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Soil and Plant
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**ASPAC
Soil Proficiency Testing
Program Report**

2011-12

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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 now 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 17025-2005, 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., Peveirill, K.I., Hill, R.J., Daly, B.K., Ingram, C. and Marsh, J. (2007). ASPAC Soil Proficiency Testing Program Report 2004-05. (73 + vi pp.) ASPAC, Melbourne, Victoria.

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

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Memberships

Membership of ASPAC's LPC[†] ^{††}

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[†] Mr B.K. Daly of Palmerston North, NZ, who retired from the ASPAC-LPC on 10 June 2013, was a member of the ASPAC-LPC when this soil program occurred.

^{††} Dr L.A. Sparrow joined the ASPAC-LPC on 10/08/2015. He attended his first in-person ASPAC-LPC meeting on 30/06/2016 and an associated Technical Advisory Group meeting on 1/07/2016.

Service Provider Details

<i>Name, Street and Postal Address</i>	<i>Key Personnel & Current Emails.</i>
Global Proficiency Ltd (GPL) ^A .	<u><i>Business Manager:</i></u> Gordana.Aleksic@global-proficiency.com
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^A **Note:** GPL, under its "SoilChek" logo, is accredited by IANZ (the New Zealand accreditation authority) to ISO/IEC 17043:2010 standard, noting that IANZ is a full member of both the International Laboratory Accreditation Cooperation (ILAC), and Asia Pacific Laboratory Accreditation Cooperation (APLAC). GPL is also recognized by NATA (National Association of Testing Authorities of Australia) as a proficiency provider.

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Your Notes

1. Introduction

This not-for-profit, annual ASPAC Soil Proficiency Testing Program Report for 2011-12 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

What is now GPL - see page iv - under its “SoilChek” arrangements, was contracted by ASPAC as the soil ILPP provider for 2011-12. 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 this will change around the time of the 2014-15 program.

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 oversighted by the Convener of the ASPAC-LPC.

2.2 Soil program participation

Some 57 laboratories submitted results for at least one soil test. Names and other summary contact details for the participants are provided in Appendix 1. There were 40 laboratories involved from Australia (NSW=13; QLD=11; VIC=6; WA=4; SA=4; TAS=1; ACT=1), 7 from New Zealand, 3 from Vietnam, 2 each from Fiji, Papua New Guinea and The Philippines, and 1 (one) from Samoa.

Most reported results (see Table 2.1) across the three “rounds” combined (average of 43), were submitted for method 4A1 (pH, 1:5 soil-water) and method 3A1 (Electrical conductivity, 1:5 soil-water). The median was 18 laboratories for each method.

Table 2.1. Test methods, corresponding method codes [from Rayment and Lyons 2011] and arithmetic average numbers of results per round submitted by laboratories in the ASPAC 2011-12 soil ILPP

2011-12 Soil Tests	Method Codes	Number of participants		
		Nov 11	Mar 12	May 12
Air dry moisture	2A1	34	30	36
Electrical conductivity 1:5 soil-water	3A1	45	41	44
Soil pH, 1:5 soil-water	4A1	44	41	45
Soil pH, 1:5 0.01 M CaCl ₂ — direct pooled	4B1 + 4B3	12	13	13
Soil pH, 1:5 0.01 M CaCl ₂ — indirect pooled	4B2 + 4B4	27	23	27
Water soluble Cl — potentiometric	5A1	23	23	21
Water soluble Cl — autocolour	5A2	9	8	9
Organic C —W&B	6A1	28	25	30
Total Organic C — Heanes	6B1	4	4	4
Total Organic C — Dumas	6B2 + 6B3	7	8	6
Total Organic C — HF induction & IR	6B3	18	17	20
Total N — Kjeldahl, steam distillation	7A1	22	16	22
Total N — Kjeldahl, autocolour	7A2	7	6	6
Total N – Dumas	7A5	18	19	16
Water Soluble Nitrate N — autocolour	7B1	18	18	17
KCl Ext. Ammonium N — steam distillation	7C1	1	1	1
KCl Ext. Nitrate N — steam distillation	7C1	1	1	1
KCl Ext. Ammonium N — autocolour	7C2	24	24	24
KCl Ext. Nitrate N — autocolour	7C2	22	24	22
Total P – all methods	9A1 and others	22	21	22
Colwell Extractable P — manual, autocolour	9B1 + 9B2	28	32	29
Olsen Extractable P — manual, autocolour	9C1 + 9C2	28	24	27
Bray-1 Extractable P — manual, autocolour	9E1 + 9E2	16	12	12
Acid Extractable P — manual, autocolour	9G1 + 9G2	6	6	8
Phosphorus buffer index (with Colwell P)	9I2a + 9I2b + 9I2c	21	21	23
Phosphorus buffer index (with Olsen P)	9I3a + 9I3b + 9I3c	2	2	3
Phosphorus buffer index (Unadj)	9I4a + 9I4b + 9I4c	9	6	9
Phosphate Extractable S	10B1 + 10B2 + 10B3 + 10B4	8	6	6
KCl ₄₀ Extractable S	10D1	15	16	17
DTPA Extractable Cu	12A1	33	30	33
DTPA Extractable Fe	12A1	33	30	33
DTPA Extractable Mn	12A1	32	29	32
DTPA Extractable Zn	12A1	33	29	33

2011-12 Soil Tests	Method Codes	Number of participants		
		Nov 11	Mar 12	May 12
Hot CaCl ₂ Extractable B — ICPAES	12C2	18	18	18
Hot CaCl ₂ Extractable B — manual colour, ICPAES	12C1 + 12C2	21	20	21
Exchangeable Ca — 1M NH ₄ Cl extract	15A1	17	19	17
Exchangeable Mg — 1M NH ₄ Cl extract	15A1	17	19	17
Exchangeable Na — 1M NH ₄ Cl extract	15A1	17	19	17
Exchangeable K — 1M NH ₄ Cl extract	15A1	17	19	18
Exchangeable Ca — 1M NH ₄ OAc extract	15D3	25	23	26
Exchangeable Mg — 1M NH ₄ OAc extract	15D3	25	23	26
Exchangeable Na — 1M NH ₄ OAc extract	15D3	25	23	25
Exchangeable K — 1M NH ₄ OAc extract	15D3	26	23	26
Exchangeable Al — 1M KCl extract	15G1	17	15	18
Bicarbonate Extractable K	18A1	2	3	2
Mehlich 3 Extractable Al	18F1	15	14	13
Mehlich 3 Extractable B	18F1	13	12	12
Mehlich 3 Extractable Ca	18F1	15	14	13
Mehlich 3 Extractable Cu	18F1	15	14	13
Mehlich 3 Extractable Fe	18F1	15	14	14
Mehlich 3 Extractable S	18F1	13	12	11
Mehlich 3 Extractable Mg	18F1	15	14	13
Mehlich 3 Extractable Mn	18F1	15	14	14
Mehlich 3 Extractable P – colour finish	18F2	3	2	1
Mehlich 3 Extractable P – ICP finish	18F1	14	12	13
Mehlich 3 Extractable K	18F1	15	14	13
Mehlich 3 Extractable Na	18F1	14	14	13
Mehlich 3 Extractable Zn	18F1	14	14	14

2.3 Tests and methods

The three proficiency “rounds” for soils – each comprised of four samples – were offered in November 2011, March 2012 and May 2012. 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. Data summaries in Section 3 also indicate where there was method “pooling”, as the expectation was that similar test results would be expected.

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

laboratories that initially used a volume of soil for their sample for one or more test methods should also have applied a “soil volume to weight conversion factor” to achieve the required dry-weight equivalent results.

Table 2.2. Method “pooling” summary details for the ASPAC 2011-12 soil ILPP.

2011-12 Soil Tests	Method Codes	Average participants
Soil pH, 1:5 0.01 M CaCl ₂ - direct, pooled air dry	4B1 + 4B3	13
Soil pH, 1:5 0.01 M CaCl ₂ - indirect, pooled air dry	4B2 + 4B4	27
Total P – pooled % oven dry	9A1 + Others	22
Colwell Extractable P – pooled mg/kg air dry	9B1 + 9B2	29
Olsen Extractable P – pooled mg/kg air dry	9C1 + 9C2	27
Bray-1 Extractable P – pooled mg/kg air dry	9E1 + 9E2	12
Acid Extractable P – pooled mg/kg air dry	9G1 + 9G2	6
Phosphorous Buffer Index (Colwell) L/kg dry wt	9I2a + 9I2b + 9I2c	21
Phosphorous Buffer Index (Olsen) L/kg dry wt	9I3a + 9I3b + 9I3c	2
Phosphorous Buffer Index (Unadj) L/kg dry wt	9I4a + 9I4b + 9I4c	9
Phosphate Extractable S, pooled mg/kg air dry	10B	6
Hot CaCl ₂ Extractable B – pooled mg/kg air dry	12C1 + 12C2	21

2.4 Sample preparation and identification

In common with practices documented for the 2004-05 soils’ program and since, 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. Test methods included Total N, Total C (both by Leco combustion) and Olsen P (method 9C).

Results from the homogeneity testing were subsequently statistically assessed according to ISO REMCO Protocol N231 “*Harmonised Proficiency Testing Protocol*” of January 1992. All but sample ASS 31 were rated as homogenous. However, on other criteria, sample ASS 31 was ultimately rated as an acceptable test sample for reasons outlined in a foot-note to the tabulation in Appendix 2. This Appendix was dedicated to examples of the homogeneity “raw” data and statistical assessments on those data. 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 requirements⁴.

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.

Ultimately, the samples used in the three “rounds” of the 2011-12 program were distributed and coded as follows: November 2011 (Round 211) — ASS 111-114; March 2012 (Round 411) — ASS 31-34; and May 2012 (Round 611) — ASS 51-54. The association between sample code and origin of the various soils are provided in Table 2.3.

Table 2.3. Sample identification and the origin of the samples included in the ASPAC 2011-12 soil ILPP

<i>Sample ID</i>	<i>Sample origin</i>	<i>Sample ID</i>	<i>Sample origin</i>
ASS 111	Launceston, TAS	ASS 33	Agridoo, VIC
ASS 112	Clare, QLD	ASS 34	NSW
ASS 113	New Zealand	ASS 51	NSW
ASS 114	NSW	ASS 52	Werribee, VIC
ASS 31	Launceston, TAS	ASS 53	New Zealand
ASS 32	Belmond, NAPT	ASS 54	NSW

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 WEPAL interlaboratory 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

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.)

main purpose of the interim reports was to provide feedback and to enable laboratories to take prompt action where appropriate. Interim reports also provided an opportunity to correct for data-transfer and data-processing misinterpretations. In addition, occasional 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 2011-12 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 four demerit points for the twelve samples in the program year.

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

For any single "round" of four samples, three (3) was set as the maximum number of demerit points for a specific test. 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.

The same procedure applied to "pooled" methods but there was a caveat. When both "unpooled" and "pooled" data for a test such as soil C could be assessed statistically and both subsequently qualified for certification, only the "unpooled" method was recorded on the Certificate rather than both.

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 seven (7) 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 provided details of certified laboratories by test on its public web site. Those certifications remain / remained 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

<i>Statistical term</i>	<i>Meaning and/or derivation</i>
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 50 th percentile, also called the 2 nd quartile or 5 th 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 <u>M</u> edian of the <u>A</u> bsolute <u>D</u> eviations, 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 25 th percentile (referred to as the first quartile; Q ₁) from the score at the 75 th 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 2011-12. 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.

2011-12: Air-Dry Moisture Content (2A1) %

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 608)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	34	34	34	34	30	30	30	30	36	36	36	36
Minimum	0.1	0.3	0.1	0.2	0.041	0.023	0.036	0.018	0.04	0.57	0.14	0.07
Maximum	5	7.02	5	5.7	4.7	2.6	4.3	2.1	1.79	6.33	3.1	5.24
Median i	1.30	5.12	1.51	3.53	3.74	2.11	3.29	1.47	1.25	5.33	2.5	1.24
Mean i	1.38	4.77	1.56	3.39	3.46	1.98	3.07	1.41	1.15	4.73	2.3	1.24
MAD i	0.173	0.355	0.18	0.262	0.29	0.165	0.305	0.19	0.17	0.4	0.225	0.12
IQR i	0.292	0.758	0.277	0.382	0.506	0.295	0.515	0.317	0.285	0.765	0.419	0.261
Robust CV % i	23	15	18	11	14	14	16	22	23	14	17	21
Median f	1.3	5.26	1.57	3.57	3.77	2.15	3.31	1.48	1.28	5.45	2.53	1.28
Mean f	1.31	5.25	1.56	3.55	3.77	2.19	3.29	1.46	1.25	5.41	2.54	1.27
MAD f	0.075	0.215	0.14	0.17	0.18	0.1	0.245	0.15	0.125	0.29	0.16	0.075
IQR f	0.115	0.347	0.185	0.282	0.304	0.204	0.369	0.267	0.198	0.526	0.219	0.115
Robust CV % f	8.9	6.6	12	7.9	8.1	9.5	11	18	16	9.7	8.6	9
Outliers	7	7	7	9	4	4	3	2	4	7	5	6
Stragglers	3	3	0	2	3	5	1	1	2	0	2	4

2011-12: Electrical conductivity 1:5 soil-water (3A1) dS/m air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 608)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	45	45	45	45	41	41	41	41	44	44	44	44
Minimum	0.096	0.044	0.104	0.047	0.06	0.04	0.05	0.006	0.044	0.0004	0.002	0.019
Maximum	200	107	219	104	0.53	0.26	0.278	6.26	0.111	0.93	0.25	0.12
Median i	0.214	0.114	0.24	0.112	0.213	0.122	0.176	5.86	0.091	0.798	0.200	0.095
Mean i	4.67	2.48	5.1	2.43	0.219	0.125	0.175	5.41	0.091	0.736	0.193	0.093
MAD i	0.013	0.006	0.011	0.006	0.008	0.005	0.009	0.17	0.004	0.031	0.009	0.005
IQR i	0.021	0.010	0.016	0.009	0.013	0.009	0.012	0.319	0.005	0.043	0.014	0.007
Robust CV % i	9.9	9.1	6.6	7.6	5.9	7	6.9	5.4	5.7	5.4	6.8	7.8
Median f	0.214	0.114	0.24	0.111	0.213	0.121	0.175	5.9	0.09	0.8	0.199	0.095
Mean f	0.216	0.115	0.24	0.112	0.214	0.122	0.174	5.88	0.090	0.796	0.2	0.095
MAD f	0.011	0.005	0.01	0.004	0.007	0.004	0.005	0.13	0.002	0.02	0.007	0.005
IQR f	0.020	0.008	0.015	0.005	0.009	0.007	0.012	0.193	0.003	0.029	0.010	0.007
Robust CV % f	9.2	7.3	6.2	4.5	4.4	5.5	6.6	3.3	3.5	3.6	4.8	7.8
Outliers	4	7	6	7	5	5	3	4	5	6	7	5
Stragglers	0	0	2	4	0	1	2	2	5	4	2	0

2011-12: Soil pH, 1:5 soil-water (4A1) air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 608)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	44	44	44	44	41	41	41	41	45	45	45	45
Minimum	5.92	6.41	6.29	6.25	5.8	6.1	4.3	6.1	3.5	5.77	5.8	3.6
Maximum	7.11	7.31	7.5	7.21	6.9	7.11	6.06	8.36	4.9	6.92	6.8	4.9
Median i	6.96	7.03	7.06	6.9	6.5	6.88	5	8.04	4.43	6.5	6.6	4.4
Mean i	6.9	7.02	7.03	6.86	6.48	6.84	4.98	7.97	4.42	6.44	6.54	4.39
MAD i	0.06	0.105	0.065	0.065	0.1	0.1	0.1	0.14	0.09	0.1	0.09	0.1
IQR i	0.080	0.154	0.106	0.093	0.133	0.156	0.13	0.208	0.141	0.178	0.163	0.145
Robust CV % i	1.1	2.2	1.5	1.3	2.1	2.3	2.6	2.6	3.2	2.7	2.5	3.3
Median f	6.98	7.03	7.07	6.9	6.52	6.9	5	8.06	4.43	6.51	6.64	4.41
Mean f	6.98	7.06	7.07	6.89	6.5	6.88	4.98	8.07	4.43	6.51	6.64	4.42
MAD f	0.045	0.09	0.065	0.05	0.085	0.095	0.085	0.135	0.06	0.08	0.04	0.06
IQR f	0.067	0.126	0.091	0.059	0.13	0.148	0.117	0.167	0.096	0.115	0.069	0.111
Robust CV % f	0.96	1.8	1.3	0.86	2	2.2	2.3	2.1	2.2	1.8	1	2.5
Outliers	7	3	6	7	3	3	2	3	6	7	7	5
Stragglers	1	0	0	4	0	0	1	0	2	1	4	1

2011-12: Soil pH, 1:5 0.01 M CaCl₂ — direct pooled (4B1 + 4B3) air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	12	12	12	12	13	13	13	13	13	13	13	13
Minimum	5.9	5.67	6.21	5.91	5.71	5.97	4.29	6.2	3.37	5.32	5.28	3.5
Maximum	6.78	6.69	6.9	6.65	6.3	6.4	4.6	7.91	4.2	6.1	6	4.09
Median i	6.41	6.19	6.58	6.28	6	6.3	4.32	7.66	3.8	5.85	5.95	3.73
Mean i	6.38	6.19	6.56	6.27	5.98	6.25	4.37	7.44	3.77	5.79	5.85	3.76
MAD i	0.11	0.06	0.11	0.05	0.1	0.08	0.03	0.24	0.09	0.07	0.05	0.09
IQR i	0.204	0.117	0.172	0.106	0.122	0.13	0.089	0.552	0.167	0.174	0.159	0.159
Robust CV % i	3.2	1.9	2.6	1.7	2	2.1	2.1	7.2	4.4	3	2.7	4.3
Median f	6.41	6.2	6.58	6.29	6	6.3	4.3	7.72	3.8	5.87	5.97	3.73
Mean f	6.39	6.21	6.56	6.28	5.98	6.3	4.3	7.69	3.8	5.88	5.96	3.73
MAD f	0.065	0.04	0.11	0.04	0.1	0.07	0	0.18	0.06	0.045	0.03	0.085
IQR f	0.152	0.085	0.172	0.056	0.122	0.111	0.007	0.272	0.102	0.076	0.076	0.124
Robust CV % f	2.4	1.4	2.6	0.88	2	1.8	0.17	3.5	2.7	1.3	1.3	3.3
Outliers	1	2	0	2	0	1	3	2	3	2	3	1
Stragglers	1	1	0	1	0	1	3	1	0	1	0	0

2011-12: Soil pH, 1:5 0.01 M CaCl₂ — indirect, pooled (4B2 + 4B4) air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	27	27	27	27	23	23	23	23	27	27	27	27
Minimum	5.81	5.84	5.98	5.94	5.86	6.05	4.2	6.2	3.5	5.4	5.38	3.3
Maximum	7.2	7	7.5	7	6.24	6.64	4.67	8.09	6.7	7.3	7.2	6.6
Median i	6.48	6.2	6.67	6.25	6	6.31	4.4	7.86	3.83	5.89	6	3.79
Mean i	6.47	6.21	6.65	6.27	5.99	6.31	4.41	7.77	3.96	5.9	5.99	3.9
MAD i	0.04	0.06	0.04	0.05	0.02	0.09	0.03	0.14	0.06	0.05	0.06	0.06
IQR i	0.067	0.074	0.074	0.082	0.059	0.133	0.059	0.215	0.089	0.067	0.111	0.111
Robust CV % i	1	1.2	1.1	1.3	0.99	2.1	1.3	2.7	2.3	1.1	1.9	2.9
Median f	6.48	6.2	6.67	6.26	6	6.31	4.4	7.88	3.83	5.9	6	3.78
Mean f	6.48	6.21	6.67	6.27	6	6.3	4.41	7.87	3.83	5.9	5.98	3.77
MAD f	0.02	0.035	0.03	0.045	0.01	0.08	0.03	0.12	0.03	0.03	0.05	0.03
IQR f	0.024	0.059	0.048	0.076	0.022	0.126	0.048	0.204	0.052	0.045	0.093	0.052
Robust CV % f	0.37	0.96	0.72	1.2	0.37	2	1.1	2.6	1.4	0.75	1.5	1.4
Outliers	5	3	6	3	7	1	2	2	6	9	5	5
Stragglers	4	0	0	0	1	0	0	0	2	0	1	3

2011-12: Water soluble Cl — potentiometric (5A1) mg Cl/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	23	23	23	23	23	23	23	23	21	21	21	21
Minimum	4.8	17	5.2	8.5	10	1.3	0.19	7554	8.7	618	13	7.8
Maximum	54	202	60	82	2300	1520	60	13100	120	1354	75	90
Median i	16	45	16	16	17	6.5	32	9038	17	889	28	16
Mean i	18	55	19	20	116	74	35	9100	22	889	31	21
MAD i	5.3	4.2	4.4	4.7	2	3.0	4.9	510	3	39	2	4
IQR i	8.2	5.3	5.9	6.5	4.5	4.5	9.9	999	5.6	58	4.9	5.6
Robust CV % i	52	12	37	41	26	69	31	11	33	6.5	17	36
Median f	15	45	15	16	17	5.9	31	9010	16	889	28	16
Mean f	15	44	16	16	17	6.2	31	8830	16	879	29	15
MAD f	4.3	0.9	3.5	3.9	2	2.7	1.7	395	2.5	32	2	3.2
IQR f	6.4	3.7	5.7	6.5	3.0	4.2	4.0	821	4.2	49	3.3	4.1
Robust CV % f	43	8.2	38	41	17	71	13	9.1	26	5.5	12	26
Outliers	2	6	3	1	4	3	5	1	3	4	5	2
Stragglers	0	3	0	1	0	0	2	1	0	0	0	1

2011-12: Water soluble Cl — autocolour (5A2) mg Cl/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	9	9	9	9	8	8	8	8	9	9	9	9
Minimum	9	39	14	14	14	1.8	30	8270	8	457	10	8.5
Maximum	25	89	27	30	35	18	55	10800	29	935	38	32
Median i	14	45	16	16	15	7.7	35	9128	14	826	26	12
Mean i	16	51	18	19	19	8.8	38	9290	15	783	25	15
MAD i	2.9	4.8	1.7	1.8	0.05	3.5	4.8	243	1.5	94	2.6	1.3
IQR i	7.6	12	3.8	7.0	7.8	9.1	8.1	412	2.8	206	8.4	4.1
Robust CV % i	57	26	23	44	52	120	23	4.5	21	25	33	33
Median f	14	41	16	15	15	7.7	35	9050	13	826	27	12
Mean f	16	44	16	15	15	8.8	38	9080	13	783	27	12
MAD f	2.9	2.4	0.955	0.55	0	3.5	4.8	166	1.7	94	1.6	1.1
IQR f	7.6	5.5	3.3	0.967	0.037	9.1	8.1	360	2.5	206	3.5	1.5
Robust CV % f	57	13	21	6.6	0.25	120	23	4	19	25	13	12
Outliers	0	1	1	2	3	0	0	1	1	0	2	2
Stragglers	0	1	0	2	0	0	0	0	0	0	1	0

2011-12: Organic Carbon — W&B (6A1) %C oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	28	28	28	28	25	25	25	25	30	30	30	30
Minimum	0.3	0.97	1.67	1.72	2.04	0.585	4.49	0.072	1.7	0.91	2.16	2.22
Maximum	3.39	2.57	8.59	3.3	4.1	2.28	9.69	1.18	2.97	1.45	5.08	3.73
Median i	2.68	1.13	2.01	2.01	3.47	1.57	8.12	0.545	2.23	1.14	2.82	2.87
Mean i	2.64	1.19	2.26	2.09	3.39	1.58	7.79	0.554	2.31	1.15	2.89	2.88
MAD i	0.155	0.08	0.09	0.11	0.14	0.09	0.54	0.036	0.105	0.06	0.21	0.11
IQR i	0.221	0.133	0.159	0.185	0.208	0.112	0.953	0.059	0.306	0.080	0.317	0.178
Robust CV % i	8.2	12	7.9	9.2	6	7.1	12	11	14	7	11	6.2
Median f	2.68	1.11	2	2	3.48	1.57	8.14	0.543	2.2	1.14	2.81	2.86
Mean f	2.72	1.13	2	2	3.47	1.59	8.06	0.539	2.21	1.14	2.79	2.83
MAD f	0.11	0.09	0.06	0.1	0.09	0.05	0.33	0.032	0.055	0.05	0.2	0.055
IQR f	0.211	0.119	0.095	0.142	0.17	0.104	0.6	0.051	0.102	0.074	0.3	0.102
Robust CV % f	7.9	11	4.7	7.1	4.9	6.6	7.4	9.3	4.6	6.5	11	3.6
Outliers	2	2	4	2	3	3	3	5	7	3	2	5
Stragglers	1	0	2	1	1	1	1	2	3	0	0	5

2011-12: Organic Carbon — Heanes (6B1) %C oven dry

Statistical parameters	NOT ASSESSABLE Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	4	4	4	4	4	4	4	4	4	4	4	4
Minimum	2.84	1.01	2.07	2.06	3.65	1.63	9.08	0.632	2.46	1.17	2.75	3.16
Maximum	3.48	1.44	2.36	2.5	4.05	2.07	10.2	0.82	2.83	1.4	3.18	3.64
Median i	3	1.34	2.26	2.27	3.88	1.77	9.25	0.656	2.55	1.30	2.92	3.39
Mean i	3.08	1.28	2.24	2.27	3.87	1.81	9.45	0.691	2.6	1.29	2.94	3.4
MAD i	0.115	0.07	0.055	0.115	0.14	0.075	0.145	0.014	0.05	0.105	0.11	0.155
IQR i	0.382	0.252	0.163	0.254	0.263	0.248	0.675	0.106	0.209	0.167	0.259	0.297
Robust CV % i	13	19	7.2	11	6.8	14	7.3	16	8.2	13	8.9	8.7
Median f	3	1.34	2.26	2.27	3.88	1.77	9.25	0.651	2.55	1.3	2.92	3.39
Mean f	3.08	1.28	2.24	2.27	3.87	1.81	9.45	0.648	2.6	1.29	2.94	3.4
MAD f	0.115	0.07	0.055	0.115	0.14	0.075	0.145	0.009	0.05	0.105	0.11	0.155
IQR f	0.382	0.252	0.163	0.254	0.263	0.248	0.675	0.021	0.209	0.167	0.259	0.297
Robust CV % f	13	19	7.2	11	6.8	14	7.3	3.2	8.2	13	8.9	8.7
Outliers	0	0	0	0	0	0	0	1	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2011-12: Total Organic Carbon — Dumas (6B2+6B3) %C oven dry

Statistical parameters	NOT ASSESSABLE Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	7	7	7	7	8	8	8	8	6	6	6	6
Minimum	2.56	0.959	1.86	1.79	4.07	0.654	8.23	0.52	2.4	1.2	3.08	2.94
Maximum	3.3	1.59	2.51	2.62	4.82	2.08	9.49	0.78	2.86	1.39	3.55	3.45
Median i	2.95	1.27	2.27	2.29	4.26	1.85	9.21	0.581	2.58	1.32	3.2	3.27
Mean i	2.98	1.25	2.26	2.23	4.32	1.74	9.09	0.604	2.6	1.31	3.26	3.24
MAD i	0.15	0.09	0.12	0.21	0.125	0.065	0.275	0.02	0.13	0.04	0.09	0.045
IQR i	0.267	0.193	0.237	0.408	0.217	0.089	0.428	0.036	0.23	0.080	0.221	0.145
Robust CV % i	9	15	10	18	5.1	4.8	4.6	6.1	8.9	6.1	6.9	4.4
Median f	2.95	1.27	2.27	2.29	4.26	1.86	9.21	0.572	2.58	1.32	3.2	3.27
Mean f	2.98	1.25	2.26	2.23	4.32	1.89	9.09	0.579	2.6	1.31	3.26	3.3
MAD f	0.15	0.09	0.12	0.21	0.125	0.06	0.275	0.018	0.13	0.04	0.09	0.03
IQR f	0.267	0.193	0.237	0.408	0.217	0.067	0.428	0.03	0.23	0.080	0.221	0.104
Robust CV % f	9	15	10	18	5.1	3.6	4.6	5.2	8.9	6.1	6.9	3.2
Outliers	0	0	0	0	0	1	0	1	0	0	0	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2011-12: Total Organic Carbon — HF Induction, IR (6B3) %C oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	18	18	18	18	17	17	17	17	20	20	20	20
Minimum	2.56	0.959	1.86	1.79	0.8	0.4	1.5	0.2	0.5	0.2	0.5	0.6
Maximum	3.84	7.08	3.86	8.55	4.49	1.97	10.29	4.92	2.91	4.1	367	3.72
Median i	3.12	1.29	2.38	2.32	4.17	1.83	9.03	0.595	2.54	1.27	3.08	3.20
Mean i	3.17	1.67	2.46	2.67	3.89	1.72	8.31	0.842	2.42	1.37	21.1	3.03
MAD i	0.12	0.045	0.065	0.09	0.13	0.09	0.26	0.037	0.135	0.035	0.21	0.095
IQR i	0.285	0.12	0.115	0.141	0.222	0.107	1.06	0.06	0.232	0.059	0.321	0.152
Robust CV % i	9.1	9.3	4.8	6.1	5.3	5.9	12	10	9.1	4.7	10	4.8
Median f	3.1	1.27	2.38	2.32	4.19	1.86	9.07	0.59	2.58	1.28	3.08	3.2
Mean f	3.1	1.28	2.37	2.33	4.19	1.86	9.1	0.576	2.57	1.28	3.06	3.21
MAD f	0.056	0.03	0.042	0.065	0.085	0.07	0.07	0.032	0.145	0.02	0.165	0.08
IQR f	0.096	0.052	0.058	0.111	0.146	0.104	0.167	0.045	0.219	0.030	0.258	0.111
Robust CV % f	3.1	4.1	2.4	4.8	3.5	5.6	1.8	7.5	8.5	2.3	8.4	3.5
Outliers	3	4	4	4	3	2	5	4	2	5	4	5
Stragglers	3	1	2	0	0	0	2	0	0	2	0	0

2011-12: Total N — Kjeldahl, steam distillation (7A1) %N oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	22	22	22	22	16	16	16	16	22	22	22	22
Minimum	0.193	0.059	0.158	0.16	0.254	0.12	0.375	0.006	0.133	0.04	0.192	0.16
Maximum	0.39	0.438	0.34	0.78	0.42	0.2	1.93	0.474	0.353	0.206	0.519	0.301
Median i	0.244	0.08	0.202	0.204	0.366	0.157	0.534	0.037	0.186	0.108	0.282	0.236
Mean i	0.252	0.097	0.202	0.226	0.361	0.157	0.603	0.064	0.19	0.108	0.285	0.232
MAD i	0.023	0.004	0.018	0.014	0.021	0.016	0.025	0.004	0.012	0.011	0.012	0.015
IQR i	0.037	0.007	0.032	0.023	0.034	0.024	0.054	0.007	0.026	0.016	0.022	0.023
Robust CV % i	15	8.8	16	11	9.3	15	10	19	14	15	7.6	9.8
Median f	0.243	0.08	0.202	0.202	0.37	0.157	0.534	0.036	0.186	0.108	0.282	0.236
Mean f	0.241	0.08	0.196	0.199	0.368	0.157	0.524	0.036	0.184	0.11	0.28	0.234
MAD f	0.018	0.001	0.017	0.014	0.02	0.016	0.024	0.004	0.007	0.007	0.005	0.008
IQR f	0.029	0.002	0.032	0.023	0.031	0.024	0.046	0.007	0.014	0.01	0.01	0.018
Robust CV % f	12	3	16	11	8.4	15	8.6	19	7.4	9.6	3.4	7.7
Outliers	2	6	1	1	1	0	2	3	2	3	4	3
Stragglers	0	3	0	0	0	0	0	0	2	2	3	1

2011-12: Total N — Kjeldahl, autocolour (7A2) %N oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	7	7	7	7	6	6	6	6	6	6	6	6
Minimum	0.221	0.07	0.185	0.193	0.33	0.154	0.485	0.034	0.15	0.08	0.26	0.2
Maximum	0.265	0.083	0.203	0.209	0.38	0.168	0.613	0.044	1870	1070	2820	2650
Median i	0.241	0.078	0.201	0.2	0.359	0.160	0.527	0.04	0.204	0.106	0.284	0.243
Mean i	0.241	0.077	0.197	0.201	0.357	0.161	0.535	0.039	312	178	470	442
MAD i	0.008	0.003	0.002	0.004	0.01	0.004	0.025	0.002	0.019	0.015	0.024	0.019
IQR i	0.013	0.006	0.011	0.007	0.02	0.007	0.052	0.004	347	198	523	491
Robust CV % i	5.2	7.8	5.5	3.3	5.5	4.4	9.8	10	170000	190000	180000	200000
Median f	0.241	0.078	0.202	0.2	0.359	0.16	0.527	0.04	0.201	0.1	0.276	0.24
Mean f	0.241	0.077	0.202	0.201	0.357	0.161	0.535	0.039	0.188	0.104	0.279	0.232
MAD f	0.008	0.003	0.001	0.004	0.01	0.004	0.025	0.002	0.009	0.011	0.016	0.017
IQR f	0.013	0.006	0.002	0.007	0.02	0.007	0.052	0.004	0.035	0.023	0.03	0.030
Robust CV % f	5.2	7.8	0.92	3.3	5.5	4.4	9.8	10	17	23	11	13
Outliers	0	0	2	0	0	0	0	0	1	1	1	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2011-12: Total N – Dumas (7A5) %N oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	18	18	18	18	19	19	19	19	16	16	16	16
Minimum	0.218	0.05	0.114	0.145	0.178	0.057	0.253	0.01	0.125	0.071	0.104	0.125
Maximum	0.478	0.209	0.374	0.333	0.45	0.2	0.613	0.09	2.08	0.16	0.355	0.28
Median i	0.264	0.08	0.21	0.209	0.376	0.16	0.549	0.040	0.205	0.109	0.294	0.246
Mean i	0.276	0.089	0.217	0.212	0.374	0.154	0.539	0.047	0.317	0.114	0.286	0.243
MAD i	0.02	0.012	0.02	0.016	0.012	0.013	0.012	0.006	0.014	0.009	0.017	0.015
IQR i	0.030	0.022	0.027	0.025	0.019	0.018	0.02	0.014	0.027	0.013	0.027	0.027
Robust CV % i	12	27	13	12	5.1	11	3.6	36	13	12	9	11
Median f	0.26	0.077	0.21	0.209	0.374	0.161	0.549	0.037	0.206	0.108	0.297	0.247
Mean f	0.26	0.078	0.213	0.208	0.375	0.162	0.55	0.038	0.208	0.108	0.298	0.251
MAD f	0.016	0.01	0.018	0.011	0.006	0.011	0.012	0.001	0.012	0.006	0.017	0.015
IQR f	0.027	0.016	0.026	0.018	0.011	0.017	0.017	0.003	0.023	0.011	0.026	0.025
Robust CV % f	10	21	12	8.8	3	11	3.1	8.2	11	10	8.7	9.9
Outliers	2	2	2	3	4	2	5	5	2	3	1	1
Stragglers	0	0	0	1	2	0	0	3	1	1	0	0

2011-12: Water Soluble Nitrate N— autocolour (7B1) mg N/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	18	18	18	18	18	18	18	18	17	17	17	17
Minimum	38	0.38	66	3.2	22	22	0.097	2.3	15	36	28	11
Maximum	58	2.1	95	8.9	44	40	3.6	22	35	48	43	25
Median i	50	0.84	79	6.3	41	39	3	19	21	40	33	17
Mean i	49	0.943	81	6.2	40	37	2.6	18	22	40	34	17
MAD i	2.1	0.245	5.2	0.24	1.8	1	0.265	1	1	1	2.2	1
IQR i	5.2	0.307	7.2	0.393	2.7	1.6	0.458	1.5	1.7	1.6	3.5	1.9
Robust CV % i	10	37	9	6.3	6.7	4.1	15	7.9	8.3	4	11	11
Median f	50	0.83	79	6.3	41	39	3	19	21	40	32	17
Mean f	50	0.875	81	6.2	41	38	3	19	21	40	32	17
MAD f	1.9	0.24	5.2	0.22	1.6	0.75	0.07	1	1	0.95	2	1
IQR f	2.7	0.315	7.2	0.326	2.6	1.7	0.115	1.5	1.5	1.2	3.0	1.4
Robust CV % f	5.4	38	9	5.2	6.3	4.3	3.8	7.8	7	3	9.3	8.4
Outliers	4	1	0	4	1	1	3	1	3	3	2	5
Stragglers	0	0	0	0	0	0	5	0	0	0	0	0

2011-12: KCl Extractable Ammonium N — steam distillation (7C1) mg N/kg air dry

Statistical parameters	Soil sample identification and values											
	NOT ASSESSABLE											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	1	1	1	1	1	1	1	1	1	1	1	1
Minimum	53	5.8	3.9	45	232	27	76	4.6	25	18	19	36
Maximum	53	5.8	3.9	45	232	27	76	4.6	25	18	19	36
Median i	53	5.8	3.9	45	232	27	76	4.6	25	18	19	36
Mean i	53	5.8	3.9	45	232	27	76	4.6	25	18	19	36
MAD i												
IQR i												
Robust CV % i												
Median f	53	5.8	3.9	45	232	27	76	4.6	25	18	19	36
Mean f	53	5.8	3.9	45	232	27	76	4.6	25	18	19	36
MAD f												
IQR f												
Robust CV % f												
Outliers	0	0	0	0	0	0	0	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2011-12: KCl Extractable Nitrate N— steam distillation (7C1) mg N/kg air dry

Statistical parameters	NOT ASSESSABLE Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	1	1	1	1	1	1	1	1	1	1	1	1
Minimum	50	1.4	77	6.8	64	39	4.1	18	33	37	32	15
Maximum	50	1.4	77	6.8	64	39	4.1	18	33	37	32	15
Median i	50	1.4	77	6.8	64	39	4.1	18	33	37	32	15
Mean i	50	1.4	77	6.8	64	39	4.1	18	33	37	32	15
MAD i												
IQR i												
Robust CV % i												
Median f	50	1.4	77	6.8	64	39	4.1	18	33	37	32	15
Mean f	50	1.4	77	6.8	64	39	4.1	18	33	37	32	15
MAD f												
IQR f												
Robust CV % f												
Outliers	0	0	0	0	0	0	0	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2011-12: KCl Extractable Ammonium N — autocolour (7C2) mg N/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	24	24	24	24	24	24	24	24	24	24	24	24
Minimum	7.3	4.1	1.8	25	127	14	61	2.5	16	11	8.9	8.1
Maximum	62	15	53	53	176	30	81	7.1	35	21	20	47
Median i	53	7.2	4.9	46	153	26	70	4.4	26	15	14	37
Mean i	50	7.9	7.3	46	154	25	70	4.5	26	15	14	35
MAD i	2.8	0.745	1.2	2.8	6	1	6.0	0.46	1.5	1	1.1	1.8
IQR i	4.2	1.2	2.5	3.5	8.6	2.1	8.9	0.643	2.3	2.2	1.3	4.3
Robust CV % i	7.9	16	50	7.7	5.6	7.9	13	15	8.8	14	9.4	12
Median f	53	7.2	4.6	46	153	26	70	4.4	26	15	14	37
Mean f	53	7.2	4.8	47	154	26	70	4.4	26	15	14	37
MAD f	1.3	0.415	0.76	2.6	4	0.85	6.0	0.215	1.3	0.9	1	1.2
IQR f	2.5	0.626	1.5	3.0	7.6	1.4	8.9	0.476	1.9	1.3	1.1	1.7
Robust CV % f	4.6	8.7	32	6.4	5	5.2	13	11	7.1	8.4	7.9	4.5
Outliers	3	7	2	1	2	4	0	4	4	5	3	5
Stragglers	2	1	2	0	2	0	0	2	1	0	0	2

2011-12: KCl Extractable Nitrate N — autocolour (7C2) mg N/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	22	22	22	22	24	24	24	24	22	22	22	22
Minimum	21	0.15	34	1.9	35	27	1.2	4.8	17	35	29	13
Maximum	97	44	114	53	159	45	69	24	34	47	41	25
Median i	51	0.5235	83	6.0	41	38	2.6	19	21	39	32	17
Mean i	50	2.69	82	7.9	46	38	5.3	18	21	39	32	17
MAD i	2.6	0.175	3.6	0.5	2.9	1.6	0.455	1	1.3	1.4	1.2	1
IQR i	3.9	0.323	5.6	0.812	4.1	2.6	0.754	1.4	2.0	2.1	2.0	1.9
Robust CV % i	7.6	62	6.7	14	10	6.9	29	7.3	9.6	5.4	6.1	11
Median f	51	0.425	83	6.1	41	38	2.6	19	20	39	32	17
Mean f	51	0.48	83	6.2	41	38	2.6	19	20	39	32	17
MAD f	1	0.175	2.9	0.45	2.9	1.1	0.4	0.95	1.2	1.5	1	0.66
IQR f	1.5	0.181	5.2	0.649	3.6	1.4	0.589	1.4	1.9	2.0	2.0	1.4
Robust CV % f	2.8	43	6.3	11	8.9	3.9	23	7.1	9.5	5.3	6.3	8.2
Outliers	3	4	2	3	1	3	1	2	1	2	1	4
Stragglers	6	0	1	1	0	2	2	0	0	0	1	1

2011-12: Total P – all methods pooled; %P oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	22	22	22	22	21	21	21	21	22	22	22	22
Minimum	0.033	0.017	0.058	0.026	0.053	0.002	0.030	0.011	0.013	0.013	0.088	0.017
Maximum	0.05	0.114	0.138	0.32	0.172	0.042	0.051	0.02	155	245	1056	187
Median i	0.042	0.024	0.087	0.04	0.14	0.037	0.042	0.015	0.017	0.022	0.113	0.020
Mean i	0.042	0.028	0.086	0.057	0.135	0.035	0.041	0.015	7.53	11.5	58	9.14
MAD i	0.002	0.002	0.007	0.002	0.016	0.002	0.003	0.001	0.002	0.002	0.006	0.002
IQR i	0.003	0.003	0.01	0.003	0.027	0.003	0.004	0.002	0.003	0.002	0.009	0.003
Robust CV % i	7.8	10	12	8	20	9	10	16	16	11	8.2	13
Median f	0.042	0.024	0.087	0.04	0.146	0.038	0.042	0.015	0.016	0.022	0.113	0.02
Mean f	0.042	0.024	0.085	0.04	0.144	0.038	0.043	0.015	0.016	0.022	0.112	0.02
MAD f	0.002	0.001	0.007	0.002	0.01	0.002	0.003	0.001	0.001	0.001	0.005	0.001
IQR f	0.003	0.002	0.01	0.003	0.016	0.003	0.003	0.002	0.002	0.002	0.007	0.002
Robust CV % f	7.3	9.5	11	6.6	11	6.6	8.2	14	13	7.9	6.4	9.7
Outliers	2	2	2	3	1	3	1	1	2	5	3	3
Stragglers	0	2	0	1	2	1	1	0	0	0	1	0

2011-12: Colwell Extractable P — pooled (9B1 + 9B2) mg P/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	28	28	28	28	32	32	32	32	29	29	29	29
Minimum	95	19	88	15	20	19	49	17	9.5	1	1.4	0.46
Maximum	515	211	766	234	147	70	111	320	40	30	282	59
Median i	126	26	107	21	58	32	90	31	17	6.2	158	29
Mean i	139	33	131	28	61	35	88	39	18	6.7	155	30
MAD i	10	1.4	7.2	1.4	4.0	2.2	3.8	1.3	2.4	0.96	15	2
IQR i	16	2.4	11	2.1	4.8	3.4	6.4	2.5	3.9	1.5	27	4.7
Robust CV % i	12	9.3	10	9.8	8.2	11	7.1	8.1	22	24	17	16
Median f	125	26	107	21	58	32	89	31	16	6.3	158	29
Mean f	124	26	106	21	58	32	89	31	17	6.3	156	28
MAD f	9	1	6.4	1	1.3	1.5	2.8	0.9	2.3	0.7	14	1.2
IQR f	15	1.4	9.5	1.7	2.4	2.6	4.5	2	3.3	1.1	25	1.8
Robust CV % f	12	5.3	8.9	8.3	4.1	8	5	6.5	20	17	16	6.2
Outliers	2	5	2	3	5	5	8	3	3	3	2	7
Stragglers	0	2	0	1	5	1	0	2	1	1	0	3

2011-12: Olsen Extractable P — Pooled (9C1 + 9C2) mg P/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	28	28	28	28	24	24	24	24	27	27	27	27
Minimum	3.5	0.7	5.8	0.8	9	3.5	17	6.7	7.2	0.05	29	6
Maximum	407	203	698	220	18	23	54	16	41	26	217	46
Median i	46	8.3	47	9	15	14	41	14	10	2	40	18
Mean i	57	16	67	17	14	14	40	14	12	3.2	52	20
MAD i	4.4	1.0	2.8	0.56	1.2	1.4	4	1.1	1.7	0.54	3.1	2
IQR i	6.0	1.4	4.3	1.2	1.5	2.3	6.6	1.8	3.2	0.608	13	3.3
Robust CV % i	13	17	9.2	14	10	17	16	13	30	30	33	18
Median f	46	8.2	47	9	15	14	41	14	10	1.9	39	18
Mean f	46	8.5	47	9	15	14	42	14	10	1.8	39	18
MAD f	3.5	0.85	2.7	0.41	0.6	1.2	3.8	1	13	0.31	0.7	1.2
IQR f	5.0	1.2	3.7	0.597	0.908	2.1	6.0	1.5	2.1	0.515	1.5	1.9
Robust CV % f	11	14	7.9	6.6	6.2	15	14	11	21	27	3.9	10
Outliers	4	4	4	7	2	3	2	3	2	5	9	6
Stragglers	0	0	0	1	2	0	0	0	2	1	4	1

2011-12: Bray-1 Extractable P — pooled (9E1 + 9E2) mg P/kg

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	16	16	16	16	12	12	12	12	12	12	12	12
Minimum	0.402	0.058	0.418	0.095	6.5	14	19	9.6	0.6	0.01	5	1.6
Maximum	142	18	145	17	31	32	65	38	13	1.2	98	22
Median i	87	5.2	78	6.6	13	22	42	23	7.9	0.837	53	12
Mean i	79	5.8	79	7.1	14	22	43	23	7.9	0.717	51	13
MAD i	29	1.1	21	0.795	2.1	1.3	13	3.4	1.9	0.2	14	4.4
IQR i	39	1.5	31	1.2	3.8	3.4	18	5.6	3.4	0.294	23	6.9
Robust CV % i	45	30	40	18	30	15	42	25	43	35	43	56
Median f	87	5.2	78	6.6	12	22	42	23	7.9	0.865	53	12
Mean f	79	5.4	79	6.6	12	22	43	21	7.9	0.838	51	13
MAD f	29	0.82	21	0.74	1.8	1.3	13	3.3	1.9	0.135	14	4.4
IQR f	39	1.3	31	1.1	3.0	2.4	18	4.5	3.4	0.296	23	6.9
Robust CV % f	45	25	40	17	24	11	42	20	43	34	43	56
Outliers	0	2	0	3	1	2	0	1	0	1	0	0
Stragglers	0	0	0	0	0	0	0	0	0	1	0	0

2011-12: Acid Extractable P — pooled (9G1 + 9G2) mg P/kg air dry

Statistical parameters	NOT ASSESSABLE Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	6	6	6	6	6	6	6	6	8	8	8	8
Minimum	146	18	300	30	55	41	82	41	15	1	329	18
Maximum	221	23	448	44	346	81	165	64	25	12	494	39
Median i	200	22	420	36	60	72	122	45	18	7.0	409	31
Mean i	191	22	405	36	108	66	124	48	19	7.4	417	31
MAD i	15	0.75	9.5	2.7	3	6	17	3.5	2.4	3.8	26	2.7
IQR i	34	1.8	38	5.5	57	17	34	9.1	4.5	5.7	49	5.3
Robust CV % i	17	8.2	9	16	95	24	28	20	25	83	12	17
Median f	200	23	423	36	59	72	122	44	18	7.0	409	31
Mean f	191	23	426	36	60	66	124	45	19	7.4	417	32
MAD f	15	0.4	7	2.7	1.7	6	17	2	2.4	3.8	26	1.9
IQR f	34	1.2	19	5.5	4.5	17	34	5.1	4.5	5.7	49	4.5
Robust CV % f	17	5.3	4.4	16	7.5	24	28	12	25	83	12	14
Outliers	0	1	1	0	1	0	0	1	0	0	0	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2011-12: Phosphorus buffer index (PBI_c) - Colwell (9I2a + 9I2b + 9I2c) L/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	21	21	21	21	21	21	21	21	23	23	23	23
Minimum	49	156	51	62.8	239	24.1	84.1	54.1	63.8	235	186	62.8
Maximum	94.2	188	83.8	85	574	64	162	134	200	514	314	184
Median i	79	171	68	70	439	40	124	71.5	107	456	238	94
Mean i	78.9	171	68.9	71	440	41.4	125	73.7	108	440	237	97.8
MAD i	3	5	3.7	2.5	9.71	3	4.5	2.5	9	31	20	7
IQR i	6.07	6.75	6.34	3.11	19.5	4.89	6.12	3.85	14.3	47.4	31.1	12.5
Robust CV % i	7.7	3.9	9.3	4.4	4.4	12	4.9	5.4	13	10	13	13
Median f	79.5	171	68	69.4	438	39.1	124	71.6	109	459	237	94
Mean f	80.4	171	67.8	69.8	437	39.8	125	71.7	107	450	234	94.9
MAD f	2.5	5	2.1	1.6	6.5	2	3	0.8	7.5	31.5	19	4.76
IQR f	5.39	6.75	4	2.21	10	3.74	5	1.26	11.7	47.3	26.9	7.73
Robust CV % f	6.8	3.9	5.9	3.2	2.3	9.6	4	1.8	11	10	11	8.2
Outliers	3	0	3	2	4	3	3	4	5	1	1	5
Stragglers	0	0	1	2	3	1	1	4	0	0	0	1

2011-12: Phosphorus buffer index(PBI_o) - Olsen (9I3a + 9I3b + 9I3c) L/kg air dry

Statistical parameters	Soil sample identification and values											
	NOT ASSESSABLE											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	2	2	2	2	2	2	2	2	3	3	3	3
Minimum	91.6	176	77.2	73.2	296	43.7	140	89.2	89.8	415	204	82.9
Maximum	92.2	178	78.6	74.9	296	43.7	140	89.2	105	533	219	98
Median i	91.9	177	77.9	74.1	296	43.7	140	89.2	90.7	531	209	83.4
Mean i	91.9	177	77.9	74.1	296	43.7	140	89.2	95.2	493	211	88.1
MAD i	0.285	1	0.715	0.85					0.9	2	5	0.5
IQR i									11.3	87.5	11.1	11.2
Robust CV % i									12	16	5.3	13
Median f	91.9	177	77.9	74.1	296	43.7	140	89.2	90.3	532	209	83.2
Mean f	91.9	177	77.9	74.1	296	43.7	140	89.2	90.3	532	211	83.2
MAD f	0.285	1	0.715	0.85					0.45	1	5	0.25
IQR f											11.1	
Robust CV % f											5.3	
Outliers	0	0	0	0	0	0	0	0	1	1	0	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2011-12: Phosphorus buffer index (PBI_u) - Unadj (9I4a + 9I4b + 9I4c) L/kg air dry

Statistical parameters	NOT ASSESSABLE Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	9	9	9	9	6	6	6	6	9	9	9	9
Minimum	38	153	41	53	247	6	67	26	56.7	227	132	52.6
Maximum	70.4	178	64.5	81.3	532	58	140	89	196	511	230	176
Median i	56	164	48.9	65.4	416	34.3	106	66.3	99.8	415	193	84
Mean i	56.7	163	50.5	66.5	405	34	105	62.7	110	412	191	98.2
MAD i	9	5	2.1	3.6	12	6.4	2.5	4.9	9.8	20	26	9.4
IQR i	12.4	9.27	5.04	6.34	66.2	16.8	16.3	17.1	29.9	57.1	41.1	27.5
Robust CV % i	22	5.7	10	9.7	16	49	15	26	30	14	21	33
Median f	56	164	48.7	65.3	416	34.3	106	66.3	96.9	415	193	83.8
Mean f	56.7	163	48.7	64.7	413	34	105	65.3	98.8	424	191	86.6
MAD f	9	5	2.3	3.55	4	6.4	1.5	1.65	4.9	19	26	3.8
IQR f	12.4	9.27	3.67	5.24	14.5	16.8	3.34	5.58	10.1	52.6	41.1	10.2
Robust CV % f	22	5.7	7.5	8	3.5	49	3.2	8.4	10	13	21	12
Outliers	0	0	1	1	2	0	2	1	3	2	0	2
Stragglers	0	0	0	0	0	0	0	1	0	0	0	1

2011-12: Phosphate Extractable S – (10B1+10B2+10B3+10B4 pooled) mg S/kg air dry

Statistical parameters	NOT ASSESSABLE Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	8	8	8	8	6	6	6	6	6	6	6	6
Minimum	12	6.7	13	4.6	29	5	13	354	4.5	14	32	6.4
Maximum	42	17	23	23	80	15	45	533	59	150	55	530
Median i	27	13	19	19	60	12	38	472	16	122	42	17
Mean i	28	13	19	18	59	11	35	459	21	102	44	101
MAD i	2.0	1.6	1.5	2.1	18	1.5	5.9	36	5.3	25	6	6
IQR i	3.3	4.7	2.6	3.2	30	3.5	13	73	16	70	11	104
Robust CV % i	12	35	13	17	49	30	33	16	99	58	26	600
Median f	27	14	20	19	60	12	38	472	13	122	42	14
Mean f	27	13	19	20	59	11	35	459	14	102	44	15
MAD f	0.4	1.6	1.5	1.8	18	1.5	5.9	36	6	25	6	7.2
IQR f	1.6	4.7	2.6	2.8	30	3.5	13	73	9.3	71	11	9.9
Robust CV % f	5.9	35	13	15	49	30	33	16	71	58	26	72
Outliers	2	0	0	1	0	0	0	0	1	0	0	1
Stragglers	1	0	0	0	0	0	0	0	0	0	0	0

2011-12: KCl₄₀ Extractable S (Blair *et al.*); (10D1) mg S/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	15	15	15	15	16	16	16	16	17	17	17	17
Minimum	14	1.6	11	4.5	25	8.9	24	450	7.0	41	29	8.8
Maximum	31	15	25	21	105	33	44	535	14	99	56	22
Median i	27	9	19	14	32	11	29	505	10	66	37	14
Mean i	25	8.9	19	14	38	13	31	496	9.9	67	39	14
MAD i	3.0	1	1.5	1.8	2.3	0.865	2.4	16	0.9	4.8	4	2.5
IQR i	4.6	1.5	1.9	2.7	6.1	1.2	6.0	34	1.5	7.1	6.2	3.7
Robust CV % i	17	16	10	20	19	11	21	6.7	15	11	17	27
Median f	27	9	19	14	32	11	28	505	10	66	37	14
Mean f	26	9.0	19	14	32	11	28	496	9.8	66	38	14
MAD f	2.9	1	1	1.8	1.3	0.53	1.9	16	0.55	2.3	3.1	2.5
IQR f	4.7	1.2	1.9	2.6	1.9	0.864	3.0	34	1.1	3.8	5.6	3.7
Robust CV % f	17	13	9.9	19	6.1	7.9	11	6.7	11	5.7	15	27
Outliers	1	2	1	2	3	1	3	0	1	2	1	0
Stragglers	0	0	1	0	2	2	1	0	1	3	0	0

2011-12: DTPA Extractable Cu (12A1) mg Cu/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	33	33	33	33	30	30	30	30	33	33	33	33
Minimum	0.2	2.0	3.8	2.2	1.6	0.257	0.2	0.17	0.117	0.27	0.693	0.02
Maximum	0.65	3.0	67	58	5.1	1.29	1.5	1.2	0.54	0.8	2.5	0.56
Median i	0.32	2.3	51	3.3	3.2	0.614	0.961	0.651	0.29	0.39	1.5	0.23
Mean i	0.352	2.4	51	5.1	3.3	0.648	0.96	0.667	0.308	0.417	1.6	0.246
MAD i	0.035	0.2	2.6	0.2	0.17	0.055	0.125	0.05	0.04	0.051	0.18	0.028
IQR i	0.075	0.289	5.9	0.371	0.254	0.099	0.19	0.077	0.094	0.085	0.259	0.046
Robust CV % i	24	13	12	11	7.9	16	20	12	32	22	17	20
Median f	0.305	2.3	50	3.3	3.2	0.6	0.96	0.645	0.29	0.384	1.5	0.228
Mean f	0.306	2.3	50	3.2	3.3	0.604	0.952	0.633	0.29	0.377	1.5	0.232
MAD f	0.025	0.1	1.1	0.19	0.125	0.037	0.114	0.033	0.03	0.033	0.15	0.022
IQR f	0.041	0.204	1.7	0.222	0.211	0.053	0.141	0.06	0.038	0.056	0.243	0.027
Robust CV % f	13	8.9	3.3	6.8	6.5	8.8	15	9.3	13	15	16	12
Outliers	6	2	8	6	4	5	3	7	8	3	4	5
Stragglers	3	3	5	0	2	1	0	1	4	2	1	3

2011-12: DTPA Extractable Fe (12A1) mg Fe/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	33	33	33	33	30	30	30	30	33	33	33	33
Minimum	111	34	62	31	37	8.6	49	3.7	138	5.9	44	25
Maximum	363	65	111	114	207	74	802	61	680	234	221	694
Median i	195	42	78	53	61	20	478	9.3	396	12	108	398
Mean i	204	43	79	55	65	23	453	12	394	19	115	387
MAD i	16.6	3.8	6.4	5	8.3	1.4	31.5	1.1	55	2.5	11	56
IQR i	24	7.2	9.6	7.5	13	2.4	54	1.7	73	4.5	17	86
Robust CV % i	12	17	12	14	21	12	11	19	18	37	15	22
Median f	194	41	76	52	59	20	482	9.2	392	12	106	399
Mean f	194	41	76	52	58	20	476	9.1	384	11	105	401
MAD f	9.8	2.5	6.1	3.5	7.3	1.1	11	0.78	39	2.1	9	19
IQR f	14	4.0	9.2	5.4	12	1.5	27	1.2	54	3.8	13	31
Robust CV % f	7.2	9.7	12	10	20	7.2	5.5	14	14	32	13	7.7
Outliers	4	2	3	4	3	4	9	5	3	4	6	5
Stragglers	4	2	1	1	0	2	3	3	4	0	0	6

2011-12: DTPA Extractable Mn (12A1) mg Mn/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	32	32	32	32	29	29	29	29	32	32	32	32
Minimum	1.3	1.4	2.3	6.7	93	74	0.16	1.9	3.6	1.4	1.8	2
Maximum	25	138	6.8	266	361	149	3.2	6.7	8.3	45	59	6.4
Median i	7.3	95	3.7	95	175	127	0.8	3.3	6.9	27	36	4.9
Mean i	7.9	98	4.1	101	183	123	1.0	3.5	6.7	27	36	4.8
MAD i	0.645	11	0.46	11	16.6	8	0.26	0.46	0.61	2.4	2.5	0.905
IQR i	0.943	13	0.949	17	25	13	0.552	0.73	1.1	3.9	3.8	1.4
Robust CV % i	13	14	26	18	14	10	69	22	16	14	11	28
Median f	7.2	94	3.6	94	167	128	0.775	3.3	7.3	28	36	4.9
Mean f	7.2	98	3.6	96	170	129	0.773	3.3	7.1	28	35	4.8
MAD f	0.455	9.7	0.26	8.4	13.5	3.6	0.205	0.45	0.46	2.1	1.5	0.905
IQR f	0.712	12	0.304	16	21	7.6	0.313	0.645	0.778	3.2	2.7	1.4
Robust CV % f	9.9	13	8.4	16	13	5.9	40	20	11	12	7.6	28
Outliers	6	3	5	3	4	5	3	2	4	3	5	0
Stragglers	2	0	4	1	1	2	2	0	1	0	3	0

2011-12: DTPA Extractable Zn (12A1) mg Zn/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	33	33	33	33	29	29	29	29	33	33	33	33
Minimum	2.6	0.19	8.9	0.31	1.2	1.1	0.02	0.134	0.535	0.03	4.9	0.518
Maximum	4.3	0.9	17	1.9	52	8.3	45	618	2	0.8	15	2.7
Median i	3.3	0.494	14	0.781	2.2	3.2	1	0.28	0.913	0.2	10	1.1
Mean i	3.3	0.532	14	0.859	4.0	3.4	2.5	22	1.02	0.246	10	1.1
MAD i	0.14	0.092	1	0.071	0.22	0.16	0.1	0.037	0.107	0.02	0.7	0.08
IQR i	0.215	0.148	1.6	0.196	0.278	0.23	0.193	0.057	0.21	0.03	1.2	0.195
Robust CV % i	6.6	30	11	25	13	7.1	19	20	23	15	11	18
Median f	3.3	0.49	14	0.768	2.2	3.2	1	0.271	0.87	0.199	10	1.0
Mean f	3.2	0.508	14	0.771	2.2	3.2	1.0	0.271	0.879	0.195	10	1.0
MAD f	0.12	0.072	1	0.057	0.1	0.1	0.1	0.03	0.045	0.012	0.7	0.035
IQR f	0.178	0.125	1.5	0.083	0.145	0.159	0.13	0.043	0.083	0.019	1.0	0.076
Robust CV % f	5.5	25	11	11	6.6	5	13	16	9.5	9.5	10	7.5
Outliers	5	3	2	8	5	6	4	7	7	6	6	4
Stragglers	1	1	0	1	3	2	0	0	4	3	0	7

2011-12: Hot CaCl₂ Extractable B — ICPAES (12C2) mg B/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	18	18	18	18	18	18	18	18	18	18	18	18
Minimum	0.652	0.293	0.47	0.141	0.58	0.384	0.418	0.07	0.127	3.6	0.868	0.114
Maximum	2.87	2.57	2.36	1.84	2.4	0.716	2.0	0.421	0.7	7.64	1.6	0.73
Median i	0.819	0.564	0.895	0.311	1.6	0.589	1.4	0.2	0.373	6.1	1.3	0.295
Mean i	1	0.652	1.01	0.431	1.6	0.569	1.4	0.22	0.366	6.0	1.3	0.335
MAD i	0.085	0.07	0.188	0.039	0.215	0.049	0.15	0.035	0.09	0.85	0.155	0.1
IQR i	0.145	0.103	0.311	0.066	0.395	0.097	0.287	0.058	0.148	1.3	0.232	0.154
Robust CV % i	18	18	35	21	24	16	20	29	40	21	18	52
Median f	0.81	0.564	0.885	0.301	1.62	0.596	1.47	0.2	0.37	6.1	1.3	0.29
Mean f	0.812	0.553	0.873	0.304	1.65	0.591	1.51	0.21	0.346	6.0	1.3	0.291
MAD f	0.09	0.039	0.14	0.032	0.2	0.032	0.11	0.009	0.09	0.85	0.155	0.071
IQR f	0.148	0.074	0.217	0.052	0.334	0.052	0.215	0.033	0.142	1.3	0.232	0.133
Robust CV % f	18	13	24	17	21	8.7	15	17	38	21	18	46
Outliers	3	2	2	4	2	1	2	2	1	0	0	1
Stragglers	0	2	0	0	0	3	3	3	0	0	0	1

2011-12: Hot CaCl₂ Extractable B — pooled (12C1 + 12C2) mg B/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	21	21	21	21	20	20	20	20	21	21	21	21
Minimum	0.652	0.053	0.47	0.141	0.58	0.384	0.418	0.07	0.127	3.5	0.868	0.114
Maximum	3.3	2.57	2.36	1.8	2.4	1	4.4	1	0.891	9.2	1.9	1.7
Median i	0.881	0.557	0.905	0.324	1.6	0.589	1.5	0.2005	0.4	5.9	1.3	0.31
Mean i	1.22	0.616	1.08	0.498	1.7	0.588	1.6	0.27	0.428	6	1.4	0.471
MAD i	0.181	0.057	0.212	0.06	0.24	0.068	0.2	0.0385	0.127	0.71	0.17	0.12
IQR i	0.419	0.097	0.443	0.191	0.428	0.103	0.404	0.0862	0.194	1.3	0.293	0.225
Robust CV % i	48	17	49	59	27	18	27	43	48	22	23	73
Median f	0.81	0.564	0.9	0.301	1.6	0.585	1.5	0.2	0.375	5.9	1.3	0.29
Mean f	0.812	0.556	0.977	0.304	1.7	0.567	1.5	0.217	0.385	5.8	1.4	0.312
MAD f	0.09	0.037	0.207	0.032	0.23	0.065	0.125	0.028	0.09	0.71	0.17	0.082
IQR f	0.148	0.068	0.356	0.052	0.445	0.092	0.308	0.05	0.148	1.2	0.293	0.149
Robust CV % f	18	12	40	17	27	16	21	25	40	21	23	51
Outliers	4	5	2	5	1	1	3	3	1	1	0	3
Stragglers	2	0	0	2	0	0	1	1	1	0	0	1

2011-12: Exchangeable Ca — 1M NH₄Cl extract (15A1) cmol+/kg oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	17	17	17	17	19	19	19	19	17	17	17	17
Minimum	7.54	10.6	12.3	15.6	9.33	8.8	6.5	0.84	0.324	1.14	2.35	0.282
Maximum	12	18	19	23	13	12.4	13.4	1.9	9.72	13.2	16.9	10.4
Median i	10.2	14.8	14.5	16.9	11.3	10.5	12	1	1.1	4.79	8.76	1.09
Mean i	10.1	14.5	14.8	17.2	11.2	10.6	11.6	1.09	1.65	5.14	9.06	1.65
MAD i	0.5	0.5	0.35	0.43	0.5	0.51	0.5	0.052	0.1	0.39	0.36	0.11
IQR i	0.953	1.03	0.871	0.697	0.815	0.741	1.41	0.111	0.2	0.537	0.678	0.182
Robust CV % i	9.3	7	6	4.1	7.2	7.1	12	11	18	11	7.7	17
Median f	10.2	14.8	14.5	16.9	11.4	10.5	12.2	0.991	1.1	4.76	8.69	1.09
Mean f	10.3	14.7	14.6	16.8	11.4	10.5	12.3	0.988	1.12	4.7	8.75	1.11
MAD f	0.49	0.2	0.2	0.42	0.45	0.5	0.2	0.041	0.07	0.205	0.22	0.07
IQR f	0.884	0.385	0.343	0.695	0.741	0.76	0.434	0.046	0.111	0.352	0.441	0.13
Robust CV % f	8.6	2.6	2.4	4.1	6.5	7.2	3.6	4.6	10	7.4	5.1	12
Outliers	1	3	5	1	2	1	3	3	3	4	3	3
Stragglers	0	3	2	0	0	0	3	0	1	1	2	1

2011-12: Exchangeable Mg — 1M NH₄Cl extract (15A1) cmol+/kg oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	17	17	17	17	19	19	19	19	17	17	17	17
Minimum	0.734	5.66	1.04	1.83	1.5	3	2.3	11.5	0.11	1.19	0.575	0.065
Maximum	1.83	13	2.03	7.4	2.24	3.7	3.1	14.7	0.7	21	4	0.51
Median i	0.88	11.3	1.21	5.71	1.92	3.49	2.7	13.2	0.381	10.1	2	0.257
Mean i	0.956	10.8	1.29	5.54	1.93	3.42	2.7	13.3	0.399	9.85	2.01	0.271
MAD i	0.03	0.53	0.05	0.15	0.08	0.09	0.12	0.5	0.035	0.55	0.1	0.027
IQR i	0.063	1.07	0.126	0.222	0.104	0.185	0.178	0.815	0.058	0.993	0.141	0.053
Robust CV % i	7.2	9.5	10	3.9	5.4	5.3	6.6	6.2	15	9.9	7	21
Median f	0.88	11.3	1.19	5.73	1.92	3.5	2.7	13.2	0.381	10.1	2	0.257
Mean f	0.881	11.3	1.2	5.73	1.92	3.47	2.7	13.3	0.39	10.1	2.04	0.26
MAD f	0.029	0.485	0.03	0.125	0.07	0.1	0.12	0.5	0.022	0.31	0.085	0.02
IQR f	0.045	0.741	0.045	0.196	0.098	0.13	0.178	0.815	0.044	0.578	0.104	0.039
Robust CV % f	5.1	6.6	3.7	3.4	5.1	3.7	6.6	6.2	11	5.8	5.2	15
Outliers	3	1	4	3	2	2	0	0	3	3	3	3
Stragglers	0	1	1	0	1	0	0	0	1	1	0	1

2011-12: Exchangeable Na — 1M NH₄Cl extract (15A1) cmol+/kg oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	17	17	17	17	19	19	19	19	17	17	17	17
Minimum	0.01	0.06	0.03	0.05	0.14	0.037	0.37	4.59	0.012	0.314	0.026	0.009
Maximum	0.186	1.86	0.197	0.176	0.404	0.223	0.501	27.6	0.2	79.3	0.5	0.3
Median i	0.048	1.09	0.076	0.09	0.195	0.067	0.44	23.5	0.084	7.3	0.255	0.06
Mean i	0.058	1.08	0.085	0.103	0.206	0.077	0.437	22.3	0.091	11.3	0.256	0.078
MAD i	0.008	0.07	0.014	0.015	0.015	0.017	0.04	1.6	0.012	0.6	0.017	0.01
IQR i	0.016	0.104	0.020	0.039	0.023	0.023	0.053	2.67	0.019	0.893	0.026	0.014
Robust CV % i	34	9.5	27	44	12	34	12	11	22	12	10	23
Median f	0.047	1.09	0.075	0.084	0.193	0.054	0.44	23.5	0.082	7.3	0.255	0.06
Mean f	0.048	1.1	0.078	0.086	0.193	0.061	0.437	23.9	0.083	7.39	0.256	0.061
MAD f	0.007	0.03	0.015	0.009	0.013	0.015	0.04	1.34	0.009	0.32	0.015	0.005
IQR f	0.008	0.052	0.018	0.019	0.021	0.023	0.053	2.35	0.012	0.53	0.022	0.009
Robust CV % f	17	4.8	23	23	11	43	12	10	14	7.3	8.7	16
Outliers	3	4	1	3	3	2	0	2	4	4	4	3
Stragglers	0	2	0	1	0	0	0	0	1	0	0	1

2011-12: Exchangeable K — 1M NH₄Cl extract (15A1) cmol+/kg oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	17	17	17	17	19	19	19	19	18	18	18	18
Minimum	0.552	0.468	0.733	0.4	0.496	0.274	0.2	0.176	0.08	0.334	0.58	0.062
Maximum	1.77	0.92	1.72	1.64	0.614	1.1	0.469	0.37	0.5	2.6	4	0.7
Median i	0.622	0.52	0.85	0.45	0.54	0.31	0.252	0.2	0.255	1.26	2	0.231
Mean i	0.726	0.571	0.944	0.557	0.543	0.378	0.267	0.22	0.253	1.26	2.06	0.237
MAD i	0.028	0.028	0.05	0.038	0.019	0.01	0.019	0.02	0.03	0.115	0.21	0.022
IQR i	0.047	0.053	0.11	0.067	0.029	0.05	0.029	0.035	0.061	0.183	0.297	0.053
Robust CV % i	7.6	10	13	15	5.4	16	11	17	24	15	15	23
Median f	0.62	0.517	0.823	0.445	0.54	0.306	0.251	0.194	0.259	1.26	2	0.237
Mean f	0.618	0.525	0.829	0.448	0.539	0.306	0.256	0.197	0.261	1.27	2.05	0.236
MAD f	0.029	0.027	0.027	0.007	0.019	0.004	0.019	0.013	0.016	0.05	0.11	0.013
IQR f	0.05	0.036	0.047	0.026	0.027	0.006	0.026	0.022	0.025	0.1	0.256	0.021
Robust CV % f	8	6.9	5.7	5.8	5	2.1	10	11	9.7	7.9	13	8.7
Outliers	2	2	2	2	1	6	1	3	5	5	4	5
Stragglers	0	0	2	2	0	3	0	1	1	0	1	1

2011-12: Exchangeable Ca — 1M NH₄OAc extract (15D3) cmol+/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	25	25	25	25	23	23	23	22	26	26	26	26
Minimum	2.54	3.75	3.91	4.22	6.14	6.48	6.69	0.84	0.614	2.69	4.79	0.567
Maximum	13.1	16.9	21.3	19.2	13	12.2	12.6	9.5	11	11	11.3	9.5
Median i	10.1	14.1	14.1	16.6	11.2	10.6	10.6	0.956	1.08	4.52	8.39	0.984
Mean i	10.1	13.6	14.2	16.2	11	10.4	10.5	1.39	1.5	4.75	8.51	1.38
MAD i	0.38	0.74	0.9	0.62	0.37	0.7	0.6	0.05	0.102	0.165	0.495	0.1
IQR i	0.619	1.3	1.33	1	0.623	1.33	0.979	0.148	0.187	0.306	0.804	0.24
Robust CV % i	6.1	9.2	9.5	6	5.6	13	9.2	16	17	6.8	9.6	24
Median f	10.1	14.1	13.6	16.6	11.2	11	10.7	0.952	1.03	4.51	8.31	0.95
Mean f	10.1	13.9	13.6	16.5	11.2	10.8	10.7	0.953	1.05	4.52	8.34	0.954
MAD f	0.3	0.66	0.62	0.35	0.265	0.5	0.63	0.02	0.067	0.103	0.25	0.059
IQR f	0.445	1.26	1.04	0.686	0.404	0.721	0.971	0.032	0.114	0.158	0.404	0.095
Robust CV % f	4.4	9	7.6	4.1	3.6	6.6	9.1	3.4	11	3.5	4.9	10
Outliers	6	2	5	5	7	2	1	5	5	4	3	6
Stragglers	0	0	1	2	0	1	0	3	1	2	2	2

2011-12: Exchangeable Mg — 1M NH₄OAc extract (15D3) cmol+/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	25	25	25	25	23	23	23	22	26	26	26	26
Minimum	0.197	2.29	0.267	1.24	0.206	0.359	0.174	0.189	0.091	2.57	0.494	0.059
Maximum	1.11	51.9	1.52	8.5	2.3	4.1	2.9	16.8	1.2	10.6	2.68	968
Median i	0.889	10.9	1.17	5.57	1.83	3.27	2.4	13.2	0.369	9.43	1.91	0.243
Mean i	0.864	12.1	1.14	5.56	1.77	3.15	2.32	12.1	0.397	8.96	1.88	37.5
MAD i	0.059	0.3	0.13	0.23	0.09	0.15	0.11	0.825	0.025	0.325	0.11	0.025
IQR i	0.086	0.801	0.196	0.33	0.133	0.267	0.148	1.41	0.039	0.634	0.159	0.04
Robust CV % i	9.7	7.3	17	5.9	7.3	8.2	6.2	11	11	6.7	8.3	17
Median f	0.889	10.9	1.19	5.56	1.83	3.32	2.41	13.2	0.367	9.47	1.91	0.243
Mean f	0.882	10.9	1.18	5.54	1.81	3.3	2.42	13.1	0.362	9.38	1.92	0.247
MAD f	0.058	0.24	0.11	0.14	0.08	0.15	0.09	0.35	0.02	0.21	0.1	0.021
IQR f	0.074	0.385	0.185	0.271	0.115	0.23	0.141	0.593	0.028	0.478	0.156	0.032
Robust CV % f	8.3	3.5	16	4.9	6.3	6.9	5.8	4.5	7.6	5	8.2	13
Outliers	2	7	1	3	2	4	3	5	3	4	3	3
Stragglers	0	1	0	1	0	0	0	3	1	1	1	1

2011-12: Exchangeable Na — 1M NH₄OAc extract (15D3) cmol+/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	25	25	25	25	23	22	23	22	25	25	25	25
Minimum	0.03	0.431	0.05	0.07	0.1	0.027	0.201	1.33	0.01	3.74	0.128	0.028
Maximum	0.62	1.4	0.774	0.6	0.278	0.282	0.556	31.9	3.17	68	3.86	0.73
Median i	0.054	1.08	0.083	0.1	0.189	0.065	0.4	21.8	0.09	6.6	0.253	0.071
Mean i	0.094	1.04	0.125	0.14	0.19	0.08	0.409	21.7	0.217	8.81	0.425	0.102
MAD i	0.014	0.07	0.015	0.024	0.031	0.025	0.015	1.08	0.026	0.57	0.033	0.021
IQR i	0.023	0.103	0.024	0.033	0.052	0.044	0.043	1.92	0.041	0.867	0.1	0.034
Robust CV % i	43	9.5	28	33	27	67	11	8.8	45	13	40	48
Median f	0.046	1.08	0.076	0.096	0.189	0.057	0.396	21.7	0.089	6.65	0.239	0.057
Mean f	0.049	1.07	0.078	0.098	0.19	0.063	0.398	21.7	0.09	6.8	0.239	0.064
MAD f	0.009	0.055	0.013	0.017	0.031	0.021	0.006	0.645	0.024	0.282	0.016	0.01
IQR f	0.016	0.083	0.019	0.028	0.052	0.037	0.009	0.982	0.036	0.578	0.026	0.025
Robust CV % f	34	7.7	24	29	27	65	2.2	4.5	41	8.7	11	43
Outliers	4	3	4	4	0	1	5	6	2	4	7	2
Stragglers	1	0	0	0	0	2	5	2	0	2	2	3

2011-12: Exchangeable K — 1M NH₄OAc extract (15D3) cmol+/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	26	26	26	26	23	23	23	22	26	26	26	26
Minimum	0.018	0.42	0.012	0.255	0.007	0.016	0.035	0.16	0.179	0.778	1.54	0.13
Maximum	0.67	0.894	1.07	0.52	0.647	0.424	0.294	1.97	0.409	1.9	2.29	0.395
Median i	0.588	0.486	0.785	0.434	0.5	0.28	0.24	0.219	0.248	1.19	1.9	0.224
Mean i	0.564	0.504	0.763	0.423	0.491	0.283	0.231	0.344	0.25	1.2	1.92	0.229
MAD i	0.041	0.022	0.05	0.023	0.021	0.01	0.015	0.034	0.021	0.075	0.105	0.024
IQR i	0.064	0.035	0.08	0.04	0.029	0.022	0.023	0.055	0.035	0.104	0.156	0.036
Robust CV % i	11	7.3	10	9.4	5.8	7.9	9.6	25	14	8.7	8.2	16
Median f	0.59	0.475	0.785	0.434	0.5	0.271	0.24	0.201	0.244	1.18	1.88	0.222
Mean f	0.586	0.478	0.781	0.429	0.5	0.274	0.237	0.207	0.239	1.16	1.89	0.216
MAD f	0.038	0.018	0.038	0.021	0.018	0.003	0.014	0.025	0.02	0.05	0.09	0.02
IQR f	0.064	0.03	0.061	0.033	0.028	0.007	0.023	0.038	0.037	0.085	0.14	0.025
Robust CV % f	11	6.4	7.7	7.7	5.7	2.7	9.4	19	15	7.2	7.5	11
Outliers	1	3	3	3	3	6	2	3	2	4	4	4
Stragglers	0	1	1	0	0	3	0	1	0	2	0	0

2011-12: Extractable K — Bicarbonate (18A1) mg K/kg air dry

Statistical parameters	NOT ASSESSABLE Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	2	2	2	2	3	3	3	3	2	2	2	2
Minimum	247	164	445	184	188	109	100	87	120	370	438	105
Maximum	377	235	513	249	458	154	146	139	143	374	790	172
Median i	312	200	479	217	394	129	119	109	132	372	614	139
Mean i	312	200	479	217	347	131	122	112	132	372	614	139
MAD i	65	36	34	33	64	20	19	22	12	1.8	176	34
IQR i					200	33	34	38				
Robust CV % i					51	26	29	35				
Median f	312	200	479	217	394	129	119	109	132	372	614	139
Mean f	312	200	479	217	347	131	122	112	132	372	614	139
MAD f	65	36	34	33	64	20	19	22	12	1.8	176	34
IQR f					200	33	34	38				
Robust CV % f					51	26	29	35				
Outliers	0	0	0	0	0	0	0	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2011-12: Exchangeable Al — 1M KCl (15G1) cmol+/kg oven dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	17	17	17	17	15	15	16	15	18	18	18	18
Minimum	0.003	0.001	0.002	0.002	0.0003	0.00001	0.03	0.0004	0.178	0.004	0.0001	0.008
Maximum	0.052	0.084	0.034	0.031	0.049	0.02	0.327	0.01	2.12	0.475	0.026	1.75
Median i	0.014	0.007	0.008	0.007	0.01	0.006	0.268	0.006	1.64	0.01	0.009	1.33
Mean i	0.017	0.012	0.01	0.009	0.014	0.007	0.241	0.005	1.34	0.051	0.01	1.09
MAD i	0.008	0.004	0.003	0.002	0.001	0.002	0.024	0.001	0.26	0.005	0.005	0.322
IQR i	0.013	0.007	0.006	0.003	0.002	0.003	0.03	0.002	0.829	0.018	0.008	0.9
Robust CV % i	86	98	73	46	24	48	11	41	50	170	93	67
Median f	0.014	0.007	0.006	0.007	0.01	0.006	0.274	0.006	1.74	0.008	0.009	1.56
Mean f	0.015	0.007	0.006	0.006	0.009	0.005	0.269	0.005	1.76	0.008	0.01	1.43
MAD f	0.007	0.003	0.002	0.0003	0.001	0.002	0.025	0.001	0.144	0.003	0.005	0.16
IQR f	0.011	0.005	0.003	0.001	0.001	0.004	0.031	0.002	0.208	0.004	0.008	0.297
Robust CV % f	79	77	57	11	11	66	11	41	12	52	93	19
Outliers	1	1	3	3	5	2	2	0	4	4	0	2
Stragglers	0	1	1	5	0	0	0	0	2	1	0	3

2011-12: Extractable Al — Mehlich 3 (18F1) mg Al/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	15	15	15	15	14	14	14	14	13	13	13	13
Minimum	36	70	56	31	816	378	641	296	436	577	562	242
Maximum	592	1422	1036	701	1259	897	1046	597	861	1215	1438	813
Median i	428	793	640	351	999	567	744	407	748	1117	1318	657
Mean i	414	802	626	375	1000	611	783	421	724	1060	1240	594
MAD i	43	57	53	16	78	27	52	28	32	70	40	65
IQR i	56	105	93	25	137	85	109	54	43	122	69	135
Robust CV % i	13	13	15	7	14	15	15	13	5.7	11	5.2	20
Median f	422	790	640	347	999	560	741	402	748	1130	1330	667
Mean f	416	781	636	342	1000	566	741	400	738	1150	1320	650
MAD f	36	31	39	11	78	13	44	17	20	31	10	53
IQR f	51	58	63	17	137	24	66	26	41	60	35	74
Robust CV % f	12	7.4	9.8	4.9	14	4.2	8.9	6.4	5.5	5.3	2.6	11
Outliers	2	4	6	4	0	4	2	3	1	2	2	2
Stragglers	1	1	0	0	0	2	0	2	1	1	2	0

2011-12: Extractable B — Mehlich 3 (18F1) mg B/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	13	13	13	13	12	12	12	12	12	12	12	12
Minimum	0.05	0.07	0.54	0.05	0.89	0.416	0.37	0.139	0.033	2.6	0.8	0.016
Maximum	1.4	0.92	1.6	0.78	2	1.1	1	0.708	0.729	7.3	1.5	0.71
Median i	0.797	0.451	1.0	0.352	1.3	0.545	0.682	0.225	0.179	5.5	1.1	0.133
Mean i	0.79	0.446	1.1	0.354	1.3	0.597	0.692	0.258	0.277	5.4	1.1	0.265
MAD i	0.097	0.125	0.12	0.102	0.1	0.091	0.169	0.031	0.089	1.3	0.186	0.081
IQR i	0.163	0.244	0.254	0.152	0.143	0.148	0.251	0.045	0.313	1.9	0.301	0.368
Robust CV % i	20	54	25	43	11	27	37	20	170	34	26	280
Median f	0.797	0.451	1.0	0.349	1.3	0.53	0.682	0.22	0.165	5.5	1.2	0.12
Mean f	0.803	0.446	1.1	0.319	1.3	0.551	0.692	0.217	0.155	5.4	1.1	0.129
MAD f	0.093	0.125	0.11	0.09	0.085	0.082	0.169	0.024	0.045	1.3	0.186	0.06
IQR f	0.141	0.244	0.211	0.128	0.132	0.135	0.251	0.031	0.079	1.9	0.301	0.088
Robust CV % f	18	54	21	37	10	25	37	14	48	34	26	74
Outliers	2	0	2	1	2	1	0	1	3	0	0	3
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2011-12: Extractable Ca — Mehlich 3 (18F1) mg Ca/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	15	15	15	15	14	14	14	14	13	13	13	13
Minimum	227	248	277	299	1933	1857	1990	174	127	402	1261	92
Maximum	2520	3354	3650	3661	2659	2460	2409	262	242	1070	2110	244
Median i	2260	2645	2902	3116	2165	2217	2219	220	222	871	1862	215
Mean i	2090	2500	2830	2990	2240	2210	2200	220	212	856	1850	194
MAD i	135	134	69	186	69	99	72	8	15	75	105	16
IQR i	123	251	168	278	194	167	134	15	24	113	176	41
Robust CV % i	5.4	9.5	5.8	8.9	8.9	7.5	6	6.6	11	13	9.5	19
Median f	2270	2660	2890	3130	2130	2220	2220	220	224	873	1880	222
Mean f	2260	2670	2890	3180	2140	2210	2200	220	219	894	1900	221
MAD f	90	46	12	161	17	99	72	5	13	57	66	7
IQR f	145	112	24	260	41	167	134	12	23	100	128	11
Robust CV % f	6.4	4.2	0.82	8.3	1.9	7.5	6	5.3	10	11	6.8	5
Outliers	1	3	5	1	3	0	0	2	1	1	1	2
Stragglers	1	2	3	0	3	0	0	0	0	0	0	2

2011-12: Extractable Cu — Mehlich 3 (18F1) mg Cu/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	15	15	15	15	14	14	14	14	13	14	14	13
Minimum	0.05	0.313	8.2	0.44	3.2	0.886	0.211	0.898	0.101	0.4	1.1	0.061
Maximum	0.93	4.7	103	6.7	4.8	1.8	1.4	1.9	0.67	12	9.8	0.51
Median i	0.38	3	84	4.3	4.1	1.5	0.86	1.3	0.233	0.78	2.005	0.196
Mean i	0.342	2.92	79	4.2	4.2	1.4	0.81	1.4	0.284	1.6	2.5	0.223
MAD i	0.113	0.39	3.1	0.4	0.25	0.13	0.295	0.135	0.047	0.088	0.145	0.032
IQR i	0.234	0.682	7.9	0.756	0.402	0.182	0.468	0.193	0.138	0.175	0.271	0.08
Robust CV % i	61	23	9.3	18	9.7	12	54	14	59	22	13	41
Median f	0.37	3	84	4.2	4.1	1.5	0.86	1.3	0.232	0.78	2.0	0.188
Mean f	0.3	2.99	83	4.2	4.2	1.5	0.81	1.3	0.231	0.808	2.0	0.197
MAD f	0.112	0.38	1.9	0.385	0.25	0.15	0.295	0.12	0.01	0.078	0.09	0.01
IQR f	0.244	0.597	3.0	0.65	0.402	0.163	0.468	0.152	0.026	0.156	0.104	0.03
Robust CV % f	66	20	3.6	15	9.7	11	54	12	11	20	5.2	16
Outliers	1	2	3	3	0	1	0	1	3	2	3	3
Stragglers	0	0	3	0	0	0	0	0	2	0	0	2

2011-12: Extractable Fe — Mehlich 3 (18F1) mg Fe/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	15	15	15	15	14	14	14	14	14	14	14	14
Minimum	55	16	23	18	73	48	408	95	49	34	152	182
Maximum	591	337	385	391	176	173	595	247	12389	68374	17213	6809
Median i	526	167	220	180	113	95	503	150	472	45	194	511
Mean i	490	171	228	199	117	100	505	157	1270	4930	1410	926
MAD i	54	25	9.2	11	8	10	51	16	47	5.5	19	65
IQR i	84	39	22	28	17	20	80	32	73	8.7	35	104
Robust CV % i	16	23	9.8	16	15	22	16	21	15	19	18	20
Median f	531	157	218	179	113	94	503	144	479	45	192	530
Mean f	521	156	220	178	115	96	505	150	474	46	193	519
MAD f	41	17	6.2	9.1	7.5	6.6	51	15	19	4.6	17	55
IQR f	80	27	12	14	15	12	80	26	38	8.2	31	81
Robust CV % f	15	17	5.5	8	13	13	16	18	7.9	18	16	15
Outliers	1	3	5	4	2	2	0	1	3	1	1	2
Stragglers	0	1	0	0	0	1	0	0	1	0	0	1

2011-12: Extractable Mg — Mehlich 3 (18F1) mg Mg/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	15	15	15	15	14	14	14	14	13	13	13	13
Minimum	11	54	14	41	182	380	247	1871	27	528	172	12
Maximum	131	1581	179	786	262	469	320	2522	70	1318	284	35
Median i	110	1266	149	656	230	421	305	2195	49	1190	249	31
Mean i	105	1190	140	619	228	420	298	2160	48	1150	251	27
MAD i	5	47	10	49	11	11	12	99	2.7	67	17	4.1
IQR i	8.9	97	20	69	17	15	22	150	4.5	110	30	10
Robust CV % i	8.1	7.7	13	10	7.3	3.7	7.4	6.8	9.1	9.2	12	33
Median f	110	1270	150	658	231	421	308	2200	49	1200	254	32
Mean f	110	1260	149	660	231	419	302	2160	48	1200	257	32
MAD f	3	26	10	42	10	5.5	12	99	1	63	17	2.3
IQR f	5.2	26	17	71	17	12	19	150	3.1	114	29	3.9
Robust CV % f	4.7	2	11	11	7.2	2.7	6.1	6.8	6.3	9.5	11	12
Outliers	3	4	1	1	1	2	1	0	2	1	1	2
Stragglers	1	2	0	0	0	2	0	0	1	0	0	1

2011-12: Extractable Mn — Mehlich3 (18F1) mg Mn/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	15	15	15	15	14	14	14	14	14	14	14	14
Minimum	2.1	19	1.2	16	292	139	1.6	9.1	5.2	28	49	2.5
Maximum	45	377	31	276	607	210	3.8	16	28	289	569	154
Median i	22	193	13	149	396	166	2.7	12	8	64	66	6
Mean i	24	198	14	154	413	170	2.7	12	9.2	77	101	17
MAD i	2	18	1.1	16	25	12	0.245	1	0.39	4.4	5	0.95
IQR i	3.6	31	1.7	30	56	28	0.402	1.6	0.897	7.5	7.9	1.4
Robust CV % i	17	16	13	20	14	17	15	13	11	12	12	23
Median f	22	192	13	147	384	166	2.7	12	8	64	64	5.9
Mean f	21	193	13	150	383	170	2.7	12	8	63	65	5.6
MAD f	1.7	8.8	0.495	11	20	12	0.2	0.7	0.345	2.9	3.9	0.51
IQR f	2.6	16	0.884	18	30	28	0.328	1.3	0.445	5	7.5	1.2
Robust CV % f	12	8.1	6.8	12	7.8	17	12	12	5.6	7.8	12	20
Outliers	4	3	4	3	4	0	2	1	4	2	1	2
Stragglers	0	2	1	0	0	0	0	1	0	2	0	1

2011-12: Extractable P - Col — Mehlich 3 (18F2) mg P/kg air dry

Statistical parameters	NOT ASSESSABLE Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	3	3	3	3	2	2	2	2	1	1	1	1
Minimum	15	1.3	16	1.4	15	36	76	32	23	1.7	166	39
Maximum	161	14	195	15	34	63	82	45	23	1.7	166	39
Median i	155	11	164	15	25	50	79	39	23	1.7	166	39
Mean i	110	8.5	125	10	25	50	79	39	23	1.7	166	39
MAD i	6	3.2	31	0.2	9.5	14	3	6.5				
IQR i	109	9.2	133	10								
Robust CV % i	70	87	81	68								
Median f	158	11	164	15	25	50	79	39	23	1.7	166	39
Mean f	158	8.5	125	15	25	50	79	39	23	1.7	166	39
MAD f	3	3.2	31	0.1	9.5	14	3	6.5				
IQR f		9.2	133									
Robust CV % f		87	81									
Outliers	1	0	0	1	0	0	0	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2011-12: Extractable P - ICPAES — Mehlich 3 (18F1) mg P/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	14	14	14	14	12	12	12	12	13	13	13	13
Minimum	14	1.3	15	1.4	12	28	61	3.2	10	0.88	101	10
Maximum	164	23	195	22	18	53	96	43	24	6.5	167	39
Median i	145	11	150	13	16	40	77	30	17	1.5	126	30
Mean i	137	11	142	13	16	40	78	29	18	2.0	132	29
MAD i	6.7	2.8	6.5	0.95	1.1	1.6	4.6	2.9	1.7	0.32	13	3.9
IQR i	12	4.1	12	2.3	1.5	2.3	7.4	4.2	3.4	0.609	26	5.6
Robust CV % i	8	38	8	18	9.4	5.8	9.6	14	20	41	21	19
Median f	149	11	150	13	16	40	76	30	17	1.5	126	31
Mean f	149	9.6	148	12	16	40	76	31	17	1.4	132	32
MAD f	8	2.5	6.1	0.54	1.1	1.6	4	1.8	0.82	0.22	13	3.7
IQR f	12	3.9	10	0.856	1.5	2.2	7.4	3.8	1.6	0.462	26	5.7
Robust CV % f	7.7	37	6.7	6.9	9.4	5.7	9.8	12	9.3	31	21	18
Outliers	2	1	2	4	0	2	1	2	2	2	0	2
Stragglers	0	0	0	1	0	0	0	0	2	0	0	0

2011-12: Extractable K — Mehlich 3 (18F1) mg K/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	15	15	15	15	14	14	14	14	13	13	13	13
Minimum	32	27	42	24	171	98	66	59	59	190	547	26
Maximum	276	200	347	177	210	144	96	103	107	480	872	95
Median i	238	178	316	160	192	110	91	83	91	435	720	78
Mean i	227	165	291	147	192	112	88	81	90	417	710	74
MAD i	7	9	20	9.5	5	5	3.1	5.5	4	21	73	10
IQR i	17	20	25	16	8.5	9.5	6.8	9.3	7.7	46	133	16
Robust CV % i	7.2	11	8	9.8	4.4	8.6	7.5	11	8.5	10	18	21
Median f	240	179	318	160	192	109	91	83	91	438	720	80
Mean f	240	179	314	158	194	108	90	81	92	436	710	82
MAD f	5.5	7.5	14	6	5	4	3	3.5	3.8	18	73	7
IQR f	10	14	25	13	8.2	6.3	6.3	6.9	7.3	38	133	11
Robust CV % f	4.3	7.8	7.7	8.1	4.2	5.8	7	8.3	8	8.6	18	14
Outliers	5	2	1	1	1	1	1	1	2	1	0	1
Stragglers	0	0	1	1	0	1	0	1	0	0	0	1

2011-12: Extractable Na — Mehlich 3 (18F1) mg Na/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	14	14	14	14	14	14	14	14	13	13	13	13
Minimum	1	33	3.1	5.3	26	4.3	74	4074	9.8	649	41	5
Maximum	60	282	76	72	48	22	104	5820	80	1770	79	26
Median i	10	259	16	18	39	10	94	5260	19	1638	57	12
Mean i	14	235	19	21	39	11	92	5150	24	1490	56	13
MAD i	4.5	16	2.8	4	1.7	2.9	5	219	6	66	6	3.4
IQR i	6.9	36	4.7	6.9	2.7	4.5	8.5	403	11	248	13	5.7
Robust CV % i	66	14	31	38	6.9	44	9.1	7.7	55	15	23	47
Median f	9	262	16	18	39	9.4	95	5310	19	1670	57	12
Mean f	8.7	262	15	18	39	9.6	93	5330	19	1670	56	12
MAD f	3.4	3.5	2.6	2.9	1.4	2.2	4.7	96	4.5	26	6	3.1
IQR f	5.3	9.6	4.1	5.3	2.1	3.7	7.4	190	8.9	43	13	5.1
Robust CV % f	60	3.7	26	29	5.3	39	7.8	3.6	48	2.6	23	42
Outliers	2	1	2	1	2	1	1	2	1	4	0	1
Stragglers	0	3	0	1	0	1	0	2	0	1	0	0

2011-12: Extractable S — Mehlich 3 (18F1) mg S/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	13	13	13	13	12	12	12	12	11	11	11	11
Minimum	3.6	1.2	3.1	1.7	32	13	28	444	12	67	41	8.1
Maximum	47	22	45	29	101	43	92	646	106	131	92	57
Median i	34	11	31	17	39	18	39	492	20	81	45	22
Mean i	33	12	30	17	45	20	44	498	27	88	51	25
MAD i	1.5	1.7	2.6	2.8	3.3	1.5	3.3	15	1.6	7.5	2.7	5.8
IQR i	4.2	5.5	4.5	5.5	4.7	3	4.9	26	3.7	17	6.7	8.8
Robust CV % i	12	50	15	32	12	17	13	5.3	19	21	15	40
Median f	34	11	31	17	39	17	38	492	20	79	44	22
Mean f	34	11	31	17	38	17	37	485	20	83	45	21
MAD f	1.3	0.7	1.9	0.95	2.2	2.1	2.5	14	1.4	6	2.2	5.4
IQR f	2.3	1.3	3.8	2.1	3.6	3.1	4.1	26	2.2	11	3.9	8.3
Robust CV % f	6.6	12	12	13	9.2	19	11	5.3	11	14	9	39
Outliers	2	5	2	2	2	2	2	1	4	1	2	1
Stragglers	1	0	0	1	0	0	0	0	0	0	0	0

2011-12: Extractable Zn — Mehlich 3 (18F1) mg Zn/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	14	14	14	14	14	14	14	14	14	14	14	14
Minimum	0.591	0.07	2.8	0.12	2.5	4	0.32	0.361	0.635	0.07	8.3	0.504
Maximum	6.3	1.3	34	2.4	4.6	6.8	1.3	5.4	9	26	65	6.2
Median i	4.5	0.606	26	1	3.5	5.3	1	0.554	0.948	0.213	13	1.1
Mean i	4.4	0.62	26	1.1	3.5	5.3	0.964	0.911	1.5	2.1	17	1.4
MAD i	0.36	0.135	4.3	0.235	0.355	0.445	0.115	0.13	0.153	0.054	1.1	0.145
IQR i	0.751	0.257	6.4	0.376	0.537	0.669	0.202	0.191	0.273	0.11	1.9	0.234
Robust CV % i	17	42	24	38	15	13	20	34	29	52	14	22
Median f	4.4	0.606	27	1	3.5	5.3	1	0.537	0.91	0.201	14	0.958
Mean f	4.5	0.609	28	1.1	3.5	5.3	1	0.565	0.918	0.205	14	0.959
MAD f	0.345	0.117	3.9	0.2	0.355	0.445	0.1	0.097	0.167	0.029	0.6	0.192
IQR f	0.634	0.174	6.1	0.343	0.537	0.669	0.164	0.182	0.258	0.039	1.5	0.243
Robust CV % f	14	29	23	34	15	13	16	34	28	20	11	25
Outliers	2	2	1	1	0	0	1	1	1	2	2	2
Stragglers	0	0	0	1	0	0	0	0	0	3	1	0

4. Comments on Measurement Performance

This report contains 12,294 soil test results, a total that includes occasional dual counting. The dual counting was always associated with statistical assessments of specific methods also reassessed in a “pool” of like data, such as for water-soluble Cl and extractable B.

The section provides high-level information on the 12 test samples, derived from measurements conducted by up to 45 participating laboratories and on subsequent statistical assessments. Also documented are: (i) ranges of values from participating laboratories for 57 soil tests aggregated across the 12 test samples; (ii) details of associations between numbers of “outliers” and “stragglers” relative to robust % CV values; (iii) trends in robust % CVs by soil test, concentrations and time (2009-10, 2010-11, 2011-12), and (iv) within-test associations between amounts of K and S extracted by commonly-used empirical tests for these two elements (with implications).

Only one of the 12 test soils rated as mildly to moderately alkaline (sample ASS 34). Eight others, based on grand median soil/water pH values, were slightly acidic to neutral, while the remaining three test soils (ASS 33, 51 and 54) were very strongly acidic or extremely acidic. No soil was strongly alkaline. Collectively these test soils had a program median robust CV across all tests of 8.93%, with a range of 6.5% (test soil ASS 31) to 12.0% (ASS 54) and a central robust CV value of 8.9%. The test sample sequence for lowest (best) %CV to highest (worst) %CV for the remaining 10 test samples was 32, 114, 112, 113, 34, 111, 33, 52, 53, and 51, all with ASS prefixes.

Details for all test samples are summarized in Table 4.1, both unsorted and sorted by ascending robust %CV. That all test samples in Round 611 of May 2012 (particularly test sample ASS 54) returned higher robust %CVs than occurred in the two prior Rounds suggests these test soils were lacking in consistent homogeneity.

Table 4.1. Final grand median robust %CVs for the 12 test samples used in 2011-12, both unsorted and sorted for robust %CVs.

<i>Test</i>	<i>Unsorted</i>		<i>Sorted</i>	
	<i>Sample</i>	<i>%CV final</i>	<i>Sample</i>	<i>%CV final</i>
ASS	111	9.1	31	6.5
ASS	112	8.45	32	7.7
ASS	113	8.65	114	8.2
ASS	114	8.2	112	8.45
ASS	31	6.5	113	8.65
ASS	32	7.7	34	8.75
ASS	33	9.25	111	9.1
ASS	34	8.75	33	9.25
ASS	51	11	52	9.5
ASS	52	9.5	53	9.65
ASS	53	9.65	51	11
ASS	54	12	54	12

Equally important are the ranges of values reported by participating laboratories for all test methods across the 12 test samples. These, including ranges between maximum and minimum levels, are recorded in Table 4.2. Within reason, all ranges ought to be as wide as possible, while median values for each test should be close to the mid-point of the range for the same test. Moreover, both minimum and maximum values must be realistic. For the most part, values and ranges for the majority of tests performed in 2011-12 were reasonable. However, median values were often “skewed” to the disadvantage of many laboratories in Australia. For example, the range for water soluble Cl is good but the median is very low for many Australian landscapes of semi-arid and arid regions.

Table 4.2. Final soil test results (see Section 3 for units of reporting) aggregated across 12 test samples used in ASPAC’s Soil Proficiency Testing Program of 2011-12.

2011-12: Soil Test Methods	Min	Median	Max	Range
Air dry moisture	1.28	2.34	5.45	4.17
Electrical conductivity 1:5 soil-water	0.09	0.187	5.9	5.81
Soil pH, 1:5 soil-water	4.41	6.77	8.06	3.65
Soil pH, 1:5 0.01 M CaCl ₂ — direct	3.73	6.1	7.72	3.99
Soil pH, 1:5 0.01 M CaCl ₂ — indirect	3.78	6.1	7.88	4.1
Water soluble Cl — potentiometric	5.9	16.5	9010	9004
Water soluble Cl — autocolour	7.7	15.5	9050	9042
Organic C —W&B	0.54	2.10	8.14	7.597
Total Organic C — Heanes	0.65	2.41	9.25	8.60
Total Organic C — Dumas	0.57	2.44	9.21	8.64
Total Organic C — HF induction & IR	0.59	2.48	9.1	8.5
Total N — Kjeldahl, steam distillation	0.04	0.20	0.53	0.50
Total N — Kjeldahl, autocolour	0.04	0.20	0.53	0.49
Total N – Dumas	0.04	0.21	0.55	0.51
Water Soluble Nitrate N — autocolour	0.83	26.5	79.0	78.2
KCl Ext. Ammonium N — steam distillation	3.90	26.0	232.0	228.1
KCl Ext. Nitrate N — steam distillation	1.40	32.5	77.0	75.6
KCl Ext. Ammonium N — autocolour	4.40	26.0	153	149
KCl Ext. Nitrate N — autocolour	0.43	26.0	83.0	82.6
Total P – all methods	0.02	0.04	0.15	0.13
Colwell Extractable P — manual, autocolour	6.30	31.5	158	152
Olsen Extractable P — manual, autocolour	1.90	14.5	47.0	45.1
Bray-1 Extractable P — manual, autocolour	0.87	17.0	87.0	86.1
Acid Extractable P — manual, autocolour	7.0	51.5	423	416
Phosphorus buffer index (with Colwell P)	39.1	101.5	459	420
Phosphorus buffer index (with Olsen P)	43.7	91.1	532	488
Phosphorus buffer index (Unadj)	34.3	90.4	416	382
Phosphate Extractable S	12.0	23.5	472	460
KCl ₄₀ Extractable S	9.0	23.0	505	496
DTPA Extractable Cu	0.23	0.8	50.0	49.8

2011-12: Soil Test Methods	Min	Median	Max	Range
DTPA Extractable Fe	9.2	67.5	482	473
DTPA Extractable Mn	0.78	17.7	167	166
DTPA Extractable Zn	0.20	1.0	14.0	13.8
Hot CaCl ₂ Extractable B — ICPAES	0.20	0.7	6.1	5.9
Hot CaCl ₂ Extractable B — manual colour + ICPAES pool	0.20	0.7	5.9	5.7
Exchangeable Ca — 1M NH ₄ Cl extract	0.99	10.4	16.9	15.9
Exchangeable Mg — 1M NH ₄ Cl extract	0.26	2.4	13.2	12.9
Exchangeable Na — 1M NH ₄ Cl extract	0.05	0.1	23.5	23.5
Exchangeable K — 1M NH ₄ Cl extract	0.19	0.5	2.0	1.8
Exchangeable Ca — 1M NH ₄ OAc extract	0.95	10.4	16.6	15.7
Exchangeable Mg — 1M NH ₄ OAc extract	0.24	2.2	13.2	13.0
Exchangeable Na — 1M NH ₄ OAc extract	0.05	0.1	21.7	21.7
Exchangeable K — 1M NH ₄ OAc extract	0.20	0.5	1.9	1.7
Exchangeable Al — 1M KCl extract	0.01	0.01	1.7	1.7
Bicarbonate Extractable K	109	209	614	505
Mehlich 3 Extractable Al	347	704	1330	983
Mehlich 3 Extractable B	0.12	0.61	5.50	5.38
Mehlich 3 Extractable Ca	220	2175	3130	2910
Mehlich 3 Extractable Cu	0.19	1.40	84.0	83.8
Mehlich 3 Extractable Fe	45.0	186	531	486
Mehlich 3 Extractable Mg	32.0	281	2200	2168
Mehlich 3 Extractable Mn	2.70	43.0	384	381
Mehlich 3 Extractable P – ICP finish	1.50	30.5	150	149
Mehlich 3 Extractable K	80.0	170	720	640
Mehlich 3 Extractable Na	9.0	29.0	5310	5301
Mehlich 3 Extractable S	11.0	32.5	492	481
Mehlich 3 Extractable Zn	0.20	1.0	27.0	26.8

Specifically, 13.3% and 4.1% of all data assessments were statistically assessed to be “outliers” and “stragglers”, respectively. For individual tests submitted by at least six (6) participating laboratories, the range of “outliers”, expressed as percentages of the number of reported results for the particular test, ranged from 3.6 for Dumas Organic C (6B2) up to 20.5 for C by high-frequency induction (6B3). Corresponding percentages and methods for “stragglers” were zero (0) for tests such as Dumas Organic C (6B2) and Mehlich 3 ext B (18F1), up to 6.8 for DTPA ext Fe (12A1).

There was no significant, continuous trend for the association between percent “outliers” by method and the number of results for that same method. There was, however, a weak linear relationship for “stragglers” ($y = 0.01x + 1.3498$), where “y” represents the percentages of “stragglers” (final populations) and “x” the numbers for each method. On this occasion, there were weak, non-significant, linear trends between robust % CVs and both percent

“outliers” and percent “stragglers”. The negative-slope of both trend lines support earlier observations that high robust %CVs tend to associate with low percentages of “outliers” and “stragglers”.

Grand median robust % CVs across the 12 samples by test in 2011-12, after the deletion of “outliers” and “stragglers” and following removal of very-small data sets that were not-assessed, ranged from 1.2% [pH (4B2 + 4B4)] to 46.5% [KCl ext Al (15G1)]. Figure 4.1 presents all qualifying %CV data in ascending order, acknowledging this data-set ignores the likelihood that robust %CV are often influenced by analyte concentrations.

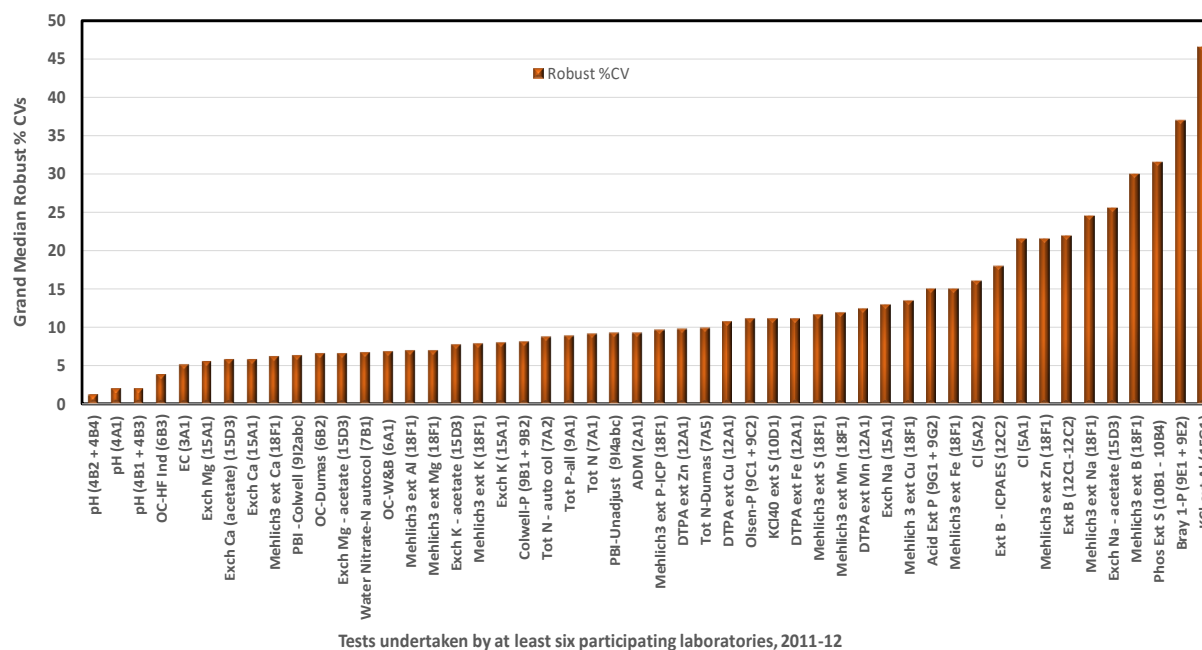


Figure 4.1. Grand median robust %CVs (final) for soil-program year 2011-12.

As an example of a concentration effect, Figure 4.2 reveals that for Mehlich 3 P, there was upwards curvature in the power-function trend line at test values below 10-15 mg P/kg.

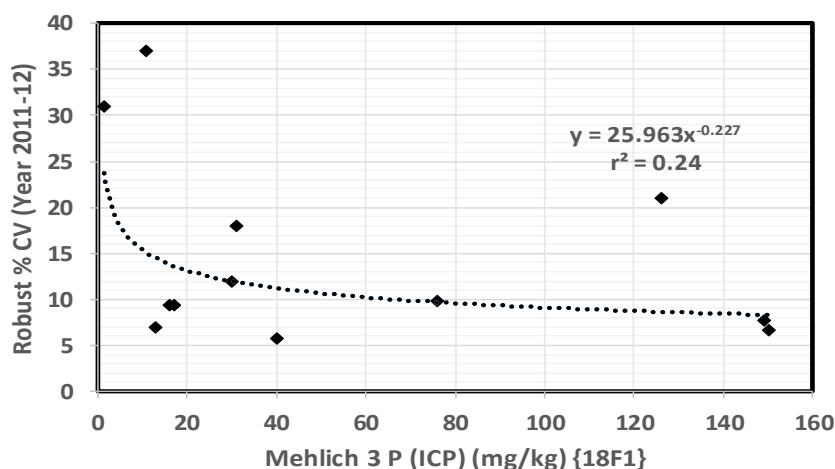


Figure 4.2. Power-function trend line and coefficient of variation for grand median Mehlich 3 P concentrations and corresponding robust %CVs (final) for 2011-12.

The hope (and expectation) was that method-measurement performance should be at least as good (based on robust %CV values) in 2011-12 as it was in prior years, certainly when considered on a method-by-method basis. This was clearly confirmed for two of the four empirical soil P tests shown in Figure 4.3 (Mehlich 3 and Olsen), while for Colwell P there was a small improvement (slightly lower robust %CV trend line) at a lower grand median analyte concentration. In contrast, there was disappointing deterioration in the measurement performance across laboratories in 2011-12 of Bray-1 P.

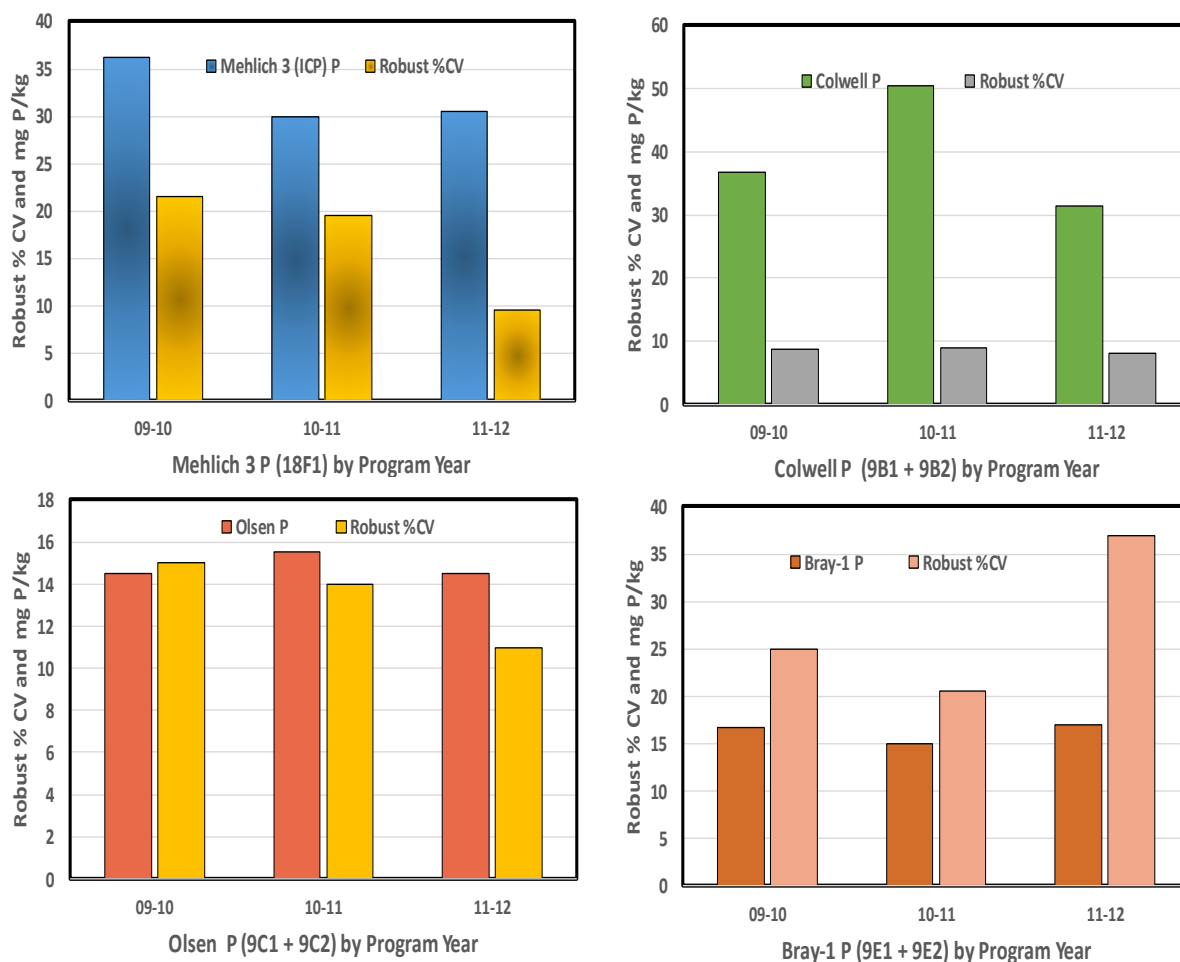


Figure 4.3. Histograms depicting concentrations vs robust %CV comparisons from the 2011-12 ASPAC soil program plus corresponding data for two preceding soil-program years for four important empirical soil P tests.

Participating laboratories submitted results for four soil extractable / exchangeable K tests, specifically methods 15A1, 15D3, 18A1 and 18F1. Median numbers of laboratories for each of the soil K methods were 18, 26, 2 and 14, the most popular utilizing ammonium acetate @ pH 7 as the extractant. The test with fewest submissions was bicarbonate extractable K, a test obtained from the Colwell P extract. Table 4.3 summarizes grand median extractable K values (incorporates test results for all methods) and corresponding % robust CVs for the 12 soils.

Table 4.3. Grand median extractable K values (cmol K⁺/kg) and corresponding % robust CVs for 2011-2012.

<i>Attribute</i>	<i>Exch K (amm chloride @ pH 7) (15A1)</i>	<i>Exch K (amm acetate @ pH 7) (15D3)</i>	<i>Ext K — Bicarbonate (18A1)</i>	<i>Mehlich 3 ext K (18F1)</i>
Grand median extractable K values	0.48	0.45	0.53	0.43
Grand median % robust CVs	7.95	7.7	†	7.9

† Insufficient laboratory numbers to calculate CVs

Apart from bicarbonate extractable K (18A1), the remaining grand median soil K test results were of similar magnitude. There were, however, soil-to-soil differences. These are illustrated in percentage terms in Figure 4.4 for each soil and for all soil K methods. The percentages were calculated separately for each method and soil, using grand medians for each test soil as the numerator relative to the grand median extractable K values (all test methods included) for the same soil as denominator. For all but two soils (ASS 52 and ASS 53), bicarbonate extractable K results were much elevated relative to the other three soil K tests. On this limited comparison, it would be unwise to apply the same interpretative criteria equally across all four K tests. Denominator soil K values were 0.62, 0.49, 0.82, 0.44, 0.52, 0.29, 0.25, 0.21, 0.25, 1.15, 1.86 and 0.23 cmol K⁺/kg for test soils ASS 111, 112, 113, 114, 31, 32, 33, 34, 51, 52, 53 and 54, respectively.

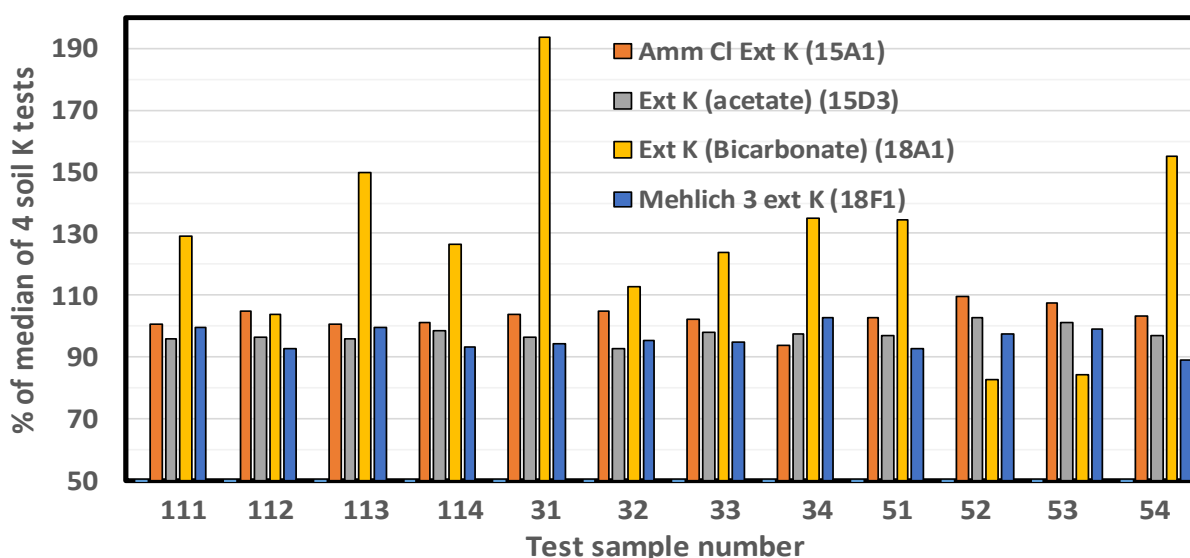


Figure 4.4. Soil-to-soil differences in the magnitude of grand median soil K test results illustrated in percentage terms relative to median levels of the four soil K tests combined.

Results and measurement performance for three extractable soil S tests, specifically Phosphate extractable S – Pool (10B), KCl₄₀ extractable S (10D1) and Mehlich 3 extractable S (18F1), were examined in a similar manner to that described for soil extractable K tests. Table 4.4 summarizes grand median extractable S values (incorporates

test results for all three methods) and corresponding % robust CVs for the 12 test soils. Overall, test 10B-pool was least consistently performed by participating laboratories, while the remaining two soil S tests exhibited similar overall measurement quality. The least-well measured soil across all three methods was ASS 54.

The lesser measurement quality of 10B tests relative to method 10D1 across a decade was earlier reported by Rayment and Lyons (2011; p. 224) and may be a reason why test 10D1 has gained in popularity across participating laboratories. Indeed, median numbers of laboratories for each of the soil S methods were 6, 16 and 12 for 10B, 10D1 and 18F1, respectively.

Table 4.4. Grand median extractable S values (mg S/kg) and corresponding % robust CVs for 2011-2012

<i>Attribute</i>	<i>Phosphate ext S (10B-pool)</i>	<i>KCl₄₀ ext S (10D1)</i>	<i>Mehlich 3 ext S (18F1)</i>
Grand median extractable S values	23.5	23.0	32.5
Grand median % robust CVs	31.5	11	11.5

With minimum reported levels of 12, 9 and 11 mg S/kg for methods 10B, 10D1 and 18F1, respectively, no test soil would rate as S deficient for typical crops and pastures. Using grand median results by method for each soil, the ratio of the 12 comparisons for 10B relative to 10D1 was 1.29:1, which is similar to an earlier ratio of 1.28:1 reported by Rayment and Lyons (2011). The corresponding ratio for method 18F1 relative to 10D1 was 1.37:1, indicating that on average, Mehlich 3 extracts more S than either of the other soil S methods. Figure 4.5 shows relative differences in percentage terms, calculated as described earlier for Figure 4.4. Denominator values were 27, 11, 20, 17, 39, 12, 38, 492, 13, 79, 42 and 14 mg S/kg for test soils ASS 111, 112, 113, 114, 31, 32, 33, 34, 51, 52, 53 and 54, respectively.

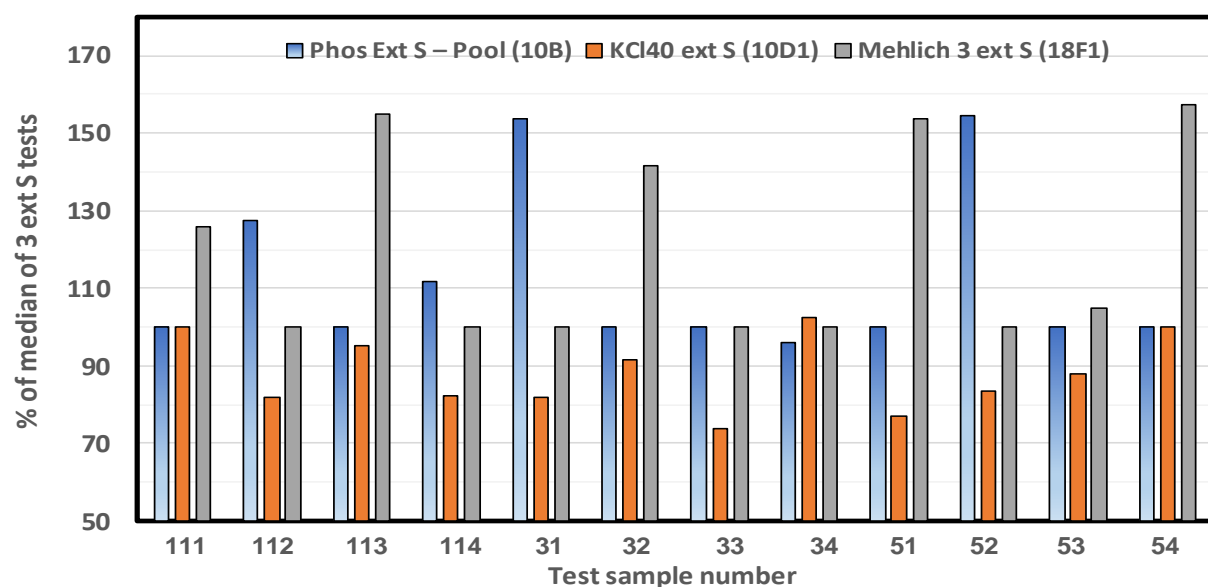


Figure 4.5. Soil-to-soil differences in the magnitude of grand median soil S test results illustrated in percentage terms relative to median levels of the three soil S tests combined.

Appendix 1: List of laboratories (including contact details) who participated in ASPAC's Soil ILPP in 2011-12, arranged by country

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Appendix 2: Summary homogeneity data and statistical assessments* for Total Soil N% (Dumas N) on the 12 soils in ASPAC's 2011-12 ILPP

Sample name		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
Sub-sample													
1	Rep 1	0.228	0.078	0.192	0.203	0.357	0.121	0.556	0.041	0.19	0.111	0.27	0.27
	Rep 2	0.244	0.075	0.188	0.194	0.341	0.126	0.550	0.035	0.18	0.113	0.271	0.28
2	Rep 1	0.235	0.080	0.192	0.205	0.378	0.13	0.515	0.036	0.19	0.106	0.263	0.25
	Rep 2	0.241	0.074	0.189	0.193	0.377	0.133	0.567	0.035	0.18	0.114	0.252	0.25
3	Rep 1	0.233	0.078	0.192	0.201	0.369	0.139	0.520	0.039	0.18	0.107	0.247	0.26
	Rep 2	0.219	0.076	0.190	0.195	0.364	0.134	0.526	0.035	0.17	0.104	0.254	0.26
4	Rep 1	0.228	0.074	0.193	0.200	0.355	0.124	0.557	0.035	0.18	0.11	0.245	0.25
	Rep 2	0.223	0.073	0.195	0.195	0.357	0.128	0.574	0.036	0.18	0.098	0.249	0.25
5	Rep 1	0.235	0.077	0.188	0.202	0.367	0.135	0.554	0.037	0.19	0.113	0.267	0.26
	Rep 2	0.246	0.074	0.192	0.194	0.361	0.129	0.549	0.036	0.18	0.115	0.255	0.25
6	Rep 1	0.223	0.078	0.194	0.197	0.368	0.132	0.539	0.035	0.18	0.106	0.261	0.26
	Rep 2	0.211	0.076	0.191	0.194	0.357	0.136	0.532	0.038	0.17	0.11	0.249	0.25
7	Rep 1	0.230	0.080	0.188	0.200	0.355	0.129	0.545	0.040	0.18	0.114	0.272	0.25
	Rep 2	0.227	0.078	0.193	0.200	0.35	0.126	0.532	0.038	0.17	0.111	0.265	0.26
8	Rep 1	0.229	0.077	0.190	0.196	0.356	0.131	0.575	0.035	0.18	0.108	0.252	0.26
	Rep 2	0.220	0.078	0.193	0.194	0.355	0.129	0.561	0.038	0.18	0.104	0.259	0.26
9	Rep 1	0.232	0.073	0.188	0.202	0.364	0.13	0.533	0.036	0.18	0.109	0.262	***
	Rep 2	0.229	0.071	0.192	0.199	0.364	0.136	0.538	0.035	0.18	0.109	0.269	***
10	Rep 1	0.233	0.073	0.197	0.199	0.351	0.134	0.543	0.039	0.2	0.114	0.234	0.27
	Rep 2	0.215	0.074	0.189	0.195	0.348	0.127	0.526	0.036	0.19	0.113	0.265	0.26

Mean	0.229	0.076	0.191	0.198	0.360	0.130	0.545	0.037	0.1815	0.109	0.258	0.258
Analytical SD	0.0001	0.000003	0.00001	0.00002	0.00002	0.00001	0.0002	0.000003	0.00004	0.00001	0.0001	0.00003
Sampling SD	0.00002	0.000003	0	0	0.0001	0.00001	0.0001	0	0.00002	0.00001	0.00003	0.00005
SD proficiency data	0.024	0.014	0.027	0.016	0.009	0.016	0.017	0.002	0.018	0.009	0.025	0.022
Homogeneity index	0.213	0.120	0	0	0.918978	0.189	0.633	0	0.262	0.270	0.205	0.313
Status	H	H	H	H	Not 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 Harmonized Protocol For the Proficiency Testing of Analytical Chemistry Laboratories." Pure Appl. Chem. Vol. 78, No. 1, pp. 145-196. IUPAC Technical Report.*

** Although the homogeneity Index was >0.3, the critical values for test (c) were less than the sampling variance.

*** Sample 9 values for ASS 54 were removed.

† Despite a statistical rating of non-homogenous, sample ASS 31 was included as an acceptable test sample, a decision supported by total N results submitted by participating laboratories [range 0.364 – 0.39 % N, with a CV of 2%]. What is more, this sample had the lowest final grand median % CV for all tests combined, when assessed across all 12 samples included in the 2011-12 soil program.

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 6 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 $[(X - \mu)/f@]$ (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” of 5% (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” 2011-12 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 2011-12 Air-Dry Moisture Content (2A1) %											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L003	2A1	1.58	5.79	1.92	4.25 †					1.17	4.57	2.14	1.18
L006	2A1	0.48 †	3.53 †	0.57 †	1.96 †	4.23	2.25	3.68	1.63	1.28	5.95	2.65	1.28
L007	2A1					0.041 ††	0.023 †	0.036 †	0.018 ††	1.52	5.46	2.68	1.43
L008	2A1	1.26	5.24	1.51	3.59	3.92	2.03	3.25	1.56	1.29	5.19	2.51	1.26
L009	2A1	1.24	4.77	1.43	3.45	3.75	2.23	3.32	1.37	1.33	5.47	2.67	1.29
L011	2A1	1.61	5.25	1.76	3.74	3.68	2.29	3.39	1.71	1.36	5.45	2.7	1.5
L013	2A1	1.3	5	1.5	3.4	3.8	2	3.3	1.5	1.2	5.4	2.5	1.2
L018	2A1	1.29	4.95	1.49	3.44	3.22	1.64 †	2.66	1.08	1	4.6	2.1	0.9 †
L019	2A1	1.01	3.62 †	1.1	2.25 †	2.7 ††	1.52 †	2.41	0.98	0.97	4.83	2.24	0.93 †
L022	2A1	2.1 †	4.7	1.9	3.4	3.9	2	3	1.35	1.5	5.29	2.96	1.32
L023	2A1	0.641 †	2.15 †	0.663 †	1.49 †	3.86	2.06	3.12	1.31	0.819	1.97 †	1.35 †	0.88 †
L026	2A1									0.562 †	2.82 †	1.35 †	0.579 ††
L028	2A1	1.6	6	1.9	3.8	4.3	2.6 †	3.9	2.1 †	1.79 †	6.33	3.1 †	1.64 ††
L029	2A1	1.65 †	7.02 †	1.91	4.86 †					0.533 †	2.98 †	1.17 †	0.499 ††
L030	2A1					3.73	2.38	3.59	1.46	1.37	5.48	2.69	1.4
L032	2A1	1.43	5.51	1.67	3.84	4.68 †	2.41	3.86	1.69	1.41	5.74	2.69	1.25
L036	2A1	1.25	5.15	1.50	3.49	3.89	2.12	3.36	1.51	1.47	5.96	2.82	1.35
L040	2A1	1.09	4.41 †	1.31	3.3	3.45	2.06	3.25	1.34	1.27	4.94	2.41	1.23
L042	2A1	1.53	5.72	1.73	3.78	4.03	2.37	3.74	1.71	1.44	6.08	2.77	1.42
L045	2A1	2.31 †	5.38	2.99 †	4.36 †					1.02	4.73	2.12	0.96
L046	2A1	5 †	5	5 †	5 †								
L056	2A1	1.35	5.39	1.6	3.7	3.77	2.15	3.36	1.48	1.23	5.71	2.5	1.27
L063	2A1	1.29	5.46	1.57	3.65	1.04 ††	1.02 †	1.03 †	1.02	1.36	5.52	2.58	1.35
L133	2A1	0.47 †	3.5 †	0.66 †	1.8 †								
L137	2A1	1.73 †	5.2	1.61	3.57					1.39	5.38	2.46	1.34
L139	2A1	1.28	4.85	1.5	3.38	3.36	2.05	3.13	1.42	1.13	5.05	2.31	1.12
L158	2A1	1.31	5.42	1.63	3.8	4.11	2.22	3.59	1.6	1.43	5.7	2.75	1.39
L160	2A1	1.4	5.3	1.6	3.8	4	2.4	3.7	1.9	1	6	2.9	1.3
L161	2A1	1.39	5.48	1.68	3.64	3.59	2.11	3.27	1.45	1.21	5.56	2.54	1.15
L163	2A1	1.31	5.27	1.58	3.78	4.25	2.48	3.71	1.85	1.62	5.99	2.98	1.34

L164	2A1	1.29	5.47	1.43	3.42	3.59	2.15	3.35	1.88	1.12	5.33	2.39	1.12
L166	2A1	0.9 †	4.4 †	1.3	5.7 †	3.7	2.1	3.1	1.5	0.8 †	3.3 †	1.9 †	1.1
L168	2A1	0.1 †	0.3 †	0.1 †	0.2 †	1.14 ††	0.89 †	1.12 †	0.71 ††	0.05 †	0.6 †	0.14 †	0.08 ††
L172	2A1									0.04 †	0.57 †	0.16 †	0.07 ††
L175	2A1	1.3	2.8 †	0.8 †	1.9 †	4.7 †	2.6 †	4.3 †	1.7				
L178	2A1	1.09	4.36 †	1.32	3.24	3.45	2.05	3.24	1.33	1.27	4.98	2.42	1.23
L179	2A1	1.17	4.63	1.39	3.02	2.96 †	1.65 †	2.58	1.13	1.29	5.33	2.45	1.23
L180	2A1									1.21	0.95 †	2.53	5.24 ††
L181	2A1	1.17	5.09	1.41	3.38	3.08	1.57 †	2.67	1.01	0.89	4.95	2.07	0.91 †

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12 Electrical conductivity 1:5 soil-water (3A1) dS/m air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54

L002	3A1									0.044 †	0.358 †	0.093 †	0.048 ††
L003	3A1	0.243	0.144 †	0.278 †	0.154 †								
L006	3A1	0.214	0.11	0.239	0.114	0.196	0.114	0.156 †	4.87 ††	0.088	0.765	0.19	0.095
L007	3A1	0.221	0.122	0.244	0.12	0.24 ††	0.14 †	0.21 †	5.9	0.111 †	0.901 †	0.241 †	0.117 ††
L008	3A1	0.206	0.108	0.228	0.108	0.208	0.118	0.176	5.86	0.092	0.751	0.199	0.095
L009	3A1	0.22	0.11	0.243	0.117	0.213	0.108	0.158	5.77	0.101 †	0.803	0.209	0.101
L011	3A1	0.21	0.111	0.205 †	0.11	0.227	0.13	0.179	5.34 †	0.083	0.761	0.194	0.085
L012	3A1	0.24	0.14 †	0.26	0.137 †					0.085	0.008 †	0.002 †	0.086
L013	3A1	0.2	0.11	0.23	0.11	0.2	0.12	0.16	5.89	0.09	0.73 †	0.21	0.1
L014	3A1	0.24	0.16 †	0.29 †	0.18 †					0.11 †	0.89 †	0.25 †	0.11
L018	3A1	0.204	0.105	0.231	0.105	0.2	0.12	0.17	6	0.09	0.78	0.19	0.08
L019	3A1	0.22	0.112	0.239	0.111	0.205	0.117	0.172	5.92	0.086	0.765	0.19	0.093
L022	3A1	0.233	0.11	0.239	0.111	0.207	0.12	0.166	5.9	0.09	0.804	0.206	0.09
L023	3A1	0.204	0.112	0.23	0.12	0.235	0.135	0.193	5.75	0.087	0.8	0.199	0.092
L026	3A1	0.202	0.127	0.227	0.126 †	0.223	0.129	0.178	5.54	0.091	0.814	0.199	0.095
L027	3A1	0.223	0.115	0.241	0.112	0.247 ††	0.137 †	0.199 †	6.26	0.095	0.826	0.194	0.107
L028	3A1	0.24	0.12	0.26	0.12	0.23	0.13	0.18	5.96	0.09	0.8	0.2	0.1
L030	3A1					0.212	0.145 †	0.192	5.43	0.097	0.803	0.198	0.095
L032	3A1	0.213	0.106	0.229	0.103	0.212	0.124	0.176	5.47	0.102 †	0.832	0.221	0.106
L036	3A1	0.23	0.123	0.251	0.121	0.218	0.125	0.185	6.06	0.093	0.807	0.198	0.080
L040	3A1	0.18	0.114	0.21	0.109	0.212	0.114	0.159	5.8	0.093	0.796	0.206	0.096
L042	3A1	0.201	0.114	0.238	0.109	0.21	0.12	0.16	5.69	0.09	0.82	0.2	0.09
L044	3A1	0.203	0.109	0.239	0.106	0.232	0.132	0.191	6.05	0.091	0.752	0.207	0.103
L045	3A1	0.2	0.11	0.23	0.1	0.22	0.12	0.17	5.83	0.1 †	0.79	0.21	0.09

L046	3A1	0.213	0.119	0.25	0.115	0.211	0.121	0.186	6.03					
L055	3A1	0.217	0.121	0.246	0.119	0.223	0.126	0.179	6.1	0.095	0.835	0.228 †	0.101	
L056	3A1	0.241	0.124	0.254	0.115	0.21	0.119	0.174	5.94	0.088	0.804	0.191	0.093	
L063	3A1	0.22	0.12	0.25	0.12	0.219	0.124	0.18	6.07	0.09	0.79	0.2	0.1	
L064	3A1	0.215	0.114	0.244	0.11	0.22	0.126	0.164	6.02	0.098	0.814	0.204	0.019 ††	
L080	3A1	0.203	0.109	0.231	0.107	0.198	0.117	0.174	5.7	0.092	0.076 †	0.196	0.09	
L133	3A1	0.12 †	0.066 †	0.13 †	0.066 †									
L135	3A1	0.23	0.105	0.259	0.106	0.18 ††	0.11	0.16	5.78	0.08 †	0.71 †	0.18	0.08	
L137	3A1	0.219	0.116	0.229	0.112					0.091	0.74	0.187	0.099	
L139	3A1	0.191	0.124	0.219	0.111	0.2	0.122	0.163	5.33 †	0.087	0.832	0.19	0.075 ††	
L140	3A1	0.98 †	0.2 †	0.37 †	0.26 †					0.11 †	0.93 †	0.25 †	0.12 ††	
L142	3A1	200 †	107 †	219 †	104 †	0.06 ††	0.04 †	0.05 †	0.17 ††	0.09	0.0004 †	0.01 †	0.09	
L143	3A1	0.21	0.11	0.24	0.11	0.2	0.13	0.17	6.03	0.09	0.76	0.19	0.1	
L156	3A1	0.234	0.125	0.271	0.127 †	0.208	0.122	0.176	6.04	0.094	0.8	0.199	0.099	
L158	3A1	0.213	0.115	0.249	0.113	0.23	0.13	0.18	6.1	0.1 †	0.82	0.2	0.1	
L160	3A1	0.229	0.126	0.252	0.124	0.219	0.128	0.179	5.87	0.088	0.765	0.193	0.09	
L161	3A1	0.234	0.128	0.247	0.129 †	0.216	0.124	0.164	5.65	0.087	0.78	0.21	0.09	
L163	3A1	0.096 †	0.044 †	0.104 †	0.047 †									
L164	3A1	0.21	0.114	0.251	0.112	0.219	0.121	0.178	6.14	0.092	0.789	0.206	0.096	
L166	3A1	0.2	0.11	0.24	0.11	0.21	0.12	0.17	0.006 ††	0.086	0.78	0.2	0.102	
L168	3A1	0.21	0.1	0.23	0.1	0.218	0.121	0.181	5.85	0.083	0.86	0.24 †	0.088	
L172	3A1					0.227	0.133	0.193	5.98	0.1 †	0.824	0.218	0.103	
L175	3A1	0.233	0.125	0.273 †	0.125 †	0.53 ††	0.26 †	0.278 †	5.43					
L178	3A1	0.181	0.112	0.208	0.11	0.213	0.117	0.161	5.85	0.092	0.801	0.207	0.097	
L180	3A1					0.203	0.104 †	0.171	0.555 ††	0.089	0.715 †	0.175 †	0.098	

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Soil pH, 1:5 soil-water (4A1) air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	4A1									4.08 †	6.17 †	6.3 †	4.07 ††
L006	4A1	6.97	6.97	7.08	6.85	6.53	6.87	4.88	8.01	4.18 †	6.58	6.6	4.3
L007	4A1	7.02	7.31	7.2	7.21 †	6.6	6.9	5	7.8	4.49	6.42	6.7	4.61
L008	4A1	6.86	6.9	6.97	6.75	6.34	6.77	4.88	7.87	4.3	6.29	6.37 †	4.21
L009	4A1	6.9	7.02	6.99	6.82	6.6	6.7	5.08	8.12	4.46	6.61	6.68	4.44
L011	4A1	6.9	6.99	7.01	6.78	6.55	7	4.99	8.25	4.45	6.63	6.67	4.41
L012	4A1	7	7.12	7.06	6.96					4.09 †	5.77 †	6.16 †	3.95 ††
L013	4A1	6.93	7	7.02	6.86	6.4	6.8	5	8	4.4	6.3	6.6	4.6
L014	4A1	6.43 †	6.41 †	6.63 †	6.35 †					4.3	6.2 †	6.4 †	4.2
L018	4A1	7.11	7.11	7.21	7.02	6.6	7	5.1	8.2	4.5	6.5	6.7	4.5
L019	4A1	6.99	6.97	7.19	6.85	6.61	6.98	5.06	7.99	4.58	6.53	6.69	4.54

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Soil pH, 1:5 soil-water (4A1) air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L022	4A1	7.03	7.08	7.17	6.82	6.56	6.91	4.99	8.15	4.37	6.58	6.6	4.35
L023	4A1	6.96	7.22	6.99	6.92	6.45	6.78	4.95	8.04	4.42	6.36	6.5	4.39
L026	4A1	7.01	7.13	7.12	6.9	6.57	7.06	5.04	8.19	4.49	6.55	6.66	4.43
L027	4A1	7	6.9	7.1	6.8	6.4	6.8	5	8	4.5	6.5	6.6	4.4
L028	4A1	6.9	7	7.1	6.9	6.4	6.8	4.9	8.2	4.44	6.46	6.56	4.34
L029	4A1	6.79 †	6.91	6.97	6.69 †					4.3	5.94 †	5.86 †	4.35
L030	4A1					6.41	6.83	4.88	8.19	4.31	6.5	6.54	4.3
L032	4A1	7.02	7.12	7.13	6.95	6.61	7.11	5.13	8.23	4.61	6.61	6.79	4.6
L036	4A1	6.82	6.76	6.95	6.65 †	6.41	6.88	4.91	8.3	4.22	6.34	6.43 †	4.19 †
L040	4A1	6.93	7.01	7.07	6.85	6.56	7	5	8.17	4.43	6.57	6.62	4.41
L042	4A1	6.92	7.25	7.05	7.07 †	6.54	6.87	5.13	7.92	4.65	6.6	6.67	4.6
L044	4A1	7	7.3	7	7.1 †	6.9 ††	7	5.1	6.1 ††	4.8 †	6.7	6.6	4.6
L045	4A1	7.03	7.1	7.15	6.93	6.44	6.78	4.99	7.88	4.41	6.51	6.6	4.42
L046	4A1	6.98	7.18	7.05	6.91	6.55	7.01	5.01	8.21				
L055	4A1	7.03	7.15	7.16	6.98	6.54	6.95	5	8.07	4.53	6.5	6.6	4.47
L056	4A1	6.95	7.01	7.07	6.94	6.47	6.9	4.92	8.13	4.48	6.6	6.68	4.41
L063	4A1	7	7.1	7.1	6.9	6.7	6.33 †	6.06 †	8.23	4.43	6.59	6.67	4.39
L080	4A1	5.92 †	6.47 †	6.29 †	6.25 †	6.31	6.66	4.74	8.36	4.27	6.5	6.5	4.26
L133	4A1	7.1	7.3	7.5 †	7.2 †								
L135	4A1	6.96	6.92	7.05	6.81	6.4	6.8	4.8	7.8	4.6	6.1 †	6.3 †	4.4
L137	4A1	6.71 †	7.08	6.88	6.83					4.34	6.38	6.43 †	4.3
L139	4A1	6.96	7.07	7.07	6.91	6.5	6.9	5.05	8.1	4.42	6.58	6.64	4.47
L140	4A1	6.7 †	6.9	7	6.9					4.4	6.6	6.7	4.4
L142	4A1	6.64 †	6.57 †	6.78 †	6.53 †	5.8 ††	6.1 †	4.3 †	7.9	3.5 †	5.8 †	5.8 †	3.6 ††
L143	4A1	7.09	7.22	7.23	7.01	6.64	7	5.05	6.91 ††	4.57	6.74	6.68	4.53
L156	4A1	6.97	6.91	7.11	6.67 †	6.38	6.65	4.87	8.2	4.36	6.49	6.64	4.35
L158	4A1	7.1	7.21	7.22	7.01	6.56	6.99	5.02	7.93	4.47	6.62	6.72	4.45
L160	4A1	6.9	7	7	6.9	6.5	6.9	4.8	8.2	4.4	6.5	6.6	4.3
L161	4A1	6.91	6.92	6.92	6.84	6.36	6.89	4.87	8.02	4.38	6.5	6.58	4.37
L163	4A1	6.71 †	7.17	6.59 †	6.92	6.6	6.93	5.1	8.01	4.59	6.92 †	6.71	4.53
L164	4A1	7.02	6.86	6.97	6.73 †	6.4	6.68	4.86	8.02	4.44	6.35	6.49	4.31
L166	4A1	6.65 †	7.03	6.84 †	6.89	6.4	6.8	5.1	6.9 ††	4.8 †	6.3	6.3 †	4.5
L168	4A1	7	7	7.1	6.9	6.53	7.03	5.1	8	4.9 †	6.4	6.8	4.9 ††
L172	4A1					6.44	6.79	4.94	8.05	4.72 †	6.53	6.73	4.74 ††
L175	4A1	6.93	7.09	7.06	6.92	6 ††	6.36 †	4.7 †	7.92				
L178	4A1	6.94	7.03	7.02	6.85	6.59	7.01	5.02	8.2	4.45	6.57	6.63	4.42
L180	4A1					6.5	6.8	4.9	7.9	4.28	6.02 †	6.04 †	4.38

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Soil pH, 1:5 0.01 M CaCl ₂ — direct (4B1 + 4B3) air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L006	4B1	6.39	6.13	6.57	6.25	6.06	6.4	4.3	7.54	3.8	5.94	6	3.73
L009	4B1	6.28	6.12	6.46	6.12 †	6.03	5.99 †	4.4 †	7.66	3.83	5.89	5.95	3.77
L014	4B1	6.16	5.99 †	6.48	6.17					3.6	5.6 †	5.7 †	3.5
L019	4B3	6.64	6.37	6.9	6.37	6.01	6.37	4.44 †	7.51	3.86	5.85	5.98	3.8
L028	4B1	6.4	6.2	6.6	6.3	5.9	6.3	4.3	7.9	3.71	5.74	5.89	3.64
L029	4B1	5.9 †	5.67 †	6.21	5.91 †					3.43 †	5.32 †	5.28 †	3.61
L041	4B1									3.37 †	5.87	5.87	3.64
L044	4B1	6.5	6.3	6.4	6.3	6	6.2	4.5 †	6.2 ††	4.2 †	6.1	6	4
L055	4B1	6.42	6.22	6.65	6.27	5.9	6.3	4.29	7.91	3.8	5.86	6	3.68
L064	4B1	6.19	6.16	6.36	6.34	6.01	6.26	4.31	6.87 †	3.96	5.92	6	4.09 ††
L135	4B1	6.78 †	6.69 †	6.9	6.65 †	5.8	6.2	4.3	7.7	3.9	5.8	5.9	3.9
L143	4B1					6.2	6.4	4.6 †	6.7 ††				
L158	4B1	6.45	6.21	6.64	6.29	5.93	6.38	4.36 †	7.76	3.77	5.83	5.96	3.72
L172	4B1					5.86	6.23	4.32	7.9				
L175	4B1	6.42	6.17	6.59	6.24	5.71	5.97 †	4.36 †	7.73				
L180	4B1					6.3	6.3	4.3	7.3	3.74	5.49 †	5.58 †	3.81
L006	4B1	6.39	6.13	6.57	6.25	6.06	6.4	4.3	7.54	3.8	5.94	6	3.73
L009	4B1	6.28	6.12	6.46	6.12 †	6.03	5.99 †	4.4 †	7.66	3.83	5.89	5.95	3.77
L014	4B1	6.16	5.99 †	6.48	6.17					3.6	5.6 †	5.7 †	3.5
L019	4B3	6.64	6.37	6.9	6.37	6.01	6.37	4.44 †	7.51	3.86	5.85	5.98	3.8
L028	4B1	6.4	6.2	6.6	6.3	5.9	6.3	4.3	7.9	3.71	5.74	5.89	3.64
L029	4B1	5.9 †	5.67 †	6.21	5.91 †					3.43 †	5.32 †	5.28 †	3.61
L041	4B1									3.37 †	5.87	5.87	3.64
L044	4B1	6.5	6.3	6.4	6.3	6	6.2	4.5 †	6.2 ††	4.2 †	6.1	6	4
L055	4B1	6.42	6.22	6.65	6.27	5.9	6.3	4.29	7.91	3.8	5.86	6	3.68
L064	4B1	6.19	6.16	6.36	6.34	6.01	6.26	4.31	6.87 †	3.96	5.92	6	4.09 ††
L135	4B1	6.78 †	6.69 †	6.9	6.65 †	5.8	6.2	4.3	7.7	3.9	5.8	5.9	3.9
L143	4B1					6.2	6.4	4.6 †	6.7 ††				
L158	4B1	6.45	6.21	6.64	6.29	5.93	6.38	4.36 †	7.76	3.77	5.83	5.96	3.72
L172	4B1					5.86	6.23	4.32	7.9				
L175	4B1	6.42	6.17	6.59	6.24	5.71	5.97 †	4.36 †	7.73				
L180	4B1					6.3	6.3	4.3	7.3	3.74	5.49 †	5.58 †	3.81

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Soil pH, 1:5 0.01 M CaCl ₂ — indirect, pooled (4B2 + 4B4) air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	4B2	6.39 †	6.2	6.67	6.24	6.03	6.05	4.45	7.8	3.83	5.95	5.87	3.79
L011	4B2	6.45	6.08	6.65	6.18	6.01	6.4	4.39	8.07	4.01 †	5.92	6.05	3.94 †
L013	4B4	6.43	6.13	6.6	6.2	5.9 ††	6.2	4.2 †	7.7	3.9	5.7 †	5.9	3.8
L014	4B2	6.06 †	5.84 †	6.26 †	5.94 †					3.5 †	5.4 †	5.6 †	3.3 ††
L018	4B2	6.58 †	6.28	6.76	6.35	6	6.3	4.4	8	3.8	5.9	6	3.8
L019	4B4	6.49	6.16	6.66	6.25	6.03	6.37	4.43	7.52	3.9	5.71 †	5.89	3.83
L022	4B2	6.48	6.18	6.68	6.19	5.97	6.31	4.37	7.89	3.8	5.95	6.05	3.75
L023	4B4	6.41	6.22	6.58	6.31	5.91 ††	6.26	4.41	7.9	3.84	5.84	5.94	3.79
L026	4B2	6.52	6.23	6.71	6.29	6.01	6.42	4.43	8.05	3.86	5.93	6.04	3.8
L027	4B2	6.5	6.2	6.7	6.2	6	6.4	4.4	7.9	6.7 †	7.3 †	7.2 †	6.6 ††
L030	4B2					5.86 ††	6.26	4.34	7.98	3.82	5.84	5.93	3.74
L032	4B2	6.39 †	6.12	6.64	6.19	5.99	6.38	4.4	8.08	3.83	5.93	6.04	3.78
L036	4B2	6.48	6.2	6.71	6.25	5.93 ††	6.32	4.39	8.09	3.87	5.87	6.03	3.81
L040	4B2	6.48	6.2	6.69	6.22	6.01	6.44	4.44	7.8	3.83	5.96	6.02	3.78
L042	4B2	6.46	6.28	6.63	6.36	5.98	6.25	4.47	7.63	3.92	5.88	5.96	3.88
L044	4B2	6.5	6.3	6.4 †	6.3	6	6.2	4.5	6.2 ††	4.2 †	6.1 †	6	4 ††
L045	4B2	6.54	6.26	6.74	6.33	6.02	6.29	4.42	7.74	4.1 †	5.91	6.09	3.99 †
L046	4B2	6.49	6.29	6.7	6.3	6.24 ††	6.64 †	4.67 †	8.05				
L055	4B2	6.48	6.2	6.68	6.24	5.98	6.35	4.33	7.88	3.81	5.86	6	3.68
L056	4B2	6.48	6.27	6.63	6.41	5.92 ††	6.17	4.4	7.81	3.87	5.89	6.06	3.82
L063	4B2	6.5	6.2	6.7	6.2	6	6.22	4.33	7.29 ††	3.79	5.87	6.02	3.7
L133	4B2	7.2 †	7 †	7.5 †	7 †								
L137	4B2	5.81 †	5.98 †	5.98 †	5.95 †								
L139	4B2	6.58 †	6.26	6.65	6.27	6.06 †	6.35	4.46	7.71	3.99 †	6.19 †	6.24 †	4.03 ††
L140	4B2	6.3 †	6.2	6.4 †	6.3					3.6 †	5.7 †	5.9	3.6 †
L143	4B4	6.73 †	6.18	6.88 †	6.32					4.25 †	5.88	6.19 †	4.27 ††
L164	4B2	6.54	6.1	6.6	6.3	5.88 ††	6.12	4.37	7.76	3.72	5.93	5.86	3.67
L166	4B2									3.7	5.4 †	5.5 †	3.7
L178	4B2	6.47	6.2	6.67	6.23	5.98	6.48	4.45	7.86	3.83	5.89	5.99	3.77
L180	4B2									3.77	5.47 †	5.38 †	3.73

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Water soluble Cl — potentiometric (5A1) mg Cl/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L006	5A1	27	62 †	32 †	32 †	20	7.5	37	10800 †	17	1100 †	35 †	53 ††
L008	5A1	14	47	17	16	12	1.5	30	8124	8.7	896	27	7.8
L009	5A1	54 †	46	35 †	15	17	32 †	32	9230	11	928	28	11
L011	5A1	8.6	46	13	11	15	2.8	47 †	8615	18	857	32	16
L013	5A1	7	41	13	11	10 ††	2	27	9174	22	846	28	17
L018	5A1	16	56 †	21	22	18	8.1	26	9290	22	779	13 †	16
L019	5A1	17	65 †	14	21	17	6.5	43 †	9548	29 †	1354 †	26	15
L022	5A1	13	46	16	16	16	5.4	33	9242	12	889	28	13
L027	5A1	24	45	20	21	2300 ††	1520 †	60 †	13100 ††	20	960	30	20
L030	5A1					13	4.0	31	7963	17	821	27	13
L032	5A1	21	41	21	21	15	5.1	35	7554	14	930	25	15
L036	5A1					12	4.7	30	8770				
L044	5A1	54 †	202 †	60 †	82 †								
L055	5A1	11	46	15	15	12	1.3	31	8900	10	894	27	8.8
L064	5A1	17	48	24	23	18	5.2	32	9675	16	909	33	16
L080	5A1	17	35 †	21	18	18	9.5	25	7568	14	618 †	34	27
L133	5A1	8.8	148 †	14	13								
L135	5A1	19	29 †	10	10	10 ††	10	0.19 †	7957	120 †	850	40 †	30 †
L137	5A1	17	17 †	8.5	8.5								
L140	5A1									15	650 †	28	12
L143	5A1	15	41	19	18	21	15	37	9250	16	865	30	19
L160	5A1	13	45	14	14	15	2	32	9038	13	858	26	12
L161	5A1	25	40	23	21	19	6.9	33	9549	35 †	900	75 †	90 ††
L164	5A1	4.8	45	5.2	12	19	18 †	24	9740	19	845	16 †	17
L166	5A1					20	9	52 †	8200	17	920	33	20
L168	5A1	10	45	15	17								
L172	5A1					25 ††	11	52 †	8960				
L175	5A1	7.6	37 †	12	12	17	6.4	55 †	9010				

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Water soluble Cl — autocolour (5A2) mg Cl/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L023	5A2	11	45	14	14	15	1.8	34	10800 ††	11	826	24	11
L026	5A2	9	41	15	16	14 ††	2.9	30	9211	15	798	26	14
L028	5A2	23	48	27 †	27 †	29 ††	18	43	8960	29 †	935	38 †	32 ††
L036	5A2	13	39	15	14					8	515	15 †	8.5
L040	5A2	14	41	16	15	15	9.2	35	9045	14	920	28	12
L045	5A2	14	89 †	15	30 †	35 ††	18	55	9445	12	457	10 †	11
L139	5A2	21	53	20	21 †	15	6.1	31	9567	16	777	34	19 ††
L166	5A2	25	60 †	20	21 †								
L168	5A2					15	5.4	42	8270	15	889	25	13
L178	5A2	13	41	17	15	15	9.2	35	9045	13	928	28	12
L023	5A2	11	45	14	14	15	1.8	34	10800 ††	11	826	24	11
L026	5A2	9	41	15	16	14 ††	2.9	30	9211	15	798	26	14
L028	5A2	23	48	27 †	27 †	29 ††	18	43	8960	29 †	935	38 †	32 ††
L036	5A2	13	39	15	14					8	515	15 †	8.5
L040	5A2	14	41	16	15	15	9.2	35	9045	14	920	28	12
L045	5A2	14	89 †	15	30 †	35 ††	18	55	9445	12	457	10 †	11
L139	5A2	21	53	20	21 †	15	6.1	31	9567	16	777	34	19 ††
L166	5A2	25	60 †	20	21 †								
L168	5A2					15	5.4	42	8270	15	889	25	13
L178	5A2	13	41	17	15	15	9.2	35	9045	13	928	28	12

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Organic Carbon — W&B (6A1) %C oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	6A1									2.56 †	1.14	3.04	3.32 ††
L003	6A1	3.12	1.32	2.24	2.3					1.7 †	1.07	2.16	2.26 ††
L006	6A1	2.68	1.08	2	2.13	2.04 ††	1.65	4.49 †	0.357 ††	2.75 †	1.45 †	2.94	3.46 ††
L007	6A1	3.03	1.34	1.91	2.21					2.73 †	1.14	3.23	2.55 †
L009	6A1	2.97	1.07	2.3 †	2	3.55	0.585 †	8.14	0.57	2.39	1.08	3.19	2.92
L011	6A1	2.65	1.02	1.9	1.95	3.02 †	1.4	6.05 †	0.545	2.97 †	1.31	5.08 †	3.73 ††
L012	6A1	2.83	1.21	2.37 †	2.24					2.78 †	1.23	3.05	3.24 †
L013	6A1	2.7	1.2	2	2	3.5	1.6	8.6	0.5	2.23	1.11	2.82	2.88
L014	6A1	0.3 †	1.38	1.92	2.17					2.63 †	1.22	3.02	2.83

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Organic Carbon — W&B (6A1) %C oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L018	6A1	2.59	1.06	1.92	2	3.3	1.54	8.66	0.667 †	2.2	1.1	2.6	2.7
L019	6A1	2.46	1.18	1.7 †	1.82	2.76 ††	1.31 †	6.84	0.471 †	2.13	1.18	2.48	2.61 †
L022	6A1	2.87	1.12	2.15	2.04	3.48	1.62	8.06	0.58	2.23	1.14	2.85	2.9
L023	6A1	3.01	1.24	2.06	2.12	3.73	1.56	8.76	0.496	2.17	1.15	2.83	2.88
L026	6A1	2.59	0.98	1.96	1.9	3.39	1.6	8.15	0.516	2.2	1.05	2.81	2.62
L028	6A1	2.28	0.99	1.83	1.72	3.33	1.48	7.05	0.58	1.86 †	0.91 †	2.69	2.22 ††
L029	6A1	3.39 †	1.24	2.57 †	2.37 †					2.56 †	1.17 †	3.54 †	3.23 †
L030	6A1					3.47	1.69	8.47	0.656 †	2.56 †	1.19	2.99	3.15 †
L056	6A1	2.65	1.21	2.03	1.99	3.48	1.43	8.43	0.559	2.18	1.11	2.56	2.93
L064	6A1	2.77	1.09	2.01	2.01	3.57	1.57	8.66	0.578	2.19	1.13	2.54	2.84
L080	6A1	2.52	1.21	1.91	1.87	3.61	1.68	5.27 †	0.505	2.3	1.21	2.35	2.63
L135	6A1	2.86	1.09	2.02	2.06	3.43	1.66	8.02	0.072 ††	2.14	1.15	2.65	2.96
L137	6A1	2.78	2.57 †	8.59 †	3.3 †					2.34	1.04	2.58	2.86
L139	6A1	2.62	1.14	2.06	2.01	3.7	1.69	7.98	0.538	2.15	1.02	2.59	2.8
L142	6A1					4.1 ††	1.9 †	9.1	0.5	2.4	1.4 †	3	2.9
L143	6A1	2.57	1.06	1.82	1.9	3.11	1.78	6.88	0.42 ††	2.25	1.14	3.43	2.86
L158	6A1	2.68	1.05	1.98	1.99	3.52	1.52	8.19	0.52	2.06	1.05	2.65	2.97
L160	6A1	2.68	0.97	1.99	1.89	3.16	1.52	7.47	0.54	2.21	1.1	2.65	2.81
L161	6A1	2.49	0.98	2.02	1.82	3.42	1.56	8.12	0.56	2.06	1.2	2.81	2.9
L164	6A1	2.57	1.18	2.04	2.02	3.32	1.57	7.45	0.581	2.29	1.21	2.7	2.75
L172	6A1					3.66	1.52	9.69 †	0.56				
L175	6A1	2.16 †	1.05	1.67 †	1.94	3.42	2.28 †	8.05	1.18 ††				
L179	6A1	3.12	1.42 †	2.21	2.61 †	3.64	1.66	8.27	0.792 ††	2.14	1.2	2.84	2.73

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Organic Carbon — Heanes (6B1) %C oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L023	6B1	3.07	1.3	2.26	2.29	3.99	2.07	9.08	0.632	2.56	1.4	2.97	3.31
L028	6B1	3.48	1.44	2.36	2.5	4.05	1.78	10.21	0.82 ††	2.83	1.4	3.18	3.47
L158	6B1	2.93	1.37	2.25	2.24	3.77	1.76	9.12	0.66	2.54	1.17	2.75	3.64
L168	6B1	2.84	1.01	2.07	2.06	3.65	1.63	9.37	0.651	2.46	1.19	2.86	3.16

NOT ASSESSABLE

Lab. Code #	Method Codes	Soil sample identification and values for Total Organic C - Dumas (6B2+6B3) % oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	6B2	2.95	1.18	2.37	2.29	4.16	0.654 †	8.84	0.571	2.86	1.2	3.19	2.94 ††
L013	6B2	3.2	1.36	2.47	2.5	4.46	1.92	9.26	0.61	2.71	1.34	3.38	3.45
L019	6B2	2.94	1.27	2.19	2.16	4.07	1.79	8.92	0.572				
L028	6B2	3.3	1.59	2.51	2.62	4.82	2.08	9.48	0.78 ††	2.56	1.39	3.55	3.26
L030	6B2					4.4	1.92	9.49	0.621	2.6	1.36	3.08	3.27
L036	6B2									2.4	1.29	3.21	3.3
L042	6B2	3.1	1.31	2.27	2.29	4.15	1.83	9.16	0.52	2.45	1.28	3.14	3.21
L046	6B2	2.56	0.959	1.86	1.79	4.28	1.83	9.31	0.57				
L143	6B2	2.84	1.1	2.15	1.95								
L156	6B2					4.24	1.86	8.23	0.59				
L003	6B3	3.62 †	2.28 †	3.19 †	3.34 †					2.72	1.93 †	2.57	2.62 ††
L006	6B3					4.29	1.93	5.7 †	0.944 ††	2.77	4.1 †	4.15 †	3.55 ††
L007	6B3					3.15 ††	0.97 †	10.29 †	4.92 ††				
L008	6B3	3.84 †	1.33	2.4	2.55	4.01	1.79	8.28 †	0.558	2.91	1.25	3.67 †	3.72 ††
L018	6B3	2.71 †	1.24	2.12 †	2.14	4.12	1.79	9.03	0.756 ††	2.3	1.3	2.9	3
L019	6B3									2.5	1.37 †	3.15	3.19
L022	6B3	3.14	1.32	2.38	2.36	4.15	1.83	9.03	0.61	2.58	1.26	3.27	3.35
L027	6B3	2.9	1.4	2.4	2.4	0.8 ††	0.4 †	1.5 †	0.2 ††	0.5 †	0.2 †	0.5 †	0.6 ††
L028	6B3	3.53 †	1.44 †	2.35	2.42	3.93	1.97	9.9 †	0.63	2.59	1.34	3.41	3.28
L032	6B3	3.23	7.08 †	3.86 †	8.55 †	4.49	1.95	9.12	0.598	2.42	1.31	3.03	3.14
L036	6B3	3.10	1.14	2.24	1.90 †	4.02	1.66	8.89	0.521				
L040	6B3	3.16	1.27	2.42	2.34	4.21	1.78	9	0.595	2.73	1.26	3.121	3.19
L045	6B3	3.51 †	1.67 †	2.43	2.44	3.46 ††	1.91	7.13 †	0.55	2.57	1.28	3.15	3.08
L046	6B3	2.56 †	0.959 †	1.86 †	1.79 †								
L063	6B3	3.05	1.27	2.34	2.22	4.21	1.92	9.39	0.54	2.65	1.3	3.23	3.27
L140	6B3	3.1	1.3	2.2 †	2.3					2.5	1.2 †	2.7	3.2
L143	6B3					4.39	1.86	7.36 †	0.5	2.43	1.13 †	3.65	3.14
L156	6B3	3.06	1.31	2.34	2.26					2.38	1.26	3.03	3.1
L158	6B3	3.02	1.28	2.57 †	2.24	4.3	1.93	9.2	0.59	2.34	1.28	2.82	3.29
L163	6B3	3.36	1.27	2.47	2.33	4.17	1.97	9.29	0.622	2.49	1.29	3.03	3.36
L166	6B3									1.7 †	0.78 †	2.2 †	2.1 ††
L178	6B3	3.14	1.22	2.38	2.3	4.25	1.82	9.1	0.576	2.78	1.26	3.12	3.21
L181	6B3	2.99	1.25	2.3	2.26	4.17	1.8	8.99	0.6	2.58	1.22	2.85	3.29

Lab. Code #	Method Codes	Soil sample identification and values for											
		2011-12: Total Organic Carbon — HF Induction, IR (6G1) %C oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L158	6G1					13.25	4.79	18.15	2.98	5.6	8.3	7.6	6.3

NOT ASSESSABLE

Lab. Code #	Method Codes	Soil sample identification and values for											
		2011-12: Total N — Kjeldahl, steam distillation (7A1) %N oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54

09

L002	7A1									0.154	0.07 †	0.266	0.21
L003	7A1	0.195	0.059 †	0.162	0.175					0.162	0.105	0.225 †	0.212
L006	7A1	0.227	0.08	0.185	0.19	0.339	0.154	1.93 †	0.035	0.353 †	0.206 †	0.519 †	0.216
L007	7A1	0.25	0.111 †	0.158	0.182	0.39	0.2	0.55	0.07 ††	0.22 †	0.138 †	0.289	0.257
L008	7A1	0.334 †	0.081	0.218	0.217	0.395	0.133	0.558	0.006 ††	0.198	0.085	0.282	0.243
L012	7A1	0.224	0.068 †	0.172	0.186					0.16	0.04 †	0.29	0.16 ††
L014	7A1	0.39 †	0.11 †	0.17	0.22								
L019	7A1									0.183	0.115	0.287	0.23
L022	7A1	0.276	0.081	0.215	0.209	0.37	0.157	0.538	0.038	0.203	0.105	0.286	0.235
L026	7A1	0.248	0.071 †	0.202	0.198	0.348	0.156	0.48	0.035	0.187	0.093	0.253 †	0.22
L027	7A1	0.207	0.075	0.185	0.182	0.362	0.141	0.493	0.032	0.161	0.105	0.254 †	0.24
L029	7A1	0.277	0.072 †	0.204	0.216					0.133 †	0.065 †	0.192 †	0.167 ††
L032	7A1	0.271	0.438 †	0.34 †	0.78 †	0.402	0.174	0.576	0.037	0.188	0.118	0.284	0.237
L044	7A1	0.242	0.08	0.203	0.202	0.377	0.177	0.535	0.474 ††				
L046	7A1	0.218	0.061 †	0.176	0.16								
L064	7A1	0.217	0.077	0.202	0.196	0.361	0.15	0.543	0.04	0.214	0.108	0.297	0.268 †
L137	7A1	0.243	0.081	0.195	0.213					0.184	0.108	0.251 †	0.233
L140	7A1	0.259	0.083	0.237	0.22					0.181	0.128	0.287	0.301 ††
L142	7A1					0.3	0.12	0.47	0.03				
L143	7A1					0.42	0.16	0.47	0.03	0.19	0.1	0.36 †	0.25
L156	7A1	0.259	0.083	0.206	0.208					0.185	0.111	0.281	0.232
L158	7A1	0.245	0.081	0.223	0.206	0.38	0.17	0.56	0.04	0.197	0.125	0.274	0.261
L160	7A1	0.241	0.079	0.19	0.195	0.352	0.141	0.533	0.027	0.183	0.106	0.262	0.243
L164	7A1	0.288	0.107 †	0.224	0.236	0.382	0.187	0.52	0.047	0.194	0.12	0.282	0.245
L166	7A1	0.23	0.08	0.22	0.21	0.34	0.16	0.51	0.04	0.15 †	0.11	0.26	0.21
L168	7A1									0.192	0.121	0.278	0.242
L175	7A1	0.193	0.074	0.164	0.16	0.254 ††	0.128	0.375 †	0.036				

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Total N — Kjeldahl, autocolour (7A2) %N oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L018	7A2	0.233	0.083	0.202	0.209	0.366	0.168	0.554	0.044	0.207	0.13	0.291	0.257
L023	7A2	0.265	0.078	0.203	0.204	0.367	0.165	0.504	0.034	0.201	0.111	0.276	0.245
L028	7A2	0.25	0.07	0.2	0.2	0.38	0.16	0.53	0.04	0.21	0.1	0.31	0.24
L055	7A2	0.244	0.078	0.188 †	0.197	0.33	0.154	0.485	0.04	0.173	0.1	0.26	0.22
L168	7A2	0.241	0.077	0.201	0.198	0.352	0.157	0.524	0.040				
L179	7A2	0.233	0.073	0.203	0.206					0.15	0.08	0.26	0.2
L182	7A2	0.221	0.081	0.185 †	0.193	0.348	0.159	0.613	0.036	1870 †	1070 †	2820 †	2650 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Total N – Dumas (7A5) %N oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	7A5	0.284	0.087	0.236	0.219	0.383	0.057 †	0.549	0.036	0.218	0.121	0.323	0.267
L011	7A5	0.478 †	0.209 †	0.374 †	0.333 †	0.178 ††	0.112 †	0.253 †	0.090 ††	0.125 †	0.078	0.104 †	0.125 ††
L013	7A5	0.26	0.08	0.21	0.22	0.39	0.17	0.56	0.03	0.21	0.12	0.3	0.26
L019	7A5	0.256	0.091	0.207	0.213	0.387	0.184	0.561	0.046				
L023	7A5	0.268	0.068	0.206	0.196	0.378	0.14	0.534	0.025 †	0.198	0.107	0.282	0.25
L028	7A5	0.27	0.11	0.23	0.24	0.45 ††	0.2	0.6 †	0.09 ††	0.242	0.156 †	0.315	0.27
L030	7A5					0.373	0.159	0.544	0.037	0.194	0.117	0.275	0.242
L036	7A5	0.267	0.073	0.21	0.19	0.406 †	0.166	0.551	0.040	2.08 †	0.108	0.312	0.247
L040	7A5	0.242	0.071	0.197	0.206	0.364	0.146	0.537	0.036	0.204	0.103	0.278	0.232
L042	7A5	0.246	0.084	0.195	0.202	0.37	0.16	0.55	0.04	0.19	0.11	0.29	0.24
L045	7A5	0.34 †	0.13 †	0.26	0.27 †	0.38	0.18	0.59	0.08 ††	0.23	0.16 †	0.32	0.28
L046	7A5	0.218	0.061	0.176	0.16 †	0.374	0.164	0.549	0.043				
L063	7A5	0.26	0.06	0.21	0.21	0.33 ††	0.15	0.47 †	0.05 †	0.18	0.1	0.28	0.23
L097	7A5	0.283	0.102	0.229	0.207	0.45 ††	0.165	0.596 †	0.055 †	0.193	0.103	0.297	0.244
L135	7A5	0.225	0.05	0.18	0.145 †	0.412 †	0.173	0.613 †	0.072 ††	0.23	0.118	0.355	0.272
L139	7A5	0.3	0.068	0.114 †	0.174	0.364	0.138	0.534	0.01 ††	0.153 †	0.071 †	0.259	0.215
L143	7A5	0.25	0.08	0.23	0.19								
L156	7A5					0.369	0.161	0.545	0.036				
L163	7A5	0.292	0.096	0.244	0.234	0.376	0.159	0.564	0.038	0.212	0.142 †	0.303	0.279
L178	7A5	0.236	0.072	0.193	0.214	0.364	0.146	0.537	0.036	0.206	0.107	0.281	0.237

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Water Soluble Nitrate N— autocolour (7B1) mg N/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L006	7B1	50	1.1	87	6.1	41	37	0.097 †	17				
L008	7B1	45	1.6	78	6.0	37	37	1.8 †	18	27 †	48 †	43 †	22 ††
L009	7B1	42 †	1.2	66	6.1	40	39	3.2	18	35 †	39	42 †	25 ††
L011	7B1	49	0.489	95	6.3	39	36	3	19	20	38	32	15
L013	7B1	52	0.8	78	6.3	44	39	2.9	20	19	40	30	16
L027	7B1	38 †	0.5	74	3.2 †	22 ††	22 †	0.2 †	2.3 ††	19	39	28	16
L028	7B1	58 †	0.8	79	6	44	39	3	18	21	44 †	34	19
L040	7B1	52	0.78	88	6.5	41	40	3.1	19	22	40	36	18
L045	7B1	49	0.85	79	5.8	43	38	2.7	19	22	43	34	16
L055	7B1	50	0.85	82	6.3	40	37	2.6 †	18	20	41	30	16
L064	7B1	48	0.83	94	8.9 †	42	40	3.4 †	20	22	41	33	12 ††
L080	7B1	52	0.541	79	6.8	40	39	3.6 †	20	21	39	32	18
L139	7B1	50	0.9	79	6.4	39	37	2.3 †	22	21	39	34	11 ††
L140	7B1	40 †	1.1	67	3.8 †					19	36 †	31	12 ††
L160	7B1	56	0.38	89	6.5	41	39	3	20	21	38	32	17
L161	7B1	54	1.3	77	5.9	43	37	3.4 †	20	15 †	40	35	18
L166	7B1	44	2.1 †	84	7.5 †					20	40	30	17
L172	7B1					37	40	3.0	20				
L175	7B1					43	40	3.1	19				
L178	7B1	52	0.83	86	6.5	41	39	3.0	20	22	40	36	18

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: KCl Extractable Ammonium N — steam distillation (7C1) mg N/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L164	7C1	53	5.8	3.9	45	232	27	76	4.6	25	18	19	36

NOT ASSESSABLE

Lab. Code #	Method Codes	Soil sample identification and values for											
		2011-12: KCl Extractable Nitrate N— steam distillation (7C1) mg/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L164	7C1	50	1.4	77	6.8	64	39	4.1	18	33	37	32	15

NOT ASSESSABLE

Lab. Code #	Method Codes	Soil sample identification and values for											
		2011-12: KCl Extractable Ammonium N— autocolour (7C2) mg N/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	7C2	52	8.1	5.2	45	143	24	64	4.4	28	15	15	38
L009	7C2	42 †	6.9	7.7	43	150	14 †	64	4.3	20 †	11 †	14	30 ††
L011	7C2	57	4.1 †	5.1	39	165	30 †	79	5	26	17	15	36
L013	7C2	53	7.2	3.8	48	152	26	74	4.5	28	16	14	39
L018	7C2	53	6.7	5.3	45	161	27	74	4.2	26	15	13	35
L019	7C2	49	5.3 †	3.6	43	138	21 †	63	2.5 ††	19 †	11 †	11	27 ††
L022	7C2	56	7.2	3.6	49	154	26	64	3.8	26	14	14	33
L023	7C2	53	6.7	3.8	46	157	23 †	70	4.2	25	13	13	35
L026	7C2	52	6.4	4.5	43	150	26	70	5.0	27	15	15	38
L028	7C2	50	6.4	7.1	46	149	25	77	4.1	24	17	12	37
L030	7C2					135 †	27	81	2.9 †	27	16	14	38
L032	7C2	56	11 †	7	50	170 †	28	76	6.8 ††	30	18	17	41
L036	7C2	54	7.3	4.3	47	161	26	78	4.4	28	15	14	37
L042	7C2	52	7.5	3.9	45	164	26	73	4.5	28	17	15	38
L044	7C2	56	15 †	6.3	52	127 ††	27	61	7.1 ††	27	15	14	36
L046	7C2					157	27	80	4.6				
L055	7C2	54	7.2	4.7	46	150	26	70	4.4	25	14	13	36
L064	7C2	24 †	6.2	1.8	25 †	151	23	63	4.8	16 †	14	8.9 †	8.1 ††
L097	7C2	50	7.9	3.7	44	164	26	71	6.7 ††	23	14	14	32 †
L137	7C2	61 †	12 †	11 †	49								
L140	7C2	62 †	10 †	8 †	52					35 †	20 †	20 †	47 ††
L160	7C2					176 ††	28	75	5.1	26	14	13	38
L161	7C2	55	7.7	5.9	46	150	25	67	4.3	26	19 †	3	37
L163	7C2	49	7.5	3.8	45	146	23	63	3.6	25	14	13	28 ††
L168	7C2	53	7.5	4.6	49	158	25	65	4.9	25	14	13	31 †
L175	7C2	7.3 †	4.4 †	53 †	53								
L179	7C2	54	13 †	8.1 †	50	156	26	68	3 †	31 †	21 †	19 †	41

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: KCl Extractable Nitrate N — autocolour (7C2) mg N/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	7C2	48	0.242	79	5.2	36	35	1.8	18	22	38	32	16
L009	7C2	97 †	43.6 †	114 †	53 †	41	37	3.3	20	34 †	38	41 †	25 ††
L011	7C2	51	0.393	88	4.3 †	44	36	2.2	16	18	47 †	36 †	15
L013	7C2	51	0.6	81	6.7	43	39	2.3	20	22	41	33	18
L018	7C2	52	0.42	82	6.5	42	40	2.7	20	23	41	31	18
L019	7C2	51	0.779	85	6.1	40	38	2.2	17	20	40	31	17
L022	7C2	56 †	0.6	87	6.6	42	38	3	20	20	39	32	18
L023	7C2	46 †	0.417	83	5.5	41	38	1.3	18	17	37	30	13 ††
L026	7C2	55 †	0.81	86	5.9	35	32 †	2.1	18	20	36	29	15
L028	7C2	52	1.75 †	88	7.3	44	40	4.2 †	19	23	47 †	34	21 ††
L030	7C2					42	38	2.8	20	21	40	32	17
L032	7C2	51	0.368	80	5.5	42	39	2.8	19	20	39	31	17
L036	7C2	52	1.17 †	83	7.1	41	38	2.6	20	22	41	33	17
L042	7C2	46 †	0.39	84	5.9	41	37	2.3	19	19	36	30	16
L044	7C2	21 †	4 †	34 †	5.8	46	43 †	3.6	20	21	35	32	15
L046	7C2					39	39	3.4	19				
L055	7C2	50	0.85	83	5.8	38	36	2.4	18	19	37	30	15
L097	7C2	44 †	0.447	80	5.6	37	37	1.2 †	18	17	38	33	13 ††
L137	7C2	47 †	0.15	76	1.9 †								
L143	7C2	53	0.6	81	6.3	36	33 †	3.2	24 ††	20	38	33	18
L160	7C2									21	41	33	18
L163	7C2	48	0.43	77	6.1	38	37	2.1	18	22	40	34	16
L166	7C2					46	45 †	2	19				
L168	7C2	52	0.61	92	6.9	36	40	2.6	18	21	39	30	18
L175	7C2	25 †	0.33	71 †	3.2 †	159 ††	27 †	69 †	4.8 ††				
L179	7C2	50	0.2	88	6.2	44	40	2.9	19	18	38	32	14 †

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Total P – all methods pooled; %P oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L006	Pooled	0.042	0.02	0.096	0.32 †	0.132	0.037	0.043	0.012	0.014	0.014 †	0.108	0.019
L009	Pooled	0.048	0.023	0.088	0.038	0.147	0.042	0.042	0.015	0.017	0.021	0.114	0.020
L011	Pooled	0.038	0.022	0.079	0.043	0.151	0.037	0.044	0.015	0.014	0.021	0.113	0.019
L012	Pooled									10.4 †	6.59 †	217 †	13.7 ††
L013	Pooled	0.046	0.026	0.092	0.041	0.136	0.002 †	0.044	0.016				
L018	Pooled	0.041	0.024	0.087	0.04	0.15	0.04	0.046	0.017	0.018	0.025	0.112	0.022
L019	Pooled	0.041	0.024	0.088	0.041	0.114	0.037	0.039	0.014	0.017	0.022	0.124	0.020
L022	Pooled	0.05 †	0.023	0.084	0.039	0.145	0.038	0.046	0.016	0.016	0.02	0.12	0.021
L023	Pooled	0.044	0.019 †	0.079	0.034	0.115	0.034	0.039	0.013	0.013	0.013 †	0.103	0.017
L026	Pooled	0.045	0.026	0.091	0.042	0.166	0.040	0.042	0.015	0.020	0.023	0.115	0.023
L027	Pooled	0.040	0.026	0.083	0.039	0.157	0.038	0.045	0.018	0.017	0.022	0.092 †	0.019
L030	Pooled									155 †	245 †	1056 †	187 ††
L032	Pooled	0.043	0.114 †	0.138 †	0.146 †	0.151	0.036	0.040	0.014	0.016	0.024	0.111	0.019
L040	Pooled	0.039	0.023	0.078	0.038	0.14	0.038	0.044	0.015	0.015	0.021	0.113	0.018
L044	Pooled	0.036	0.024	0.074	0.041	0.118	0.03 †	0.032 †	0.012	0.013	0.021	0.088 †	0.017
L046	Pooled									0.017	0.025	0.120	0.023
L055	Pooled	0.042	0.023	0.088	0.036	0.156	0.037	0.038	0.016	0.016	0.024	0.11	0.02
L064	Pooled	0.04	0.024	0.073	0.038	0.136	0.036	0.04	0.015	0.019	0.022	0.117	0.022
L137	Pooled	0.044	0.028	0.095	0.046								
L140	Pooled	0.041	0.029 †	0.095	0.043					0.017	0.029 †	0.113	0.021
L156	Pooled	0.033 †	0.017 †	0.058 †	0.026 †	0.094 †	0.029 †	0.030 †	0.012				
L160	Pooled	0.043	0.024	0.086	0.04	0.172	0.041	0.045	0.017	0.017	0.022	0.119	0.021
L166	Pooled									0.013	0.019	0.1	0.017
L168	Pooled	0.034	0.025	0.071	0.033 †	0.096 †	0.035	0.041	0.017	0.019	0.023	0.106	0.029 ††
L172	Pooled					0.053 ††	0.022 †	0.038	0.011				
L178	Pooled	0.039	0.024	0.080	0.039	0.139	0.039	0.041	0.015	0.015	0.022	0.107	0.018
L182	Pooled	0.044	0.027	0.094	0.042	0.163	0.041	0.051	0.020 ††				

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Colwell Extractable P — pooled (9B1 + 9B2) mg P/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L006	9B1	127	25	107	20	60	69 †	94	31	19	7.4	120	35 †
L007	9B1					20 ††	19 †	49 †	17 ††				
L009	9B1	141	28	123	23	58	30	92	31	9.5	7	132	27
L011	9B1	129	28	107	19	59	30	87	28	14	2.7 †	164	25
L013	9B2	116	21 †	98	22	53	28	90	28	20	5	125	36 ††
L018	9B2	133	26	117	21	57	33	93	31	16	6.3	163	29
L019	9B1	124	22 †	102	19	60	34	98	27 †	15	6.2	186	28
L022	9B1	124	25	109	20	58	32	91	31	19	6.2	161	30
L023	9B2	128	25	106	22	48 †	32	85	28	19	7.6	145	29
L026	9B2	129	24	107	19	57	31	87	29	15	4.2	148	27
L027	9B1	95	19 †	90	18	66 †	40 †	82	29	23	3 †	159	17 ††
L028	9B2	115	39 †	112	28 †	58	37	86	31	11	1 †	173	24
L030	9B2					62	30	95	28	17	6.1	1.36 †	27
L032	9B1	131	27	109	22	61	32	97	33	17	6.1	193	27
L036	9B2	133	28	108	21	57	35	103 †	32	19	6.2	134	29
L040	9B2	138	26	115	22	58	32	91	32	13	6.4	158	30
L044	9B1	113	27	101	22	70 †	31	103 †	31	40 †	30 †	282 †	59 ††
L045	9B1	125	19 †	88	20	77 ††	32	111 †	29	26 †	5.9	175	41 ††
L063	9B1					63	33	111 †	34	21	8.2	134	32
L064	9B1	170 †	27	146 †	22	58	32	88	32	16	7.2	192	27
L080	9B1	119	26	117	24	45 ††	36	86	32	21	4.3	133	27
L135	9B1	136	28	114	19	79 ††	41 †	104 †	36 ††	26 †	8.5	138	39 ††
L139	9B2	110	26	92	20	53	27	90	27 †	19	4.9	145	30
L158	9B1	108	24	95	17 †	53	29	85	28	14	5.4	175	23 †
L160	9B1	150	30 †	123	24	62	35	85	31	18	7	162	29
L161	9B1	109	26	99	19	57	39 †	87	31	25 †	6.7	166	46 ††
L164	9B1	113	23	100	20	57	32	87	30	16	6.5	158	0.46 ††
L168	9B1	120	26	106	15 †	71 †	35	92	32	16	7.2	172	35 †
L172	9B1					70 †	38	49 †	33				
L175	9B1	515 †	211 †	766 †	234 †	147 ††	70 †	53 †	320 ††				
L178	9B2	135	26	112	21	58	32	91	32	14	6.3	158	29
L182	9B1	113	27	106	21	51	32	86	31	15	5.1	147	29

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Olsen Extractable P — Pooled (9C1 + 9C2) mg P/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	9C1									11	3.3 †	75 †	18
L003	9C1	66 †	11	55	13 †					16 †	7.5 †	74 †	31 ††
L006	9C1	43	7.8	44	8.3	14	14	45	14	10	1.5	29 †	17
L007	9C1	58	10	54	9.7					15 †	1.6	55 †	27 ††
L009	9C1	49	9.3	47	9.6	15	22 †	45	15	13	2	33 †	22
L011	9C1	47	7.8	47	9.1	13	13	48	13	8.3	1.5	40	17
L012	9C1	55	11	54	12 †					10	6.6 †	217 †	14 †
L013	9C2	39	7	42	9	12 †	9.9	37	10 ††	9	1	37	17
L014	9C1	46	18 †	48	13 †					41 †	26 †	57 †	46 ††
L019	9C1	41	8.2	43	9	16	14	46	13	10	2.3	56 †	20
L022	9C1	49	7.9	44	9	14	15	41	15	11	1.9	43	17
L026	9C2	42	7.3	44	8.5	13	13	36	13	8.3	1.5	37	16
L027	9C1	3.5 †	0.7 †	5.8 †	0.8 †	9.6 ††	12	20 †	12	7.2	2	47 †	6 ††
L030	9C2					12	12	36	12	7.3	1.3	38	14
L036	9C2	42	7.9	45	9.0	13	15	41	15	8.7	2.1	39	16
L040	9C2	47	8.2	48	8.6	15	15	41	15	11	2.1	38	19
L042	9C2	47	9.5	49	10	15	14	41	14	8.3	1.4	45 †	17
L044	9C1	43	8.7	47	9.4	14	14	37	15				
L045	9C1	48	7.9	47	8.7	17	13	54	14	14	2.3	38	25 ††
L056	9C1					18 †	17	53	16				
L063	9C1	40	7.3	41	8.7	15	23 †	34	14	9.7	1.9	40	18
L135	9C1	11 †	9.7	8.6 †	17 †	17	15	42	14	11	0.05 †	43	21
L137	9C1	53	12 †	54	14 †					14	4.5 †	66 †	21
L139	9C2	46	8.4	44	8.6	15	12	45	14	10	2.2	33 †	19
L142	9C1	40	7.0	33 †	8.5	9 ††	10	17 †	9.5 ††				
L143	9C1	38	6.6	40	7.9	17	16	45	16	12	2.2	39	19
L156	9C2	47	9.4	45	7.3 †	14	3.5 †	30	6.7 ††				
L160	9C1	52	9	49	10	15	17	45	14	9	1.8	39	18
L175	9C1	407 †	203 †	698 †	220 †								
L178	9C2	47	8.2	50	8.7	15	15	41	15	11	2.1	38	19
L179	9C2	46	8.7	47	9.3	14	13	37	12	8.1	0.85	38	15
L180	9C1									17 †	3.0	62 †	30 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Bray-1 Extractable P — pooled (9E1 + 9E2) mg P/kg											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L006	9E1	67	4.7	73	5.9	10	18	18	15	5.8	0.01 †	43	1.6
L009	9E1	122	5.1	116	6.7	12	24	39	23	5.7	0.999	67	9.6
L014	9E1	43	18 †	47	17 †					0.6	0.6	5	2.3
L019	9E1	40	4.9	56	4.7	9	14 †	28	17	6.2	1.2	34	9.4
L023	9E2	60	6.2	75	6.6	13	24	43	23	7.2	0.561	52	12
L026	9E2	82	5.2	74	5.7	12	18	31	19	11	0.87	57	9.5
L027	9E1	92	3.6	100	11 †	14	32 †	65	33	13	0.6	98	20
L029	9E1	0.402	0.058 †	0.418	0.095 †					8.6	0.875	53	19
L044	9E1	102	6.9	89	7.4	17	23	37	26				
L045	9E1	47	2.4	50	5.9	6.5	22	45	9.6	9	0.813	14	13
L055	9E1	98	5.5	98	5.8								
L056	9E1	102	5.1	98	7.2	13	23	56	23	9.6	1	70	18
L063	9E1	57	6.2	62	7.3								
L064	9E1	142	4.6	145	6.3	11	21	42	22	6.7	0.86	53	16
L156	9E2	121	8.1	109	8.7	31 ††	25	56	38 ††				
L168	9E1	94	6.8	80	7.5	16	21	56	23	12	0.22 †	67	22

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Acid Extractable P — pooled (9G1 + 9G2) mg P/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	9G2	208	22	411	44	55	70	126	44	25	12	419	39
L026	9G2									16	4.9	494	33
L028	9G2	202	23	430	38	59	74	165	46	19	8	392	36
L032	9G2	221	18 †	423	35	65	81	143	42	15	1	464	18 ††
L064	9G1	172	22	448	33	59	73	118	51	23	12	444	31
L080	9G1									17	3.9	400	28
L139	9G2	146	23	300 †	30	61	56	109	41	21	12	329	30
L161	9G1	197	23	417	36	346 ††	41	82	64 ††	17	5.9	398	31

NOT ASSESSABLE

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Phosphorus buffer index (PBI _C) - Colwell (9I2a + 9I2b + 9I2c) L/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L006	9I2a	73.1	161	63.4	62.8 †	405 †	37.1	110 †	54.1 ††	89.5	377	186	81.2
L009	9I2a	77.2	171	66.5	66.1	422	34.3	126	71.5	151 †	482	256	141 ††
L011	9I2a	94.2 †	176	83.8 †	85 †	437	36.1	115	73.5	103	416	236	98.4
L013	9I2a	77	172	66	69	465 †	38.5	129	71	112	494	244	107
L018	9I2a	79	169	70	69	431	39	121	64 †	101	456	218	91
L019	9I2a	86	184	74	76 †	468 †	43	133	77.9 †	119	470	277	105
L022	9I2a	49 †	168	51 †	67	433	40.6	131	72.4	119	462	238	97.5
L023	9I2b	81.3	164	65.9	69.4	446	44.1	124	68.7	99.9	429	224	90.9
L026	9I2a	79.9	175	71.7	68.6	478 ††	56 †	143 †	134 ††	110	480	239	95.2
L028	9I2b	76	172	68	70	438	40	128	71	113	473	264	100
L030	9I2a									102	415	210	91
L032	9I2a	82	174	70	73	449	40.7	127	75.3	95.8	398	214	83.3
L036	9I2a	77.8	166	67.5	69	444	39.1	122	65 †	96.7	425	209	88.1
L040	9I2a	77.9	173	60.2	70.5	423	38.5	124	72.6	72.5 †	471	242	65.8 ††
L044	9I2a	86.6	164	65	69	239 ††	24.1 †	84.1 †	57.9 ††	63.8 †	235 †	194	62.8 ††
L064	9I2a	83.9	188	81.7 †	71	436	44	129	70.6	119	491	314 †	116 †
L080	9I2a									115	431	233	101
L135	9I2a	88.2	165	74.9	72.5	439	46.4	122	72.3	98.4	426	200	89.2
L139	9I2a	80	166	74	74	450	42	132	69	115	417	224	107
L161	9I2a	65.5 †	171	68	73	440	48.8 †	122	71.6	107	400	244	94
L164	9I2a	86	182	78 †	81 †	488 ††	35	118	67 †	116	490	265	94
L168	9I2a	79	156	68	64	574 ††	64 †	162 †	96 ††	200 †	514	280	184 ††
L178	9I2a	76.5	172	59.4	71.5	431	37.8	123	72.1	72.3 †	472	247	66.9 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Phosphorus buffer index(PBI _o) - Olsen (9I3a + 9I3b + 9I3c) L/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L030	9I3a									105 †	415 †	219	98 ††
L040	9I3a	92.2	176	78.6	73.2	296	43.7	140	89.2	89.8	533	209	83.4
L178	9I3a	91.6	178	77.2	74.9	296	43.7	140	89.2	90.7	531	204	82.9

NOT ASSESSABLE

Lab. Code #	Method Codes	Soil sample identification and values for											
		2011-12: Phosphorus buffer index (PBI _U) - Unadj (9I4a + 9I4b + 9I4c) L/kg air dry										NOT ASSESSABLE	
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	9I4a	52.4	164	45.4	61.9	397	29.4	107	65.9	148 †	478	219	135 ††
L011	9I4a	70.4	169	64.5 †	81.3 †					99.8	415	193	93.4
L019	9I4a	66	178	56	72					115	467	227	99
L032	9I4a	59	168	51	69	421	35.3	107	69.2	92.2	395	165	77.9
L036	9I4a	54.4	160	48.9	65.1	419	33.3	102	59.4	94	423	177	83.5
L044	9I4a	66.8	158	48.5	65.4					56.7 †	227 †	132	52.6 †
L143	9I4a	38	154	41	53	247 ††	6	67 †	26 ††	90	396	170	82
L161	9I4a	47	165	51	69	413	42.2	104	66.6	102	397	202	84
L168	9I4a	56	153	48	62	532 ††	58	140 †	89 †	196 †	511 †	230	176 ††
L009	9I4a	52.4	164	45.4	61.9	397	29.4	107	65.9	148 †	478	219	135 ††
L011	9I4a	70.4	169	64.5 †	81.3 †					99.8	415	193	93.4
L019	9I4a	66	178	56	72					115	467	227	99
L032	9I4a	59	168	51	69	421	35.3	107	69.2	92.2	395	165	77.9
L036	9I4a	54.4	160	48.9	65.1	419	33.3	102	59.4	94	423	177	83.5
L044	9I4a	66.8	158	48.5	65.4					56.7 †	227 †	132	52.6 †
L143	9I4a	38	154	41	53	247 ††	6	67 †	26 ††	90	396	170	82
L161	9I4a	47	165	51	69	413	42.2	104	66.6	102	397	202	84
L168	9I4a	56	153	48	62	532 ††	58	140 †	89 †	196 †	511 †	230	176 ††

Lab. Code #	Method Codes	Soil sample identification and values for											
		2011-12: Phosphate Extractable S –(10B1+10B2+10B3+10B4 pooled) mg S/kg air dry										NOT ASSESSABLE	
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	10B3	26	13	21	17	50	11	32	498	10	122	42	14
L026	10B3	27	14	19	19	80	14	44	533	19	150	51	21
L028	10B3	27	14	20	18	70	12	39	426	21	144	55	23
L063	10B3	31 †	17	23	23								
L135	10B3	30	16	21	21	79	15	45	473	59 †	14	43	530 ††
L139	10B3	42 †	7.9	17	22	43	11	36	354	13	63	32	11
L143	10B3	27	13	19	18								
L179	10B4	12 †	6.7	13	4.6 †	29	5	13	470	4.5	122	39	6.4

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: KCl ₄₀ Extractable S (Blair <i>et al.</i>); (10D1) mg S/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L006	10D1	31	10	21	16	45 ††	14 †	41 †	535	11	81 †	47	17
L009	10D1	29	8.6	21	14	32	11	26	495	12	71	44	16
L011	10D1	27	8	18	12	31	11	31	503	11	64	47	16
L013	10D1	14 †	8	16	13	39 †	12	38 †	515	12	70	43	13
L019	10D1	19	1.6 †	11 †	4.5 †	36	8.9	24	450	10	82 †	38	15
L022	10D1	27	9.1	19	14	32	12	28	506	10	66	37	14
L023	10D1	23	7.3	17	11	25 †	10	26	525	7.3	50 †	29	11
L026	10D1	26	8.3	18	14	32	10	25	468	9.5	64	36	8.8
L030	10D1					29	11	30	456	9.9	67	35	13
L036	10D1	30	10	21	16	29	11	30	470	10	72	39	15
L040	10D1	27	9.2	18	15	33	10	28	506	9.5	66	36	14
L044	10D1	23	12	25 †	15	105 ††	33 †	36 †	501	7.6	41 †	33	9.5
L064	10D1	24	9.1	22	11	30	11	27	506	8.5	60	33	11
L133	10D1	22	15 †	20	21 †					7.0 †	55	37	11
L164	10D1					30	12	30	460	10	66	42	11
L168	10D1	31	7.9	19	12	46 ††	14 †	44 †	525	14 †	99 †	56 †	22
L178	10D1	27	9	19	16	33	11	28	512	9.5	68	35	14

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: DTPA Extractable Cu (12A1) mg Cu/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	12A1									0.256	0.526 †	1.7	0.3
L003	12A1	0.42 †	2.8 †	3.8 †	58 †					0.41 †	0.77 †	2.2 †	0.29
L006	12A1	0.28	2.1	53	3.1	1.6 ††	0.257 †	0.708	0.28 ††	0.154 †	0.294	1.3	0.135 ††
L007	12A1	0.304	2.4	60 †	3.5	3.4	0.7	0.2 †	0.9 ††	0.142 †	0.296	2.1 †	0.02 ††
L009	12A1	0.229	2.2	50	3.1	3.2	1.3 †	1.1	0.671	0.117 †	0.408	1.3	0.23
L011	12A1	0.264	2.1	56 †	3.3	3.6	0.629	0.715	0.589	0.43 †	0.384	1.7	0.248
L013	12A1	0.54 †	2.2	49	3.1	3.2	0.56	1.0	0.58	0.29	0.4	1.6	0.25
L014	12A1	0.2 †	2.3	57 †	3.3					0.4	0.4	1.8	0.2
L019	12A1	0.355	2.3	46	3.3	2.9	0.548	1	0.615	0.292	0.425	1.7	0.257
L022	12A1	0.32	2.3	51	3.1	3.2	0.62	1.0	0.65	0.26	0.39	1.6	0.22
L023	12A1	0.279	2.2	49	3.0	3.1	0.608	0.965	0.589	0.26	0.367	1.5	0.22

L026	12A1	0.259	2.0	46	2.7	2.8 †	0.553	0.962	0.573	0.258	0.338	1.5	0.196
L027	12A1	0.29	2.4	50	3.3	3.5	0.64	0.72	0.69	0.35	0.5	1.5	0.24
L028	12A1	0.3	2.9 †	53	3.5	3.4	0.6	1.1	0.7	0.302	0.499	1.8	0.258
L030	12A1									0.218	0.333	1.3	0.179
L032	12A1	0.306	2.1	51	3					0.284	0.361	1.6	0.228
L036	12A1	0.338	2.2	52	3.1	2.8 †	0.558	1.2	0.573	0.252	0.272	1.4	0.211
L040	12A1	0.329	2.3	49	3.2	3.2	0.534	0.96	0.64	0.303	0.412	1.4	0.249
L041	12A1	0.65 †	2.7	58 †	3.6	3.2	0.85 †	1.5 †	0.96 ††	0.53 †	0.6 †	1.6	0.56 ††
L044	12A1	0.29	2.6	60 †	3.6	4.5 ††	0.899 †	0.725	0.792 †				
L064	12A1	0.34	2.3	62 †	3.3	3.2	0.58	1.1	0.615	0.41 †	0.383	1.9	0.303 †
L080	12A1	0.36	2.1	41 †	3.4	3.2	0.576	0.846	0.683	0.311	0.339	1.4	0.228
L133	12A1	0.29	3.0 †	48	2.2 †	3.5	0.712	1.3	0.668	0.521 †	0.529 †	1.7	0.307 †
L135	12A1	0.64 †	2.5	44 †	3.6	3.4	0.69	0.84	0.63	0.17 †	0.27	1.3	0.15 †
L137	12A1	0.44 †	2.5	60 †	5.1 †								
L139	12A1	0.287	2.8 †	67 †	4.0 †	3.0	0.567	1.0	0.953 ††	0.487 †	0.482	0.942 †	0.198
L142	12A1	0.52 †	3.0 †	66 †	4.2 †	5.1 ††	0.88 †	0.96	0.17 ††	0.54 †	0.8 †	2.5 †	0.41 ††
L143	12A1	0.31	2.0	49	3.1	2.9	0.6	1	0.6	0.31	0.31	1.4	0.22
L158	12A1	0.43 †	2.6	53	3.6	3.3	0.63	0.91	0.65	0.36	0.42	1.7	0.43 ††
L160	12A1	0.351	2.4	51	3.4	3.1	0.598	0.824	0.661	0.255	0.37	1.4	0.216
L161	12A1	0.34	2.3	48	2.7	3.1	0.62	0.92	0.68	0.29	0.41	1.6	0.22
L164	12A1	0.306	2.2	50	3.1	3.1	0.55	0.944	0.555	0.25	0.37	1.5	0.25
L168	12A1	0.428 †	2	57 †	3.4	3.6	0.652	1.4 †	0.83 ††	0.179 †	0.322	1.2	0.172
L175	12A1	0.28	2.4	50	7.7 †	3.3	0.63	1.3	0.67				
L178	12A1	0.335	2.4	50	3.1	3.3	0.538	0.91	0.652	0.306	0.408	1.5	0.251
L180	12A1					4.7 ††	0.763 †	0.674	1.2 ††	0.281	0.389	0.693 †	0.276

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: DTPA Extractable Fe (12A1) mg Fe/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	12A1									563 †	24 †	214 †	515 †
L003	12A1	244 †	65 †	86	74 †					617 †	26 †	183 †	694 ††
L006	12A1	214	39	82	49	38	8.6 †	282 †	3.7 ††	396	7.0	95	391
L007	12A1	222	39	76	49	53	21	66 †	9.9	560 †	17	148 †	56 ††
L009	12A1	172	43	82	53	64	51 †	487	9.1	388	13	99	408
L011	12A1	175	35	78	49	68	24	377 †	10	428	10	126	531 †
L013	12A1	199	34	78	45	47	21	442	10	333	8.3	113	411
L014	12A1	111 †	43	84	54					245 †	14	119	25 ††
L019	12A1	193	39	75	45	48	19	458	9	388	18	108	406
L022	12A1	238 †	41	80	51	54	19	486	9	408	12	108	425

L023	12A1	183	35	71	46	66	21	447	11	353	11	99	381
L026	12A1	185	37	68	48	53	18	471	8	408	9.7	113	387
L027	12A1	173	42	72	51	70	20	494	9.7	437	13	110	501
L028	12A1	197	50	78	55	59	20	485	9.1	402	11	104	433
L030	12A1									340	7.5	90	374
L032	12A1	191	35	67	45					397	7.5	97	419
L036	12A1	194	39	73	49	37	18	446	8.1	317	6.8	86	347
L040	12A1	200	42	75	52	64	21	491	9.2	460	12	101	473
L041	12A1	250 †	55 †	110 †	76 †	49	21	508	14 ††	341	12	117	398
L044	12A1	200	48	89	58	56	23	345 †	9.4				
L064	12A1	212	42	79	58	70	20	534 †	9.2	680 †	12	172 †	576 †
L080	12A1	194	47	99 †	57	90 ††	23	482	13 †	432	14	118	404
L133	12A1	163	41	65	31 †	50	21	502	6.9	384	10	106	331
L135	12A1	184	35	68	43	207 ††	33 †	802 †	16 ††	400	13	95	394
L137	12A1	278 †	49	82	55								
L139	12A1	140 †	53 †	62	59	62	22	144 †	61 ††	292	26 †	118	262 †
L142	12A1	363 †	53 †	111 †	63	74	25 †	607 †	9.1	527	18	221 †	629 ††
L143	12A1	191	38	69	46	66	20	49 †	10	396	8	90	400
L158	12A1	217	50	82	59	47	20	492	10	284	14	107	252 †
L160	12A1	212	39	70	48	52	17	437	7.5	318	5.9	87	342
L161	12A1	191	42	77	53	60	19	475	7.8	356	12	105	325
L164	12A1	205	44	87	55	63	16 †	382 †	6.4 †	216 †	234 †	126	219 †
L168	12A1	275 †	51	101 †	69 †	91 ††	74 †	799 †	25 ††	353	7.8	76	397
L175	12A1	180	40	67	114 †	58	20	475	8.3				
L178	12A1	195	42	73	53	68	22	481	9.4	457	12	109	471
L180	12A1					71	20	640 †	12 †	138 †	7.7	44 †	209 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: DTPA Extractable Mn (12A1) mg Mn/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	12A1									6.6	32	57 †	2.6
L003	12A1	1.3 †	1.4 †	5.8 †	6.7 †					7.4	45 †	59 †	3.3
L006	12A1	7.8	107	3.9	107	93 ††	76 †	1.5	1.9	7.7	29	36	5.9
L007	12A1	8.1	109	5.1 †	121	141	124	0.17	4.6	7.4	30	48 †	2.8
L009	12A1	5.7	91	3.6	86	153	74 †	0.8	3.0	7.5	25	31	6.2
L011	12A1	5.9	83	3.6	87	191	115	2.5 †	2.7	7.9	27	37	6.3
L013	12A1	8	98	4.8 †	99	193	141	0.8	3.6	8.3	27	38	6.4
L014	12A1	9.9 †	121	6.1 †	117					8	33	42 †	4
L019	12A1	6.6	84	3.1	78	149	121	1.2	3.3	5.6	24	32	4.2

L022	12A1	5.4	†	91	3.2	88	164	132	1	3.1	7	28	37	5.4									
L023	12A1	7.2		85	3.7	94	178	136	0.752	4.6	7.6	29	37	5.8									
L026	12A1	6.8		92	3.3	89	162	128	0.453	3.1	7.1	27	36	4.7									
L027	12A1	2.7	†	90	2.3	†	94	211	126	1	2.0	5.1	†	31	33	4.1							
L028	12A1	6.9		107	3.6		99	180	135	0.78	3.7	7.6		31	36	5.8							
L030	12A1											6.5		24	32	5.1							
L032	12A1	6.7		106	3.4	109						6.6		25	34	4.9							
L036	12A1	7.6		94	3.6	95	164	129	1.67	†	3.3	7.3		27	35	5.6							
L040	12A1	7.7		93	3.3	86	158	125	0.61		2.9	4.7	†	28	35	3.7							
L041	12A1	7.3		108	3.7	108	170	136	1.07		3.8	7.4		31	38	6							
L044	12A1	7.0		118	4.4	115	231	†	89	†	0.507	4.3											
L064	12A1	6.8		106	3.7	106	158	127	0.77		2.6	5.9		26	35	4.6							
L080	12A1	7.4		91	4.7	†	84	175	125	1.5	3.9	6.5		24	30	†	4.8						
L133	12A1	6.6		78	3.3		82	129	99	†	0.645	2.8		27	37		4.9						
L135	12A1	7.9		92	4.3		86	190	129		2.6	†	3.7	7.3	25	36	6						
L137	12A1	11	†	137	†	6.8	†	128	†														
L139	12A1	9.1	†	96		2.8		82	159		96	†	0.817	2.6	4.2	†	31	33	2				
L142	12A1	17	†	138	†	6.5	†	132	†	232	††	149	†	0.88	4.1	6.4		35	43	†	3.8		
L143	12A1	7.5		94		3.9		99	189		145	†	0.9	3.6	8.1		30	41		6.2			
L160	12A1	7.2		111		3.5		107	199		137		0.16	3.3	6.9		26	36		5.2			
L161	12A1	8.0		95		4.4		87	181		114		0.54	3.3	7.4		28	35		4.9			
L164	12A1	6.9		110		3.7		95	162		125		0.621	3.2	5.9		1.4	†	1.8	†	5.1		
L168	12A1	25	†	92		6.8	†	111	306	††	143		1.6	†	6.7	††	6		26		32		5.3
L175	12A1	6.8		110		3.7		266	†	181		126		3.2	†	3.5							
L178	12A1	8.0		93		3.2		86	154		131		0.59	2.8		4.8	†	29		36			3.9
L180	12A1							361	††	132		0.484		5.1	††	3.6	†	18	†	21	†		2.8

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: DTPA Extractable Zn (12A1) mg Zn/kg air dry																							
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)															
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54												
L002	12A1												1.7	†	0.67	†	13	†	1.4	††					
L003	12A1	4.1	†	0.86	†	17		1.2	†				1.4	†	0.42	†	15	†	1.3	†					
L006	12A1	4.3	†	0.683		16		1.1	†	1.2	††	1.8	†	0.733		0.134	††	1.2	†	0.206		11		1.3	†
L007	12A1	3.4		0.587		16		0.889		2.7	†	3.7	†	0.02	†	1.2	††	0.913		0.19		12		1	
L009	12A1	3.3		0.426		14		0.766		2.2		1.1	†	1.1		0.308		0.612	†	0.198		10		1.1	
L011	12A1	3		0.38		14		0.77		2.6	†	3.4		0.959		0.263		2	†	0.706	†	11		2.7	††
L013	12A1	3.5		0.7		14		0.96		2.2		3.2		1.24		0.2		1		0.28	†	11		1.2	
L014	12A1	3.1		0.9	†	13		1	†									1.1	†	0.2		12		1.1	
L019	12A1	2.9		0.508		12		0.774		2.4		3.1		1.2		0.25		1.5	†	0.226		11		1.3	†

L022	12A1	3.2	0.49	15	0.79	2.1	3.4	1	0.3	0.85	0.2	9.8	1
L023	12A1	3.3	0.402	14	0.711	2.4	3.9 †	0.973	0.333	0.834	0.182	10.4	1
L026	12A1	3	0.372	12	0.621	2	3.2	0.908	0.231	0.916	0.146 †	11	0.999
L027	12A1	2.9	0.19 †	13	0.71	2.3	3.1	0.74	0.26	0.899	0.187	9.8	1
L028	12A1	3.2	0.6	14	0.8	2.2	3.2	1.1	0.3	0.952	0.219	11	1.1
L030	12A1									0.829	0.185	9.2	1
L032	12A1	3.3	0.437	13	0.699					0.883	0.158	9.4	1
L036	12A1	3.3	0.424	14	0.711	2.0	3.2	1.1	0.259	0.837	0.177	10	1.1
L040	12A1	3.2	0.485	15	0.76	2.2	3.3	0.97	0.278	0.86	0.202	9.6	0.97
L041	12A1	3.4	0.61	8.9 †	0.89	2.5	3.8 †	0.78	0.44 ††	0.83	0.25 †	8.6	0.98
L044	12A1	3.1	0.494	17	0.835	52 ††	8.3 †	45 †	618 ††				
L064	12A1	3.3	0.49	13	0.77	2.3	3.5	1.1	0.26	1.1 †	0.21	13 †	1.1
L080	12A1	3	0.481	11	0.781	1.9	3.0	1.1	0.198	0.938	0.201	9.8	1.1
L133	12A1	2.6 †	0.499	10 †	0.31 †					1.5 †	0.209	7.9 †	1.3 †
L135	12A1	3.2	0.7	12	1 †	2.5	3.4	1.3	0.28	0.86	0.22	9.7	1.3 †
L137	12A1	3.7 †	0.88 †	16	1.2 †								
L139	12A1	2.7 †	0.418	12	0.613	1.3 ††	2.7 †	0.508 †	0.547 ††	0.735	0.22	6.4 †	0.518 ††
L142	12A1	3.5	0.512	14	1.1 †	3.6 ††	4 †	1.4 †	0.33	1.6 †	0.8 †	12	1.5 ††
L143	12A1	3.2	0.37	13	0.71	2	3.2	1	0.2	0.95	0.16	11	1.1
L158	12A1	3.6	0.57	15	0.91	2.3	3.3	0.94	0.31	0.97	0.2	10	1.3 †
L160	12A1	3.4	0.638	14	0.83	2.1	3.2	0.823	0.306	0.798	0.174	9.0	0.983
L161	12A1	3.3	0.66	15	1.1 †	2.2	3.2	0.87	0.26	0.77	0.19	9.6	0.83 †
L164	12A1	3.2	0.502	14	0.753	2.1	3.1	1.1	0.243	1.1	0.17	9.7	0.98
L168	12A1	3.8 †	0.308	15	0.719	3 ††	3.4	1.3	0.49 ††	0.744	0.144 †	8	0.932
L175	12A1	3.4	0.49	14	1.9 †	2.2	3.3	1.2	0.317				
L178	12A1	3.3	0.487	15	0.74	2.3	3.5	0.96	0.28	0.88	0.198	9.5	0.99
L180	12A1					2.6 †	2.9	1.1	0.482 ††	0.535 †	0.03 †	4.9 †	0.92

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Hot CaCl ₂ Extractable B — ICPAES (12C2) mg B/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	12C2	0.652	0.577	0.658	0.299	1.6	0.501	1.4	0.201	0.273	7	0.895	0.208
L011	12C2	1.1	0.344 †	0.784	0.246	1.8	0.562	1.5	0.32 †	0.453	5.4	1.3	0.274
L013	12C2	0.9	0.65	1	0.35	2	0.6	2 †	0.2	0.35	6.7	1.4	0.3
L019	12C2	1.3 †	0.465	1.2	0.321	1.4	0.592	1.7	0.163	0.591	5	1.3	0.64 †
L022	12C2	0.79	0.57	0.88	0.34	1.7	0.57	1.5	0.2	0.4	6.4	1.2	0.41
L023	12C2	0.687	0.544	0.794	0.324	1.9	0.384 †	1.5	0.177	0.127	5.2	1.1	0.114
L026	12C2	0.821	0.591	0.889	0.264	1.7	0.559	1.3	0.096 †	0.429	7	1.4	0.443
L028	12C2	0.7	0.6	0.9	0.3	1.4	0.5	1 †	0.2	0.241	7.6	1.3	0.183

L030	12C2					2.4	††	0.669	2	†	0.233	0.375	7.6	1.5	0.342								
L032	12C2	0.907	0.473	1.3	0.387																		
L036	12C2	0.881	0.523	0.968	0.301	2.1		0.716	†	1.9	0.264	0.26	3.8	1.1	0.245								
L040	12C2	0.78	0.46	0.69	0.273	1.6		0.625		1.4	0.191	0.46	6.3	1.6	0.43								
L044	12C2	1.7	†	2.6	†	2.4	†	1.8	†														
L064	12C2	2.9	†	0.64		1.8	†	1	†	1.5	0.585	1.4	0.198	0.465	5.3	0.868	0.29						
L135	12C2	0.79		0.59		0.47		0.22		0.58	††	0.44	†	0.74	†	0.27	0.2	5.9	1.5	0.23			
L139	12C2	0.652		0.557		0.905		0.345		1.4		0.667		0.418	†	0.07	††	0.17	5.8	1.2	0.148		
L143	12C2	0.9		0.79	†	1.1		0.48	†	2.2		0.65		1.8		0.24		0.29	7.2	1.4	0.29		
L164	12C2							1.6		0.6		1.6		0.32	†	0.37		5.6	1.1	0.31			
L168	12C2	0.816		0.293	†	0.693		0.141	†	0.894		0.429	†	1.4		0.421	††	0.7	†	3.6	1.1	0.73	††
L178	12C2	0.81		0.5		0.72		0.291		1.6		0.6		1.4		0.192		0.43	6.3	1.6	0.44		

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Hot CaCl ₂ Extractable B — pooled (12C1 + 12C2) mg B/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54

L007	12C1											0.891	††	9.2	††	1.9		1.7	††						
L009	12C2	0.652		0.577		0.658		0.299		1.6		0.501		1.4		0.201		0.273		7		0.895		0.208	
L011	12C2	1.1		0.344	††	0.784		0.246		1.8		0.562		1.5		0.32		0.453		5.4		1.3		0.274	
L013	12C2	0.9		0.65		1		0.35		2		0.6		2		0.2		0.35		6.7		1.4		0.3	
L019	12C2	1.3	†	0.465		1.2		0.321		1.4		0.592		1.7		0.163		0.591		5		1.3		0.64	
L022	12C2	0.79		0.57		0.88		0.34		1.7		0.57		1.5		0.2		0.4		6.4		1.2		0.41	
L023	12C2	0.687		0.544		0.794		0.324		1.9		0.384		1.5		0.177		0.127		5.2		1.1		0.114	
L026	12C2	0.821		0.591		0.889		0.264		1.7		0.559		1.3		0.0958		0.429		7		1.4		0.443	
L028	12C2	0.7		0.6		0.9		0.3		1.4		0.5		1		0.2		0.241		7.6		1.3		0.183	
L030	12C2									2.4		0.669		2		0.233		0.375		7.6		1.5		0.342	
L032	12C2	0.907		0.473		1.3		0.387																	
L036	12C2	0.881		0.523		0.968		0.301		2.1		0.716		1.9		0.264		0.26		3.8		1.1		0.245	
L040	12C2	0.78		0.46		0.69		0.273		1.6		0.625		1.4		0.191		0.46		6.3		1.6		0.43	
L044	12C2	1.7	†	2.6	††	2.4	††	1.8	†																
L064	12C2	2.9	†	0.64		1.8	††	1	†	1.5		0.585		1.4		0.198		0.465		5.3		0.868		0.29	
L080	12C1	1.4	†	0.053	††	1.4		0.6	†	1.3		0.515		2.2	†	0.435	††	0.723		3.5		1.7		0.96	††
L135	12C2	0.79		0.59		0.47		0.22		0.58	††	0.44		0.74	†	0.27		0.2		5.9		1.5		0.23	
L137	12C1	2.8	†	0.55		1.6		1.1	†									0.79	†	5.6		1.9		1.2	††
L139	12C2	0.652		0.557		0.905		0.345		1.4		0.667		0.418	†	0.07	†	0.17		5.8		1.2		0.148	
L143	12C2	0.9		0.79	††	1.1		0.48	†	2.2		0.65		1.8		0.24		0.29		7.2		1.4		0.29	
L158	12C1	3.3	†	0.6		1.6		1	†	2.2		1	†	4.4	†	1	††								
L164	12C2									1.6		0.6		1.6		0.32		0.37		5.6		1.1		0.31	
L168	12C2	0.816		0.293	††	0.693		0.141	†	0.894		0.429		1.4		0.421	††	0.7		3.6		1.1		0.73	†
L178	12C2	0.81		0.5		0.72		0.291		1.6		0.6		1.4		0.192		0.43		6.3		1.6		0.44	

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Exchangeable Ca — 1M NH ₄ Cl extract (15A1) cmol+/kg oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L007	15A1					12.9	12.4 †	12.7	1.9 ††				
L009	15A1	10.7	14.3	14.2	16.5	11.6	11.1	11.9	0.95	1.04	4.79	8.76	1.09
L011	15A1					11.7	11.1	13.4 †	1	1.31	5.2	9.49	0.747 †
L014	15A1	12	16.3 †	14.9	16.4					9.72 †	13.2 †	12.4 †	10.4 ††
L018	15A1	11	14.6	18.6 †	17.1	11	10	12	0.944	0.99	4.4	9.2	1
L022	15A1	10.3	14.5	14.5	16.5	11.4	10.5	12.4	1.01	1.19	4.72	9.12	1.14
L023	15A1	10.1	15	14.6	16.9	11.3	10.5	12.5	0.916	1.05	4.35	8.14	1.02
L027	15A1	9.4	13.6 †	17.1 †	16	10.8	9.9	12.4	1	2.1 †	9.5 †	16.9 †	2.2 ††
L028	15A1	10.3	14.8	14.8	17.3	11.2	10.7	12.1	1.08	1.2	5	8.8	1.2
L036	15A1	10.4	15.1	14.4	17.1	11.6	10.7	13	0.965	1.17	4.87	8.46	1.03
L044	15A1	7.54 †	10.6 †	13.1 †	17.3	9.33 ††	10	9.52 †	0.95	0.885	4.3	7.68 †	0.945
L045	15A1	8.86	12.4 †	12.3 †	15.6	13	11	6.5 †	1.6 ††	0.324 †	1.29 †	2.35 †	0.282 ††
L055	15A1					10.2	9.71	10.4 †	0.981	1.32	5.88 †	9.74 †	1.31
L064	15A1	11	14.8	15.1	16.9	12	11	13	1.01	1.43 †	4.59	8.61	1.32
L080	15A1	9.13	13.7	13.3 †	16.2	10.4	10.5	10.6 †	1.45 ††				
L143	15A1	10.2	14.8	14.4	17.3	10.7	10.2	11.7	1.1	1.1	4.5	8.5	1.2
L160	15A1	10.2	15.8	14.5	17.7	11.8	11	12.2	1.01	1.09	4.91	8.62	1.04
L164	15A1	9.74	14.8	14.2	17.4	12	12	9.8 †	1.1	1.1	1.14 †	8.9	1.09
L166	15A1	12	18 †	19 †	23 †	9.5 ††	8.8	12	0.84	1.1	4.8	8.4	1.1
L175	15A1	9.73	13.2 †	13.4 †	16.4	11	9.9	12	0.948				

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Exchangeable Mg — 1M NH ₄ Cl extract (15A1) cmol+/kg oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L007	15A1					2.24 ††	3.6	2.7	11.5				
L009	15A1	0.874	11	1.16	5.56	1.92	3.55	2.7	12.9	0.385	9.91	2.09	0.277
L011	15A1					2.02	3.64	2.88	13.4	0.463	10.6	2.13	0.187
L014	15A1	1.36 †	5.66 †	1.65 †	1.83 †					0.64 †	1.19 †	1.04 †	0.51 ††
L018	15A1	0.85	11.4	1.22	5.71	2	3.4	2.7	14	0.333	9.9	2.1	0.232
L022	15A1	0.91	11.1	1.2	5.56	1.98	3.45	2.73	13.5	0.391	10.1	2.1	0.253
L023	15A1	0.899	11.8	1.22	5.62	1.88	3.49	2.73	13.1	0.381	9.74	1.98	0.257
L027	15A1	0.8	10.8	1.4 †	5.6	1.8	3.2	2.7	14.7	0.7 †	21 †	4 †	0.5 ††

L028	15A1	0.84	11.5	1.18	5.85	1.91	3.5	2.67	13.0	0.368	11	2	0.255
L036	15A1	0.869	11.5	1.15	5.87	1.86	3.43	2.79	13.6	0.359	10.2	1.98	0.239
L044	15A1	0.734 †	9.37 †	1.16	5.75	1.79	3.53	2.58	13.2	0.353	8.76	1.89	0.305
L045	15A1	0.88	9.96	1.21	5.61	2.2 †	3.7	2.9	14	0.11 †	2.77 †	0.575 †	0.065 ††
L055	15A1					1.79	3.08 †	2.3	12.3	0.44	11.7 †	2.21	0.3
L064	15A1	0.96	11.3	1.26	5.52	2.02	3.6	2.82	13.7	0.416	9.18	1.93	0.307
L080	15A1	1.83 †	9.57	2.03 †	4.76 †	1.99	3.17	2.57	12.4				
L143	15A1	0.82	11.3	1.04 †	5.82	1.9	3.4	2.8	14.7	0.37	9.8	2	0.23
L160	15A1	0.908	12.4	1.26	6.15	1.93	3.5	2.48	13	0.429	10.5	2.19	0.274
L164	15A1	0.892	11.8	1.15	5.88	2	3.5	3.1	14	0.27 †	10.1	1.92	0.16 †
L166	15A1	0.95	13	1.4 †	7.4 †	1.9	3.3	2.9	13	0.38	11	2	0.26
L175	15A1	0.88	10.5	1.18	5.75	1.5 ††	3 †	2.3	12				

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Exchangeable Na — 1M NH ₄ Cl extract (15A1) cmol+/kg oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54

L007	15A1					0.21	0.1	0.48	4.59 ††				
L009	15A1	0.046	1.08	0.076	0.084	0.186	0.049	0.501	23.9	0.091	7.2	0.251	0.067
L011	15A1					0.288 ††	0.223 †	0.457	23.9	0.063	6.58	0.255	0.036
L014	15A1	0.05	0.06 †	0.09	0.1					0.012 †	0.314 †	0.026 †	0.009 ††
L018	15A1	0.05	1.26 †	0.09	0.12	0.198	0.079	0.436	23	0.09	7.3	0.306	0.071
L022	15A1	0.044	1.09	0.066	0.082	0.18	0.054	0.426	23.5	0.115 †	7.42	0.274	0.081
L023	15A1	0.034	1.09	0.047	0.075	0.164	0.037	0.399	25.5	0.078	7.29	0.237	0.058
L027	15A1	0.04	1.05	0.07	0.08	0.2	0.07	0.4	23.1	0.2 †	14.9 †	0.5 †	0.2 ††
L028	15A1	0.04	1.19	0.07	0.09	0.19	0.05	0.44	22.2	0.093	7.9	0.268	0.065
L036	15A1	0.055	1.44 †	0.083	0.151 †	0.167	0.039	0.415	21.9	0.084	7.64	0.246	0.059
L044	15A1	0.049	0.758 †	0.074	0.075	0.14 ††	0.04	0.38	26.5	0.182 †	6.54	0.422 †	0.3 ††
L045	15A1	0.07	1.86 †	0.12	0.16 †	0.237	0.076	0.492	26	0.034 †	1.91 †	0.08 †	0.024 †
L055	15A1					0.179	0.044	0.393	21	0.096	8.38	0.27	0.073
L064	15A1	0.069	1.1	0.107	0.141 †	0.19	0.09	0.467	23.5	0.076	7.01	0.238	0.062
L080	15A1	0.186 †	1.06	0.197 †	0.176 †	0.404 ††	0.201 †	0.471	12.1 ††				
L143	15A1	0.01 †	1.02	0.03	0.05	0.16	0.05	0.37	27.6	0.08	7.1	0.23	0.06
L160	15A1	0.112 †	1.13	0.091	0.104	0.214	0.079	0.458	23.8	0.1	79.3 †	0.257	0.056
L164	15A1	0.038	1.16	0.057	0.07	0.195	0.067	0.447	27	0.07	7.62	0.24	0.057
L166	15A1	0.04	0.92 †	0.1	0.09	0.21	0.05	0.5	23	0.08	8.1	0.26	0.05
L175	15A1	0.048	1.1	0.071	0.102	0.201	0.069	0.38	20.8				

L013	15D3	9.8	13	12.9	14.8 †	9.4 ††	9.5	9.9	1.2 ††	1.4 †	4.8	8.5	1.6 ††
L019	15D3	10.4	13.8	14.5	17	11.5	11.3	11.6	1.11 †	0.96	4.28	8.58	0.95
L026	15D3	9.49	12.8	12.8	15.3	11.5	10.9	11.1	0.954	0.988	4.27	8.09	0.845
L030	15D3					11.1	11	10.9	0.941	1.01	4.35	7.67	0.95
L040	15D3	10.1	14.1	13.4	16.6	10.9	10.5	10.4	0.936	1.12	4.51	8.45	1.07
L041	15D3	10.6	15.6	12.4	18.8 †	12.1	12.1	10.6	0.97	1.63 †	5.03 †	9.05	1.3 †
L042	15D3	10	15.1	14.7	18.1 †	9.32 ††	9.41	9.47	0.93	0.94	4.35	7.93	0.88
L055	15D3	11.7 †	14.2	18.1 †	17								
L080	15D3									0.985	4.53	8.4	0.859
L133	15D3	9.5	13	13	16	11.2	10.4	11.4	0.92	0.967	4.1 †	7.84	0.921
L135	15D3	9.7	13.4	13.2	15.6	11.2	10.1	10	1.01	1.09	4.42	8.11	0.905
L137	15D3	9.92	14.3	14.1	16.8					1.14	4.39	8.06	1.11
L139	15D3	10.4	12.9	13.2	15.8	10.7	11.4	10.6	0.975	1.17	4.52	9.3	0.782
L142	15D3	9.89	13.5	14.2	16.8	11	11	10	9.5 ††	11 †	11 †	10 †	9.5 ††
L156	15D3	13.1 †	14.3	21.3 †	17.7	12.6 ††	11.4	12.6	1.18 ††				
L158	15D3	9.74	14.3	13.6	16.6	12.7 ††	12.2	11.3	0.89	0.99	4.5	8.4	0.92
L161	15D3	10.8	14.9	14.7	16.5	11.2	10.4	10.4	0.84 †	1.05	4.7	9.5 †	0.91
L166	15D3	10	12	17 †	16	11	9.5	9.9	0.91	0.94	4.5	8.15	0.97
L168	15D3	12 †	15.4	17.8 †	19.2 †	13 ††	12	12.2	1.21 ††	1.23	5.33 †	10.4 †	1.36 ††
L172	15D3					11.5	11.1	11		1.24	4.8	11.3 †	1.21 †
L178	15D3	10.2	14.2	13.6	16.6	10.9	10.5	10.2	0.956	1.13	4.46	8.38	1.05
L179	15D3	8.48 †	12.4	11.4	14 †	9.86 ††	9.11 †	8.98	1.25 ††	0.998	4.55	7.86	0.998
L180	15D3					6.14 ††	6.69 †	6.69 †	0.85 †	0.614 †	2.69 †	4.79 †	0.567 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Exchangeable Mg — 1M NH ₄ OAc extract (15D3) cmol+/kg											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54

L002	15D3									0.389	7.49 †	1.23 †	0.275
L003	15D3	0.197 †	2.29 †	0.267 †	1.24 †								
L006	15D3	0.83	11.2	1.15	5.67	1.72	3.26	2.29	12.8	0.34	9.71	1.81	0.242
L007	15D3	1.05	51.9 †	1.43	6.2 †					0.632 †	8.72	2.27 †	0.416 ††
L009	15D3	0.866	10.6	1.2	5.5	1.86	2.51 †	2.55	13.6	0.366	9.4	1.98	0.257
L011	15D3	0.955	11.1	1.2	5.75	1.93	3.38	2.57	13.5	0.437	9.77	2.04	0.302
L012	15D3	0.75	10.7	0.96	4.99								
L013	15D3	0.77	9.94	1.01	5.54	1.61	2.91	2.46	15.3 †	0.34	9.27	1.86	0.22
L019	15D3	0.911	10.7	1.27	5.81	1.87	3.48	2.57	13.2	0.35	9.01	2.02	0.243
L026	15D3	0.822	10.3	1.08	5.25	1.91	3.5	2.52	13.2	0.368	9.73	1.92	0.218
L030	15D3					1.85	3.51	2.55	13.1	0.361	9.44	1.78	0.241
L040	15D3	0.831	11.1	1.03	5.56	1.83	3.34	2.42	13.2	0.373	9.58	1.92	0.26

L041	15D3	0.93	8.61 †	1.23	5.49	1.76	3.17	2.25	8.85 ††	0.301	9.47	1.81	0.164 †
L042	15D3	0.874	11.6	1.15	5.96	1.57	2.66 †	1.91 †	14.7 †	0.32	9.6	1.73	0.24
L055	15D3	0.93	11	1.27	5.8								
L080	15D3									1.2 †	8.54 †	2.68 †	968 ††
L133	15D3	0.98	9.3 †	1.3	5.7	1.73	3.15	2.24	13.8	0.351	6.9 †	1.9	0.239
L135	15D3	0.9	9.9 †	1.3	5.2	1.98	3.34	2.37	11.9	0.446 †	9	1.95	0.233
L137	15D3	0.89	11.8	0.82	5.93					0.374	9.6	1.89	0.273
L139	15D3	0.889	10.7	1.15	5.57	1.74	3.12	2.38	12.5	0.405	10.6 †	2.15	0.19
L142	15D3	1.11 †	13.6 †	1.52	8.5 †	2.3 ††	4.1 †	2.9 †	1.1 ††	0.4	8.8	1.9	0.2
L156	15D3	0.994	10.9	1.35	5.62	1.81	3.17	2.35	16.8 ††				
L158	15D3	0.84	11.1	1.17	5.59	1.95	3.54	2.51	14.2	0.37	9.62	2.11	0.26
L161	15D3	0.92	10.9	1.16	5.21	1.84	3.32	2.35	13.4	0.35	9.68	2.02	0.275
L166	15D3	0.78	8.8 †	1.2	5.3	1.8	3.1	2.4	12	0.32	9	1.8	0.23
L168	15D3	0.98	12.5 †	1.37	6.63 †	1.97	3.58	2.48	14.9 †	0.369	9.41	1.85	0.281
L172	15D3					1.73	3.27	2.32		0.39	9.88	2.03	0.27
L178	15D3	0.846	11.2	1.01	5.5	1.8	3.36	2.45	13.2	0.372	9.56	1.93	0.261
L179	15D3	0.749	10.6	0.979	5.42	1.83	3.27	2.32	10 ††	0.317	8.71	1.79	0.218
L180	15D3					0.206 ††	0.359 †	0.174 †	0.189 ††	0.091 †	2.57 †	0.494 †	0.059 ††

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Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Exchangeable Na — 1M NH ₄ OAc extract (15D3) cmol+/kg											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L003	15D3	0.04	1.11	0.079	0.088								
L006	15D3	0.045	1.15	0.072	0.09	0.144	0.027	0.392	22.3	0.102	7.4	0.267	0.084
L007	15D3	0.203 †	1.16	0.203 †	0.225 †					0.124	5.23 †	0.472 †	0.129 †
L009	15D3	0.042	1.08	0.067	0.097	0.189	0.282 †	0.401	21.9	0.095	7.13	0.237	0.071
L011	15D3	0.288 †	1.12	0.362 †	0.415 †	0.234	0.121	0.388	21.2	0.042	6.41	0.236	0.028
L012	15D3	0.048	1.04	0.093	0.1								
L013	15D3	0.07	1	0.09	0.09	0.15	0.04	0.45 †	17.4 ††	0.08	6.54	0.22	0.05
L019	15D3	0.061	1.08	0.063	0.072	0.171	0.036	0.402	22.4	0.089	6.33	0.257	0.073
L026	15D3	0.031	0.993	0.050	0.074	0.177	0.037	0.448 †	23.3	0.080	6.65	0.225	0.047
L030	15D3					0.203	0.072	0.451 †	27.5 ††	0.11	7.27	0.253	0.085
L040	15D3	0.046	1.04	0.072	0.101	0.181	0.058	0.395	21.6	0.063	6.59	0.236	0.047
L041	15D3	0.1 †	1.1	0.11	0.13	0.21	0.09	0.4	21.0	0.159	7.5	0.369 †	0.125 †
L042	15D3	0.062	1.22	0.076	0.084	0.15	0.04	0.39	24.2 †	0.09	7.46	0.26	0.06
L055	15D3	0.036	1.08	0.055	0.089								
L080	15D3									0.181 †	6.65	0.43 †	0.154 ††
L133	15D3	0.054	1.4 †	0.088	0.12	0.242	0.099	0.536 †	26.9 ††	0.158	6.93	0.447 †	0.136 †
L135	15D3	0.15 †	0.9	0.16 †	0.2 †	0.22	0.09	0.46 †	21.0	3.17 †	68.0 †	3.86 †	0.73 ††

L137	15D3	0.074	0.948	0.104	0.113					0.104	7.17	0.27	0.091
L139	15D3	0.054	1.23	0.083	0.11	0.204	0.072	0.442 †	23	0.113	4.35 †	0.362 †	0.057
L142	15D3	0.07	1.03	0.098	0.124	0.2	0.05	0.39	20	0.01	4.6 †	0.2	0.1
L156	15D3	0.62 †	0.431 †	0.774 †	0.6 †	0.1	0.1	0.348 †	27.3 ††				
L158	15D3	0.03	1.1	0.05	0.07	0.14	0.03	0.34 †	21.7	0.07	5.69	0.2	0.05
L161	15D3	0.046	0.98	0.076	0.07	0.187	0.048	0.404	21.5	0.083	6.83	0.252	0.05
L166	15D3	0.03	0.66 †	0.06	0.07	0.19	0.05	0.43	22	0.06	6.6	0.22	0.05
L168	15D3	0.04	1.19	0.09	0.13	0.278	0.141 †	0.556 †	31.9 ††	0.137	6.41	0.414 †	0.09
L172	15D3					0.14		0.4		0.12	7.19	0.32 †	0.08
L178	15D3	0.045	1.03	0.071	0.096	0.178	0.057	0.385	20.9	0.064	6.37	0.243	0.048
L179	15D3	0.061	1.02	0.089	0.137	0.222	0.087	0.396	18.3 †	0.072	5.15 †	0.241	0.057
L180	15D3					0.251	0.139 †	0.201 †	1.33 ††	0.05	3.74 †	0.128 †	0.055

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Exchangeable K — 1M NH ₄ OAc extract (15D3) cmol+/kg											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	15D3									0.228	0.778 †	1.82	0.221
L003	15D3	0.586	0.48	0.815	0.429								
L006	15D3	0.604	0.5	0.822	0.441	0.479	0.274	0.234	0.229	0.242	1.22	1.96	0.231
L007	15D3	0.637	0.536	0.862	0.455					0.279	1.14	2.01	0.272
L009	15D3	0.586	0.498	0.771	0.434	0.515	0.36 †	0.247	0.213	0.246	1.19	1.76	0.213
L011	15D3	0.487	0.458	0.623 †	0.376	0.478	0.27	0.229	0.274	0.209	1.22	1.88	0.192
L012	15D3	0.577	0.466	0.747	0.412								
L013	15D3	0.54	0.43	0.7	0.4	0.47	0.28	0.25	0.17	0.3	1.11	1.85	0.33 ††
L019	15D3	0.645	0.491	0.86	0.445	0.486	0.28	0.226	0.176	0.255	1.05	1.92	0.247
L026	15D3	0.599	0.458	0.778	0.416	0.555	0.309 †	0.255	0.191	0.278	1.2	2.08	0.225
L029	15D3	0.665	0.506	0.844	0.455								
L030	15D3					0.646 ††	0.39 †	0.258	0.195	0.266	1.12	1.88	0.232
L040	15D3	0.537	0.508	0.715	0.438	0.517	0.27	0.258	0.225	0.188	1.24	1.54 †	0.168
L041	15D3	0.63	0.47	0.79	0.39	0.51	0.27	0.22	0.18	0.265	1.2	2.04	0.223
L042	15D3	0.628	0.521	1.07 †	0.458	0.46	0.28	0.24	0.19	0.25	1.42 †	2.29 †	0.23
L055	15D3	0.56	0.47	0.74	0.46								
L080	15D3	0.648	0.482	0.789	0.584 †	0.567	0.538 †	0.469 †	0.258	0.36 †	1.18	2.01	0.333
L133	15D3	0.59	0.57 †	0.78	0.48	0.454	0.257	0.204	0.257	0.23	1.49 †	2.03	0.204
L135	15D3	0.54	0.42	0.71	0.37	0.51	0.28	0.22	0.17	0.226	1.04	1.88	0.188
L137	15D3	0.597	0.467	0.792	0.415					0.256	1.1	1.85	0.231
L139	15D3	0.619	0.55 †	0.775	0.458	0.459	0.271	0.251	0.308 †	0.238	1.5 †	2.03	0.13 ††
L142	15D3	0.58	0.465	0.79	0.433	0.5	0.3 †	0.25	1.1 ††	0.2	1.1	1.8	0.2

L156	15D3	0.018 †	0.894 †	0.012 †	0.255 †	0.564	0.339 †	0.281	0.237				
L158	15D3	0.6	0.48	0.8	0.41	0.5	0.27	0.22	0.16	0.23	1.01	1.82	0.2
L161	15D3	0.624	0.494	0.81	0.445	0.539	0.299 †	0.243	0.206	0.256	1.19	1.99	0.246
L166	15D3	0.52	0.46	0.84	0.4	0.51	0.27	0.23	0.19	0.25	1.16	1.86	0.23
L168	15D3	0.67	0.59 †	0.96 †	0.52 †	0.647 ††	0.424 †	0.294 †	0.465 ††	0.409 †	1.9 †	2.29 †	0.395 ††
L172	15D3					0.49	0.29	0.22		0.28	1.27	2.27 †	0.26
L178	15D3	0.521	0.502	0.72	0.445	0.517	0.268	0.245	0.236	0.181	1.24	1.6	0.173
L179	15D3	0.511	0.43	0.716	0.353 †	0.481	0.235 †	0.194	0.225	0.179	1.21	1.98	0.164
L180	15D3					0.007 ††	0.016 †	0.035 †	1.97 ††	0.208	0.977 †	1.57	0.205

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable K — Bicarbonate (18A1) mg K/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	18A1	247	164	445	184	394	129	119	109	120	370	790	105
L135	18A1	377	235	513	249	458	154	146	139	143	374	438	172
L164	18A1					188	109	100	87				

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Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Exchangeable Al — 1M KCl (15G1) cmol+/kg oven dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	15G1	0.021	0.009	0.003	0.007	0.009	0.009	0.264	0.006	0.627 †	0.009	0.002	0.561
L011	15G1	0.015	0.006	0.007	0.005	0.010	0.008	0.283	0.010	0.768 †	0.004	0.004	0.112 ††
L013	15G1	0.034	0.001	0.006	0.002 †	0.02 ††	0.02 †	0.3	0.005	1.77	0.021 †	0.015	1.59
L019	15G1	0.024	0.009	0.015 †	0.010 †	0.008	0.005	0.03 †	0.004	0.187 †	0.008	0.007	0.206 †
L022	15G1	0.005	0.015	0.005	0.006	0.009	0.005	0.272	0.005	1.46	0.012	0.01	1.16
L026	15G1	0.052 †	0.084 †	0.024 †	0.031 †	0.049 ††	0.0001	0.303	0.007	1.84	0.475 †	0.021	1.29
L028	15G1	0.02	0.02 †	0.02 †	0.02 †	0.01	0.01	0.24	0.01	1.7	0.06 †	0.01	1.4
L030	15G1					0.0003 ††	0.0000	0.275	0.004	1.87	0.015	0.0001	1.6
L036	15G1	0.014	0.007	0.008	0.007	0.008	0.005	0.327	0.001	1.9	0.005	0.008	1.72
L040	15G1	0.015	0.012	0.009	0.007	0.01	0.006	0.275	0.006	1.71	0.011	0.017	1.56
L042	15G1									2.12	0.01	0.01	1.75
L044	15G1	0.037	0.003	0.034 †	0.016 †								
L055	15G1	0.003	0.002	0.002	0.006	0.004 ††	0.001	0.24	0.0004	0.34 †	0.005	0.009	0.32 †
L064	15G1	0.006	0.006	0.005	0.007	0.011	0.007	0.25	0.008	0.881 †	0.007	0.009	0.412 †

L133	15G1	0.013	0.007	0.009	0.007					0.178 †	0.205 †	0.008	0.008 ††
L137	15G1	0.003	0.002	0.002	0.003 †								
L161	15G1	0.004	0.004	0.004	0.004 †	0.009	0.008	0.248	0.004	1.58	0.006	0.004	1.38
L164	15G1	0.01	0.01	0.01	0.01 †	0.038 ††	0.019 †	0.22	0.006	2.08	0.005	0.004	1.7
L168	15G1									1.38	0.056 †	0.026	1.22
L172	15G1							0.05 †					
L178	15G1	0.014	0.013	0.008	0.007	0.01	0.006	0.275	0.006	1.7	0.010	0.016	1.61

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Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable Al — Mehlich 3 (18F1) mg Al/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	18F1	437	840	674	337	1061	629 †	823	412	758	1215	1402	722
L009	18F1	36 †	70 †	56 †	31 †								
L013	18F1	430	796	587	305	1024	598	757	388	436 †	737 †	1214 †	330 ††
L018	18F1	480	1010 †	868 †	486 †	1120	765 †	646	488 †	768	577 †	562 †	242 ††
L019	18F1	373	709	596	351	816	480 †	641	318 †	735	1187	1318	692
L022	18F1	384	793	637	335	939	545	743	363	751	1132	1337	493
L026	18F1	415	772	640	357	905	549	698	414	708	1116	1278	528
L028	18F1	428	833	679	368	1020	585	785	435	765	1200	1330	667
L040	18F1	392	780	355 †	358	972	560	738	384	716	1098	1335	692
L045	18F1	592 †	1150 †	989 †	638 †	1259	897 †	1016 †	591 ††	803	1190	1438 †	657
L097	18F1	355	647	558	302	829	378 †	737	296 ††	655	950 †	1054 †	592
L143	18F1	459	579 †	684	340	1052	574	898	419	861 †	1124	1301	813
L156	18F1	582 †	1422 †	1036 †	701 †	1208	881 †	1046 †	597 ††	748	1117	1272	614
L175	18F1	458	850	667	347	848	559	686	402				
L178	18F1	385	786	359 †	365	978	554	744	380	710	1097	1327	684

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable B — Mehlich 3 (18F1) mg B/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	18F1	0.05 †	0.09	0.54 †	0.05								
L009	18F1	0.848	0.354	0.994	0.241								
L013	18F1	0.7	0.4	0.89	0.25	1.3	0.5	0.5	0.2	0.1	2.6	0.8	0.05

L018	18F1	0.756	0.576	1.3	0.369	1.4	0.79	0.684	0.139	0.202	3.1	0.817	0.129
L019	18F1	0.487	0.223	0.837	0.11	1.3	0.416	0.507	0.171	0.165	4.1	0.883	0.137
L022	18F1	0.88	0.53	1.0	0.43	1.3	0.53	0.55	0.23	0.08	6.5	1.3	0.06
L026	18F1	1.4 †	0.66	1.3	0.54	0.89 ††	0.448	0.992	0.307	0.729 †	5.1	1.3	0.637 ††
L028	18F1	1.1	0.92	1.6 †	0.78 †	1.5	0.56	0.37	0.22	0.12	7.3	1.4	0.12
L040	18F1	0.797	0.467	0.963	0.375	1.2	0.67	0.853	0.235	0.59 †	6.8	1.2	0.68 ††
L045	18F1	0.89	0.67	1.2	0.47	2 ††	1.1 †	1	0.708 ††	0.339	6.8	1.5	0.211
L097	18F1	0.691	0.381	0.946	0.346	1.2	0.435	0.785	0.193	0.033	5	0.963	0.016
L143	18F1	0.94	0.07	1.1	0.29	1.4	0.56	0.68	0.26	0.19	4.9	1.1	0.09
L156	18F1					1.2	0.521	0.53	0.196	0.168	5.9	0.956	0.344
L178	18F1	0.781	0.451	1.0	0.352	1.3	0.63	0.848	0.232	0.61 †	6.9	1.3	0.71 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable Ca — Mehlich 3 (18F1) mg Ca/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54

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L008	18F1	2270	2511	2910	3116	2434 ††	2410	2409	223	201	796	1862	218
L009	18F1	227 †	248 †	277 †	299 †								
L013	18F1	2125	2628	2418 †	2673	2181	2244	2174	220	127 †	402 †	1261 †	102 ††
L018	18F1	2440	2880	3640 †	3530	2540 ††	2460	1990	232	242	985	2040	92 ††
L019	18F1	2057	2519	2878	3071	2115	2101	2131	211	207	892	1924	215
L022	18F1	2110	2672	2970 †	3223	2206	2144	2224	220	228	875	1898	195
L026	18F1	2250	2640	2870	3150	2077	2133	2173	223	200	836	1683	165 †
L028	18F1	2120	2720	2910	3110	2370 †	2250	2330	262 ††	233	1070	2110	224
L040	18F1	2260	2680	2883	3355	2128	2310	2275	213	226	862	1849	222
L045	18F1	2520	3090 †	3650 †	3600	2659 ††	2412	2367	232	233	974	2091	212
L097	18F1	1814 †	2238 †	2650 †	2747	1933 †	1857	2011	174 ††	177	763	1674	175 †
L143	18F1	2276	1835 †	3097 †	2980	2331 †	2085	2213	217	214	839	1851	244
L156	18F1	2270	3354 †	3471 †	3661	2133	2112	2255	202	240	962	1967	231
L175	18F1	2360	2850	2890	3070	2130	2190	2040	232				
L178	18F1	2271	2645	2902	3302	2149	2290	2263	220	222	871	1851	226

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable Cu — Mehlich 3 (18F1) mg Cu/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	18F1	0.165	3.1	73 †	3.6	4.6	1.5	1.4	1.3	0.67 †	0.965	2.3	0.51 ††
L009	18F1	0.060	0.313 †	8.2 †	0.44 †								
L013	18F1	0.5	2.9	68 †	3.5	4.3	1.3	1	1.3	0.2	0.4 †	1.1 †	0.1 †
L018	18F1	0.126	3.4	87	4.7	3.7	1.5	0.238	1.2	0.101 †	0.839	1.3 †	0.061 ††
L019	18F1	0.267	3	81	4.6	4	1.2	0.63	1.1	0.239	0.936	2.1	0.242
L022	18F1	0.93 †	3	86	4.3	4.1	1.4	1.4	1.4	0.24	0.71	2	0.18
L026	18F1	0.359	3.3	94 †	4.7	4.1	1.3	1	1.2	0.186	0.711	2	0.167
L028	18F1	0.49	3.4	82	4.6	4.6	1.4	0.96	1.4	0.298	1	2.2	0.2
L040	18F1	0.437	2.5	84	4.2	4.1	1.5	0.7	1.4	0.49 †	0.721	2	0.32 †
L045	18F1	0.06	3.9	94 †	5.9 †	4.8	1.8	0.211	1.7	0.233	0.876	2.1	0.18
L091	18F1										12 †	9.8 †	
L097	18F1	0.429	2.4	76	3.5	3.2	0.886 †	1.3	0.898	0.221	0.663	1.7	0.196
L143	18F1	0.38	2.1	84	4.1	4.4	1.2	0.5	1.2	0.12 †	0.7	1.8	0.18
L156	18F1	0.05	4.7 †	103 †	6.7 †	4.5	1.7	0.275	1.6	0.231	0.856	2.1	0.228
L175	18F1	0.43	3.3	83	4.3	3.9	1.5	1	1.9 ††				
L178	18F1	0.441	2.6	85	4	4.2	1.5	0.76	1.4	0.46 †	0.721	2	0.33 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable Fe — Mehlich 3 (18F1) mg Fe/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	18F1	450	177	216	168	121	101	595	159	49 †	46	198	590
L009	18F1	55 †	16 †	23 †	18 †								
L013	18F1	580	170	222	170	115	94	574	144	271 †	39	176	264 †
L018	18F1	538	231 †	282 †	264 †	129	119	408	185	373 †	59	163	182 ††
L019	18F1	429	148	211	180	105	84	452	134	554	53	228	645
L022	18F1	553	192	240	207	110	85	504	137	468	40	177	410
L026	18F1	462	157	214	179	101	83	468	129	456	42	192	437
L028	18F1	521	167	228	188	119	95	553	164	507	51	213	553
L040	18F1	584	140	211	191	110	94	446	140	481	43	197	564
L045	18F1	536	268 †	342 †	352 †	176 ††	173 †	494	247 ††	493	46	227	530
L091	18F1									12389 †	68374 †	17213 †	6809 ††
L097	18F1	449	121	178 †	146	73 ††	48 †	593	95	407	34	152	475

L143	18F1	518	121	230	169	109	90	513	155	413	44	177	455
L156	18F1	563	337 †	385 †	391 †	127	133 †	529	194	481	54	222	492
L175	18F1	526	176	220	176	131	110	501	174				
L178	18F1	591	146	213	188	105	96	438	134	476	45	191	558

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable Mg — Mehlich 3 (18F1) mg Mg/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54

L008	18F1	127 †	1267	159	575	237	418	314	2213	44	1204	235	33
L009	18F1	11 †	53 †	14 †	41 †								
L013	18F1	107	1219	126	552	228	426	313	1906	27 †	528 †	172 †	15 †
L018	18F1	114	1380 †	163	728	251	455 †	247 †	2280	49	1190	266	12 ††
L019	18F1	105	1230	150	656	221	409	294	2056	70 †	1243	279	30
L022	18F1	99.2	1269	140	659	232	435	320	2177	50	1239	258	31
L026	18F1	117	1240	149	653	221	423	301	2066	46	1177	249	26
L028	18F1	109	1270	157	624	245	419	318	2230	48	1300	280	32
L040	18F1	112	1266	139	685	231	426	309	2240	49	1123	244	35
L045	18F1	131 †	1490 †	179	786	262	469 †	296	2522	50	1296	284	31
L097	18F1	91 †	1154 †	130	598	199	380 †	278	1871	40 †	1087	231	28
L143	18F1	112	862 †	151	607	241	403	287	2018	44	1146	249	35
L156	18F1	110	1581 †	174	763	217	411	308	2273	54	1318	275	12 ††
L175	18F1	108	1350	139	666	182 ††	388 †	268	2083				
L178	18F1	120	1240	133	691	220	422	320	2235	49	1120	238	35

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Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable Mn — Mehlich3 (18F1) mg Mn/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54

L008	18F1	22	180	13	132	413	166	2.8	11	7.8	56	62	6.1
L009	18F1	2.1 †	19 †	1.2 †	16 †								
L013	18F1	22	193	12	130	404	174	2.6	12	5.2 †	28 †	49	3.2
L018	18F1	34 †	235 †	20 †	184	389	191	3	14	9.6 †	78 †	76	2.5 †
L019	18F1	21	183	13	141	346	141	1.6 †	9.2	6.6	60	61	5.2

L022	18F1	24	222	14	174	379	152	2	12	7.5	58	63	4.6
L026	18F1	22	185	13	144	351	163	2.7	12	9.1	65	71	5.4
L028	18F1	20	190	13	149	405	165	3	13	8	67	68	6
L040	18F1	23	200	13	154	368	161	2.4	11	7.9	64	63	6.4
L045	18F1	39 †	270 †	23 †	218 †	539 ††	210	3.8 †	15 †	8.3	66	73	154 ††
L091	18F1									28 †	289 †	569 †	17 ††
L097	18F1	15	163	9.3 †	133	292 ††	139	2.3	9.1	6.3 †	49 †	51	4.8
L143	18F1	25	143 †	14	144	403	155	2.9	12	8.3	62	67	7.2
L156	18F1	45 †	377 †	31 †	276 †	518 ††	200	2.9	13	8.3	71	72	5.9
L175	18F1	20	211	12	156	607 ††	193	2.7	16 ††				
L178	18F1	24	201	14	160	374	168	2.6	11	7.8	63	64	6.4

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Lab. Code #	Method Codes	Soil sample identification and values for											
		2011-12: Extractable P - Col — Mehlich 3 (18F2) mg P/kg air dry										NOT ASSESSABLE	
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	18F2	15 †	1.3	16	1.4 †								
L018	18F2	161	14	195	15								
L019	18F2	155	11	164	15	15	36	76	45	23	1.7	166	39
L175	18F2					34	63	82	32				

Lab. Code #	Method Codes	Soil sample identification and values for											
		2011-12: Extractable P - ICP — Mehlich 3 (18F1) mg P/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	18F1	152	7.4	156	12	16	40	82	31	18	1.5	126	33
L009	18F1	14 †	1.3	15 †	1.4 †								
L013	18F1	141	16	126	10	17	38	73	29	10 †	1.5	114	14 ††
L018	18F1					18	41	61	31	15	2.1	143	10 ††
L019	18F1	163	11	158	12					23 †	1.7	166	39
L022	18F1	143	12	154	14	16	41	79	34	17	0.89	128	27
L026	18F1	139	23 †	146	22 †	18	38	76	28	19	4.5 †	120	26
L028	18F1	152	13	157	13	15	38	82	30	19	0.88	139	33
L040	18F1	151	11	148	12	16	41	72	34	17	1.3	123	30
L045	18F1	133	6.8	142	17 †	14	53 †	96 †	43 ††	24 †	6.5 †	167	35

L097	18F1	119 †	6.5	135	9.4 †	15	28 †	77	25	16	0.977	101	27
L143	18F1	164	6.8	156	12	17	38	91	3.2 ††	17	1.5	112	31
L156	18F1	157	16	195 †	19 †	12	39	76	29	23 †	1.6	161	37
L175	18F1	140	12	144	13								
L178	18F1	148	9.9	152	13	16	42	72	35	17	1.2	120	30

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Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable K — Mehlich 3 (18F1) mg K/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	18F1	231	169	290	133	192	103	93	84	92	385	650	90
L009	18F1	32 †	27 †	42 †	24 †								
L013	18F1	231	173	246 †	127 †	188	144 †	84	59 ††	59 †	190 †	547	42 †
L018	18F1	241	178	330	160	193	108	66 †	80	91	430	653	26 ††
L019	18F1	244	179	318	166	192	112	91	76	98	476	872	95
L022	18F1	233	160	322	150	199	109	92	86	97	442	825	75
L026	18F1	254	178	320	165	187	110	90	83	89	474	756	60
L028	18F1	241	180	316	157	200	113	93	79	100	480	793	87
L040	18F1	238	186	296	160	192	110	94	86	87	435	590	75
L045	18F1	271 †	193	347	177	210	126 †	92	90	107 †	448	816	88
L097	18F1	211 †	154	286	144	183	98	85	69	87	378	720	80
L143	18F1	256	121 †	324	146	197	103	88	83	90	425	692	95
L156	18F1	207 †	193	304	162	171 ††	101	82	70	92	414	720	78
L175	18F1	276 †	200	339	172	189	124	84	103 †				
L178	18F1	235	187	292	162	201	107	96	90	85	440	601	76

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable Na — Mehlich 3 (18F1) mg Na/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	18F1	30 †	259	23	10	38	7.2	93	5397	19	1585	56	16
L009	18F1	1.6	33 †	3.1 †	5.3 †								
L013	18F1	5.5	215 †	13	18	39	22 †	74 †	4100 ††	11	649 †	43	5.8
L018	18F1	1	234	5.4	10	34	4.3	79	4960	16	1210 †	46	5

L019	18F1	5.8	261	13	16	39	9.2	98	5659	80 †	1373 †	63	13
L022	18F1	13	266	11	15	41	11	99	5322	34	1675	60	26 ††
L026	18F1	10	280	15	20	39	8.5	98	5731	18	1704	60	11
L028	18F1	12	249	18	23	41	13	95	5300	25	1770	79	17
L040	18F1	15	263	19	24	41	12	100	5210	10	1638	41	8.6
L045	18F1	11	264	18	21	41	9.6	89	5353	21	1666	61	14
L097	18F1	7.6	217 †	13	16	36	7	88	4793 †	17	1458 †	52	12
L143	18F1	60 †	204 †	76 †	72 †	48 ††	21 †	104	4074 ††	19	1300 †	63	17
L156	18F1	6.4	282	16	18	26 ††	7.2	90	5194	30	1664	57	12
L175	18F1					42	14	83	5820 †				
L178	18F1	16	259	20	24	39	11	97	5220	9.8	1640	42	9.2

Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable S — Mehlich 3 (18F1) mg S/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	18F1	34	2.4 †	28	12	39	15	42	486	20	77	44	27
L009	18F1	3.6 †	1.24 †	3.1 †	1.7 †								
L018	18F1	33	10.6	31	16	32	17	28	506	18	67	43	8.1
L019	18F1	33	10	31	16	36	16	38	495	106 †	131 †	92 †	57 ††
L022	18F1	35	11.4	31	17	39	14	39	492	19	88	48	20
L026	18F1	34	10.9	29	15	36	18	38	492	21	89	47	21
L028	18F1	33	12	30	17	43	19	42	504	23	99	52	28
L040	18F1	40 †	22.1 †	35	24	40	19	36	474	12 †	77	41	15
L045	18F1	47 †	21.3 †	45 †	29 †	57 ††	31 †	58 †	646 ††	30 †	104	62 †	28
L097	18F1	29	9.2	27	14	33	13	35	463	18	76	43	22
L143	18F1	39	11	35	20	40	16	40	444	20	81	45	27
L175	18F1	35	13	29	17	101 ††	43 †	92 †	507				
L178	18F1	39	22 †	34	26 †	40	19	35	469	12 †	77	41	16

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Lab. Code #	Method Codes	Soil sample identification and values for 2011-12: Extractable Zn — Mehlich 3 (18F1) mg Zn/kg air dry											
		November 2011 (Round 211)				March 2012 (Round 411)				May 2012 (Round 611)			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L008	18F1	4.1	0.755	24	0.78	3.2	5	1.1	0.57	0.985	0.23	13	1.2
L009	18F1	0.591 †	0.07 †	2.8 †	0.12 †								
L013	18F1	5.2	0.6	22	0.92	3.5	5.3	1.1	0.4	0.7	0.07 †	8.3 †	0.6
L018	18F1	6.3 †	0.946	31	1.5	3.7	6.3	1.1	0.7	1.2	0.42 †	13	0.504
L019	18F1	3.9	0.203	29	0.75	2.5	4.8	0.32 †	0.44	0.692	0.07 †	13	0.911
L022	18F1	4.3	0.51	24	0.98	3.5	4.8	0.95	0.49	0.91	0.23	14	0.95
L026	18F1	4.5	0.611	25	1	3.1	5.3	1	0.537	1.1	0.182	15	1.2
L028	18F1	4.6	0.9	27	1.3	3.6	5.4	1.1	0.7	1.1	0.396 †	16	1.2
L040	18F1	4.8	0.726	34	1.3	3.4	4.5	0.84	0.52	1	0.198	13	1.2
L045	18F1	4.5	0.25	32	0.83	4.6	6.8	0.948	0.579	0.91	0.127	16	0.966
L091	18F1									9 †	26.2 †	65 †	6.2 ††
L097	18F1	4.1	0.565	21	0.947	2.5	4	1.2	0.47	0.743	0.225	12	0.91
L143	18F1	4.4	0.52	26	1.2	3.8	5.2	1	0.8	0.91	0.28	14	2.4 ††
L156	18F1	5.2	1.3 †	33	2.4 †	3.9	6.7	0.694	0.361	0.635	0.172	9.3 †	0.806
L175	18F1					3.9	5.3	1.3	0.78				
L178	18F1	5.1	0.719	33	1.3	3.1	4.5	0.82	5.4 ††	1	0.201	14	1.1

END