

# **Appendix 1**

## **Sample Location Maps**



746200

746300

746400

746500

6078100

6078100

6078000

6078000

6077900

6077900

6077800

6077800

6077700

6077700

6077600

6077600



**Location Map**

- Sampling Sites
- Properties
- Sampling Grid
- Cadastre



Scale - 1:1,500

0 50 100 200 Metres

3 The Crescent  
Mildura, VIC 3500  
Ph: (03) 5023 3643  
Fax: (03) 5021 3440  
Email: enquiries@sunenv.com.au  
Web: www.sunenv.com.au

Date: 18/08/2014  
Page size: A3  
Spatial grid datum and projection: GDA 94, MGA Zone 54  
Cadastre © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.

While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.



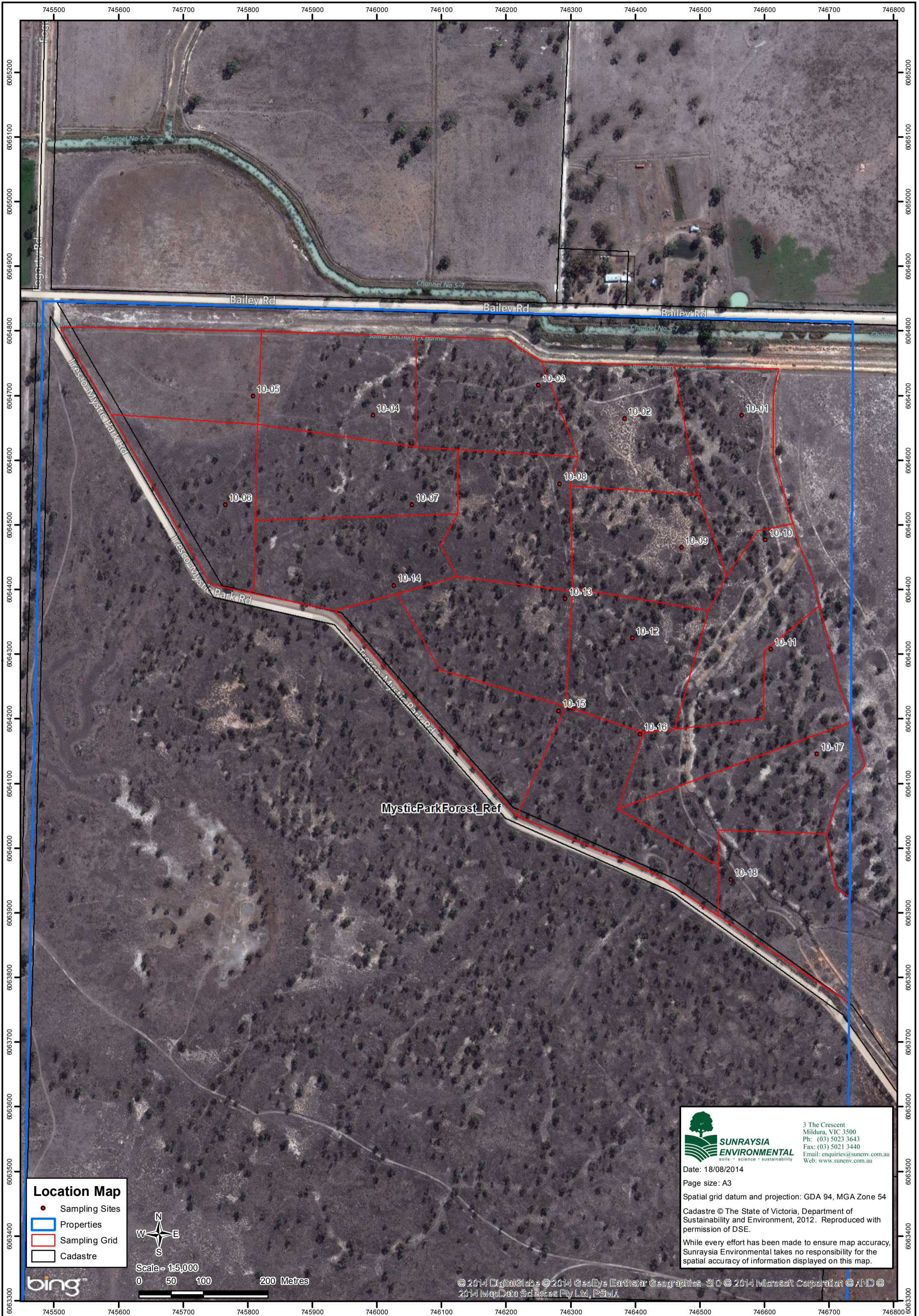
746200

746300

746400

746500





MysticParkForest\_Ref

**Location Map**

- Sampling Sites
- ▭ Properties
- ▭ Sampling Grid
- ▭ Cadastre



Scale - 1:5,000  
 0 50 100 200 Metres

3 The Crescent  
 Mildura, VIC 3500  
 Ph: (03) 5023 3643  
 Fax: (03) 5021 3440  
 Email: enquiries@sunenv.com.au  
 Web: www.sunenv.com.au

Date: 18/08/2014  
 Page size: A3  
 Spatial grid datum and projection: GDA 94, MGA Zone 54  
 Cadastre © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.  
 While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.





758600 758700 758800 758900 759000 759100

6059600  
6059500  
6059400  
6059300  
6059200  
6059100  
6059000  
6058900

6059600  
6059500  
6059400  
6059300  
6059200  
6059100  
6059000  
6058900



KCLO3\_PB

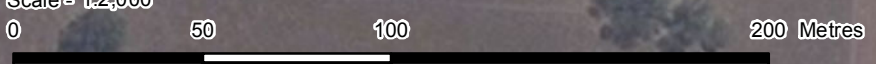
Flood Line

**Location Map**

- Sampling Sites
- Properties
- Sampling Grid



Scale - 1:2,000



3 The Crescent  
Mildura, VIC 3500  
Ph: (03) 5023 3643  
Fax: (03) 5021 3440  
Email: enquiries@sunenv.com.au  
Web: www.sunenv.com.au

Date: 18/08/2014  
Page size: A3  
Spatial grid datum and projection: GDA 94, MGA Zone 54  
Cadastre © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.  
While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.

bing™

© 2014 DigitalGlobe © 2014 GeoEye © 2014 Microsoft Corporation © AND © 2010 MapData Sciences Pty Ltd, PSM/A

758600 758700 758800 758900 759000 759100



747800 747900 748000 748100 748200 748300 748400

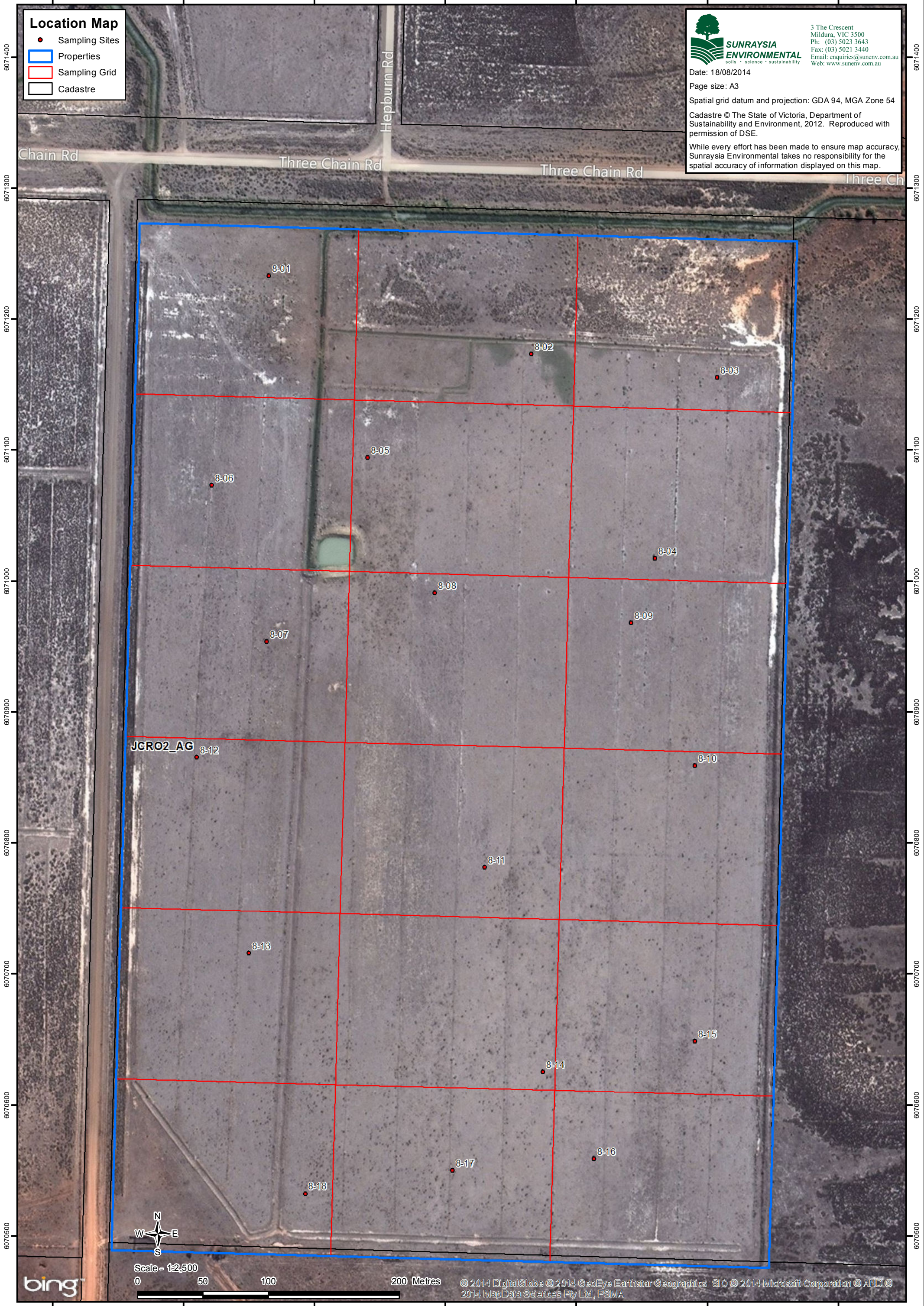
**Location Map**

- Sampling Sites
- ▭ Properties
- ▭ Sampling Grid
- ▭ Cadastre



3 The Crescent  
Mildura, VIC 3500  
Ph: (03) 5023 3643  
Fax: (03) 5021 3440  
Email: enquiries@suncnv.com.au  
Web: www.sunenv.com.au

Date: 18/08/2014  
Page size: A3  
Spatial grid datum and projection: GDA 94, MGA Zone 54  
Cadastre © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.  
While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.



6071400  
6071300  
6071200  
6071100  
6071000  
6070900  
6070800  
6070700  
6070600  
6070500

6071400  
6071300  
6071200  
6071100  
6071000  
6070900  
6070800  
6070700  
6070600  
6070500

Scale - 1:2,500

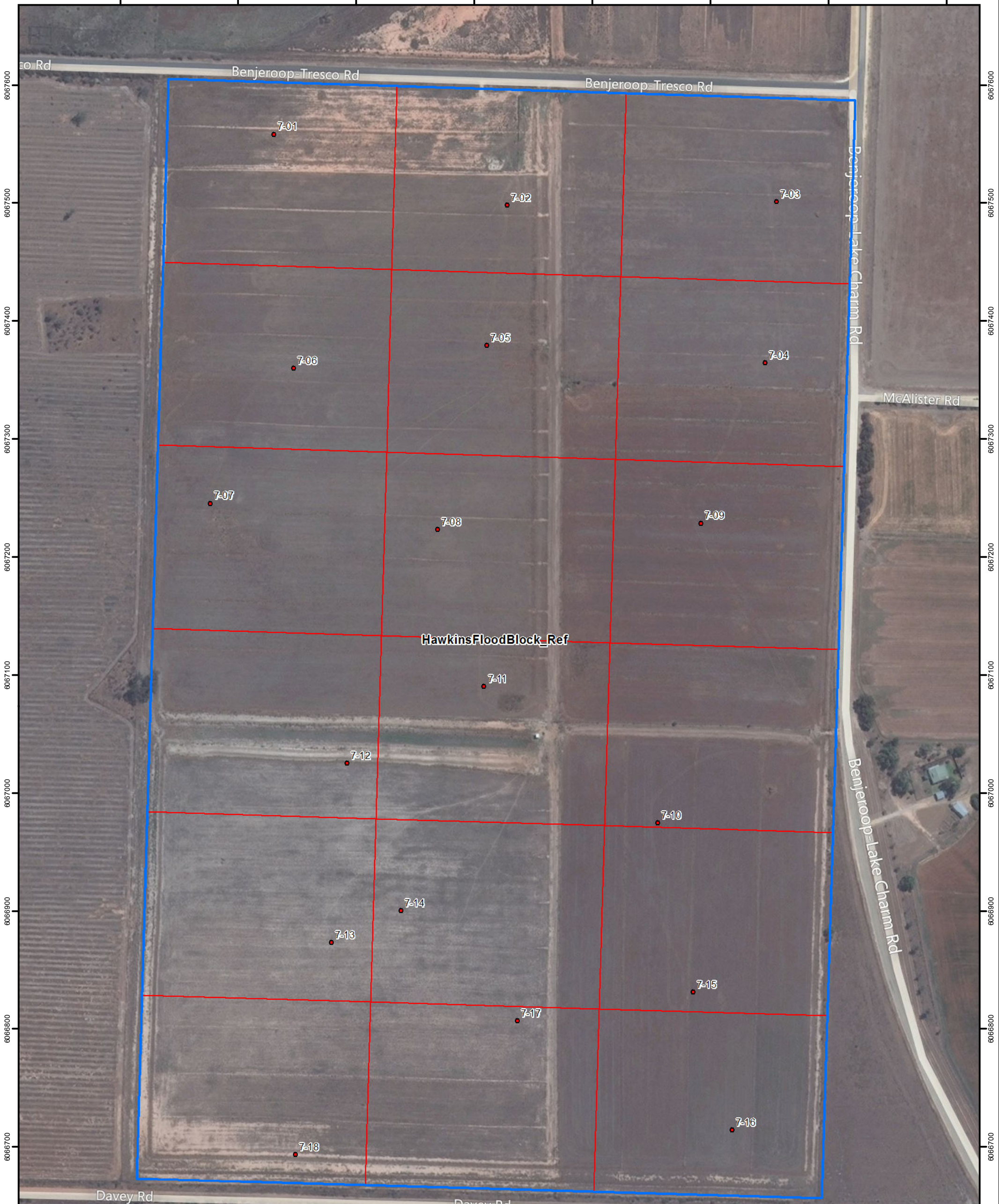
0 50 100 200 Metres

© 2014 DigitalGlobe © 2014 GeoEye Earthstar Geographics SIO © 2014 Microsoft Corporation © AND © 2014 MapData Sciences Pty Ltd, PSWIA

747800 747900 748000 748100 748200 748300 748400



755700 755800 755900 756000 756100 756200 756300 756400



**Location Map**

- Sampling Sites
- Properties
- Sampling Grid
- Cadastre

Scale - 1:3,000

0 50 100 200 Metres

bing™



3 The Crescent  
Mildura, VIC 3500  
Ph: (03) 5023 3643  
Fax: (03) 5021 3440  
Email: enquiries@sunenv.com.au  
Web: www.sunenv.com.au

Date: 18/08/2014  
Page size: A3  
Spatial grid datum and projection: GDA 94, MGA Zone 54  
Cadastre © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.  
While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.

755700 755800 755900 756000 756100 756200 756300 756400



744600 744700 744800 744900 745000

6076600  
6076500  
6076400  
6076300  
6076200  
6076100  
6076000  
6075900

6076600  
6076500  
6076400  
6076300  
6076200  
6076100  
6076000  
6075900

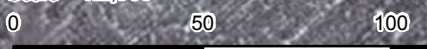


**Location Map**

- Sampling Sites
- Properties
- Sampling Grid
- Cadastre




Scale - 1:2,000



bing™

© 2014 GeoEye © 2014 Microsoft Corporation © 2014 MapData Sciences Pty Ltd, PSMA



3 The Crescent  
Mildura, VIC 3500  
Ph: (03) 5023 3643  
Fax: (03) 5021 3440  
Email: enquiries@sunenv.com.au  
Web: www.sunenv.com.au

Date: 18/08/2014  
Page size: A3  
Spatial grid datum and projection: GDA 94, MGA Zone 54  
Cadastre © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.  
While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.





**Location Map**

- Sampling Sites
- ▭ Properties
- ▭ Sampling Grid
- ▭ Cadastre



Scale - 1:4,000  
0 50 100 200 Metres



3 The Crescent  
Mildura, VIC 3500  
Ph: (03) 5023 3643  
Fax: (03) 5021 3440  
Email: enquiries@sunenv.com.au  
Web: www.sunenv.com.au

Date: 18/08/2014  
Page size: A3  
Spatial grid datum and projection: GDA 94, MGA Zone 54  
Cadastre © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.  
While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.




744700 744800 744900 745000 745100 745200 745300

6068200 6068100 6068000 6067900 6067800 6067700 6067600 6067500 6067400 6067300

6068200 6068100 6068000 6067900 6067800 6067700 6067600 6067500 6067400 6067300

Benjeroop-Tresco Rd Tresco Rd Benjeroop-Tresco Rd

Jobson Ln Jobson Ln Jobson Ln



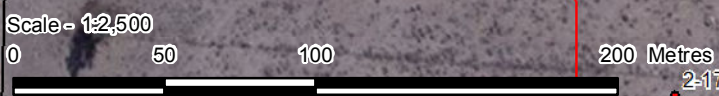
3 The Crescent  
Mildura, VIC 3500  
Ph: (03) 5023 3643  
Fax: (03) 5021 3440  
Email: enquiries@sunenv.com.au  
Web: www.sunenv.com.au

Date: 18/08/2014  
Page size: A3  
Spatial grid datum and projection: GDA 94, MGA Zone 54  
Cadastral © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.  
While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.



**Location Map**

- Sampling Sites
- Properties
- Sampling Grid
- Cadastre



© 2014 DigitalGlobe © 2014 GeoEye Earthstar Geographics SIO © 2014 Microsoft Corporation © AND © 2010 MapData Sciences Pty Ltd, PSMA

744700 744800 744900 745000 745100 745200 745300





FOSC4.2\_Oxley\_PG

B400

B400

B400

B400

**Location Map**

- Sampling Sites
- ▭ Properties
- ▭ Sampling Grid
- ▭ Cadastre



Scale - 1:3,000  
0 50 100 200 Metres

3 The Crescent  
Mildura, VIC 3500  
Ph: (03) 5023 3643  
Fax: (03) 5021 3440  
Email: enquiries@sunenv.com.au  
Web: www.sunenv.com.au

Date: 18/08/2014  
Page size: A3  
Spatial grid datum and projection: GDA 94, MGA Zone 54  
Cadastre © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.  
While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.



744700 744800 744900 745000 745100 745200 745300 745400

6067400 6067300 6067200 6067100 6067000 6066900 6066800 6066700 6066600 6066500 6066400

6067400 6067300 6067200 6067100 6067000 6066900 6066800 6066700 6066600 6066500 6066400



**Location Map**

- Sampling Sites
- Properties
- Sampling Grid
- Cadastre



Scale - 1:3,000  
0 50 100 200 Metres

3 The Crescent  
Mildura, VIC 3500  
Ph: (03) 5023 3643  
Fax: (03) 5021 3440  
Email: enquiries@sunenv.com.au  
Web: www.sunenv.com.au

Date: 18/08/2014  
Page size: A3  
Spatial grid datum and projection: GDA 94, MGA Zone 54  
Cadastre © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.  
While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.



744700 744800 744900 745000 745100 745200 745300 745400





B400

Murray Valley Hwy

B400

FOSC2.1\_TrescoNth\_PG

1-03

1-02

1-04

1-05

1-01

1-09

1-06

1-08

1-10

1-11

1-07

1-15

1-14

1-16

1-17

1-13

1-12

1-18

**Location Map**

- Sampling Sites
- ▭ Properties
- ▭ Sampling Grid



Scale - 1:3,000

0 50 100 200 Metres



3 The Crescent  
Mildura, VIC 3500  
Ph: (03) 5023 3643  
Fax: (03) 5021 3440  
Email: enquiries@sunenv.com.au  
Web: www.sunenv.com.au

Date: 18/08/2014  
Page size: A3  
Spatial grid datum and projection: GDA 94, MGA Zone 54  
Cadastral © The State of Victoria, Department of Sustainability and Environment, 2012. Reproduced with permission of DSE.

While every effort has been made to ensure map accuracy, Sunraysia Environmental takes no responsibility for the spatial accuracy of information displayed on this map.



## **Appendix 2**

### **Adapted SCaRP Protocols**



## Adapted ScaRP Protocols

The attached protocol was supplied by Dr Jeff Baldock (CSIRO) in February 2012, providing input into the original project proposal. It recognises that sampling to calculate paddock carbon stocks is inherently different to the actual SCaRP. (<http://www.csiro.au/science/Soil-Carbon-Research-Program>) objectives and therefore survey design. The description below is adapted to the requirements of the CFF AotG program of which this project is a part.

To be consistent with data requirements of the Carbon Farming Futures research program, the following is considered to be the minimum sampling and analysis requirement for Action on the Ground projects:

- 1) Multiple (10 or more) soil samples should be collected using random sampling or stratified random sampling across the entirety of the area of interest (e.g. a paddock) on which comments pertaining to the measured carbon stocks are to be made. Special consideration of sample locations may be needed in row-based systems (e.g. orchards and permanent beds) where additional samples may be required to account for spatial differences between row and inter-row soil. Each sample should be kept separate and analysed separately to allow calculation of average soil carbon stocks and a standard deviation. This will allow comparisons between paddocks and comparisons over time to be made.
- 2) Replicated field experiments need to collect one composite sample per replicate treatment and then use the appropriate ANOVA to quantify treatment differences on soil carbon stocks.
- 3) A measurement of the dry soil bulk density is required at each sample location to allow carbon concentration data (%C) provided by an analytical laboratory to be converted into carbon stocks (Mg C/ha) (see Equation 1).
- 4) Sampling must occur to a minimum depth of 30 cm. It is suggested, but not essential, that the soil be sampled in 10 cm increments over the 0-30 cm soil layer. If a project wants to sample soil deeper than 30 cm that is acceptable; however, a measured carbon stock for the 0-30 cm layer separate from deeper soil carbon stocks will be required. Therefore any deeper sampling will have to be completed in at least two stages so that a 0-30 cm carbon stock and a >30 cm carbon stock can be derived.
- 5) The collected soil samples are to be air dried and sieved to <2mm with all material passing through the 2mm sieve being weighed and retained for subsequent carbon analysis. Note that the dry weight of any material >2mm (gravel content) needs to



- be recorded and applied as a correction factor in calculating the soil carbon stock (see Equation 1).
- 6) The gravimetric water content of the air dried <2mm material must be determined and used to correct any carbon content data if this was not done by the analytical laboratory. Whether an individual laboratory performs this correction or not needs to be confirmed with the laboratory used.
  - 7) The gravimetric concentration of organic carbon (typically provided as %C) in the samples should be determined by sending the samples to an analytical laboratory accredited to perform this analysis. Ensure that samples containing carbonates are treated appropriately to provide a measurement of only organic carbon. A variety of accredited laboratories around Australia offer organic carbon analyses for soils. The gravimetric concentration of organic carbon is required for calculating the soil carbon stock using Equation 1.
  - 8) To quantify soil carbon stock changes the sampling program has to be implemented at least twice (baseline assessment plus a measurement in the future). When considering temporal changes, the time of year and stage of crop/pasture development should be as constant as possible. The average and standard deviations obtained from the two or more samplings will be required to define the size of the soil carbon stock change associated with a defined level of confidence.

Equation 1 is used to calculate carbon stocks:

Soil carbon stock (Mg C/ha) = Soil carbon concentration (mg C/g soil) x soil layer depth (cm) x bulk density (Mg soil/m<sup>3</sup> soil) x (1 – gravel content) x correction for units (10<sup>8</sup> cm<sup>2</sup>/ha x Mg/10<sup>9</sup> mg)

where the soil carbon concentration is reported as mgC/g soil (equal to 10 x %C), the soil layer depth is entered in cm, the bulk density is the value measured for the sample of soil analysed and the gravel content is the proportional mass of the soil material >2mm (g >2mm soil/g soil).

Note 1: It is not a requirement to use MIR (mid-infrared spectroscopy) to derive estimates of carbon concentration or carbon fractions to define baseline carbon values for carbon accounting purposes.

Note 2: In the SCaRP program, samples were collected from a 25m by 25m area because the work being completed was not designed to quantify the stocks of carbon present across entire paddocks, but rather to define the potential impact of management practices across multiple paddocks. Under this scenario, the 25m by 25m area is one example of a soil by defined management combination and the mean and standard deviation across the aggregate of the areas sampled was available to quantify the influence of management practice. For carbon accounting across an area of interest (e.g. a paddock), the 25m by



25m area is not representative of the entire area and cannot be used to provide carbon account over the paddock.



## **Appendix 3**

### **Analysis Results – Organic Carbon & Bulk Density**





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
1-1	0-10	1.112	0.74	0.74	<LOD
1-1	10-30	1.247	1.16	0.76	0.40
1-2	0-10	1.117	0.95	0.60	0.35
1-2	10-30	1.304	0.59	0.14	0.45
1-3	0-10	1.076	0.99	0.49	0.50
1-3	10-30	1.229	0.65	0.30	0.35
1-4	0-10	1.630	1.57	1.57	<LOD
1-4	10-30	1.292	0.71	0.71	<LOD
1-5	0-10	0.968	1.10	0.45	0.65
1-5	10-30	1.292	1.31	0.60	0.70
1-6	0-10	1.390	0.97	0.97	<LOD
1-6	10-30	1.315	0.48	0.13	0.35
1-7	0-10	1.234	1.19	1.19	<LOD
1-7	10-30	1.302	0.49	0.49	<LOD
1-8	0-10	1.380	1.30	1.30	<LOD
1-8	10-30	1.571	0.76	0.76	<LOD
1-9	0-10	1.286	1.21	1.01	0.20
1-9	10-30	1.402	0.86	0.86	<LOD
1-10	0-10	1.423	1.38	1.08	0.30
1-10	10-30	1.351	0.99	0.99	<LOD
1-11	0-10	1.511	1.20	1.20	<LOD
1-11	10-30	1.420	0.69	0.49	0.20
1-12	0-10	0.946	1.07	0.57	0.50
1-12	10-30	1.219	0.89	0.29	0.60
1-13	0-10	1.235	1.14	1.14	<LOD
1-13	10-30	1.192	0.65	0.65	<LOD
1-14	0-10	1.337	1.39	1.39	<LOD
1-14	10-30	1.436	0.69	0.69	<LOD
1-15	0-10	1.472	1.12	1.12	<LOD
1-15	10-30	1.578	0.58	0.58	<LOD
1-16	0-10	1.493	1.07	1.07	<LOD
1-16	10-30	1.356	0.66	0.51	0.15
1-17	0-10	1.349	1.13	0.63	0.50
1-17	10-30	1.406	1.07	0.87	0.20
1-18	0-10	1.272	1.55	1.55	<LOD
1-18	10-30	1.165	0.84	0.74	0.10





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
2-1	0-10	1.365	1.03	1.03	<LOD
2-1	10-30	1.264	0.43	0.43	<LOD
2-2	0-10	1.367	0.90	0.20	0.70
2-2	10-30	1.310	1.40	1.20	0.20
2-3	0-10	1.435	1.48	0.48	1.00
2-3	10-30	1.064	1.42	1.02	0.40
2-4	0-10	1.411	0.77	0.77	<LOD
2-4	10-30	1.378	0.91	0.81	0.10
2-5	0-10	1.029	1.61	1.61	<LOD
2-5	10-30	1.429	1.28	1.28	<LOD
2-6	0-10	1.306	1.28	1.28	<LOD
2-6	10-30	1.229	0.62	0.32	0.30
2-7	0-10	1.657	0.72	0.72	<LOD
2-7	10-30	1.400	0.59	0.59	0.00
2-8	0-10	1.275	1.30	1.20	0.10
2-8	10-30	1.290	0.78	0.28	0.50
2-9	0-10	1.424	1.24	1.04	0.20
2-9	10-30	1.627	0.54	0.54	0.00
2-10	0-10	1.097	1.28	1.13	0.15
2-10	10-30	1.381	0.87	0.11	0.75
2-11	0-10	1.237	1.79	1.49	0.30
2-11	10-30	1.298	1.07	1.07	<LOD
2-12	0-10	1.115	1.28	1.28	<LOD
2-12	10-30	1.354	0.89	0.39	0.50
2-13	0-10	1.363	1.86	1.86	<LOD
2-13	10-30	1.391	0.99	0.99	<LOD
2-14	0-10	1.547	1.75	1.75	<LOD
2-14	10-30	1.370	0.95	0.45	0.50
2-15	0-10	1.553	1.21	1.16	0.05
2-15	10-30	1.444	0.71	0.01	0.70
2-16	0-10	1.418	1.36	0.51	0.85
2-16	10-30	1.298	0.88	0.53	0.35
2-17	0-10	1.214	2.29	2.29	<LOD
2-17	10-30	1.344	0.75	0.45	0.30
2-18	0-10	1.390	1.69	1.69	<LOD
2-18	10-30	1.649	1.42	1.22	0.20





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
3-1	0-10	1.666	1.01	0.91	0.10
3-1	10-30	1.649	0.65	0.15	0.50
3-2	0-10	1.207	1.09	1.09	<LOD
3-2	10-30	1.108	0.43	0.13	0.30
3-3	0-10	1.484	0.96	0.26	0.70
3-3	10-30	1.463	0.55	0.25	0.30
3-4	0-10	1.257	0.96	0.31	0.65
3-4	10-30	1.344	0.57	0.17	0.40
3-5	0-10	0.983	1.23	1.23	<LOD
3-5	10-30	1.464	0.39	0.39	<LOD
3-6	0-10	1.428	1.07	0.37	0.70
3-6	10-30	1.077	0.79	0.64	0.15
3-7	0-10	1.213	1.07	1.07	<LOD
3-7	10-30	1.286	0.47	0.37	0.10
3-8	0-10	1.405	0.89	0.89	<LOD
3-8	10-30	1.145	0.42	0.42	<LOD
3-9	0-10	1.384	0.90	0.90	<LOD
3-9	10-30	1.333	0.34	0.34	<LOD
3-10	0-10	1.307	1.34	1.34	<LOD
3-10	10-30	1.209	0.50	0.40	0.10
3-11	0-10	1.438	1.06	1.06	<LOD
3-11	10-30	1.344	0.41	0.11	0.30
3-12	0-10	1.400	1.02	1.02	<LOD
3-12	10-30	1.319	0.42	0.32	0.10
3-13	0-10	1.454	0.79	0.39	0.40
3-13	10-30	1.612	0.35	0.15	0.20
3-14	0-10	1.292	0.94	0.94	<LOD
3-14	10-30	1.442	0.48	0.48	<LOD
3-15	0-10	1.269	1.39	1.39	<LOD
3-15	10-30	1.345	0.48	0.48	<LOD
3-16	0-10	1.520	0.86	0.86	<LOD
3-16	10-30	1.349	0.50	0.09	0.40
3-17	0-10	1.174	0.94	0.94	<LOD
3-17	10-30	1.244	0.54	0.14	0.40
3-18	0-10	1.130	0.93	0.13	0.80
3-18	10-30	1.341	0.42	0.42	<LOD





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
4-1	0-10	1.463	1.10	1.10	<LOD
4-1	10-30	1.190	0.66	0.16	0.50
4-2	0-10	1.435	1.57	1.57	<LOD
4-2	10-30	1.252	0.92	0.22	0.70
4-3	0-10	1.213	1.18	1.18	<LOD
4-3	10-30	1.301	1.15	0.94	0.20
4-4	0-10	1.249	0.95	0.95	<LOD
4-4	10-30	1.080	1.08	0.72	0.35
4-5	0-10	1.334	1.10	0.55	0.55
4-5	10-30	1.256	1.15	0.75	0.40
4-6	0-10	1.368	1.23	1.23	<LOD
4-6	10-30	1.303	0.70	0.10	0.60
4-7	0-10	1.330	1.26	0.36	0.90
4-7	10-30	1.525	0.69	0.59	0.10
4-8	0-10	1.477	1.10	1.05	0.05
4-8	10-30	1.288	0.61	0.56	0.05
4-9	0-10	1.329	0.73	0.53	0.20
4-9	10-30	1.406	1.30	1.20	0.10
4-10	0-10	1.327	1.00	0.19	0.80
4-10	10-30	1.373	1.70	0.15	1.55
4-11	0-10	1.138	1.12	1.12	<LOD
4-11	10-30	1.327	1.04	0.84	0.20
4-12	0-10	1.305	1.18	1.18	<LOD
4-12	10-30	1.481	0.91	0.70	0.20
4-13	0-10	1.131	1.58	0.33	1.25
4-13	10-30	1.554	0.86	0.61	0.25
4-14	0-10	1.582	1.38	1.38	<LOD
4-14	10-30	1.336	0.83	0.78	0.05
4-15	0-10	1.263	1.51	0.31	1.20
4-15	10-30	1.365	1.45	0.30	1.15
4-16	0-10	1.193	1.11	1.11	<LOD
4-16	10-30	1.360	1.05	0.40	0.65
4-17	0-10	1.171	1.56	0.61	0.95
4-17	10-30	1.342	0.87	0.67	0.20
4-18	0-10	1.515	1.11	1.11	<LOD
4-18	10-30	1.233	0.60	0.02	0.58





# Carbon Analysis

**Client** Sunraysia Environmental **Lab Number** 2012-85  
**Date received** 29/10/2012 **Customer No** K1901  
**Date reported** 28/11/2012 **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
5-1	0-10	1.171	1.56	0.61	0.95
5-1	10-30	1.342	0.87	0.67	0.20
5-2	0-10	1.515	1.11	1.11	<LOD
5-2	10-30	1.233	0.60	0.02	0.58
5-3	0-10	1.489	2.33	2.33	<LOD
5-3	10-30	1.285	0.74	0.74	<LOD
5-4	0-10	1.377	2.44	2.44	<LOD
5-4	10-30	1.674	0.79	0.79	<LOD
5-5	0-10	1.573	1.66	1.66	<LOD
5-5	10-30	1.401	0.72	0.72	<LOD
5-6	0-10	1.446	1.78	1.16	0.62
5-6	10-30	1.392	0.73	0.73	<LOD
5-7	0-10	1.297	1.39	1.39	<LOD
5-7	10-30	1.482	0.76	0.76	<LOD
5-8	0-10	1.405	1.60	1.60	<LOD
5-8	10-30	1.438	0.82	0.82	<LOD
5-9	0-10	1.328	2.59	2.59	<LOD
5-9	10-30	0.956	0.93	0.93	<LOD
5-10	0-10	1.111	1.32	1.32	<LOD
5-10	10-30	1.437	0.72	0.72	<LOD
5-11	0-10	1.421	2.09	2.09	<LOD
5-11	10-30	1.441	0.66	0.66	<LOD
5-12	0-10	1.379	1.72	1.72	<LOD
5-12	10-30	1.310	0.81	0.81	<LOD
5-13	0-10	1.211	1.77	1.77	<LOD
5-13	10-30	1.243	0.78	0.78	<LOD
5-14	0-10	1.191	2.36	1.69	0.67
5-14	10-30	1.151	0.98	0.33	0.65
5-15	0-10	1.200	1.65	1.65	<LOD
5-15	10-30	0.930	0.75	0.75	<LOD
5-16	0-10	1.197	1.47	1.47	<LOD
5-16	10-30	1.287	0.91	0.91	<LOD
5-17	0-10	1.121	1.58	1.58	<LOD
5-17	10-30	1.246	0.70	0.45	0.25
5-18	0-10	1.301	1.50	1.50	<LOD
5-18	10-30	1.326	1.08	0.68	0.40





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
6-1	0-10	1.236	2.36	2.36	<LOD
6-1	10-30	1.550	0.92	0.92	<LOD
6-2	0-10	1.243	3.13	3.13	<LOD
6-2	10-30	1.461	1.11	1.11	<LOD
6-3	0-10	1.253	2.38	2.38	<LOD
6-3	10-30	1.370	0.97	0.97	<LOD
6-4	0-10	0.818	2.57	2.57	<LOD
6-4	10-30	1.337	0.94	0.94	<LOD
6-5	0-10	1.316	1.62	1.62	<LOD
6-5	10-30	0.911	0.76	0.76	<LOD
6-6	0-10	1.123	2.93	2.93	<LOD
6-6	10-30	1.443	1.03	1.03	<LOD
6-7	0-10	1.366	1.50	1.50	<LOD
6-7	10-30	1.394	0.99	0.99	<LOD
6-8	0-10	1.095	2.84	2.84	<LOD
6-8	10-30	1.468	0.89	0.89	<LOD
6-9	0-10	1.010	3.13	3.13	<LOD
6-9	10-30	1.243	1.06	1.06	<LOD
6-10	0-10	1.666	2.37	2.37	<LOD
6-10	10-30	1.462	0.78	0.78	<LOD
6-11	0-10	1.150	2.13	2.13	<LOD
6-11	10-30	1.356	0.95	0.95	<LOD
6-12	0-10	1.235	1.82	1.82	<LOD
6-12	10-30	1.376	0.91	0.91	<LOD
6-13	0-10	1.435	2.07	2.07	<LOD
6-13	10-30	1.483	0.81	0.81	<LOD
6-14	0-10	1.491	1.51	1.51	<LOD
6-14	10-30	1.367	0.86	0.86	<LOD
6-15	0-10	1.280	2.63	2.63	<LOD
6-15	10-30	1.393	0.86	0.86	<LOD
6-16	0-10	1.468	1.68	1.68	<LOD
6-16	10-30	1.318	0.96	0.96	<LOD
6-17	0-10	1.545	1.96	1.96	<LOD
6-17	10-30	1.311	0.80	0.80	<LOD
6-18	0-10	1.054	2.53	2.53	<LOD
6-18	10-30	1.360	1.27	1.27	<LOD





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
7-1	0-10	1.522	0.50	0.50	<LOD
7-1	10-30	1.448	0.33	0.33	<LOD
7-2	0-10	1.403	1.08	1.08	<LOD
7-2	10-30	1.366	0.46	0.46	<LOD
7-3	0-10	1.217	1.27	1.27	<LOD
7-3	10-30	1.435	0.45	0.45	<LOD
7-4	0-10	1.461	1.21	1.21	<LOD
7-4	10-30	1.328	0.42	0.42	<LOD
7-5	0-10	1.369	1.37	1.37	<LOD
7-5	10-30	1.371	0.42	0.42	<LOD
7-6	0-10	1.359	0.99	0.99	<LOD
7-6	10-30	1.411	0.33	0.33	<LOD
7-7	0-10	1.374	1.31	1.31	<LOD
7-7	10-30	1.512	0.79	0.79	<LOD
7-8	0-10	1.377	1.04	1.04	<LOD
7-8	10-30	1.527	0.41	0.41	<LOD
7-9	0-10	1.391	1.46	1.21	0.25
7-9	10-30	1.095	0.44	0.09	0.35
7-10	0-10	1.192	1.06	1.06	<LOD
7-10	10-30	1.571	0.49	0.49	<LOD
7-11	0-10	1.407	1.14	1.14	<LOD
7-11	10-30	1.888	0.64	0.59	0.05
7-12	0-10	0.780	1.34	1.34	<LOD
7-12	10-30	1.128	0.45	0.45	<LOD
7-13	0-10	1.369	0.99	0.99	<LOD
7-13	10-30	1.741	0.97	0.97	<LOD
7-14	0-10	1.292	1.11	1.11	<LOD
7-14	10-30	1.336	0.46	0.36	0.10
7-15	0-10	1.338	1.51	1.51	<LOD
7-15	10-30	1.471	0.52	0.52	<LOD





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
8-1	0-10	1.267	1.71	1.71	<LOD
8-1	10-30	1.243	1.42	1.42	<LOD
8-2	0-10	1.182	1.30	1.30	<LOD
8-2	10-30	1.471	1.32	1.32	<LOD
8-3	0-10	1.174	1.57	1.57	<LOD
8-3	10-30	1.288	1.44	1.44	<LOD
8-4	0-10	1.228	1.55	1.55	<LOD
8-4	10-30	1.308	1.43	1.43	<LOD
8-5	0-10	1.430	1.90	1.25	0.65
8-5	10-30	1.277	1.56	1.56	<LOD
8-6	0-10	1.331	1.62	0.47	1.15
8-6	10-30	1.451	1.40	0.15	1.25
8-7	0-10	1.102	1.58	1.58	<LOD
8-7	10-30	1.351	1.47	1.47	<LOD
8-8	0-10	1.023	1.51	1.51	<LOD
8-8	10-30	1.373	1.09	1.09	<LOD
8-9	0-10	1.230	1.79	0.64	1.15
8-9	10-30	1.271	1.20	1.05	0.15
8-10	0-10	1.217	1.20	1.20	<LOD
8-10	10-30	1.338	1.06	1.06	<LOD
8-11	0-10	1.241	1.49	1.49	<LOD
8-11	10-30	1.252	1.03	1.03	<LOD
8-12	0-10	1.086	1.16	1.16	<LOD
8-12	10-30	1.339	1.02	1.02	<LOD
8-13	0-10	0.994	1.35	1.35	<LOD
8-13	10-30	1.273	0.96	0.96	<LOD
8-14	0-10	0.977	1.68	1.68	<LOD
8-14	10-30	1.242	1.12	1.12	<LOD
8-15	0-10	0.991	1.57	1.57	<LOD
8-15	10-30	1.160	1.29	1.29	<LOD
8-16	0-10	0.985	1.56	1.56	<LOD
8-16	10-30	1.439	1.01	1.01	<LOD
8-17	0-10	1.012	1.65	1.65	<LOD
8-17	10-30	1.248	1.24	1.24	<LOD
8-18	0-10	1.180	1.62	1.62	<LOD
8-18	10-30	0.726	1.04	0.99	0.05





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
9-1	0-10	1.008	2.42	2.42	<LOD
9-1	10-30	1.154	0.93	0.93	<LOD
9-2	0-10	1.320	2.03	2.03	<LOD
9-2	10-30	1.454	0.68	0.68	<LOD
9-3	0-10	1.171	3.07	3.07	<LOD
9-3	10-30	1.481	0.68	0.68	<LOD
9-4	0-10	1.248	2.33	2.33	<LOD
9-4	10-30	1.537	0.68	0.68	<LOD
9-5	0-10	1.145	1.99	1.99	<LOD
9-5	10-30	1.312	0.72	0.72	<LOD
9-6	0-10	1.465	1.84	1.84	<LOD
9-6	10-30	1.391	0.58	0.58	<LOD
9-7	0-10	1.372	2.45	2.45	<LOD
9-7	10-30	1.500	0.86	0.86	<LOD
9-8	0-10	1.381	2.58	2.58	<LOD
9-8	10-30	1.567	0.79	0.79	<LOD
9-9	0-10	1.339	1.45	1.45	<LOD
9-9	10-30	1.367	0.60	0.60	<LOD
9-10	0-10	1.385	2.10	2.10	<LOD
9-10	10-30	1.456	0.72	0.72	<LOD
9-11	0-10	1.293	1.80	1.80	<LOD
9-11	10-30	1.281	0.74	0.74	<LOD
9-12	0-10	1.492	1.51	1.51	<LOD
9-12	10-30	1.210	0.94	0.94	<LOD
9-13	0-10	1.573	1.38	1.38	<LOD
9-13	10-30	1.355	0.75	0.75	<LOD
9-14	0-10	1.410	1.48	1.48	<LOD
9-14	10-30	1.381	0.78	0.68	0.10
9-15	0-10	1.588	1.17	1.17	<LOD
9-15	10-30	1.234	0.75	0.75	<LOD
9-16	0-10	1.490	1.98	1.98	<LOD
9-16	10-30	1.463	0.93	0.93	<LOD
9-17	0-10	1.604	1.19	1.19	<LOD
9-17	10-30	1.381	0.89	0.89	<LOD
9-18	0-10	1.271	1.70	1.70	<LOD
9-18	10-30	1.391	1.00	0.35	0.65





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
10-1	0-10	1.534	0.71	0.71	<LOD
10-1	10-30	1.332	0.69	0.24	<LOD
10-2	0-10	1.442	0.72	0.22	0.50
10-2	10-30	1.554	0.52	0.07	0.45
10-3	0-10	1.248	1.00	1.00	<LOD
10-3	10-30	1.383	0.61	0.11	0.50
10-4	0-10	1.460	1.53	1.53	<LOD
10-4	10-30	1.305	0.71	0.51	0.20
10-5	0-10	1.216	1.46	1.46	<LOD
10-5	10-30	1.341	1.71	1.60	0.11
10-6	0-10	1.479	1.14	1.14	<LOD
10-6	10-30	1.597	1.05	0.40	0.65
10-7	0-10	1.405	1.17	1.17	<LOD
10-7	10-30	1.201	1.12	0.17	0.95
10-8	0-10	1.468	0.90	0.85	0.05
10-8	10-30	1.136	0.79	0.29	0.50
10-9	0-10	1.426	0.88	0.88	<LOD
10-9	10-30	1.464	0.61	0.46	0.15
10-10	0-10	1.528	0.69	0.69	<LOD
10-10	10-30	1.438	0.62	0.62	<LOD
10-11	0-10	1.451	1.12	1.12	<LOD
10-11	10-30	1.480	0.65	0.65	<LOD
10-12	0-10	1.451	0.93	0.53	0.40
10-12	10-30	1.164	0.82	0.12	0.70
10-13	0-10	1.295	1.28	1.18	0.10
10-13	10-30	1.199	1.61	1.61	<LOD
10-14	0-10	1.455	0.91	0.91	<LOD
10-14	10-30	1.232	1.00	1.00	<LOD
10-15	0-10	1.354	1.30	1.30	<LOD
10-15	10-30	1.107	1.10	0.25	0.85





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )	%TC	%TOC	%TIC
11-1	0-10	1.175	2.78	2.78	<LOD
11-1	10-30	1.414	1.95	1.95	<LOD
11-2	0-10	1.434	2.07	2.07	<LOD
11-2	10-30	1.801	1.36	1.36	<LOD
11-3	0-10	1.385	1.97	1.97	<LOD
11-3	10-30	1.604	1.80	1.80	<LOD
11-4	0-10	1.323	2.70	2.70	<LOD
11-4	10-30	1.581	1.48	1.48	<LOD
11-5	0-10	1.128	2.45	2.45	<LOD
11-5	10-30	1.591	1.63	1.63	<LOD
11-6	0-10	1.507	3.15	3.15	<LOD
11-6	10-30	1.528	1.62	1.62	<LOD
11-7	0-10	1.589	2.46	2.46	<LOD
11-7	10-30	1.144	1.44	1.44	<LOD
11-8	0-10	1.395	1.76	1.76	<LOD
11-8	10-30	1.591	1.10	1.10	<LOD
11-9	0-10	1.638	1.87	1.87	<LOD
11-9	10-30	1.594	1.20	1.20	<LOD
11-10	0-10	1.391	2.49	2.49	<LOD
11-10	10-30	1.554	1.47	1.47	<LOD
11-11	0-10	1.116	1.39	1.39	<LOD
11-11	10-30	1.600	1.16	1.16	<LOD
11-12	0-10	1.209	1.79	1.79	<LOD
11-12	10-30	1.624	1.43	1.43	<LOD
11-13	0-10	1.468	2.23	2.23	<LOD
11-13	10-30	1.550	1.37	1.37	<LOD
11-14	0-10	1.315	2.28	2.28	<LOD
11-14	10-30	1.464	1.47	1.47	<LOD
11-15	0-10	1.427	1.66	1.66	<LOD
11-15	10-30	1.318	1.40	1.40	<LOD
11-16	0-10	1.376	2.31	2.31	<LOD
11-16	10-30	1.604	1.49	1.49	<LOD
11-17	0-10	1.499	1.46	1.46	<LOD
11-17	10-30	1.646	1.23	1.23	<LOD
11-18	0-10	1.503	2.03	2.03	<LOD
11-18	10-30	1.549	1.35	1.35	<LOD





# Carbon Analysis

**Client** Sunraysia Environmental      **Lab Number** 2012-85  
**Date received** 29/10/2012      **Customer No** K1901  
**Date reported** 28/11/2012      **Order No** 116432

Sample ID	Depth (cm)	%TC	%TOC	%TIC
1-6 rpt	0-10	0.95	0.95	<LOD
1-12 rpt	0-10	1.15	0.65	0.50
1-14 rpt	10-30	0.65	0.65	<LOD
2-4 rpt	0-10	0.79	0.79	<LOD
2-9 rpt	10-30	0.54	0.54	0.00
2-14 rpt	10-30	0.99	0.49	0.50
3-2 rpt	0-10	1.08	1.08	0.00
3-4 rpt	10-30	0.60	0.20	0.40
3-8 rpt	10-30	0.41	0.41	<LOD
4-5 rpt	0-10	1.04	0.49	0.55
4-13 rpt	10-30	0.85	0.60	0.25
4-17 rpt	0-10	1.60	0.65	0.95
5-4 rpt	10-30	0.68	0.68	<LOD
5-10 rpt	10-30	0.77	0.77	<LOD
5-17 rpt	0-10	1.52	1.52	<LOD
6-3 rpt	10-30	0.91	0.91	<LOD
6-9 rpt	10-30	0.99	0.99	<LOD
6-12 rpt	0-10	1.78	1.78	<LOD
7-2 rpt	0-10	1.12	1.12	<LOD
7-7 rpt	10-30	0.80	0.80	<LOD
7-14 rpt	10-30	0.54	0.44	0.10
8-5 rpt	0-10	1.82	1.17	0.65
8-15 rpt	10-30	1.37	1.37	<LOD
8-17 rpt	10-30	1.25	1.25	0.00
9-2 rpt	10-30	0.75	0.75	<LOD
9-10 rpt	0-10	1.99	1.99	<LOD
9-17 rpt	0-10	1.25	1.25	<LOD
10-7 rpt	0-10	1.23	1.23	0.00
10-9 rpt	10-30	0.91	0.76	0.15
10-15 rpt	0-10	1.33	1.33	<LOD
11-8 rpt	0-10	1.83	1.83	<LOD
11-11 rpt	10-30	1.45	1.45	<LOD
11-17 rpt	0-10	1.56	1.56	<LOD





# Carbon Analysis

**Client** Sunraysia Environmental **Lab Number** 2012-85  
**Date received** 29/10/2012 **Customer No** K1901  
**Date reported** 28/11/2012 **Order No** 116432

CRM ID	%TC	%TOC	%TIC
APCN-1	0.60	0.60	<LOD
APCN-1	0.62	0.62	<LOD
APCN-1	0.64	0.64	<LOD
APCN-1	0.69	0.69	<LOD
APCN-1	0.64	0.64	<LOD
APCN-1	0.67	0.67	<LOD
APCN-1	0.65	0.65	<LOD
APCN-4	2.41	2.41	<LOD
APCN-4	2.37	2.37	<LOD
APCN-4	2.43	2.43	<LOD
APCN-4	2.57	2.57	<LOD
APCN-4	2.53	2.53	<LOD
APCN-4	2.51	2.51	<LOD
ASC-5	2.94	2.94	<LOD
ASC-5	2.93	2.93	<LOD
ASC-5	2.84	2.84	<LOD
ASC-5	2.89	2.89	<LOD
ASC-5	2.79	2.79	<LOD
ASC-7	3.98	3.98	<LOD
ASC-7	3.76	3.76	<LOD
ASC-7	3.99	3.99	<LOD
ASC-7	3.83	3.83	<LOD
ASS51-12	2.56	2.56	<LOD
ASS51-12	2.42	2.42	<LOD
ASS51-12	2.48	2.48	<LOD
ASS51-12	2.56	2.56	<LOD
ASS52-12	1.27	1.22	0.05
ASS52-12	1.28	1.23	0.05
ASS52-12	1.33	1.28	0.05
ASS52-12	1.29	1.24	0.05
ASS53-12	3.24	3.09	0.15
ASS53-12	3.21	3.06	0.15
ASS53-12	3.25	3.10	0.15





# Carbon Analysis

**Client** Sunraysia Environmental **Lab Number** 2012-85  
**Date received** 29/10/2012 **Customer No** K1901  
**Date reported** 28/11/2012 **Order No** 116432

CRM ID	%TC	%TOC	%TIC
ASS53-12	3.35	3.20	0.15
ASS53-12	3.11	2.96	0.15
ASS53-12	3.24	3.09	0.15
ASS54-12	3.52	3.47	0.05
ASS54-12	3.33	3.28	0.05
ASS54-12	3.04	2.99	0.05
ASS54-12	3.34	3.29	0.05
APCN-2	11.92	11.92	<LOD
ASC-8	5.48	5.48	<LOD
CaCO <sub>3</sub>	n/a	n/a	100.08
CaCO <sub>3</sub>	n/a	n/a	100.08
CaCO <sub>3</sub>	n/a	n/a	98.08
CaCO <sub>3</sub>	n/a	n/a	102.08
CaCO <sub>3</sub>	n/a	n/a	100.08

## Certified Reference Material Values

CRM ID	%TC	%TOC	%TIC
APCN-1	0.654 ± 0.091	0.654 ± 0.091	<LOD
APCN-4	2.497 ± 0.103	2.497 ± 0.103	<LOD
ASS51-12	2.58 ± 0.193	2.575 ± 0.20	0.01
ASS52-12	1.315 ± 0.059	1.28 ± 0.0519	0.03
ASS53-12	3.2 ± 0.133	3.078 ± 0.165	0.122
ASS54-12	3.27 ± 0.067	3.20 ± 0.141	0.07
APCN-2	12.22 ± 0.60	12.22 ± 0.60	<LOD
ASC-8	5.445 ± 0.375	5.445 ± 0.375	<LOD





# Carbon Analysis

**Client** Sunraysia Environmental

**Date received** 29/10/2012

**Customer No** K1901

**Date reported** 28/11/2012

**Order No** 116432

## METHODS OF ANALYSIS

Sample preparation

Samples weighed in entirety before and after drying @ 105°C for 6 hours

Bulk densities calculated from the core volumes

Samples crushed and the <2mm material retained for analysis

<2mm material split down to approx. 30g and pulverized to <0.15mm

Total Carbon (%TC)

<0.15mm material analysed using Dumas high temperature combustion method

Analytical instrument used is a Elementar Vario Macro from Analysensysteme GmbH

Limit of Detection - 0.02%

Total Inorganic Carbon (%TIC)

<0.15mm material acidified destroying carbonate material

Acid content remaining determined via titration with standard NaOH solution

Limit of detection - 0.05%

Total Carbon (%TOC)

Total organic carbon is the difference between %TC and %TIC





# Carbon Analysis

**Client** Sunraysia Environmental

<b>Date received</b>	29/10/2012	<b>Customer No</b>	K1901
<b>Date reported</b>	28/11/2012	<b>Order No</b>	116432

## Notes

Please note that the following samples were mis labelled when received

Sample ID	Depth
3-1	0-10
3-1	10-30
4-3	0-10
4-3	10-30

The following bulk densities were checked manually after low or high sample weights were returned after drying. The bulk densities reported for the following samples are those that were manually determined

Sample ID	Depth
1-4	0-10
1-5	0-10
1-12	0-10
2-18	10-30
3-6	0-10
3-13	10-30
5-7	0-10
5-13	10-30
6-4	0-10
6-10	0-10
7-11	10-30
7-10	0-10
8-18	10-30
9-17	0-10
11-2	10-30
11-9	0-10

Signed

***Adam Romano***

Laboratory Manager



## **Appendix 4**

### **Analysis Results – Basic Soil Parameters**



Lab No		9CSI2037	9CSI2038	9CSI2039	9CSI2040	9CSI2041	9CSI2042	9CSI2043	9CSI2044
Name		1	2	3	4	5	6	7	8
Code		23/12/2012	23/12/2012	23/12/2012	23/12/2012	23/12/2012	23/12/2012	23/12/2012	23/12/2012
Customer		K1901	K1901	K1901	K1901	K1901	K1901	K1901	K1901
Depth		0-10	0-10	0-10	0-10	0-10	0-10	0-10	0-10
Colour		GR	DKGR	GR	GR	GR	GR	BR	GRBR
Gravel	%	0	0	0	0	0	0	0	0
Texture		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ammonium Nitrogen	mg/Kg	8	3	5	3	4	31	3	3
Nitrate Nitrogen	mg/Kg	2	11	2	2	7	21	7	10
Phosphorus Colwell	mg/Kg	36	2	41	46	15	21	22	14
Potassium Colwell	mg/Kg	674	352	661	699	413	507	438	514
Sulphur	mg/Kg	9.5	8.8	5.8	10.4	53.2	31.8	43.4	29.6
Organic Carbon	%	1.34	0.91	1.18	1.33	1.36	1.97	1.30	1.26
Conductivity	dS/m	0.293	0.330	0.250	0.398	0.393	0.230	0.521	0.368
pH Level (CaCl2)	pH	7.8	7.9	7.7	8.0	7.2	6.6	7.0	7.3
pH Level (H2O)	pH	8.8	8.8	8.7	9.0	8.2	7.4	8.0	8.3
DTPA Copper	mg/Kg	1.83	1.79	2.15	1.63	2.10	2.36	2.42	2.32
DTPA Iron	mg/Kg	18.22	18.34	22.19	14.72	28.87	44.95	43.16	28.15
DTPA Manganese	mg/Kg	7.45	4.79	5.10	9.59	14.19	9.95	14.80	8.47
DTPA Zinc	mg/Kg	0.50	0.23	0.39	0.53	0.44	0.74	0.44	0.34
Exc. Aluminium	meq/100g	0.047	0.058	0.046	0.048	0.077	0.108	0.062	0.064
Exc. Calcium	meq/100g	10.64	12.85	11.27	11.05	11.03	13.04	9.91	9.79
Exc. Magnesium	meq/100g	8.53	9.93	11.30	8.53	11.92	10.58	10.37	12.69
Exc. Potassium	meq/100g	1.73	0.97	1.77	1.88	1.06	1.30	1.12	1.42
Exc. Sodium	meq/100g	3.03	3.26	4.23	4.74	5.88	2.52	6.53	6.55
Boron Hot CaCl2	mg/Kg	5.99	2.71	4.76	7.16	6.75	2.05	4.78	7.42
Total Nitrogen	%	0.12	0.08	0.13	0.13	0.13	0.19	0.12	0.14
Total Phosphorus	mg/Kg	178.6	101.8	154.8	213.3	161.0	173.3	145.8	140.3





Lab No	9CSI2045	9CSI2046	9CSI2047
Name	9	10	11
Code	23/12/2012	23/12/2012	23/12/2012
Customer	K1901	K1901	K1901
Depth	0-10	0-10	0-10

Colour		DKGR	GR	GR
Gravel	%	0	0	0
Texture		3.0	3.0	3.0
Ammonium Nitrogen	mg/Kg	3	3	4
Nitrate Nitrogen	mg/Kg	2	2	2
Phosphorus Colwell	mg/Kg	8	10	15
Potassium Colwell	mg/Kg	445	601	468
Sulphur	mg/Kg	9.6	17.7	9.0
Organic Carbon	%	1.26	1.47	2.15
Conductivity	dS/m	0.156	0.428	0.147
pH Level (CaCl2)	pH	7.1	7.3	5.6
pH Level (H2O)	pH	8.1	8.3	6.6
DTPA Copper	mg/Kg	2.30	2.51	1.67
DTPA Iron	mg/Kg	48.68	42.18	94.88
DTPA Manganese	mg/Kg	8.02	18.41	16.40
DTPA Zinc	mg/Kg	0.27	0.56	2.07
Exc. Aluminium	meq/100g	0.103	0.045	0.040
Exc. Calcium	meq/100g	9.79	9.94	8.27
Exc. Magnesium	meq/100g	12.72	7.91	7.80
Exc. Potassium	meq/100g	1.14	1.55	0.92
Exc. Sodium	meq/100g	2.81	6.23	1.80
Boron Hot CaCl2	mg/Kg	3.35	2.54	0.92
Total Nitrogen	%	0.13	0.11	0.19
Total Phosphorus	mg/Kg	141.2	131.5	195.2



## **Appendix 5**

### **Variance Analyses – Total Organic Carbon & Bulk Density**



## K1901 AoTG Spring Sampling Results

Paddock or Treatment	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )				
		Min	Max	Mean	Standard Deviation	Variance
1 - FOSC 2.1 Tresco Nth PG	0 to 10	0.95	1.63	1.29	0.19	0.04
	10 to 30	1.17	1.58	1.34	0.12	0.01
	0 to 30	0.95	1.63	1.31	0.2	0.02
2 - FOSC 3.2 Tresco West PG	0 to 10	1.03	1.66	1.34	0.2	0.03
	10 to 30	1.06	1.65	1.36	0.1	0.02
	0 to 30	1.03	1.66	1.35	0.1	0.02
3 - FOSC 4.2 Oxley PG	0 to 10	0.98	1.67	1.33	0.2	0.03
	10 to 30	1.08	1.65	1.34	0.1	0.02
	0 to 30	0.98	1.67	1.34	0.2	0.02
4 - FOSC 7 Tresco West PB	0 to 10	1.13	1.58	1.32	0.1	0.02
	10 to 30	1.08	1.55	1.33	0.1	0.01
	0 to 30	1.08	1.58	1.33	0.1	0.01
5 - GMC 07 AG	0 to 10	1.11	1.57	1.32	0.1	0.02
	10 to 30	0.93	1.67	1.32	0.2	0.03
	0 to 30	0.93	1.67	1.32	0.2	0.02
6 - GMGP AG	0 to 10	0.82	1.67	1.27	0.2	0.04
	10 to 30	0.91	1.55	1.37	0.1	0.02
	0 to 30	0.82	1.67	1.32	0.2	0.03
7 - Hawkins Flood Block (Ref)	0 to 10	0.78	1.52	1.32	0.2	0.03
	10 to 30	1.10	1.89	1.44	0.2	0.04
	0 to 30	0.78	1.89	1.38	0.2	0.04
8 - JCR 02 AG	0 to 10	0.98	1.43	1.15	0.1	0.02
	10 to 30	0.73	1.47	1.28	0.2	0.03
	0 to 30	0.73	1.47	1.21	0.2	0.03
9 - KCL 03 PB	0 to 10	1.01	1.60	1.36	0.2	0.03
	10 to 30	1.15	1.57	1.38	0.1	0.01
	0 to 30	1.01	1.60	1.37	0.1	0.02
10 - Mystic Park Forest Reserve (Ref)	0 to 10	1.22	1.53	1.41	0.1	0.01
	10 to 30	1.11	1.60	1.33	0.1	0.02
	0 to 30	1.11	1.60	1.37	0.1	0.02
11 - FPAG 10 AB	0 to 10	1.12	1.64	1.38	0.1	0.02
	10 to 30	1.14	1.80	1.54	0.1	0.02
	0 to 30	1.12	1.80	1.46	0.2	0.03



## K1901 AoTG Spring Sampling Results

Paddock or Treatment	Depth (cm)	Total Organic Carbon (%)				
		Min	Max	Mean	Standard Deviation	Variance
1 - FOSC 2.1 Tresco Nth PG	0 to 10	0.45	1.57	1.00	0.35	0.12
	10 to 30	0.13	0.99	0.59	0.25	0.06
	0 to 30	0.13	1.57	0.80	0.37	0.13
2 - FOSC 3.2 Tresco West PG	0 to 10	0.20	2.29	1.19	0.52	0.29
	10 to 30	0.01	1.28	0.65	0.38	0.16
	0 to 30	0.01	2.29	0.92	0.54	0.29
3 - FOSC 4.2 Oxley PG	0 to 10	0.13	1.39	0.84	0.37	0.15
	10 to 30	0.09	0.64	0.30	0.15	0.03
	0 to 30	0.09	1.39	0.57	0.40	0.16
4 - FOSC 7 Tresco West PB	0 to 10	0.19	1.57	0.88	0.41	0.17
	10 to 30	0.02	1.20	0.54	0.32	0.11
	0 to 30	0.02	1.57	0.71	0.41	0.17
5 - GMC 07 AG	0 to 10	1.09	2.59	1.70	0.40	0.17
	10 to 30	0.08	0.93	0.69	0.20	0.04
	0 to 30	0.08	2.59	1.20	0.61	0.37
6 - GMGP AG	0 to 10	1.50	3.13	2.29	0.52	0.29
	10 to 30	0.76	1.27	0.94	0.12	0.02
	0 to 30	0.76	3.13	1.61	0.78	0.61
7 - Hawkins Flood Block (Ref)	0 to 10	0.50	1.51	1.14	0.23	0.05
	10 to 30	0.09	0.97	0.47	0.20	0.04
	0 to 30	0.09	1.51	0.81	0.40	0.16
8 - JCR 02 AG	0 to 10	0.47	1.71	1.38	0.33	0.12
	10 to 30	0.15	1.56	1.15	0.31	0.10
	0 to 30	0.15	1.71	1.26	0.35	0.12
9 - KCL 03 PB	0 to 10	1.17	3.07	1.92	0.50	0.27
	10 to 30	0.35	0.94	0.74	0.14	0.02
	0 to 30	0.35	3.07	1.33	0.71	0.50
10 - Mystic Park Forest Reserve (Ref)	0 to 10	0.22	1.53	0.98	0.34	0.12
	10 to 30	0.07	1.61	0.54	0.48	0.25
	0 to 30	0.07	1.61	0.76	0.48	0.23
11 - FPAG 10 AB	0 to 10	1.39	3.15	2.16	0.46	0.22
	10 to 30	1.10	1.95	1.44	0.21	0.05
	0 to 30	1.10	3.15	1.80	0.51	0.26

## K1901 AoTG Spring Sampling Results

Paddock or Treatment	Depth (cm)	Soil Carbon Stocks (Mg C / Ha)				
		Min	Max	Mean	Standard Deviation	Variance
1 - FOSC 2.1 Tresco Nth PG	0 to 10	4.3	25.6	13.4	5.9	34.6
	10 to 30	3.3	26.7	15.8	7.0	49.3
	0 to 30	10.3	44.0	29.2	10.7	115.4
2 - FOSC 3.2 Tresco West PG	0 to 10	2.8	27.8	15.8	6.7	47.8
	10 to 30	0.2	40.4	17.7	11.0	128.6
	0 to 30	15.6	63.9	33.5	13.3	177.5
3 - FOSC 4.2 Oxley PG	0 to 10	1.5	17.7	11.1	4.8	24.0
	10 to 30	2.6	13.9	8.0	3.8	15.1
	0 to 30	8.3	30.6	19.0	6.1	37.8
4 - FOSC 7 Tresco West PB	0 to 10	2.6	22.5	11.9	6.0	38.1
	10 to 30	0.6	33.8	14.5	8.8	81.3
	0 to 30	6.6	42.8	26.4	9.8	95.8
5 - GMC 07 AG	0 to 10	14.6	34.7	22.6	6.3	42.1
	10 to 30	2.2	26.5	18.1	5.8	35.6
	0 to 30	17.9	60.1	40.7	10.2	103.1
6 - GMGP AG	0 to 10	20.5	39.5	28.3	5.7	34.1
	10 to 30	13.9	34.4	25.7	4.3	19.6
	0 to 30	35.1	71.2	54.0	8.2	67.7
7 - Hawkins Flood Block (Ref)	0 to 10	7.7	20.2	15.0	3.1	10.6
	10 to 30	1.9	33.6	14.1	7.3	56.8
	0 to 30	17.2	47.2	29.1	8.5	72.2
8 - JCR 02 AG	0 to 10	6.3	21.7	15.6	3.7	14.6
	10 to 30	4.3	39.8	29.3	8.7	80.8
	0 to 30	10.6	57.6	44.9	11.6	135.1
9 - KCL 03 PB	0 to 10	18.6	36.0	25.6	5.4	30.9
	10 to 30	9.6	27.2	20.3	4.0	16.5
	0 to 30	31.2	60.3	45.9	8.2	67.3
10 - Mystic Park Forest Reserve (Ref)	0 to 10	3.2	22.4	13.7	4.5	21.7
	10 to 30	2.3	42.9	14.2	12.3	162.0
	0 to 30	5.4	60.6	27.9	15.1	229.4
11 - FPAG 10 AB	0 to 10	15.5	47.5	29.8	7.0	52.3
	10 to 30	32.9	57.8	44.3	6.7	48.1
	0 to 30	52.6	96.9	74.2	11.1	122.8



## K1901 AoTG Spring Sampling Results

Paddock or Treatment	Depth (cm)	Bulk Density (g/cm <sup>3</sup> )				
		Min	Max	Mean	Standard Deviation	Variance
Treatment 1 Grazing - Passive Restoration	0 to 10	0.95	1.67	1.32	0.2	0.03
	10 to 30	1.06	1.65	1.35	0.1	0.02
	0 to 30	0.95	1.67	1.33	0.2	0.02
Treatment 2 Grazing - Active Restoration	0 to 10	0.82	1.67	1.24	0.2	0.03
	10 to 30	0.73	1.67	1.32	0.2	0.03
	0 to 30	0.73	1.67	1.28	0.2	0.03
Treatment 3 Protected Biodiversity - Passive Restoration	0 to 10	1.01	1.64	1.36	0.1	0.02
	10 to 30	1.08	1.80	1.42	0.2	0.02
	0 to 30	1.01	1.80	1.39	0.2	0.02
Treatment 4 Reference - Recent Irrigation	0 to 10	0.78	1.52	1.32	0.2	0.03
	10 to 30	1.10	1.89	1.44	0.2	0.04
	0 to 30	0.78	1.89	1.38	0.2	0.04
Treatment 5 Reference - Native Vegetation	0 to 10	1.22	1.53	1.41	0.1	0.01
	10 to 30	1.11	1.60	1.33	0.2	0.02
	0 to 30	1.11	1.60	1.37	0.1	0.02

## K1901 AoTG Spring Sampling Results

Paddock or Treatment	Depth (cm)	Total Organic Carbon (%)				
		Min	Max	Mean	Standard Deviation	Variance
Treatment 1 Grazing - Passive Restoration	0 to 10	0.13	2.29	1.01	0.45	0.20
	10 to 30	0.01	1.28	0.51	0.32	0.10
	0 to 30	0.01	2.29	0.76	0.46	0.21
Treatment 2 Grazing - Active Restoration	0 to 10	0.47	3.13	1.79	0.57	0.33
	10 to 30	0.08	1.56	0.92	0.29	0.09
	0 to 30	0.08	3.13	1.36	0.63	0.39
Treatment 3 Protected Biodiversity - Passive Restoration	0 to 10	0.19	3.15	1.65	0.72	0.53
	10 to 30	0.02	1.95	0.91	0.46	0.21
	0 to 30	0.02	3.15	1.28	0.71	0.50
Treatment 4 Reference - Recent Irrigation	0 to 10	0.50	1.51	1.14	0.23	0.05
	10 to 30	0.09	0.97	0.47	0.20	0.04
	0 to 30	0.09	1.51	0.81	0.40	0.16
Treatment 5 Reference - Native Vegetation	0 to 10	0.22	1.53	0.98	0.35	0.12
	10 to 30	0.07	1.61	0.54	0.50	0.25
	0 to 30	0.07	1.61	0.76	0.48	0.23



## K1901 AoTG Spring Sampling Results

Paddock or Treatment	Depth (cm)	Soil Carbon Stocks (Mg C / Ha)				
		Min	Max	Mean	Standard Deviation	Variance
Treatment 1 Grazing - Passive Restoration	0 to 10	1.5	27.8	13.4	6.2	37.9
	10 to 30	0.2	40.4	13.8	9.0	80.1
	0 to 30	0.2	40.4	13.6	7.6	58.5
Treatment 2 Grazing - Active Restoration	0 to 10	6.3	39.5	22.2	7.5	56.6
	10 to 30	2.2	39.8	24.4	8.1	65.6
	0 to 30	2.2	39.8	23.3	7.9	61.8
Treatment 3 Protected Biodiversity - Passive Restoration	0 to 10	2.6	47.5	22.4	9.9	98.9
	10 to 30	0.6	57.8	26.4	14.7	216.4
	0 to 30	0.6	57.8	24.4	12.7	160.1
Treatment 4 Reference - Recent Irrigation	0 to 10	7.7	20.2	15.0	3.3	10.6
	10 to 30	1.9	33.6	14.1	7.5	56.8
	0 to 30	1.9	33.6	14.5	5.7	32.7
Treatment 5 Reference - Native Vegetation	0 to 10	3.2	22.4	13.7	4.7	21.7
	10 to 30	2.3	42.9	14.2	12.7	162.0
	0 to 30	2.3	42.9	14.0	9.4	88.7



































## Treatment 1

Grazing - Passive Restoration

1 - FOSC 2.1 Tresco Nth PG

2 - FOSC 3.2 Tresco West PG

3 - FOSC 4.2 Oxley PG

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%Total Organic Carbon	%Total Inorganic Carbon	Layer Soil Carbon Stock MgC/Ha	Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%Total Organic Carbon	%Total Inorganic Carbon	Layer Soil Carbon Stock MgC/Ha	Total Soil Carbon Stock MgC/Ha
1-1	0-10	1.11	0.74	0.74		8.3	1-1	10-30	1.25	1.16	0.76	0.40	18.9	27.2
1-2	0-10	1.12	0.95	0.60	0.35	6.7	1-2	10-30	1.30	0.59	0.14	0.45	3.6	10.3
1-3	0-10	1.08	0.99	0.49	0.50	5.2	1-3	10-30	1.23	0.65	0.30	0.35	7.3	12.6
1-4	0-10	1.63	1.57	1.57		25.6	1-4	10-30	1.29	0.71	0.71		18.5	44.0
1-5	0-10	0.97	1.10	0.45	0.65	4.3	1-5	10-30	1.29	1.31	0.60	0.70	15.6	20.0
1-6	0-10	1.39	0.97	0.97		13.5	1-6	10-30	1.31	0.48	0.13	0.35	3.3	16.8
1-7	0-10	1.23	1.19	1.19		14.7	1-7	10-30	1.30	0.49	0.49		12.7	27.3
1-8	0-10	1.38	1.30	1.30		17.9	1-8	10-30	1.57	0.76	0.76		23.9	41.8
1-9	0-10	1.29	1.21	1.01	0.20	13.0	1-9	10-30	1.40	0.86	0.86		24.2	37.1
1-10	0-10	1.42	1.38	1.08	0.30	15.3	1-10	10-30	1.35	0.99	0.99		26.7	42.0
1-11	0-10	1.51	1.20	1.20		18.2	1-11	10-30	1.42	0.69	0.49	0.20	13.9	32.0
1-12	0-10	0.95	1.07	0.57	0.50	5.4	1-12	10-30	1.22	0.89	0.29	0.60	7.2	12.6
1-13	0-10	1.23	1.14	1.14		14.1	1-13	10-30	1.19	0.65	0.65		15.5	29.6
1-14	0-10	1.34	1.39	1.39		18.6	1-14	10-30	1.44	0.69	0.69		19.7	38.3
1-15	0-10	1.47	1.12	1.12		16.5	1-15	10-30	1.58	0.58	0.58		18.2	34.8
1-16	0-10	1.49	1.07	1.07		16.0	1-16	10-30	1.36	0.66	0.51	0.15	13.8	29.8
1-17	0-10	1.35	1.13	0.63	0.50	8.6	1-17	10-30	1.41	1.07	0.87	0.20	24.4	32.9
1-18	0-10	1.27	1.55	1.55		19.8	1-18	10-30	1.17	0.84	0.74	0.10	17.3	37.1
2-1	0-10	1.36	1.03	1.03		14.1	2-1	10-30	1.26	0.43	0.43		10.8	24.9
2-2	0-10	1.37	0.90	0.20	0.70	2.8	2-2	10-30	1.31	1.40	1.20	0.20	31.4	34.1
2-3	0-10	1.43	1.48	0.48	1.00	6.8	2-3	10-30	1.06	1.42	1.02	0.40	21.8	28.6
2-4	0-10	1.41	0.77	0.77		10.9	2-4	10-30	1.38	0.91	0.81	0.10	22.3	33.2
2-5	0-10	1.03	1.61	1.61		16.6	2-5	10-30	1.43	1.28	1.28		36.5	53.0
2-6	0-10	1.31	1.28	1.28		16.7	2-6	10-30	1.23	0.62	0.32	0.30	7.8	24.5
2-7	0-10	1.66	0.72	0.72		12.0	2-7	10-30	1.40	0.59	0.59		16.5	28.5
2-8	0-10	1.28	1.30	1.20	0.10	15.3	2-8	10-30	1.29	0.78	0.28	0.50	7.2	22.5
2-9	0-10	1.42	1.24	1.04	0.20	14.8	2-9	10-30	1.63	0.54	0.54		17.6	32.4
2-10	0-10	1.10	1.28	1.13	0.15	12.4	2-10	10-30	1.38	0.87	0.11	0.75	3.2	15.6
2-11	0-10	1.24	1.79	1.49	0.30	18.4	2-11	10-30	1.30	1.07	1.07		27.7	46.1
2-12	0-10	1.12	1.28	1.28		14.3	2-12	10-30	1.35	0.89	0.39	0.50	10.6	24.9
2-13	0-10	1.36	1.86	1.86		25.3	2-13	10-30	1.39	0.99	0.99		27.4	52.7
2-14	0-10	1.55	1.75	1.75		27.1	2-14	10-30	1.37	0.95	0.45	0.50	12.3	39.3
2-15	0-10	1.55	1.21	1.16	0.05	18.0	2-15	10-30	1.44	0.71	0.01	0.70	0.2	18.2





## Treatment 2

Grazing - Active Restoration

5 - GMC 07 AG

6 - GMGP AG

8 - JCR 02 AG

Sample ID	Depth	Bulk Density g/cm3	%Total Carbon	%Total Organic Carbon	%Total Inorganic Carbon	Layer Soil Carbon Stock MgC/Ha	Sample ID	Depth	Bulk Density g/cm3	%Total Carbon	%Total Organic Carbon	%Total Inorganic Carbon	Layer Soil Carbon Stock MgC/Ha	Total Soil Carbon Stock MgC/Ha
5-1	0-10	1.49	2.33	2.33		34.7	5-1	10-30	1.29	0.74	0.74		19.1	53.8
5-2	0-10	1.38	2.44	2.44		33.6	5-2	10-30	1.67	0.79	0.79		26.5	60.1
5-3	0-10	1.57	1.66	1.66		26.2	5-3	10-30	1.40	0.72	0.72		20.2	46.4
5-4	0-10	1.45	1.78	1.16	0.62	16.8	5-4	10-30	1.39	0.73	0.73		20.3	37.1
5-5	0-10	1.30	1.39	1.39		18.1	5-5	10-30	1.48	0.76	0.76		22.4	40.5
5-6	0-10	1.41	1.60	1.60		22.5	5-6	10-30	1.44	0.82	0.82		23.5	46.0
5-7	0-10	1.33	2.59	2.59		34.4	5-7	10-30	0.96	0.93	0.93		17.7	52.1
5-8	0-10	1.11	1.32	1.32		14.6	5-8	10-30	1.44	0.72	0.72		20.6	35.2
5-9	0-10	1.42	2.09	2.09		29.7	5-9	10-30	1.44	0.66	0.66		19.1	48.8
5-10	0-10	1.38	1.72	1.72		23.7	5-10	10-30	1.31	0.81	0.81		21.3	45.0
5-11	0-10	1.21	1.77	1.77		21.5	5-11	10-30	1.24	0.78	0.78		19.3	40.8
5-12	0-10	1.19	2.36	1.69	0.67	20.1	5-12	10-30	1.15	0.98	0.33	0.65	7.6	27.7
5-13	0-10	1.20	1.65	1.65		19.7	5-13	10-30	0.93	0.75	0.75		14.0	33.8
5-14	0-10	1.20	1.47	1.47		17.5	5-14	10-30	1.29	0.91	0.91		23.3	40.9
5-15	0-10	1.12	1.58	1.58		17.7	5-15	10-30	1.25	0.70	0.45	0.25	11.1	28.9
5-16	0-10	1.30	1.50	1.50		19.5	5-16	10-30	1.33	1.08	0.68	0.40	18.0	37.4
5-17	0-10	1.27	1.59	1.59		20.3	5-17	10-30	1.34	0.75	0.75		20.2	40.5
5-18	0-10	1.44	1.09	1.09		15.6	5-18	10-30	1.34	0.53	0.08	0.45	2.2	17.9
6-1	0-10	1.24	2.36	2.36		29.1	6-1	10-30	1.55	0.92	0.92		28.4	57.5
6-2	0-10	1.24	3.13	3.13		38.9	6-2	10-30	1.46	1.11	1.11		32.3	71.2
6-3	0-10	1.25	2.38	2.38		29.8	6-3	10-30	1.37	0.97	0.97		26.5	56.4
6-4	0-10	0.82	2.57	2.57		21.0	6-4	10-30	1.34	0.94	0.94		25.0	46.0
6-5	0-10	1.32	1.62	1.62		21.3	6-5	10-30	0.91	0.76	0.76		13.9	35.1
6-6	0-10	1.12	2.93	2.93		32.9	6-6	10-30	1.44	1.03	1.03		29.8	62.7
6-7	0-10	1.37	1.50	1.50		20.5	6-7	10-30	1.39	0.99	0.99		27.7	48.2
6-8	0-10	1.10	2.84	2.84		31.1	6-8	10-30	1.47	0.89	0.89		26.1	57.2
6-9	0-10	1.01	3.13	3.13		31.7	6-9	10-30	1.24	1.06	1.06		26.5	58.1
6-10	0-10	1.67	2.37	2.37		39.5	6-10	10-30	1.46	0.78	0.78		22.8	62.3
6-11	0-10	1.15	2.13	2.13		24.4	6-11	10-30	1.36	0.95	0.95		25.9	50.3
6-12	0-10	1.23	1.82	1.82		22.4	6-12	10-30	1.38	0.91	0.91		25.0	47.5
6-13	0-10	1.44	2.07	2.07		29.7	6-13	10-30	1.48	0.81	0.81		24.1	53.8
6-14	0-10	1.49	1.51	1.51		22.4	6-14	10-30	1.37	0.86	0.86		23.5	45.9
6-15	0-10	1.28	2.63	2.63		33.7	6-15	10-30	1.39	0.86	0.86		24.0	57.7





Treatment 3  
 Protected Biodiversity - Passive Restoration  
 4 - FOSC 7 Tresco West PB  
 9 - KCL 03 PB  
 11 - FPAG 10 AB

Sample ID	Depth	Bulk Density g/cm3	%Total Carbon	%Total Organic Carbon	%Total Inorganic Carbon	Layer Soil Carbon Stock MgC/Ha	Sample ID	Depth	Bulk Density g/cm3	%Total Carbon	%Total Organic Carbon	%Total Inorganic Carbon	Layer Soil Carbon Stock MgC/Ha	Total Soil Carbon Stock MgC/Ha
4-1	0-10	1.46	1.10	1.10		16.0	4-1	10-30	1.19	0.66	0.16	0.50	3.7	19.8
4-2	0-10	1.43	1.57	1.57		22.5	4-2	10-30	1.25	0.92	0.22	0.70	5.4	27.9
4-3	0-10	1.21	1.18	1.18		14.3	4-3	10-30	1.30	1.15	0.94	0.20	24.6	38.9
4-4	0-10	1.25	0.95	0.95		11.9	4-4	10-30	1.08	1.08	0.72	0.35	15.7	27.5
4-5	0-10	1.33	1.10	0.55	0.55	7.3	4-5	10-30	1.26	1.15	0.75	0.40	18.8	26.2
4-6	0-10	1.37	1.23	1.23		16.8	4-6	10-30	1.30	0.70	0.10	0.60	2.5	19.3
4-7	0-10	1.33	1.26	0.36	0.90	4.8	4-7	10-30	1.53	0.69	0.59	0.10	18.1	22.9
4-8	0-10	1.48	1.10	1.05	0.05	15.5	4-8	10-30	1.29	0.61	0.56	0.05	14.5	30.0
4-9	0-10	1.33	0.73	0.53	0.20	7.0	4-9	10-30	1.41	1.30	1.20	0.10	33.8	40.8
4-10	0-10	1.33	1.00	0.19	0.80	2.6	4-10	10-30	1.37	1.70	0.15	1.55	4.0	6.6
4-11	0-10	1.14	1.12	1.12		12.8	4-11	10-30	1.33	1.04	0.84	0.20	22.2	35.0
4-12	0-10	1.31	1.18	1.18		15.3	4-12	10-30	1.48	0.91	0.70	0.20	20.9	36.2
4-13	0-10	1.13	1.58	0.33	1.25	3.7	4-13	10-30	1.55	0.86	0.61	0.25	19.0	22.7
4-14	0-10	1.58	1.38	1.38		21.9	4-14	10-30	1.34	0.83	0.78	0.05	20.9	42.8
4-15	0-10	1.26	1.51	0.31	1.20	3.9	4-15	10-30	1.36	1.45	0.30	1.15	8.1	12.0
4-16	0-10	1.19	1.11	1.11		13.2	4-16	10-30	1.36	1.05	0.40	0.65	10.9	24.1
4-17	0-10	1.17	1.56	0.61	0.95	7.1	4-17	10-30	1.34	0.87	0.67	0.20	18.0	25.1
4-18	0-10	1.51	1.11	1.11		16.8	4-18	10-30	1.23	0.60	0.02	0.58	0.6	17.4
9-1	0-10	1.01	2.42	2.42		24.4	9-1	10-30	1.15	0.93	0.93		21.4	45.8
9-2	0-10	1.32	2.03	2.03		26.8	9-2	10-30	1.45	0.68	0.68		19.9	46.7
9-3	0-10	1.17	3.07	3.07		36.0	9-3	10-30	1.48	0.68	0.68		20.2	56.2
9-4	0-10	1.25	2.33	2.33		29.1	9-4	10-30	1.54	0.68	0.68		20.9	49.9
9-5	0-10	1.14	1.99	1.99		22.8	9-5	10-30	1.31	0.72	0.72		18.8	41.5
9-6	0-10	1.46	1.84	1.84		27.0	9-6	10-30	1.39	0.58	0.58		16.2	43.2
9-7	0-10	1.37	2.45	2.45		33.6	9-7	10-30	1.50	0.86	0.86		25.9	59.5
9-8	0-10	1.38	2.58	2.58		35.7	9-8	10-30	1.57	0.79	0.79		24.7	60.3
9-9	0-10	1.34	1.45	1.45		19.4	9-9	10-30	1.37	0.60	0.60		16.3	35.7
9-10	0-10	1.38	2.10	2.10		29.0	9-10	10-30	1.46	0.72	0.72		20.9	49.9
9-11	0-10	1.29	1.80	1.80		23.3	9-11	10-30	1.28	0.74	0.74		19.0	42.3
9-12	0-10	1.49	1.51	1.51		22.5	9-12	10-30	1.21	0.94	0.94		22.8	45.3
9-13	0-10	1.57	1.38	1.38		21.7	9-13	10-30	1.36	0.75	0.75		20.2	41.9
9-14	0-10	1.41	1.48	1.48		20.9	9-14	10-30	1.38	0.78	0.68	0.10	18.9	39.8
9-15	0-10	1.59	1.17	1.17		18.6	9-15	10-30	1.23	0.75	0.75		18.5	37.1











## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
1-1	0-10	1.11	0.74	0.74		7.45	10	1.11	1	1.00E+08	1.00E-09	8.28
1-1	10-30	1.25	1.16	0.76	0.40	7.59	20	1.25	1	1.00E+08	1.00E-09	18.94
1-2	0-10	1.12	0.95	0.60	0.35	6.04	10	1.12	1	1.00E+08	1.00E-09	6.74
1-2	10-30	1.30	0.59	0.14	0.45	1.38	20	1.30	1	1.00E+08	1.00E-09	3.59
1-3	0-10	1.08	0.99	0.49	0.50	4.87	10	1.08	1	1.00E+08	1.00E-09	5.24
1-3	10-30	1.23	0.65	0.30	0.35	2.98	20	1.23	1	1.00E+08	1.00E-09	7.31
1-4	0-10	1.63	1.57	1.57		15.70	10	1.63	1	1.00E+08	1.00E-09	25.59
1-4	10-30	1.29	0.71	0.71		7.14	20	1.29	1	1.00E+08	1.00E-09	18.46
1-5	0-10	0.97	1.10	0.45	0.65	4.49	10	0.97	1	1.00E+08	1.00E-09	4.34
1-5	10-30	1.29	1.31	0.60	0.70	6.04	20	1.29	1	1.00E+08	1.00E-09	15.62
1-6	0-10	1.39	0.97	0.97		9.69	10	1.39	1	1.00E+08	1.00E-09	13.47
1-6	10-30	1.31	0.48	0.13	0.35	1.26	20	1.31	1	1.00E+08	1.00E-09	3.31
1-7	0-10	1.23	1.19	1.19		11.87	10	1.23	1	1.00E+08	1.00E-09	14.66
1-7	10-30	1.30	0.49	0.49		4.86	20	1.30	1	1.00E+08	1.00E-09	12.65
1-8	0-10	1.38	1.30	1.30		12.95	10	1.38	1	1.00E+08	1.00E-09	17.87
1-8	10-30	1.57	0.76	0.76		7.62	20	1.57	1	1.00E+08	1.00E-09	23.94
1-9	0-10	1.29	1.21	1.01	0.20	10.08	10	1.29	1	1.00E+08	1.00E-09	12.96
1-9	10-30	1.40	0.86	0.86		8.62	20	1.40	1	1.00E+08	1.00E-09	24.16
1-10	0-10	1.42	1.38	1.08	0.30	10.77	10	1.42	1	1.00E+08	1.00E-09	15.33
1-10	10-30	1.35	0.99	0.99		9.88	20	1.35	1	1.00E+08	1.00E-09	26.70
1-11	0-10	1.51	1.20	1.20		12.02	10	1.51	1	1.00E+08	1.00E-09	18.16
1-11	10-30	1.42	0.69	0.49	0.20	4.88	20	1.42	1	1.00E+08	1.00E-09	13.85
1-12	0-10	0.95	1.07	0.57	0.50	5.69	10	0.95	1	1.00E+08	1.00E-09	5.39
1-12	10-30	1.22	0.89	0.29	0.60	2.94	20	1.22	1	1.00E+08	1.00E-09	7.17
1-13	0-10	1.23	1.14	1.14		11.44	10	1.23	1	1.00E+08	1.00E-09	14.12
1-13	10-30	1.19	0.65	0.65		6.50	20	1.19	1	1.00E+08	1.00E-09	15.49
1-14	0-10	1.34	1.39	1.39		13.89	10	1.34	1	1.00E+08	1.00E-09	18.57
1-14	10-30	1.44	0.69	0.69		6.86	20	1.44	1	1.00E+08	1.00E-09	19.70
1-15	0-10	1.47	1.12	1.12		11.22	10	1.47	1	1.00E+08	1.00E-09	16.53
1-15	10-30	1.58	0.58	0.58		5.78	20	1.58	1	1.00E+08	1.00E-09	18.24
1-16	0-10	1.49	1.07	1.07		10.72	10	1.49	1	1.00E+08	1.00E-09	16.01
1-16	10-30	1.36	0.66	0.51	0.15	5.09	20	1.36	1	1.00E+08	1.00E-09	13.80
1-17	0-10	1.35	1.13	0.63	0.50	6.34	10	1.35	1	1.00E+08	1.00E-09	8.55
1-17	10-30	1.41	1.07	0.87	0.20	8.67	20	1.41	1	1.00E+08	1.00E-09	24.37
1-18	0-10	1.27	1.55	1.55		15.54	10	1.27	1	1.00E+08	1.00E-09	19.76
1-18	10-30	1.17	0.84	0.74	0.10	7.45	20	1.17	1	1.00E+08	1.00E-09	17.35

## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
2-1	0-10	1.36	1.03	1.03		10.34	10	1.36	1	1.00E+08	1.00E-09	14.11
2-1	10-30	1.26	0.43	0.43		4.26	20	1.26	1	1.00E+08	1.00E-09	10.78
2-2	0-10	1.37	0.90	0.20	0.70	2.03	10	1.37	1	1.00E+08	1.00E-09	2.78
2-2	10-30	1.31	1.40	1.20	0.20	11.98	20	1.31	1	1.00E+08	1.00E-09	31.36
2-3	0-10	1.43	1.48	0.48	1.00	4.76	10	1.43	1	1.00E+08	1.00E-09	6.83
2-3	10-30	1.06	1.42	1.02	0.40	10.24	20	1.06	1	1.00E+08	1.00E-09	21.80
2-4	0-10	1.41	0.77	0.77		7.72	10	1.41	1	1.00E+08	1.00E-09	10.90
2-4	10-30	1.38	0.91	0.81	0.10	8.10	20	1.38	1	1.00E+08	1.00E-09	22.33
2-5	0-10	1.03	1.61	1.61		16.08	10	1.03	1	1.00E+08	1.00E-09	16.56
2-5	10-30	1.43	1.28	1.28		12.76	20	1.43	1	1.00E+08	1.00E-09	36.46
2-6	0-10	1.31	1.28	1.28		12.80	10	1.31	1	1.00E+08	1.00E-09	16.72
2-6	10-30	1.23	0.62	0.32	0.30	3.18	20	1.23	1	1.00E+08	1.00E-09	7.82
2-7	0-10	1.66	0.72	0.72		7.23	10	1.66	1	1.00E+08	1.00E-09	11.98
2-7	10-30	1.40	0.59	0.59	0.00	5.91	20	1.40	1	1.00E+08	1.00E-09	16.55
2-8	0-10	1.28	1.30	1.20	0.10	11.99	10	1.28	1	1.00E+08	1.00E-09	15.29
2-8	10-30	1.29	0.78	0.28	0.50	2.79	20	1.29	1	1.00E+08	1.00E-09	7.19
2-9	0-10	1.42	1.24	1.04	0.20	10.41	10	1.42	1	1.00E+08	1.00E-09	14.83
2-9	10-30	1.63	0.54	0.54	0.00	5.41	20	1.63	1	1.00E+08	1.00E-09	17.61
2-10	0-10	1.10	1.28	1.13	0.15	11.29	10	1.10	1	1.00E+08	1.00E-09	12.38
2-10	10-30	1.38	0.87	0.11	0.75	1.15	20	1.38	1	1.00E+08	1.00E-09	3.17
2-11	0-10	1.24	1.79	1.49	0.30	14.87	10	1.24	1	1.00E+08	1.00E-09	18.39
2-11	10-30	1.30	1.07	1.07		10.67	20	1.30	1	1.00E+08	1.00E-09	27.68
2-12	0-10	1.12	1.28	1.28		12.82	10	1.12	1	1.00E+08	1.00E-09	14.30
2-12	10-30	1.35	0.89	0.39	0.50	3.90	20	1.35	1	1.00E+08	1.00E-09	10.56
2-13	0-10	1.36	1.86	1.86		18.56	10	1.36	1	1.00E+08	1.00E-09	25.30
2-13	10-30	1.39	0.99	0.99		9.86	20	1.39	1	1.00E+08	1.00E-09	27.41
2-14	0-10	1.55	1.75	1.75		17.49	10	1.55	1	1.00E+08	1.00E-09	27.06
2-14	10-30	1.37	0.95	0.45	0.50	4.48	20	1.37	1	1.00E+08	1.00E-09	12.26
2-15	0-10	1.55	1.21	1.16	0.05	11.59	10	1.55	1	1.00E+08	1.00E-09	18.00
2-15	10-30	1.44	0.71	0.01	0.70	0.08	20	1.44	1	1.00E+08	1.00E-09	0.22
2-16	0-10	1.42	1.36	0.51	0.85	5.07	10	1.42	1	1.00E+08	1.00E-09	7.19
2-16	10-30	1.30	0.88	0.53	0.35	5.29	20	1.30	1	1.00E+08	1.00E-09	13.74
2-17	0-10	1.21	2.29	2.29		22.88	10	1.21	1	1.00E+08	1.00E-09	27.77
2-17	10-30	1.34	0.75	0.45	0.30	4.49	20	1.34	1	1.00E+08	1.00E-09	12.06
2-18	0-10	1.39	1.69	1.69		16.89	10	1.39	1	1.00E+08	1.00E-09	23.48
2-18	10-30	1.65	1.42	1.22	0.20	12.24	20	1.65	1	1.00E+08	1.00E-09	40.37

## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
3-1	0-10	1.67	1.01	0.91	0.10	9.15	10	1.67	1	1.00E+08	1.00E-09	15.24
3-1	10-30	1.65	0.65	0.15	0.50	1.52	20	1.65	1	1.00E+08	1.00E-09	5.03
3-2	0-10	1.21	1.09	1.09		10.89	10	1.21	1	1.00E+08	1.00E-09	13.14
3-2	10-30	1.11	0.43	0.13	0.30	1.27	20	1.11	1	1.00E+08	1.00E-09	2.81
3-3	0-10	1.48	0.96	0.26	0.70	2.63	10	1.48	1	1.00E+08	1.00E-09	3.91
3-3	10-30	1.46	0.55	0.25	0.30	2.53	20	1.46	1	1.00E+08	1.00E-09	7.39
3-4	0-10	1.26	0.96	0.31	0.65	3.06	10	1.26	1	1.00E+08	1.00E-09	3.84
3-4	10-30	1.34	0.57	0.17	0.40	1.66	20	1.34	1	1.00E+08	1.00E-09	4.47
3-5	0-10	0.98	1.23	1.23		12.26	10	0.98	1	1.00E+08	1.00E-09	12.05
3-5	10-30	1.46	0.39	0.39		3.91	20	1.46	1	1.00E+08	1.00E-09	11.44
3-6	0-10	1.43	1.07	0.37	0.70	3.66	10	1.43	1	1.00E+08	1.00E-09	5.22
3-6	10-30	1.08	0.79	0.64	0.15	6.37	20	1.08	1	1.00E+08	1.00E-09	13.72
3-7	0-10	1.21	1.07	1.07		10.70	10	1.21	1	1.00E+08	1.00E-09	12.98
3-7	10-30	1.29	0.47	0.37	0.10	3.73	20	1.29	1	1.00E+08	1.00E-09	9.59
3-8	0-10	1.40	0.89	0.89		8.94	10	1.40	1	1.00E+08	1.00E-09	12.57
3-8	10-30	1.15	0.42	0.42		4.23	20	1.15	1	1.00E+08	1.00E-09	9.69
3-9	0-10	1.38	0.90	0.90		9.02	10	1.38	1	1.00E+08	1.00E-09	12.48
3-9	10-30	1.33	0.34	0.34		3.41	20	1.33	1	1.00E+08	1.00E-09	9.09
3-10	0-10	1.31	1.34	1.34		13.39	10	1.31	1	1.00E+08	1.00E-09	17.50
3-10	10-30	1.21	0.50	0.40	0.10	4.04	20	1.21	1	1.00E+08	1.00E-09	9.77
3-11	0-10	1.44	1.06	1.06		10.64	10	1.44	1	1.00E+08	1.00E-09	15.31
3-11	10-30	1.34	0.41	0.11	0.30	1.10	20	1.34	1	1.00E+08	1.00E-09	2.95
3-12	0-10	1.40	1.02	1.02		10.22	10	1.40	1	1.00E+08	1.00E-09	14.31
3-12	10-30	1.32	0.42	0.32	0.10	3.16	20	1.32	1	1.00E+08	1.00E-09	8.34
3-13	0-10	1.45	0.79	0.39	0.40	3.86	10	1.45	1	1.00E+08	1.00E-09	5.61
3-13	10-30	1.61	0.35	0.15	0.20	1.54	20	1.61	1	1.00E+08	1.00E-09	4.97
3-14	0-10	1.29	0.94	0.94		9.37	10	1.29	1	1.00E+08	1.00E-09	12.11
3-14	10-30	1.44	0.48	0.48		4.82	20	1.44	1	1.00E+08	1.00E-09	13.89
3-15	0-10	1.27	1.39	1.39		13.92	10	1.27	1	1.00E+08	1.00E-09	17.66
3-15	10-30	1.34	0.48	0.48		4.80	20	1.34	1	1.00E+08	1.00E-09	12.92
3-16	0-10	1.52	0.86	0.86		8.62	10	1.52	1	1.00E+08	1.00E-09	13.11
3-16	10-30	1.35	0.50	0.09	0.40	0.95	20	1.35	1	1.00E+08	1.00E-09	2.55
3-17	0-10	1.17	0.94	0.94		9.37	10	1.17	1	1.00E+08	1.00E-09	11.00
3-17	10-30	1.24	0.54	0.14	0.40	1.42	20	1.24	1	1.00E+08	1.00E-09	3.54
3-18	0-10	1.13	0.93	0.13	0.80	1.34	10	1.13	1	1.00E+08	1.00E-09	1.51
3-18	10-30	1.34	0.42	0.42		4.17	20	1.34	1	1.00E+08	1.00E-09	11.18



## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
4-1	0-10	1.46	1.10	1.10		10.96	10	1.46	1	1.00E+08	1.00E-09	16.03
4-1	10-30	1.19	0.66	0.16	0.50	1.57	20	1.19	1	1.00E+08	1.00E-09	3.73
4-2	0-10	1.43	1.57	1.57	0.00	15.70	10	1.43	1	1.00E+08	1.00E-09	22.52
4-2	10-30	1.25	0.92	0.22	0.70	2.15	20	1.25	1	1.00E+08	1.00E-09	5.40
4-3	0-10	1.21	1.18	1.18	0.00	11.83	10	1.21	1	1.00E+08	1.00E-09	14.34
4-3	10-30	1.30	1.15	0.94	0.20	9.45	20	1.30	1	1.00E+08	1.00E-09	24.59
4-4	0-10	1.25	0.95	0.95		9.51	10	1.25	1	1.00E+08	1.00E-09	11.88
4-4	10-30	1.08	1.08	0.72	0.35	7.25	20	1.08	1	1.00E+08	1.00E-09	15.66
4-5	0-10	1.33	1.10	0.55	0.55	5.50	10	1.33	1	1.00E+08	1.00E-09	7.33
4-5	10-30	1.26	1.15	0.75	0.40	7.50	20	1.26	1	1.00E+08	1.00E-09	18.83
4-6	0-10	1.37	1.23	1.23		12.29	10	1.37	1	1.00E+08	1.00E-09	16.81
4-6	10-30	1.30	0.70	0.10	0.60	0.96	20	1.30	1	1.00E+08	1.00E-09	2.49
4-7	0-10	1.33	1.26	0.36	0.90	3.62	10	1.33	1	1.00E+08	1.00E-09	4.82
4-7	10-30	1.53	0.69	0.59	0.10	5.93	20	1.53	1	1.00E+08	1.00E-09	18.09
4-8	0-10	1.48	1.10	1.05	0.05	10.50	10	1.48	1	1.00E+08	1.00E-09	15.51
4-8	10-30	1.29	0.61	0.56	0.05	5.61	20	1.29	1	1.00E+08	1.00E-09	14.45
4-9	0-10	1.33	0.73	0.53	0.20	5.28	10	1.33	1	1.00E+08	1.00E-09	7.01
4-9	10-30	1.41	1.30	1.20	0.10	12.02	20	1.41	1	1.00E+08	1.00E-09	33.80
4-10	0-10	1.33	1.00	0.19	0.80	1.94	10	1.33	1	1.00E+08	1.00E-09	2.58
4-10	10-30	1.37	1.70	0.15	1.55	1.46	20	1.37	1	1.00E+08	1.00E-09	4.00
4-11	0-10	1.14	1.12	1.12		11.21	10	1.14	1	1.00E+08	1.00E-09	12.76
4-11	10-30	1.33	1.04	0.84	0.20	8.37	20	1.33	1	1.00E+08	1.00E-09	22.21
4-12	0-10	1.31	1.18	1.18		11.75	10	1.31	1	1.00E+08	1.00E-09	15.34
4-12	10-30	1.48	0.91	0.70	0.20	7.05	20	1.48	1	1.00E+08	1.00E-09	20.88
4-13	0-10	1.13	1.58	0.33	1.25	3.28	10	1.13	1	1.00E+08	1.00E-09	3.71
4-13	10-30	1.55	0.86	0.61	0.25	6.12	20	1.55	1	1.00E+08	1.00E-09	19.02
4-14	0-10	1.58	1.38	1.38		13.84	10	1.58	1	1.00E+08	1.00E-09	21.90
4-14	10-30	1.34	0.83	0.78	0.05	7.82	20	1.34	1	1.00E+08	1.00E-09	20.90
4-15	0-10	1.26	1.51	0.31	1.20	3.07	10	1.26	1	1.00E+08	1.00E-09	3.88
4-15	10-30	1.36	1.45	0.30	1.15	2.97	20	1.36	1	1.00E+08	1.00E-09	8.11
4-16	0-10	1.19	1.11	1.11	0.00	11.07	10	1.19	1	1.00E+08	1.00E-09	13.21
4-16	10-30	1.36	1.05	0.40	0.65	4.01	20	1.36	1	1.00E+08	1.00E-09	10.92
4-17	0-10	1.17	1.56	0.61	0.95	6.07	10	1.17	1	1.00E+08	1.00E-09	7.11
4-17	10-30	1.34	0.87	0.67	0.20	6.72	20	1.34	1	1.00E+08	1.00E-09	18.03
4-18	0-10	1.51	1.11	1.11	0.00	11.10	10	1.51	1	1.00E+08	1.00E-09	16.82
4-18	10-30	1.23	0.60	0.02	0.58	0.23	20	1.23	1	1.00E+08	1.00E-09	0.56

## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
5-1	0-10	1.49	2.33	2.33		23.28	10	1.49	1	1.00E+08	1.00E-09	34.66
5-1	10-30	1.29	0.74	0.74		7.43	20	1.29	1	1.00E+08	1.00E-09	19.09
5-2	0-10	1.38	2.44	2.44		24.43	10	1.38	1	1.00E+08	1.00E-09	33.64
5-2	10-30	1.67	0.79	0.79		7.92	20	1.67	1	1.00E+08	1.00E-09	26.50
5-3	0-10	1.57	1.66	1.66		16.64	10	1.57	1	1.00E+08	1.00E-09	26.17
5-3	10-30	1.40	0.72	0.72		7.21	20	1.40	1	1.00E+08	1.00E-09	20.19
5-4	0-10	1.45	1.78	1.16	0.62	11.61	10	1.45	1	1.00E+08	1.00E-09	16.79
5-4	10-30	1.39	0.73	0.73		7.31	20	1.39	1	1.00E+08	1.00E-09	20.33
5-5	0-10	1.30	1.39	1.39		13.95	10	1.30	1	1.00E+08	1.00E-09	18.09
5-5	10-30	1.48	0.76	0.76		7.57	20	1.48	1	1.00E+08	1.00E-09	22.44
5-6	0-10	1.41	1.60	1.60		16.00	10	1.41	1	1.00E+08	1.00E-09	22.49
5-6	10-30	1.44	0.82	0.82		8.18	20	1.44	1	1.00E+08	1.00E-09	23.52
5-7	0-10	1.33	2.59	2.59		25.87	10	1.33	1	1.00E+08	1.00E-09	34.37
5-7	10-30	0.96	0.93	0.93		9.27	20	0.96	1	1.00E+08	1.00E-09	17.73
5-8	0-10	1.11	1.32	1.32		13.16	10	1.11	1	1.00E+08	1.00E-09	14.62
5-8	10-30	1.44	0.72	0.72		7.16	20	1.44	1	1.00E+08	1.00E-09	20.58
5-9	0-10	1.42	2.09	2.09		20.88	10	1.42	1	1.00E+08	1.00E-09	29.67
5-9	10-30	1.44	0.66	0.66		6.62	20	1.44	1	1.00E+08	1.00E-09	19.09
5-10	0-10	1.38	1.72	1.72		17.15	10	1.38	1	1.00E+08	1.00E-09	23.65
5-10	10-30	1.31	0.81	0.81		8.15	20	1.31	1	1.00E+08	1.00E-09	21.34
5-11	0-10	1.21	1.77	1.77		17.74	10	1.21	1	1.00E+08	1.00E-09	21.49
5-11	10-30	1.24	0.78	0.78		7.77	20	1.24	1	1.00E+08	1.00E-09	19.30
5-12	0-10	1.19	2.36	1.69	0.67	16.88	10	1.19	1	1.00E+08	1.00E-09	20.10
5-12	10-30	1.15	0.98	0.33	0.65	3.32	20	1.15	1	1.00E+08	1.00E-09	7.65
5-13	0-10	1.20	1.65	1.65		16.45	10	1.20	1	1.00E+08	1.00E-09	19.75
5-13	10-30	0.93	0.75	0.75		7.54	20	0.93	1	1.00E+08	1.00E-09	14.02
5-14	0-10	1.20	1.47	1.47		14.65	10	1.20	1	1.00E+08	1.00E-09	17.55
5-14	10-30	1.29	0.91	0.91		9.07	20	1.29	1	1.00E+08	1.00E-09	23.34
5-15	0-10	1.12	1.58	1.58		15.82	10	1.12	1	1.00E+08	1.00E-09	17.74
5-15	10-30	1.25	0.70	0.45	0.25	4.46	20	1.25	1	1.00E+08	1.00E-09	11.13
5-16	0-10	1.30	1.50	1.50		14.96	10	1.30	1	1.00E+08	1.00E-09	19.46
5-16	10-30	1.33	1.08	0.68	0.40	6.78	20	1.33	1	1.00E+08	1.00E-09	17.98
5-17	0-10	1.27	1.59	1.59		15.94	10	1.27	1	1.00E+08	1.00E-09	20.29
5-17	10-30	1.34	0.75	0.75		7.55	20	1.34	1	1.00E+08	1.00E-09	20.20
5-18	0-10	1.44	1.09	1.09		10.89	10	1.44	1	1.00E+08	1.00E-09	15.64
5-18	10-30	1.34	0.53	0.08	0.45	0.84	20	1.34	1	1.00E+08	1.00E-09	2.25

## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
6-1	0-10	1.24	2.36	2.36		23.55	10	1.24	1	1.00E+08	1.00E-09	29.10
6-1	10-30	1.55	0.92	0.92		9.18	20	1.55	1	1.00E+08	1.00E-09	28.44
6-2	0-10	1.24	3.13	3.13		31.31	10	1.24	1	1.00E+08	1.00E-09	38.91
6-2	10-30	1.46	1.11	1.11		11.07	20	1.46	1	1.00E+08	1.00E-09	32.34
6-3	0-10	1.25	2.38	2.38		23.80	10	1.25	1	1.00E+08	1.00E-09	29.82
6-3	10-30	1.37	0.97	0.97		9.68	20	1.37	1	1.00E+08	1.00E-09	26.54
6-4	0-10	0.82	2.57	2.57		25.67	10	0.82	1	1.00E+08	1.00E-09	21.00
6-4	10-30	1.34	0.94	0.94		9.36	20	1.34	1	1.00E+08	1.00E-09	25.04
6-5	0-10	1.32	1.62	1.62		16.16	10	1.32	1	1.00E+08	1.00E-09	21.27
6-5	10-30	0.91	0.76	0.76		7.61	20	0.91	1	1.00E+08	1.00E-09	13.87
6-6	0-10	1.12	2.93	2.93		29.29	10	1.12	1	1.00E+08	1.00E-09	32.89
6-6	10-30	1.44	1.03	1.03		10.33	20	1.44	1	1.00E+08	1.00E-09	29.81
6-7	0-10	1.37	1.50	1.50		15.02	10	1.37	1	1.00E+08	1.00E-09	20.51
6-7	10-30	1.39	0.99	0.99		9.92	20	1.39	1	1.00E+08	1.00E-09	27.67
6-8	0-10	1.10	2.84	2.84		28.38	10	1.10	1	1.00E+08	1.00E-09	31.08
6-8	10-30	1.47	0.89	0.89		8.89	20	1.47	1	1.00E+08	1.00E-09	26.09
6-9	0-10	1.01	3.13	3.13		31.34	10	1.01	1	1.00E+08	1.00E-09	31.65
6-9	10-30	1.24	1.06	1.06		10.64	20	1.24	1	1.00E+08	1.00E-09	26.45
6-10	0-10	1.67	2.37	2.37		23.74	10	1.67	1	1.00E+08	1.00E-09	39.54
6-10	10-30	1.46	0.78	0.78		7.78	20	1.46	1	1.00E+08	1.00E-09	22.75
6-11	0-10	1.15	2.13	2.13		21.27	10	1.15	1	1.00E+08	1.00E-09	24.45
6-11	10-30	1.36	0.95	0.95		9.54	20	1.36	1	1.00E+08	1.00E-09	25.86
6-12	0-10	1.23	1.82	1.82		18.15	10	1.23	1	1.00E+08	1.00E-09	22.41
6-12	10-30	1.38	0.91	0.91		9.10	20	1.38	1	1.00E+08	1.00E-09	25.04
6-13	0-10	1.44	2.07	2.07		20.72	10	1.44	1	1.00E+08	1.00E-09	29.74
6-13	10-30	1.48	0.81	0.81		8.13	20	1.48	1	1.00E+08	1.00E-09	24.11
6-14	0-10	1.49	1.51	1.51		15.05	10	1.49	1	1.00E+08	1.00E-09	22.45
6-14	10-30	1.37	0.86	0.86		8.58	20	1.37	1	1.00E+08	1.00E-09	23.47
6-15	0-10	1.28	2.63	2.63		26.31	10	1.28	1	1.00E+08	1.00E-09	33.69
6-15	10-30	1.39	0.86	0.86		8.61	20	1.39	1	1.00E+08	1.00E-09	23.98
6-16	0-10	1.47	1.68	1.68		16.77	10	1.47	1	1.00E+08	1.00E-09	24.62
6-16	10-30	1.32	0.96	0.96		9.56	20	1.32	1	1.00E+08	1.00E-09	25.21
6-17	0-10	1.54	1.96	1.96		19.62	10	1.54	1	1.00E+08	1.00E-09	30.30
6-17	10-30	1.31	0.80	0.80		7.98	20	1.31	1	1.00E+08	1.00E-09	20.92
6-18	0-10	1.05	2.53	2.53		25.30	10	1.05	1	1.00E+08	1.00E-09	26.68
6-18	10-30	1.36	1.27	1.27		12.65	20	1.36	1	1.00E+08	1.00E-09	34.41



## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
7-1	0-10	1.52	0.50	0.50		5.03	10	1.52	1	1.00E+08	1.00E-09	7.65
7-1	10-30	1.45	0.33	0.33		3.29	20	1.45	1	1.00E+08	1.00E-09	9.54
7-2	0-10	1.40	1.08	1.08		10.78	10	1.40	1	1.00E+08	1.00E-09	15.12
7-2	10-30	1.37	0.46	0.46		4.59	20	1.37	1	1.00E+08	1.00E-09	12.54
7-3	0-10	1.22	1.27	1.27		12.69	10	1.22	1	1.00E+08	1.00E-09	15.45
7-3	10-30	1.43	0.45	0.45		4.47	20	1.43	1	1.00E+08	1.00E-09	12.83
7-4	0-10	1.46	1.21	1.21		12.13	10	1.46	1	1.00E+08	1.00E-09	17.72
7-4	10-30	1.33	0.42	0.42		4.18	20	1.33	1	1.00E+08	1.00E-09	11.09
7-5	0-10	1.37	1.37	1.37		13.74	10	1.37	1	1.00E+08	1.00E-09	18.81
7-5	10-30	1.37	0.42	0.42		4.21	20	1.37	1	1.00E+08	1.00E-09	11.55
7-6	0-10	1.36	0.99	0.99		9.89	10	1.36	1	1.00E+08	1.00E-09	13.44
7-6	10-30	1.41	0.33	0.33		3.32	20	1.41	1	1.00E+08	1.00E-09	9.38
7-7	0-10	1.37	1.31	1.31		13.08	10	1.37	1	1.00E+08	1.00E-09	17.98
7-7	10-30	1.51	0.79	0.79		7.89	20	1.51	1	1.00E+08	1.00E-09	23.87
7-8	0-10	1.38	1.04	1.04		10.43	10	1.38	1	1.00E+08	1.00E-09	14.36
7-8	10-30	1.53	0.41	0.41		4.14	20	1.53	1	1.00E+08	1.00E-09	12.64
7-9	0-10	1.39	1.46	1.21	0.25	12.12	10	1.39	1	1.00E+08	1.00E-09	16.86
7-9	10-30	1.10	0.44	0.09	0.35	0.85	20	1.10	1	1.00E+08	1.00E-09	1.86
7-10	0-10	1.19	1.06	1.06		10.59	10	1.19	1	1.00E+08	1.00E-09	12.61
7-10	10-30	1.57	0.49	0.49		4.89	20	1.57	1	1.00E+08	1.00E-09	15.38
7-11	0-10	1.41	1.14	1.14		11.37	10	1.41	1	1.00E+08	1.00E-09	15.99
7-11	10-30	1.89	0.64	0.59	0.05	5.89	20	1.89	1	1.00E+08	1.00E-09	22.26
7-12	0-10	0.78	1.34	1.34		13.42	10	0.78	1	1.00E+08	1.00E-09	10.47
7-12	10-30	1.13	0.45	0.45		4.48	20	1.13	1	1.00E+08	1.00E-09	10.10
7-13	0-10	1.37	0.99	0.99		9.90	10	1.37	1	1.00E+08	1.00E-09	13.56
7-13	10-30	1.74	0.97	0.97		9.65	20	1.74	1	1.00E+08	1.00E-09	33.61
7-14	0-10	1.29	1.11	1.11		11.07	10	1.29	1	1.00E+08	1.00E-09	14.30
7-14	10-30	1.34	0.46	0.36	0.10	3.62	20	1.34	1	1.00E+08	1.00E-09	9.68
7-15	0-10	1.34	1.51	1.51		15.11	10	1.34	1	1.00E+08	1.00E-09	20.22
7-15	10-30	1.47	0.52	0.52		5.17	20	1.47	1	1.00E+08	1.00E-09	15.20

## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
8-1	0-10	1.27	1.71	1.71		17.09	10	1.27	1	1.00E+08	1.00E-09	21.65
8-1	10-30	1.24	1.42	1.42		14.23	20	1.24	1	1.00E+08	1.00E-09	35.38
8-2	0-10	1.18	1.30	1.30		13.03	10	1.18	1	1.00E+08	1.00E-09	15.40
8-2	10-30	1.47	1.32	1.32		13.20	20	1.47	1	1.00E+08	1.00E-09	38.84
8-3	0-10	1.17	1.57	1.57		15.71	10	1.17	1	1.00E+08	1.00E-09	18.45
8-3	10-30	1.29	1.44	1.44		14.39	20	1.29	1	1.00E+08	1.00E-09	37.07
8-4	0-10	1.23	1.55	1.55		15.50	10	1.23	1	1.00E+08	1.00E-09	19.03
8-4	10-30	1.31	1.43	1.43		14.31	20	1.31	1	1.00E+08	1.00E-09	37.44
8-5	0-10	1.43	1.90	1.25	0.65	12.45	10	1.43	1	1.00E+08	1.00E-09	17.81
8-5	10-30	1.28	1.56	1.56		15.58	20	1.28	1	1.00E+08	1.00E-09	39.81
8-6	0-10	1.33	1.62	0.47	1.15	4.72	10	1.33	1	1.00E+08	1.00E-09	6.29
8-6	10-30	1.45	1.40	0.15	1.25	1.48	20	1.45	1	1.00E+08	1.00E-09	4.28
8-7	0-10	1.10	1.58	1.58		15.82	10	1.10	1	1.00E+08	1.00E-09	17.44
8-7	10-30	1.35	1.47	1.47		14.71	20	1.35	1	1.00E+08	1.00E-09	39.75
8-8	0-10	1.02	1.51	1.51		15.07	10	1.02	1	1.00E+08	1.00E-09	15.41
8-8	10-30	1.37	1.09	1.09		10.86	20	1.37	1	1.00E+08	1.00E-09	29.81
8-9	0-10	1.23	1.79	0.64	1.15	6.39	10	1.23	1	1.00E+08	1.00E-09	7.86
8-9	10-30	1.27	1.20	1.05	0.15	10.49	20	1.27	1	1.00E+08	1.00E-09	26.66
8-10	0-10	1.22	1.20	1.20		11.98	10	1.22	1	1.00E+08	1.00E-09	14.57
8-10	10-30	1.34	1.06	1.06		10.60	20	1.34	1	1.00E+08	1.00E-09	28.37
8-11	0-10	1.24	1.49	1.49		14.89	10	1.24	1	1.00E+08	1.00E-09	18.48
8-11	10-30	1.25	1.03	1.03		10.34	20	1.25	1	1.00E+08	1.00E-09	25.89
8-12	0-10	1.09	1.16	1.16		11.57	10	1.09	1	1.00E+08	1.00E-09	12.56
8-12	10-30	1.34	1.02	1.02		10.23	20	1.34	1	1.00E+08	1.00E-09	27.41
8-13	0-10	0.99	1.35	1.35		13.54	10	0.99	1	1.00E+08	1.00E-09	13.45
8-13	10-30	1.27	0.96	0.96		9.60	20	1.27	1	1.00E+08	1.00E-09	24.45
8-14	0-10	0.98	1.68	1.68		16.82	10	0.98	1	1.00E+08	1.00E-09	16.43
8-14	10-30	1.24	1.12	1.12		11.21	20	1.24	1	1.00E+08	1.00E-09	27.84
8-15	0-10	0.99	1.57	1.57		15.67	10	0.99	1	1.00E+08	1.00E-09	15.52
8-15	10-30	1.16	1.29	1.29		12.93	20	1.16	1	1.00E+08	1.00E-09	30.00
8-16	0-10	0.98	1.56	1.56		15.59	10	0.98	1	1.00E+08	1.00E-09	15.36
8-16	10-30	1.44	1.01	1.01		10.10	20	1.44	1	1.00E+08	1.00E-09	29.08
8-17	0-10	1.01	1.65	1.65		16.51	10	1.01	1	1.00E+08	1.00E-09	16.70
8-17	10-30	1.25	1.24	1.24		12.45	20	1.25	1	1.00E+08	1.00E-09	31.08
8-18	0-10	1.18	1.62	1.62		16.17	10	1.18	1	1.00E+08	1.00E-09	19.08
8-18	10-30	0.73	1.04	0.99	0.05	9.94	20	0.73	1	1.00E+08	1.00E-09	14.43

## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
9-1	0-10	1.01	2.42	2.42		24.17	10	1.01	1	1.00E+08	1.00E-09	24.37
9-1	10-30	1.15	0.93	0.93		9.27	20	1.15	1	1.00E+08	1.00E-09	21.40
9-2	0-10	1.32	2.03	2.03		20.34	10	1.32	1	1.00E+08	1.00E-09	26.85
9-2	10-30	1.45	0.68	0.68		6.83	20	1.45	1	1.00E+08	1.00E-09	19.86
9-3	0-10	1.17	3.07	3.07		30.75	10	1.17	1	1.00E+08	1.00E-09	36.01
9-3	10-30	1.48	0.68	0.68		6.82	20	1.48	1	1.00E+08	1.00E-09	20.21
9-4	0-10	1.25	2.33	2.33		23.29	10	1.25	1	1.00E+08	1.00E-09	29.07
9-4	10-30	1.54	0.68	0.68		6.79	20	1.54	1	1.00E+08	1.00E-09	20.87
9-5	0-10	1.14	1.99	1.99		19.88	10	1.14	1	1.00E+08	1.00E-09	22.76
9-5	10-30	1.31	0.72	0.72		7.16	20	1.31	1	1.00E+08	1.00E-09	18.77
9-6	0-10	1.46	1.84	1.84		18.44	10	1.46	1	1.00E+08	1.00E-09	27.01
9-6	10-30	1.39	0.58	0.58		5.81	20	1.39	1	1.00E+08	1.00E-09	16.17
9-7	0-10	1.37	2.45	2.45		24.50	10	1.37	1	1.00E+08	1.00E-09	33.63
9-7	10-30	1.50	0.86	0.86		8.63	20	1.50	1	1.00E+08	1.00E-09	25.88
9-8	0-10	1.38	2.58	2.58		25.82	10	1.38	1	1.00E+08	1.00E-09	35.67
9-8	10-30	1.57	0.79	0.79		7.87	20	1.57	1	1.00E+08	1.00E-09	24.66
9-9	0-10	1.34	1.45	1.45		14.46	10	1.34	1	1.00E+08	1.00E-09	19.36
9-9	10-30	1.37	0.60	0.60		5.97	20	1.37	1	1.00E+08	1.00E-09	16.32
9-10	0-10	1.38	2.10	2.10		20.96	10	1.38	1	1.00E+08	1.00E-09	29.02
9-10	10-30	1.46	0.72	0.72		7.17	20	1.46	1	1.00E+08	1.00E-09	20.86
9-11	0-10	1.29	1.80	1.80		18.03	10	1.29	1	1.00E+08	1.00E-09	23.32
9-11	10-30	1.28	0.74	0.74		7.43	20	1.28	1	1.00E+08	1.00E-09	19.02
9-12	0-10	1.49	1.51	1.51		15.09	10	1.49	1	1.00E+08	1.00E-09	22.51
9-12	10-30	1.21	0.94	0.94		9.41	20	1.21	1	1.00E+08	1.00E-09	22.77
9-13	0-10	1.57	1.38	1.38		13.78	10	1.57	1	1.00E+08	1.00E-09	21.68
9-13	10-30	1.36	0.75	0.75		7.47	20	1.36	1	1.00E+08	1.00E-09	20.25
9-14	0-10	1.41	1.48	1.48		14.83	10	1.41	1	1.00E+08	1.00E-09	20.90
9-14	10-30	1.38	0.78	0.68	0.10	6.83	20	1.38	1	1.00E+08	1.00E-09	18.86
9-15	0-10	1.59	1.17	1.17		11.71	10	1.59	1	1.00E+08	1.00E-09	18.60
9-15	10-30	1.23	0.75	0.75		7.49	20	1.23	1	1.00E+08	1.00E-09	18.47
9-16	0-10	1.49	1.98	1.98		19.79	10	1.49	1	1.00E+08	1.00E-09	29.48
9-16	10-30	1.46	0.93	0.93		9.29	20	1.46	1	1.00E+08	1.00E-09	27.17
9-17	0-10	1.60	1.19	1.19		11.86	10	1.60	1	1.00E+08	1.00E-09	19.02
9-17	10-30	1.38	0.89	0.89		8.93	20	1.38	1	1.00E+08	1.00E-09	24.68
9-18	0-10	1.27	1.70	1.70		17.01	10	1.27	1	1.00E+08	1.00E-09	21.62
9-18	10-30	1.39	1.00	0.35	0.65	3.46	20	1.39	1	1.00E+08	1.00E-09	9.63



## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
10-1	0-10	1.53	0.71	0.71		7.12	10	1.53	1	1.00E+08	1.00E-09	10.92
10-1	10-30	1.33	0.69	0.24	0.45	2.36	20	1.33	1	1.00E+08	1.00E-09	6.29
10-2	0-10	1.44	0.72	0.22	0.50	2.19	10	1.44	1	1.00E+08	1.00E-09	3.16
10-2	10-30	1.55	0.52	0.07	0.45	0.73	20	1.55	1	1.00E+08	1.00E-09	2.28
10-3	0-10	1.25	1.00	1.00	0.00	9.99	10	1.25	1	1.00E+08	1.00E-09	12.47
10-3	10-30	1.38	0.61	0.11	0.50	1.07	20	1.38	1	1.00E+08	1.00E-09	2.96
10-4	0-10	1.46	1.53	1.53		15.31	10	1.46	1	1.00E+08	1.00E-09	22.36
10-4	10-30	1.31	0.71	0.51	0.20	5.12	20	1.31	1	1.00E+08	1.00E-09	13.37
10-5	0-10	1.22	1.46	1.46		14.57	10	1.22	1	1.00E+08	1.00E-09	17.73
10-5	10-30	1.34	1.71	1.60	0.11	16.00	20	1.34	1	1.00E+08	1.00E-09	42.91
10-6	0-10	1.48	1.14	1.14		11.45	10	1.48	1	1.00E+08	1.00E-09	16.93
10-6	10-30	1.60	1.05	0.40	0.65	3.98	20	1.60	1	1.00E+08	1.00E-09	12.71
10-7	0-10	1.41	1.17	1.17		11.66	10	1.41	1	1.00E+08	1.00E-09	16.39
10-7	10-30	1.20	1.12	0.17	0.95	1.69	20	1.20	1	1.00E+08	1.00E-09	4.05
10-8	0-10	1.47	0.90	0.85	0.05	8.52	10	1.47	1	1.00E+08	1.00E-09	12.50
10-8	10-30	1.14	0.79	0.29	0.50	2.89	20	1.14	1	1.00E+08	1.00E-09	6.58
10-9	0-10	1.43	0.88	0.88		8.77	10	1.43	1	1.00E+08	1.00E-09	12.52
10-9	10-30	1.46	0.61	0.46	0.15	4.57	20	1.46	1	1.00E+08	1.00E-09	13.39
10-10	0-10	1.53	0.69	0.69		6.95	10	1.53	1	1.00E+08	1.00E-09	10.62
10-10	10-30	1.44	0.62	0.62		6.17	20	1.44	1	1.00E+08	1.00E-09	17.74
10-11	0-10	1.45	1.12	1.12		11.21	10	1.45	1	1.00E+08	1.00E-09	16.28
10-11	10-30	1.48	0.65	0.65		6.54	20	1.48	1	1.00E+08	1.00E-09	19.37
10-12	0-10	1.45	0.93	0.53	0.40	5.27	10	1.45	1	1.00E+08	1.00E-09	7.64
10-12	10-30	1.16	0.82	0.12	0.70	1.24	20	1.16	1	1.00E+08	1.00E-09	2.89
10-13	0-10	1.29	1.28	1.18	0.10	11.85	10	1.29	1	1.00E+08	1.00E-09	15.34
10-13	10-30	1.20	1.61	1.61		16.11	20	1.20	1	1.00E+08	1.00E-09	38.65
10-14	0-10	1.45	0.91	0.91		9.13	10	1.45	1	1.00E+08	1.00E-09	13.28
10-14	10-30	1.23	1.00	1.00		9.98	20	1.23	1	1.00E+08	1.00E-09	24.58
10-15	0-10	1.35	1.30	1.30		13.03	10	1.35	1	1.00E+08	1.00E-09	17.65
10-15	10-30	1.11	1.10	0.25	0.85	2.47	20	1.11	1	1.00E+08	1.00E-09	5.47

## All Laboratory Data and Calculations

10

Sample ID	Depth	Bulk Density g/cm <sup>3</sup>	%Total Carbon	%TOC	%Total Inorganic Carbon	Soil Carbon Content (mg/g)	Soil Layer Depth (cm)	Bulk Density Mg/m <sup>3</sup>	1-Gravel Content	Units - cm <sup>2</sup> /Ha	Units - Mg/mg	Soil Carbon Stock Mg/Ha
11-1	0-10	1.18	2.78	2.78		27.82	10	1.18	1	1.00E+08	1.00E-09	32.70
11-1	10-30	1.41	1.95	1.95		19.48	20	1.41	1	1.00E+08	1.00E-09	55.09
11-2	0-10	1.43	2.07	2.07		20.72	10	1.43	1	1.00E+08	1.00E-09	29.71
11-2	10-30	1.80	1.36	1.36		13.61	20	1.80	1	1.00E+08	1.00E-09	49.03
11-3	0-10	1.38	1.97	1.97		19.71	10	1.38	1	1.00E+08	1.00E-09	27.29
11-3	10-30	1.60	1.80	1.80		18.03	20	1.60	1	1.00E+08	1.00E-09	57.84
11-4	0-10	1.32	2.70	2.70		26.95	10	1.32	1	1.00E+08	1.00E-09	35.66
11-4	10-30	1.58	1.48	1.48		14.81	20	1.58	1	1.00E+08	1.00E-09	46.81
11-5	0-10	1.13	2.45	2.45		24.50	10	1.13	1	1.00E+08	1.00E-09	27.64
11-5	10-30	1.59	1.63	1.63		16.34	20	1.59	1	1.00E+08	1.00E-09	51.99
11-6	0-10	1.51	3.15	3.15		31.52	10	1.51	1	1.00E+08	1.00E-09	47.50
11-6	10-30	1.53	1.62	1.62		16.18	20	1.53	1	1.00E+08	1.00E-09	49.43
11-7	0-10	1.59	2.46	2.46		24.61	10	1.59	1	1.00E+08	1.00E-09	39.11
11-7	10-30	1.14	1.44	1.44		14.40	20	1.14	1	1.00E+08	1.00E-09	32.93
11-8	0-10	1.39	1.76	1.76		17.62	10	1.39	1	1.00E+08	1.00E-09	24.58
11-8	10-30	1.59	1.10	1.10		11.01	20	1.59	1	1.00E+08	1.00E-09	35.01
11-9	0-10	1.64	1.87	1.87		18.65	10	1.64	1	1.00E+08	1.00E-09	30.56
11-9	10-30	1.59	1.20	1.20		11.95	20	1.59	1	1.00E+08	1.00E-09	38.11
11-10	0-10	1.39	2.49	2.49		24.90	10	1.39	1	1.00E+08	1.00E-09	34.64
11-10	10-30	1.55	1.47	1.47		14.70	20	1.55	1	1.00E+08	1.00E-09	45.69
11-11	0-10	1.12	1.39	1.39		13.86	10	1.12	1	1.00E+08	1.00E-09	15.47
11-11	10-30	1.60	1.16	1.16		11.60	20	1.60	1	1.00E+08	1.00E-09	37.13
11-12	0-10	1.21	1.79	1.79		17.91	10	1.21	1	1.00E+08	1.00E-09	21.66
11-12	10-30	1.62	1.43	1.43		14.34	20	1.62	1	1.00E+08	1.00E-09	46.57
11-13	0-10	1.47	2.23	2.23		22.26	10	1.47	1	1.00E+08	1.00E-09	32.69
11-13	10-30	1.55	1.37	1.37		13.74	20	1.55	1	1.00E+08	1.00E-09	42.59
11-14	0-10	1.31	2.28	2.28		22.82	10	1.31	1	1.00E+08	1.00E-09	30.00
11-14	10-30	1.46	1.47	1.47		14.70	20	1.46	1	1.00E+08	1.00E-09	43.04
11-15	0-10	1.43	1.66	1.66		16.60	10	1.43	1	1.00E+08	1.00E-09	23.68
11-15	10-30	1.32	1.40	1.40		14.00	20	1.32	1	1.00E+08	1.00E-09	36.91
11-16	0-10	1.38	2.31	2.31		23.15	10	1.38	1	1.00E+08	1.00E-09	31.84
11-16	10-30	1.60	1.49	1.49		14.86	20	1.60	1	1.00E+08	1.00E-09	47.66
11-17	0-10	1.50	1.46	1.46		14.63	10	1.50	1	1.00E+08	1.00E-09	21.93
11-17	10-30	1.65	1.23	1.23		12.28	20	1.65	1	1.00E+08	1.00E-09	40.42
11-18	0-10	1.50	2.03	2.03		20.34	10	1.50	1	1.00E+08	1.00E-09	30.57
11-18	10-30	1.55	1.35	1.35		13.47	20	1.55	1	1.00E+08	1.00E-09	41.74





