.7 ††	5.85	3.41	3.4 ††	14.4 ††	13
50024	17C1	16.5	20.3	37.1	1.8	14.5	18.1	20.7	5.2	2.6	2.96	11.9	11.9
50027	17B2	15	19.1	35	0.9	15.2	18.5	21.3	5	2	2.7	11.7	12.5
50036	17B1					14	16	21				10	10
50044	17B1					9 ††	12 †	16 ††				9.2	9.27
52240	17C1	48.5 ††	41 ††	57.7 ††	14 ††								
52491	17B1					12.9	15.9	19	4.73	3.37	3.28 †	12.9	13.6
52508	17B1					9.89 ††	14.4	29.8 ††	3.22		0.363 ††	6.66 ††	
52565	17B2	14.6	18.2	31.8	1.5	13.6	19.6	20.5	5.7	4 ††	5 ††	11.1	13.7
52636	17B1	14.4	18.6	34.7	1.46	14.2	17.4	19.8	3.81	2.84	2.49	10.5	11.1
52691	17C1					13.7	14.4	19.6	3.57				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Iron (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					38000 ††	45200 †	30400 ††	3110 †	10900	4790	19100	16500
20136	17C1									10200	4090 ††	15300	10100
21088	17C1	18900	27300	48800	35000	26200	26100	17600	4570	10800	5060	16400	10800
21100	17C1	15300	22900	44900	29300	25700	23600	17300	4170	10700	4840	17700	12000
21178	17C1	14600	21200	40300	28700	25100	26000	17800	4410	10100	4410 †	12800	10100
21229	17B1	19000	26400	42700	37200	23300	28300	18700	4420	12200	4920	20100	18200
21230	17B2	21500	30300	47000	37800	22200	27700	16400	2910 †	10300	4100 ††	21200	17900
50005	17B2	17500	27600	46500	39300	18800	25300	18900	4340	10200	4950	20000	14800
50011	17B2					31000	33700	22300 ††	5330 †	14100 ††	6780 ††	25300 ††	21600
50012	17C1	11500	17700	43000	27600	25100	19700	15800	3940	9840	4940	15300	9520
50017	17B2	24800	32700	52600	42600								
50019	17B1					27500	21800	18700	4030	10600	4970	16500	10400
50020	17B1	13800	21700	44300	32100	32600 ††	33600	23900 ††	5240 †	11400	5060	19100	12700
50024	17C1	22300	30100	45500	39500	27600	28100	18600	5110 †	12200	6030 ††	19600	16000
50036	17B1					23300	17100 †	16600	3940	12300	5100	18200	11200
50044	17B1					16000 ††	20000	14000	3500	10800	4480	16300	12400
52491	17B1					21700	24100	16700	4020	12500	4850	23100	19200
52508	17B1					18000	12600 †	14800	3440	10100	4460	15500	6870
52565	17B2	20300	27700	42400	36000	22800	26100	17600	4360	11600	5170	20100	16600
52636	17B1	20400	29000	46500	40500	26000	29500	35100 ††	4040	9800	4200 ††	16700	14400
52691	17C1					1040 ††	930 †	339 ††	43.1 ††				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Potassium (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					1590 ††	5790	4460 †	672 ††	1890	170 ††	3370	858
20136	17C1									1240	86	916	503
21088	17C1	2150	3390	1970	3750	964	3230	1290	252	1470	102	1130	610
21100	17C1	2220	3410	1930	3880	934	3970	1590	236	1560	90.7	1200	583
21178	17C1	2200	3340	1830	4150	931	4470	1670	251	1370	84.6	788	529
21229	17B1	3450	5000	2790	6050	965	5110	2990	307	1650	129	2020	779
21230	17B2	4580	7380	5960	6400	983	5210	2830	131	1510	95.4	3780	798
50005	17B2	5030	6920	3910	7590	1150	5900	3210	406	1140 †	133	2130	644
50011	17B2					128 ††	597 ††	372	34.7	1730	152	2850	868
50012	17C1	1610	2550	1720	3270	901	3560	1280	186	1380	84	870	495
50017	17B2	4070	5960	4110	6440								
50019	17B1					1270 ††	4020	2140	328	1540	81	1390	688
50020	17B1	166	195	1030	65.1 †	1060	4700	2140	259	1570	57.8	1270	548
50024	17C1	3420	5060	3000	6120	866	4150	1750	239	1550	118	1810	680
50027	17B2	3860	6170	4130	5610	1270 ††	6020	5290 ††	374	1780	146	2500	811
50036	17B1					930	3070	1100	240	1500	100	950	580
50044	17B1					910	4600	1900	240	1520	99.7	1230	626
52491	17B1					1250 ††	5560	4430 †	322	1870	188 ††	3550	903
52508	17B1					1010	2950	1500	126	130 ††	82.9	464	211 ††
52565	17B2	4210	6470	4260	6810	1150	4940	2780	330	1820	211 ††	2520	818
52636	17B1	2890	4320	2810	5280	1020	4290	2980	247	1490	133	2110	714
52691	17C1					873	3130	1240	184				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Magnesium (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	**ASS 2003-2**	**ASS 2003-3**	**ASS 2003-4**	**ASS 2006-1**	**ASS 2006-2**	**ASS 2006-3**	**ASS 2006-4**	**ASS 2009-1**	**ASS 2009-2**	**ASS 2009-3**	**ASS 2009-4**
10156	17B2					936	4480	3610	390	1570	212	2210	3560
20136	17C1									1310	115	978	2300
21088	17C1	2220	4410	45700	2440	716	4240	2960	269	1380	119	1060	2550
21100	17C1	2560	5160	44400	2230	979	5690	3800	305	1670	153	1290	3240
21178	17C1	2430	4620	40600	2300	956	5470	3410	321	1450	125	949	2790
21229	17B1	2920	5100	41500	2790	842	5500	4110	326	1580	170	1650	3580
21230	17B2	2470	4780	38100	2400	459 ††	3750	2200	90.9 ††	887 ††	91.6	1680	2610
50005	17B2	2840	5800	45000	3200	899	6110	4300	308	1520	174	1600	3170
50011	17B2					126 ††	638 †	477 ††	37 ††	1700	209	2250	4000
50012	17C1	1890	4180	40300	1860	791	4490	3040	266	1490	123	1060	2680
50017	17B2	3290	5540	4630 ††	3050								
50019	17B1					942	4670	3270	347	1340	108	1030	2410
50020	17B1	2410	5110	44000	2500	1220 ††	7000	5090	366	1600	143	1300	3060
50024	17C1	3180	5630	43300	2960	862	5590	3650	299	1570	164	1580	3440
50027	17B2	3030	5380	40300	2830	1200	5890	4770	371	1530	220	1890	3690
50036	17B1					800	4270	2970	270	1600	130	1110	2880
50044	17B1					770	5200	3400	260	1480	131	1130	2860
52491	17B1					979	5200	4190	304	1680	191	2220	3770
52508	17B1					695	3710	2930	167 ††	142 ††	146	980	2270
52565	17B2	3040	5380	41000	2990	1010	5940	4130	361	1730	208	1990	3770
52636	17B1	3110	5750	44100	3210	882	5000	3830	280	1400	166	1590	3100
52691	17C1					767	4230	2960	238				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Manganese (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					2880	1570	325 ††	390 ††	136	17.9	1440	877
20136	17C1									125	9.86	1380	815
21088	17C1	775	511	1450	21	3520	1420	263	69.3	128	10	1370	780
21100	17C1	831	559	1690	28	3020	1540	297	65.9	140	13.2	1590	899
21178	17C1	860	560	1700	24	3180	1800	285	71.8	141	10.6	1190	908
21229	17B1	875	575	1710	33.3	3010	1670	271	70.3	136	13.1	1500	916
21230	17B2	825	583	1650	53.4 ††	2970	1650	273	70.9	154	21 †	1570	966
50005	17B2	812	517	1530	33.3	2720	1490	273	66.5	139	13.4	1460	871
50011	17B2					3590 †	1940 ††	357 ††	93.5 ††	159	21.3 ††	1760	1060
50012	17C1	776	517	1680	19	3280	1610	248	64	139	11	1710	963
50017	17B2	730	556	1620	36								
50019	17B1					3410	1680	336 ††	62.4	162	11.2	9020 ††	919
50020	17B1	832	590	1760	23.6	3900 ††	2070 ††	407 ††	88.1 ††	165	13.7	1740	1080
50024	17C1	873	560	1550	35	3000	1550	285	75	163	15.3	1500	868
50027	17B2	782	539	1460	31.6	2870	1620	320 ††	90.8 ††	152	23.3 ††	1460	875
50036	17B1					3150	1580	283	63	140	8	1740	988
50044	17B1					1900 ††	1200 ††	220 ††	57	138	10.8	1370	818
52491	17B1					2640	1400	264	66.1	146	14.4	1600	923
52508	17B1					3070	1760	275	60.1	180 ††	10.2	1580	963
52565	17B2	838	564	1610	34.2	2600	1560	248	66.2	130	12.6	1380	788
52636	17B1	700	475 ††	1400	29.7	2820	1690	253	59.4	112	13.3	1130	649 ††
52691	17C1					3090	1440	270	61				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Molybdenum (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					0.898	0.519	1.37	1.15 ††				
20136	17C1									1.99		1.03	
20204	17C1	1.18	0.435	0.424	0.629	0.98	0.105	0.641	2.87	2.18	0.505	1.28	0.224
21088	17C1	0.6	0.25	0.25	0.25	1.08	0.19	1.66	2.83	1.52	0.31	1.02	0.21
21100	17C1	0.75	0.244	0.679	0.904	1.31	0.327	2.09	2.83	1.85	0.0001	0.935	0.0001
21178	17C1	0.88	0.21	0.56	0.58	0.935	0.092	1.74	2.71	2.51	0.561	1.2	0.693
21229	17B1	0.173	0.017	0.355	0.080	0.872	0.268	1.34	1.35 ††	0.805 ††	0.257	1.01	0.0561
50005	17B2	0.288	0.057	0.245	0.174	0.464 ††	0.138	1.07	1.25 ††	0.787 ††	0.362	0.952	0.188
50011	17B2	1.12	0.307	0.725	0.788	1.28	0.32	2.24	3.12	2.21	0.49	1.56	0.38
50012	17C1	0.565	0.015	0.144	0.427	1.1	0.3	2	3.1	2.3	0.445	1.3	0.325
50012	17C1	1.03	0.309	0.716	0.913								
50020	17B1	2		2 ††		1				2			
50024	17C1	1.15	0.34	0.8	0.95	0.88	0.01	1.75	2.96	2.28	0.44	1.27	0.17
52491	17B1									1.6	0.33	0.847	0.086
52508	17B1									0.00104 ††	0.00413		0.00291
52565	17B2	0.8	0.2	0.6	0.7	1.01	0.31	1.66	2.38	2.2	0.63	1.46	0.36
52636	17B1									2.59	0.672	1.62	0.368
52691	17C1					1.3	0.368	2.31	2.79				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Sodium (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					304 †	348	122	54.9	104	35	287	144
20136	17C1									71.5	27.9	158	109
21088	17C1	473	872	487 ††	602	231	495 †	81.3	42	100	34	258	234 ††
21100	17C1	421	714	334	535	120	362	37.4	25.8	83.5	13.2	194	123
21178	17C1	410	680	315	540	143	425	45	29.5	85.4	30.2	151	144
21229	17B1	440	736	333	613	210	395	127	65	130	46.8	273	161
21230	17B2	406	770	357	595	232	385	70.6	13.9	99.2	25.2	407	176
50005	17B2	536	798	437	744	486 ††	479	136	44.4	90.3	46.2	252	140
50011	17B2					25.4	45.7 †	9.77	4.57	116	51	333	186
50012	17C1	346	589	287	469	101	362	31	24	77	29	162	133
50017	17B2	473	859	371	351 ††								
50019	17B1					623 ††	798 †	398 ††	337 ††	220 ††	156 ††	322	272 ††
50020	17B1	314	597	290	459	170	457	67.2		93		214	142
50024	17C1	448	751	332	615	139	376	52	32	102	51	231	152
50036	17B1					120	410					230	170
50044	17B1					120	360			86.1		189	144
52491	17B1					289	382	125	35.9	136	70.5	454	174
52508	17B1					105	460	47.2	33.8	202 ††	198 ††	298	241 ††
52565	17B2	510	848	436	672	345 †	422	87.2	51.1	212 ††	84.9 †	353	197
52636	17B1	371	645	300	545	214	357	85	39.6	128	59.1	242	162
52691	17C1					99.6	306	41.5	13.5				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Lead (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					13.5	14.1	13.6	5.45	7.46	5.46	11.2	9.77
20136	17C1									4.6	3.83	8.84	7.21
20204	17C1	10.5	10.3	7.55	10.9	16.2	15.6	15.6	7.71	6.25	3.93	10.4	9.47
21088	17C1	10.3	10.1	7.4	10.5	17.9	1.98 ††	16.1	8	5.1	4.2	8.7	6.8
21100	17C1	11.5	11	7.44	10.7	19.9	18.4	18.2	7.49	6.35	4.32	10.2	8.49
21178	17C1	12	11	8.8	12	19	19	18.1	7.86	7.9	5.2	10.8	11
21229	17B1	11.1	10.6	6.93	11.3	16.8	16.7	16.3	8.27	6.43	4.63	9.69	8.08
21230	17B2	9.57	9.91	2.5 ††	9.59	18.1	19.5	17	9.69	6.81	4.78	10.1	9.22
50005	17B2	11	10.4	6.17	10.6	12.4	12.8	12.1 †	8.37	6.06	4.79	9.25	8.01
50011	17B2	12.3	12.1	7.8	13.1	20.7	20.4	19.1	8.67	6.38	4.46	10.1	8.34
50012	17C1	9	8.2 †	7.2	10	19	18	17	7.4	5.3	4.4	9.5	8.4
50019	17B1	10	9	6	10	18	17.1	18.3	7.91	4.54	3.66	8.48	7.54
50020	17B1	10		10		10				10			
50024	17C1	13.7	14 ††	8.5	13.7	21.1	19.4	17.7	8.6	8	5.7	11.2	8.6
50036	17B1					14	14	16	8			8	7
50044	17B1					15	17	17	7	6.35		9.85	8.32
52240	17C1	12	11.5	4.7	11								
52491	17B1					11.7	9.51	11.8 †	5.44	4.38	3.49	8.45	6.9
52508	17B1					4.64 ††	8 †	10.4 ††	3.44 ††	3.74		7.38	
52565	17B2	11.7	11.9	6.6	12.5	14.6	16.2	14.5	6.78	6.78	5.49	11.3	9.19
52636	17B1	5.83 ††	6.2 ††	3.72 †	7.37 ††								
52691	17C1					18.4	17.6	17.3	6.44				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Sulphur (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
20136	17C1									46.2	195	383	99
21088	17C1	90	97	257	61	450	110	224	240	50.2	206	412	102
21100	17C1					486	91.9	225	218	37.9	210	406	92.1 †
21178	17C1	91	91	290	49	502	130	253	249	53.6	215	364	117
21229	17B1	91.7	103	267	55.8	461	120	236	246	57.5	234	432	123
21230	17B2	96	124	302	42	365 ††	126	199	165 ††	47.8	185	421	121
50005	17B2	91.1	109	302	56.4	460	99.9	230	221	58	221	411	122
50011	17B2					53.7 ††	14 †	26.3 ††	25.3 ††	61.7	232	477	126
50012	17C1	66 ††	74	258	40	485	99	232	227	53	225	430	117
50017	17B2	125 ††	133	316	67.1								
50020	17B1			274		583 ††	163	343 ††	284		226	435	110
50024	17C1	98	112	305	51	513	133	269	272	56	237	468	116
50036	17B1					480	110	240	240				
50044	17B1					480	160	270	250	71.9	185	365	84.9 ††
52491	17B1					490	151	255	251	53.4	219	468	124
52565	17B2	112 ††	136	348	63.7	511	157	257	220	48.3	184	445	117
52636	17B1	103 †	120	301	67.5	761 ††	232 †	440 ††	425 ††	60.1	282 ††	598 ††	150 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Selenium (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					1.77	2.04 †	2.18	1.47 ††	0.973 †	0.294	1.2	0.648
20204	17C1	1.18	0.687	0.155	0.736	1.5	0.582	0.598	0.547	1.1 †	0.662	1	0.706
21088	17C1	0.5	0.5	0.5	0.5	1.77	0.73	0.36	0.26	0.12	0.5	1.32	0.93
21100	17C1	0.75	0.276	0.643	0.532	1.15	0.378	0.73	0.123	0.191	0.221	1.06	0.0478
21178	17C1	0.13	0.11	0.43	0.18	0.837	0.072	0.551	0.076	0.099	0.042	0.446	0.062
21229	17B1	0.428	0.57	1.05	0.468	1.04	0.286	0.748	0.15	0.293	0.165	0.899	0.367
21230	17B2	1.86	0.629	0.213	0.828								
50011	17B2	1.69	1.38 †	1.23	0.594	3.44	1.91	1.44	0.524	0.288	0.19	0.93	0.264
50012	17C1	2	2 †	2	2 †	0.52	0.26	0.26	0.62	0.0145	0.029	0.62	0.202
50012	17C1	0.237	0.22	0.464	0.205								
50020	17B1	20 ††		20 ††						5 ††			
50024	17C1	2.2	2.1 ††	1.3	1.2 †					0.6	0.9	3.1 ††	2.6 ††
52240	17C1	5.4 ††	3.81 ††	3.8 ††	3.07 †								
52491	17B1									0.069	0.062	0.545	0.107
52565	17B2	1.1	0.5	0.3		1.87	4.09 ††	2.64 ††	0.69	1.99 ††	0.63	1.75	2.03 ††
52691	17C1					2.12	2.3 †	1.68	0.241				

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Silicon (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	**ASS 2003-2**	**ASS 2003-3**	**ASS 2003-4**	**ASS 2006-1**	**ASS 2006-2**	**ASS 2006-3**	**ASS 2006-4**	**ASS 2009-1**	**ASS 2009-2**	**ASS 2009-3**	**ASS 2009-4**
20136	17C1									631	590	623	719
21088	17C1	607	634	473	717	1310	1160	1450	895	1170 †	831	746	948
21100	17C1	1500	1660	1380	1170	718	652	650	994	720	736	572	412
21178	17C1	720	700	660	720	1380	956	1080	640	33.7 †	26.1	23.7 †	46.7
50011	17B2					673	832	656	532	1040	808	1130	1150
50012	17C1					320	340	260	410	310	330	260	350
50020	17B1	650	847	707	958	129	155	231	274	624	512	696	684
50024	17C1									591	552	623	662
50044	17B1									2170 ††	1410	2140 ††	2330 ††
52565	17B2	1370	2110	2440	1220	1730	1200	640	810	2160 ††	1440	2230 ††	640
52636	17B1	156	195	126	129	79.6	79.5	100	306	545	586	257	236

Lab. Code #	Method Codes	Soil sample identification and values for 2020: Aqua Regia Zinc (17B1 + 17B2 + 17C1) mg/kg – Not Certified											
		March 2020 (Round 3)				*June 2020 (Round 6)*				*September 2020 (Round 9)*			
		ASS 2003-1	ASS 2003-2	ASS 2003-3	ASS 2003-4	ASS 2006-1	ASS 2006-2	ASS 2006-3	ASS 2006-4	ASS 2009-1	ASS 2009-2	ASS 2009-3	ASS 2009-4
10156	17B2					103	61.7	98.4	14.5 ††	14.3	8.96	75.9	42.6 ††
20136	17C1									9.66	7.27	53.8	16.5
21088	17C1	22	33.7	76.9	7.9	74.2	34.8	76.5	7.53	10.1	7.2	55.2	17.3
21100	17C1	21.6	33	76.4	5.9	84.7	43.2	87.8	7.16	12.3	8.55	66.3	21.4
21178	17C1	22	33	72	6.9	91.8	49	95.7	8.01	10.7	7.4	48.6	19.3
21229	17B1	31.8	39.2	62.4	10.4	87.9	50.3	89.5	8.67	12.8	9.54	68.8	30.7
21230	17B2	31.3	42.9	78.3	12.9	87.3	48.3	79.1	6.3	13.8	8.01	67.6	33.2
50005	17B2	27.8	36.1	66.8	12	96.9	52.4	91.4	9.6	13.9	9.44	64.9	27.3
50011	17B2					119 ††	62.6	110	10.9 †	13.8	9.11	70.7	34.3
50012	17C1	13	23	66	4.3	81	36	82	6.8	9.7	7.4	56	17
50017	17B2	34.3	44.7	85.3	15								
50019	17B1	22.3	28.9	80.6	8.3	92.5	59.3	88	6.61	6.06	3.31 ††	52.5	14.1
50020	17B1	21	37.4	84.4		105	56.3	113	11.7 ††			65.3	20.8
50024	17C1	31	41	76	11	92.3	49.2	94	8.5	12.9	8.4	69	28.3
50027	17B2	27.5	37.9	51 †	7.2	108	50.6	93.8	2.61 ††	5.8	7.7	62.7	27.4
50036	17B1					68	28 ††	79	7	10	7	55	18
50044	17B1					55 ††	32	68	7	11.4	7.88	59	22.1
52240	17C1	24.5	33.4	66.5	5.35								
52491	17B1					97.2	48.9	90	7.79	16	10.4 †	81.6	39.4
52508	17B1					65.7	30.7	73.4	7.59	9.41	13.3 ††	47.5	14.8
52565	17B2	33.4	43.6	77.8	13.6	94.4	49.2	87.9	6.8	10.2	5.9	63.1	25.9
52636	17B1	70.5 ††	112 ††	121 ††	16.8	89	43.5	89.3	10.7 †	9.51	6.97	50.1	22.8
52691	17C1					75.5	33.1	76.1	270 ††				

[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] 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.