

THE LABORATORY METHODS AND DATA EXCHANGE PROGRAMME

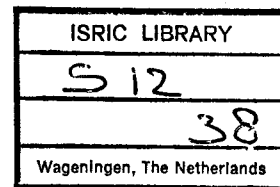
INTERIM REPORT ON THE EXCHANGE ROUND 1989

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Interim Report on the exchange round 1989



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1. Introduction

Samples of the 1989 exchange round were sent to the participants in March 1989. A list of collaborating laboratories can be found in ANNEX 1.

Participants were requested to analyze the samples according to their own methods or according to the LABEX procedures. It is emphasized that the methods as described in the LABEX proceedings are not intended to be standard methods. No standard methods exist yet. The LABEX methods are the methods as used in our and many other laboratories and are suited for the performance of our quality control.

The International Standard Organization (ISO) is currently investigating which procedures will finally become international standard methods.

Many laboratories analyzed the samples according to their own methods as well as to the LABEX procedures. For comparison purposes three types of tables are presented in this report:

- a. Tables presenting the analytical results and statistical analysis of ALL METHODS in a sample (tables 1, 4, 7, 10, 13, 16, 19, 22)
- b. Tables presenting the analytical results and statistical analysis of the LABEX METHODS in a sample (tables 2, 5, 8, 11, 14, 17, 20, 23) and
- c. Tables presenting the analytical results and statistical analysis of ALL METHODS EXCEPT THE LABEX method in a sample (table 3, 6, 9, 12, 15, 18, 21,24).

Tables are separately analyzed by statistical procedures and it is therefore possible that values in different tables will be marked different as the tagging of a value depends amongst others on all other values.

2. Indication of outliers

To reduce the influence of extreme outliers the median is preferred to the average. When data are ranked in order of size, the median is:

- a. The mid value in an odd number of a ranked range of observations or
- b. The average of the two mid values in an even number of a ranked range of observations.

First the median is calculated (MED1), then the Median of the Absolute Differences of the observed values and the median (MAD1).

Those values larger than $MED1 + 2 \times F \times MAD1$ or smaller than $MED1 - 2 \times F \times MAD1$ are tagged with two stars (**) and are considered as outliers.

The same procedure is repeated with the same data excluding those values tagged with two stars (**). This results in a second median (MED2) and a second Median of the Absolute Differences of the observed values and the second median (MAD2).

Those values larger than $MED2 + 2 \times F \times MAD2$ or smaller than $MED2 - 2 \times F \times MAD2$ are tagged with one star (*) and are considered as dubious.

The factor F depends on the number of participating laboratories and is therefore often higher in the "*" tagging procedure as some values are omitted (the "**" or double asterisked values).

The factor F is such that had the data been normally distributed, 5% of the data would have been marked and is estimated at:

$$F = (0.7722 + 1.604/n) \times t_{n-1}(0.025)$$

where: n = number of observations and
 $t_{n-1}(0.025)$ = the right sided 2.5% point of the Student t distribution with n-1 degrees of freedom.

At the end of each table one finds:

N1 = the number of all observations

MED1 = the median of all values

MAD1 = the median of the absolute differences of all the observed values and the median (MAD1).

F1 = the F factor for N1 (=all) observations

N2 = the number of observations excluding double asterisked values

MED2 = the median of the values excluding double asterisked values

MAD2 = the median of the absolute differences of the observed values and the median (MAD2).

F2 = the F factor for N2 observations

CV1% = the coefficient of variation for N1 (= all) observations

CV2% = the coefficient of variation for N2 observations

CV3% = the coefficient of variation for non-asterisked values

It may be assumed that the "true value" of a parameter is approximated by:

$$MED2 \pm MAD2$$

3. New Members

We welcome the following new members of the LABEX Programme:

Pacific Forestry Centre
Mrs. E. Ann Van Niekerk
506 West Burnside Road
B.C. V8Z 1M5 Victoria
CANADA

Soil and Plant Laboratory
Mr. Jaswant S. Tomar
P.O. Box 8700
A1B 4J6 St John's, NFLD
CANADA

Faculty of Agriculture
Mr. R.A. Kalish
58, Mosadak Street, Dokki
Cairo
EGYPT

Regional Laboratory Min of Agric.
Mr. Ilana Malts
Western Galilee
Akko, D.N. Oshrat
ISRAEL

Direction de Grand Travaux
M. Traoré
01 BP 1395
01 Bouake
IVORY COAST

Pakhribas Agricultural Centre
Mr. D.P. Serchan
c/o British Embassy P.O. Box 106
Kathmandu
NEPAL

Royal Irrigation Department
Mrs. A. Phathanasobhon
Research and Laboratory Division
Pakzet, 11120 Nonthaburi
THAILAND

Sind Agriculture University
Dr. Kazi Suleman Memon
Faculty of Crop Production
Tandojam
PAKISTAN

DOLE STANFILCO
c/o Mrs. Rosalinda Aquino-Htun
P.O. Box 155
9501 Davao City
PHILIPPINES

DOLEFIL
c/o Ms. Leticia S. Pilando
Dole Cannery
Polomolok South Cotabato
PHILIPPINES

Ministry of Agriculture & Water
c/o Mr. M.A. Ben Mahfouz, DG
Land Management Department
Riyadh
SAUDI ARABIA

Ministry of Agriculture & Water
c/o Dr. H. Salim, FAO Coordinator
Project UTFN/SAU/015/SAU
Riyadh
SAUDI ARABIA

Laboratorio de Agric. y Aliment.
C.A. Rioja & Carmen Arroyo
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SPAIN

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Mr. Hans Ivar Svensson
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291 09 Kristianstad
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Delavalle Laboratory Inc.
Mr. Nat B. Dellavalle
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CA 93728-1298 Fresno
U.S.A.

Servi-Tech Laboratories
Dr. P. Vendrell
P.O. Box 169
NE 68902 Hastings
U.S.A.

California Growers Laboratory INC
Mr. Kamal Sakoury
4630 W. Jennifer
CA 93722 Fresno
U.S.A.

PETTIET Agric. Services Inc.
Mr. C. Pettiet
P.O. Box 838
38756 Leland, Mississippi
U.S.A.

4. Results

The precision of the determination depends in general on:

1. The parameter analyzed
2. The size range of the parameter the smaller the size the larger the Coefficient of Variation (C.V.)

The majority of laboratories presented their data with two decimals (total nitrogen in three decimals), therefore the compilation of all data is presented accordingly.

It is obvious, however, that in most cases the notation of decimals is no more than a illusory accuracy.

The results are presented in the next 24 tables. Statistical calculations are omitted when the number of observations for a calculation is less than 5.

For easy reference purposes, the last page of this report can be spread out and explains the abbreviations mentioned at the end of each table (see also page 4).

Table 1. Results of Chemical Analysis Sample 8 B - 1 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 2-50 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
2																					
2	6.00*	4.90		28.50**	0.50	0.50	1.00	70.50**	0.66				0.05		4.75	0.10	0.01	0.08	0.24		
6	5.85	4.80		16.00	1.50	0.00	1.50	82.50	0.60		5.50		2.20**		2.15	0.10	0.01	0.24*	0.24		
7	5.60	5.00		15.70	0.50	0.50	1.00	83.20	0.97				0.15		3.00	0.10	0.00	0.10	0.25	0.060	
9	5.60	4.80		16.00			2.00	82.00	0.77		2.30		0.15		3.00	0.10	0.00	0.00	0.25		
11	5.55	4.80	5.10	15.40	0.80	0.80	2.80	81.80	0.75		5.00		0.05		2.52	0.12	0.19**	0.32*	0.25	0.076*	
24	5.78	4.91	5.22	16.00	1.50		1.50	82.00	0.72		4.00		0.05		3.50	0.10			0.25		
24	5.81	4.91	5.12		0.00		0.00		0.72						3.14	0.09	0.01	0.10	0.15*		
26	5.80	4.90	5.15	13.00	0.55	1.95*	2.50	83.40	0.82				0.25		2.20	0.04*	0.11*	0.90**	0.20		
27	5.55	4.85	5.05	14.10	0.80	0.80	3.00	67.00**	0.91		3.70		0.06	0.01	3.92	0.11	0.03	0.96**	0.73**		
27				17.00	0.80	0.09	0.89	82.40	0.69							1.80**					
30	5.90			30.00**	2.20	0.80	4.80	80.20	0.65		4.12					0.10	0.03	0.07	0.22	0.050	
30	5.68			15.00	1.00	1.00	1.00	83.00	0.75	0.00	2.85				3.05	0.09	0.04	0.13	0.24	0.063	
31	5.72	4.89	5.13	16.00	0.00	1.00	1.00	83.00	0.54				0.10		2.72	0.12	0.03	0.10	0.22		
34	5.70	4.95							0.54						3.53	0.09	0.03	0.05	0.23		
35	6.12**	4.98	5.29	15.00	6.00	3.00**	5.00	84.00	0.87	0.00					2.77	0.24**	0.70**	0.06**	0.24		
38	6.20**	4.80		25.55**	1.45	0.95	2.40	72.05**	0.90	0.00	1.55	6.35*	3.40**		3.35	0.10	0.00	0.00	0.30		
41	5.70	4.85		16.45	1.05	0.80	1.85	81.75	0.90						3.70	0.10	0.05	0.30*	0.25		
41				16.45	0.53	0.80	1.33	81.80													
43				31.00**	3.00*	1.00	4.00	65.00**													
43	5.80	4.70		15.70	0.30	1.30	1.60	82.70	0.46		3.55	1.60	1.26**		1.46	0.10	0.08	0.40*	0.24	0.063	
44	5.70	5.00		11.00**	2.00	3.00**	5.00	84.00	0.52				0.04								
45									0.68												
45	5.45**	4.93		24.06**	4.51**	0.00	4.51	71.43**	0.39**	1.21*			0.00		5.53**	0.17**	0.15*	0.73**	1.22**		
47	8.25**	6.78**		15.40	0.90	1.05	1.95	82.65	0.80						4.69	0.40**	2.01**	1.20**	1.45**		
48	5.60	5.00		17.30	0.40	0.20	0.60	81.90	0.80				0.21		2.13	0.08	0.06	0.50**	0.36*		
50	5.80	5.00	5.20	14.00	2.00	1.50	3.50	82.00	0.70						3.90	0.20**	0.65**	0.25*	0.15*	0.040	
60	5.81	4.79		19.64*	3.02*	1.43	4.46	19.64**	0.97												
60																					
67	5.74	4.83	5.04	12.00*	0.00	6.00**	6.00	85.00	1.03		3.20	1.90			2.35	0.09	0.20**	0.11	0.36*		
69	5.76	4.90		16.30	1.85				0.64												
69	5.91	4.90		16.05	1.05	0.20	1.25	82.70	0.61		4.27		0.22		3.04	0.09	0.02	0.07	0.24		
69									0.67						3.52	0.12	0.04	0.07	0.23	0.055	
73	5.80	4.96	5.09	18.00	0.50	0.35	0.85	81.15	0.61				0.08		3.60	0.14*	0.01	0.10	0.17		
77	5.79	4.87		16.00	1.50	1.00	2.50	81.50	0.67				0.11	0.03	2.55	0.10	0.03	0.08	0.23	0.054	
77	5.68	4.84							1.20**				0.06	0.07	2.26	0.11	0.03	0.05	0.23		
78	5.80	5.10							0.70			13.00**			1.80	0.10	0.01	0.10	0.31	0.053	
80	5.30**	4.60**	5.00	16.40	46.60**	37.00**	0.60		0.70		0.60		0.70**		3.00	0.20**	0.40**	1.00**	0.40**		

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Continuation of :

Table 1. Results of Chemical Analysis Sample B 8 - 1 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 2-50 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
83	5.43**	4.86	4.92	15.40	2.60	1.30	3.90	80.70	0.80		4.00		0.20		1.90	0.10	0.10	0.90**	0.50**		
84				16.00	0.00	0.00	0.00	84.00	0.75						3.10	0.04*	0.12*	0.15	0.15*	0.100**	
88	5.80	5.00	5.20	22.50**	1.00	0.50	1.50	76.00**	0.85	2.00**	12.74**		0.13		4.35	0.10	0.03	0.90**	0.23	0.055	
93	5.65	5.03		17.00	1.25	0.48	1.73	79.90	0.82	0.25*	2.27	1.39	0.12		2.18	0.26**	0.00	1.61**	0.80**		
94	5.70	4.90	5.05	16.85	1.27	0.75	2.02	81.14	0.81	0.20*			0.30		3.69	0.04*	0.03	0.10	0.21		
95			5.09	18.00	0.00	2.00*	2.00	80.00	0.62		3.00				3.87	0.11		0.18	0.26		
96	5.78	4.97		18.06	0.90	0.87	1.77	81.14	0.98			1.10	0.30		4.51	0.17**	0.27**	0.50**	0.37*	0.053	
97	5.75	5.30**		21.33**				78.67*	0.58							0.07	0.09	0.37*	0.20		
98	5.60	4.85																			
99	6.10**	5.04	5.45**	13.87	3.97**	0.65	4.62	82.15	0.72		5.00	15.17**	0.13		3.36	0.10	0.15*	0.77**	0.99**		
100	6.80**	5.40**		15.10	3.23*		3.23	82.39	1.23**		5.30				0.66**	0.13	0.06	0.12	0.21		
101	5.81	4.97		17.65	2.70	3.25**	5.95	75.95**	0.73				0.41*			0.17**	0.26*	0.30			
101	5.71	5.28**		13.85	0.30	3.25**	3.55	82.60	0.58				0.11		3.77	0.07	0.01	0.10	0.29		
104	5.43**			14.75	1.40	0.80	2.20	83.05	0.74		2.11				4.05	0.03**	0.00	0.05	0.22	0.055	
112	5.90	4.90		16.90			1.05	82.15	0.84	0.00	5.15					0.03**	0.07	0.75**	0.39**		
117				13.00	1.00	2.00*	3.00	80.00	0.60											0.061	
118	7.55**	7.20**		14.45	36.65**	43.15**	79.80**	4.75**	0.52	2.90**		1.00	0.06		8.00**	0.14*	0.24**	36.40**	1.15**	0.024**	
120	5.80	5.00		17.70	0.50	0.50	0.50	81.80	0.92						2.20	0.12	0.17*	0.10	0.20	0.060	
120	5.80	5.00		20.00*	0.90	3.20**	4.10	75.70**	0.73		4.00		0.09		3.30	0.12	0.10	0.15	0.20	0.050	
121	6.21**	5.21**	5.50**	11.04**			6.00	82.96	0.70						4.40					0.064	
122	5.70	4.90		17.00			6.00	77.00**	0.36**												
M1	50	47	18	51	40	37	49	49	52	9	19	13	27	5	42	47	44	44	46	19	
MED1	5.78	4.91	5.13	16.05	1.05	0.87	2.40	81.75	0.72	0.20	4.00	2.11	0.13	0.03	3.22	0.10	0.05	0.15	0.24	0.055	
MAD1	0.08	0.08	0.08	1.30	0.70	0.43	1.35	1.30	0.10	0.20	1.00	1.11	0.08	0.02	0.69	0.02	0.04	0.10	0.05	0.005	
F1	1.62	1.74	1.82	1.72	1.64	1.80	1.73	1.73	1.61	2.98	2.11	2.44	1.91	5.03	1.64	1.74	1.63	1.63	1.63	2.106	
N2	39	40	16	42	37	31	47	37	67	7	18	10	23	5	39	36	35	31	36	16	
MED2	5.76	4.90	5.11	16.00	1.00	0.80	2.20	82.00	0.72	0.00	3.85	1.75	0.11	0.03	3.14	0.10	0.03	0.10	0.24	0.055	
MAD2	0.06	0.07	0.07	1.00	0.50	0.30	1.20	0.85	0.09	0.00	1.08	0.70	0.05	0.02	0.63	0.01	0.02	0.03	0.03	0.005	
F2	1.78	1.64	1.86	1.64	1.80	1.86	1.74	1.80	1.74	3.60	1.82	2.11	1.99	5.03	1.78	1.66	1.82	1.86	1.66	1.859	
CV1%	8.20	8.77	2.75	26.38	251.1	292.1	243.5	19.96	26.51	138.6	58.59	132.8	185.5	73.53	37.22	163.7	215.4	460.8	82.29	25.912	
CV2%	1.73	1.72	1.77	10.67	76.55	67.20	63.76	1.83	17.88	172.6	36.49	75.58	70.63	73.53	26.60	23.90	96.22	72.83	22.65	13.561	
CV3%	1.60	1.72	1.77	8.85	73.16	60.70	63.76	1.33	17.88		36.49	61.10	64.49	73.53	26.60	13.63	88.27	46.15	14.29	11.070	

Table 2. Results of Chemical Analysis Sample 8 B - 1 L A B E X methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% silt 2-20 µm	% silt 20-50 µm	% silt 2-50 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	X N Total	
2	6.00*	4.90		28.50**	0.50	0.50	1.00	70.50**	0.66				0.05		4.75	0.10	0.01	0.24	0.24		
7	5.60	5.00		15.70	0.50	0.50	1.00	83.20	0.97				2.20**		3.00	0.10	0.00	0.00	0.30		
11	5.55	4.80	5.10	15.40	0.80	0.80	2.80	81.80	0.75		5.00				3.50	0.10		0.25			
24	5.81	4.91	5.12				0.00		0.72												
26	5.80	4.90	5.15	14.10	1.95	1.95	2.50	83.40	0.91		3.70		0.25	0.01	3.92	0.11	0.03	0.96**	0.73**		
27	5.55	4.85	5.05								4.12		0.06								
30	5.90	4.89	5.13	30.00**	2.20	0.80	3.00	67.00**	0.75	0.00					2.72	0.10	0.03	0.07	0.22	0.081*	
31	5.72	4.95		16.00	0.00	1.00	1.00	83.00	0.54						3.53	0.12	0.03	0.10	0.22		
34	5.70	4.98	5.29	15.00			6.00	79.00		0.00	1.55	6.35*	0.10			0.09	0.03	0.05	0.23		
35	6.12**	4.80		25.55**	1.45	0.95	2.40	72.05**		0.00					3.35	0.10	0.00	0.00	0.30		
38	6.20**	4.85		16.45	1.05	0.80	1.85	81.75	0.90												
41	5.70	4.85		31.00**	3.00**	1.00	4.00	65.00**													
43				15.70	0.30	1.30	1.60	82.70	0.46		3.55	1.60	1.26**								0.063
43	5.80	4.70		11.00	2.00	3.00**	5.00	84.00	0.52			3.22	0.04		1.46**	0.10	0.08	0.40*	0.24		
44	5.70	5.00		24.06**	4.51**	0.00	4.51	71.43**					0.00		5.53*	0.17*	0.15**	0.73**	1.22**		
45	5.45**	4.93		15.40	0.90	0.20	1.95	82.65	0.39	1.21*		30.50**	0.21		4.69	0.40**	2.01**	1.20**	1.45**		
47	8.25**	6.78**		17.30	0.40	0.20	0.60	81.90	0.80						2.13	0.08	0.06	0.50*	0.36*		
50	5.80	5.00	5.20	14.00	2.00	1.50	3.50	82.00	0.70		3.20	1.90			3.90	0.20**	0.65**	0.25	0.15	0.040	
50	5.81	4.79		19.64	3.02**	1.43	4.46	19.64**	0.97		4.27										
57	5.74	4.83	5.04	12.00	0.00	6.00**	6.00	85.00	1.03				0.22		3.52	0.12	0.04	0.07	0.23	0.055	
69	5.91	4.90	5.09	16.05	1.05	0.20	1.25	82.70	0.61				0.08		3.60	0.14	0.01	0.10	0.17		
73	5.80	4.96		18.00	0.50	0.35	0.85	81.15	0.61				0.11	0.03	2.55	0.10	0.03	0.08	0.23		
77	5.79	4.87										13.00**			1.80*	0.10	0.01	0.10	0.31	0.053	
78	5.80	5.10							1.20**				0.20								
83		4.86							0.75	2.00**											
84	5.80	5.00	5.20	22.50*	1.00	0.50	1.50	76.00*	0.85						3.10	0.04*	0.12*	0.15	0.15	0.055	
88	5.70	4.98		17.00	1.25	0.48	1.73	79.90	0.82		12.74**		0.13		4.35	0.10	0.03	0.90**	0.23		
93	5.65	5.03		19.20			3.10	77.70	1.47**	0.25	2.27	1.39	0.12		2.18	0.26**	0.00	1.61**	0.80**		
94	5.70	4.90	5.05	16.85	1.27	0.75	2.02	81.14	0.81	0.20			0.30		3.69	0.04*	0.03	0.10	0.21		
95			5.09	18.00	0.00	2.00*	2.00	80.00	0.62						3.87	0.11		0.18	0.26		
98	5.60	4.85																			
100	6.80**	5.40**							0.73		5.30										0.024**
101	5.71	5.28**		13.85	0.30	3.25**	3.55	82.60	0.66				0.11		3.77	0.17*	0.19**	0.26	0.30		
104	5.43**			14.75	1.40	0.80	2.20	83.05	0.74						4.05	0.03*	0.07	0.05	0.22	0.055	
112									0.84												
117	7.55**	7.20**		13.00	1.00	2.00*	3.00	80.00	0.60	2.90**		1.00	0.09	0.02	8.00**	0.14	0.24**	36.40**	1.15**		
118	5.80	5.00		14.45	36.65**	43.15**	79.80**	4.75**	0.52						3.30	0.12	0.10	0.15	0.20	0.050	
120	5.80	5.00		20.00	0.90	3.20**	4.10	75.70*	0.73												
122	5.70	4.90		17.00			6.00	77.00*	0.36												

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Table 3. Results of Chemical Analysis Sample 88 - 1 O T H E R methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
2																					
6	5.85	4.80		16.00	1.50	0.00	1.50	82.50	0.60		5.50		0.15		2.15	0.10	0.01	0.08	0.24	0.060	
9	5.60	4.80		16.00	2.00		2.00	82.00	0.77		2.30		0.05		2.52	0.12	0.00	0.10	0.25	0.076	
24	5.78	4.91	5.22	16.00	1.50		1.50	82.00	0.72		4.00				3.14	0.09	0.01	0.10	0.15		
26			5.20	13.00*					0.82						2.20	0.04**	0.11	0.90**	0.20		
27				17.00	0.89	0.09	0.89	82.40	0.69		2.85				3.05	0.09	0.04	0.13	0.24	0.050	
30	5.68			15.00	4.80		4.80	80.20*	0.65					2.77	0.24**	0.70**		0.06**	0.063		
38				16.45	0.53	0.80	1.33	81.80	0.87				3.40**		3.70	0.10	0.05	0.30*	0.25		
41									0.68			0.10									
45									0.64												
60				16.30	1.85				0.67												
69	5.76	4.90							0.70												
77	5.68	4.84		16.00	1.50	1.00	2.50	81.50	0.80				0.06								
80	5.30**	4.60	5.00	16.40	2.60	1.30	4.60**	37.00**	0.70		0.60		0.70*								0.054
83	5.43*		4.92	15.40	0.00	0.00	0.00	80.70	0.80		4.00										
84				16.00	0.90	0.87	1.77	84.00**	0.58												0.100**
96	5.78	4.97		18.06	0.90	0.87	1.77	81.14	0.98**		3.00										
97	5.75	5.30		21.33**					0.58												
98				13.87	3.97	0.65	4.62	82.15	0.72			1.10	0.30								
99	6.10	5.04	5.45	15.10	3.23	3.25	3.23	82.39	1.23**			15.17	0.13								0.053
101	5.81	4.97		17.65	2.70		5.95	75.95**	0.58				0.41								
112	5.90	4.90		16.90	1.05		1.05	82.15	0.92*		5.15										
120	5.80	5.00		17.70	0.50		0.50	81.80	0.70				0.06								0.061
121	6.21*	5.21	5.50	11.04**	6.00		6.00	82.96	0.70			4.00									0.060
121																					0.064
N1	15	13	6	20	12	9	17	18	20		9		9		17	20	19	18	19	10	
MED1	5.78	4.91	5.21	16.00	1.50	0.80	2.00	81.90	0.70		4.00		0.15								
MAD1	0.10	0.09	0.23	0.90	1.04	0.50	1.23	0.55	0.07		1.15		0.10								0.061
F1	2.29	2.44	2.65	1.78	1.99	2.98	2.19	1.82	1.78		2.98		2.98								0.006
N2	14	13	6	18	12	9	16	14	18		9		8		17	15	18	12	16	9	
MED2	5.78	4.91	5.21	16.00	1.50	0.80	1.89	82.00	0.70		4.00		0.14								0.060
MAD2	0.09	0.09	0.23	0.75	1.04	0.50	1.17	0.40	0.05		1.15		0.09								0.004
F2	1.91	2.44	2.65	1.82	1.99	2.98	2.02	1.91	1.82		2.98		2.29								2.983
CV1%	3.77	3.49	4.07	12.51	74.95	106.8	202.7	13.07	20.34		41.31		173.7		32.65	188.5	121.7	96.53	62.78	21.498	
CV2%	3.20	3.49	4.07	7.74	74.95	106.8	71.66	0.87	12.98		41.31		91.84		32.65	16.50	98.65	62.62	26.20	11.982	
CV3%	2.09	3.49	4.07	6.34	74.95	106.8	71.66	0.70	11.32		41.31		77.34		32.65	16.50	88.81	23.39	23.73	11.982	

Table 4. Results of Chemical Analysis Sample B.B - 2 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 2-50 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
2	4.70	4.10		46.50**	1.50	0.00	1.50	52.00**	0.48		2.00		0.90	0.70	4.25	0.09	0.01	0.30	0.06	0.060	
6	4.70	4.05		30.50	2.50	3.00	5.50	64.00	0.39		1.60		1.20	0.85	2.10	0.05	0.00	0.15	0.10	0.052*	
9	4.60	4.00		36.00			2.00	62.00	0.44		1.00		1.20		1.99	0.11	0.18**	0.35	0.14*		
11	4.60	4.05	4.15	30.50	2.80	4.40	7.20	63.70	0.45						3.70			0.10	0.10*		
24	4.61	4.07	4.04						0.45												
24	4.66	4.14	4.16	33.50	1.50		1.50	65.00	1.13**		2.00		1.16	0.85	4.66	0.09	0.01	0.10	0.05	0.064	
30	4.65			31.50	4.80		4.80	63.70	0.35*		1.53				3.34	0.09	0.05	0.13	0.06	0.053*	
30	4.67			46.00**	2.40	0.00	2.40	51.60**	0.49		0.61				3.06	0.10	0.00	0.04	0.05		
31	4.57	4.05	4.03	32.00	0.00**	2.00	2.00	66.00	0.29**				0.93	0.73	4.48	0.08	0.03	0.10	0.05		
34	4.49	4.15		32.00				60.00*	1.00**		0.00	2.35									
35	4.80*	4.00	4.09	39.10**	1.45	1.35	8.00	72.05**	0.87**						3.76	0.13	0.07		0.02*		
38	5.40**	4.50**					2.80														
43				35.00	2.00	6.00**	8.00	57.00**	0.49		0.70		12.84**							0.049	
43	4.60	4.00		30.00	2.00	2.00	4.00	66.00	0.43		1.36		0.28**		3.48	0.08	0.00	0.48*	0.00*		
44	5.00**	4.30*		35.00	0.00**	2.00	2.00	63.00	0.73**				1.40	1.44	6.28	0.12	0.07	0.79**	1.01**		
45	4.45	4.03		40.07**	0.00**	4.01	4.01	55.92**	0.29**			0.01									
45				27.25	3.40	0.35	3.75	69.00**	0.29**		0.70	1.00			6.25	0.41**	2.14**	1.48**	1.68**	0.020**	
47	7.23**	5.85**		28.00	3.50	2.50	6.00	64.00	0.50						3.90	0.20**	0.60**	0.00	0.00*		
50	4.55	4.20	4.10	21.00**	1.00	6.00**	7.00	73.00**	0.70**												
67	4.56	4.08	4.06	30.35	1.50			64.60	0.43		0.39		1.53	1.33	3.65	0.08	0.00	0.08	0.05		
69	4.66	4.08		30.75	2.40	2.25		64.35	0.44				1.13	0.90	4.95	0.11	0.00	0.08	0.05		
69	4.73	4.11		32.25	2.40	1.25	3.40	64.35	0.49		1.89		1.07	0.80	6.17	0.10	0.06	0.52*	0.23**	0.039	
73	4.60	4.11	4.07		2.15				0.48						2.70	0.09	0.02	0.09	0.06	0.035	
73				32.00	2.00	2.50	4.50	63.50	0.49				1.11	0.92	3.01	0.10	0.02	0.12	0.06		
77	4.65	4.14							0.71**			13.00*	0.76	0.58	0.50**	0.01**	0.01	0.01	0.16*	0.043	
77	4.65	4.10		9.00**			60.00**	31.00**	0.50		10.80**		1.30	0.58	2.60	0.20**	0.30**	0.50*	0.30**		
78	4.70	4.10		30.20	6.00**	3.00	9.00	60.80*	0.50		2.00				2.90	0.10	0.10	0.20	0.10*		
80	4.50	4.50**	3.90						0.44												
83	4.35**	3.96	3.85	44.50**	1.50	1.50	3.00	52.50**	0.65*		0.15		1.20		3.70	0.07	0.12	0.30	0.04		
84	4.60	4.10	4.05	30.75	1.50	2.40	3.90	63.37	0.51		18.13**		0.95	0.65	5.00	0.09	0.03	0.13	0.07	0.041	
88	4.72	4.35*		35.70	3.60	3.60	60.70*	60.70*	0.89**		0.53	19.63**	1.26	1.01	3.92	0.25**	0.00	0.90**	0.20**		
93	4.40**	4.10		32.19	1.56	2.78	4.34	63.47	0.52				1.31	0.82	3.77	0.04	0.01	0.12	0.05		
94	4.60	4.25	4.15	34.00	0.00**	4.00	4.00	62.00	0.43		1.00			6.35**	6.65	0.13	0.14	0.07	0.05	0.040	
95				34.92	1.30	1.40	2.70	64.36	0.59						5.66	0.07	0.04	0.46*	0.20**		
96	4.97**	4.25	4.01	41.33**	2.30	1.80	0.00	58.67*	0.41				1.33	1.13	5.66	0.13	0.20**	0.46*	0.20**		
97	4.77	4.40**		29.90	2.30	1.80	4.10	64.10	0.48				1.20	3.00**	3.15	0.07	0.04	0.43*	0.13*		
98																					
98	4.56	4.04																			

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Continuation of :
Table 4. Results of Chemical Analysis Sample 8 B - 2 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 50-200 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
99	4.79*	4.16	4.26	31.11	2.01				0.90**		4.50**		1.60	1.30	1.93	0.12	0.03	0.14	0.05	
100	6.45**	5.40**							0.56		1.32		1.34		5.29	0.13	0.14	0.28	0.07	
101	4.65	4.21		31.30	0.50	5.30*	5.80	62.90	0.48			0.90			8.65**	0.04	0.00	0.31	0.10*	0.055**
104	3.10**			29.50	4.10**	2.50	6.60	63.90	0.54			4.85				0.00**	0.10	0.45*	0.22**	0.041
112	4.60	4.10		33.30			2.35	64.35												
117				31.00	2.00	2.00	4.00	64.00	0.51											0.038**
118	5.40**	4.90**		21.80**	43.00**	31.80**	74.80**	63.90	1.92**		0.40	12.00*	1.34	1.06	17.55**	2.05**	0.00	12.10**	3.85**	
120	4.60	4.00		34.90	2.30	3.70	6.00	58.90*	0.47				0.13**	0.94	3.80	0.14	0.09	0.15	0.04	0.030
120	4.50	4.00							0.54			5.00		0.94	2.70	0.10	0.12	0.20	0.02*	0.040
121	4.72	3.95	4.00	26.04*			9.00	64.96	0.50						5.43					0.038
122	4.60	4.00		32.00	8.00	8.00	60.00*		0.17**											
N1	43	40	15	40	30	28	37	38	45			13	24	21	36	37	36	37	38	17
MED1	4.65	4.10	4.06	32.00	2.00	2.45	4.01	63.60	0.49		1.34	2.35	1.20	0.94	3.77	0.10	0.04	0.20	0.07	0.041
MAD1	0.07	0.09	0.05	2.05	0.50	1.00	1.79	1.50	0.05		0.66	2.34	0.14	0.19	0.98	0.02	0.04	0.11	0.03	0.003
F1	1.76	1.64	2.29	1.64	1.69	1.70	1.80	1.65	1.75		1.78	2.44	1.74	2.04	1.66	1.80	1.66	1.80	1.65	2.187
M2	34	34	15	31	23	25	35	29	33		17	12	20	19	33	29	31	33	29	14
MED2	4.61	4.10	4.06	31.50	2.00	2.25	4.00	63.70	0.49		1.00	2.09	1.20	0.92	3.76	0.10	0.03	0.15	0.06	0.041
MAD2	0.05	0.06	0.05	1.30	0.50	0.75	1.65	0.70	0.03		0.60	1.73	0.13	0.14	0.86	0.02	0.03	0.07	0.01	0.003
F2	1.67	1.67	2.29	1.85	1.99	1.95	1.82	1.88	1.84		2.19	1.99	1.78	2.11	1.84	1.88	1.86	1.84	1.88	1.915
CV1X	11.92	8.79	2.43	20.13	227.4	154.9	184.0	10.94	48.14		163.1	106.8	153.0	93.70	61.64	195.2	273.7	314.4	249.1	21.602
CV2X	1.79	2.29	2.43	7.49	34.67	55.19	50.78	3.04	11.64		60.91	103.4	17.08	24.01	31.89	27.29	103.2	71.06	56.74	14.393
CV3X	1.61	1.88	2.43	6.81	34.67	52.36	50.78	1.53	9.03		60.91	88.23	17.08	24.01	31.89	27.29	103.2	63.65	16.55	11.134

Table 5. Results of Chemical Analysis Sample B 8 - 2 L A B E X methods

LAB No.	pH H ₂ O	pH KCl	pH CaCl ₂	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO ₃	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
2	4.70	4.10		46.50**	1.50	0.00	1.50	52.00**	0.48		2.00	0.90	0.90	0.70	4.25	0.09	0.01	0.30	0.06	
6	4.70	4.05		30.50	2.50	3.00	5.50	64.00	0.39		1.00	0.12**	0.12**	0.85	2.10	0.05	0.00	0.15	0.10	0.040
11	4.60	4.05	4.15	30.50	2.80	4.40	7.20	63.70	0.45						3.70			0.10	0.10	
24	4.61	4.07							0.45											
30	4.67	4.05	4.03	46.00**	2.40	0.00	2.40	51.60**	0.49	0.61	0.61	0.93	0.93	0.73	3.06	0.10	0.00	0.04	0.05	0.053
31	4.57	4.15		32.00	0.00	2.00	2.00	66.00	0.29**						4.48	0.10	0.00	0.11	0.05	
34	4.49	4.15	4.09						1.00**							0.08	0.03	0.10	0.06	
35	4.80*	4.00		32.00																
38	5.40**	4.50**		39.10	1.45	1.35	2.80	72.05**		0.00	2.35	2.35								
43				35.00	2.00	6.00*	8.00	57.00*												
44	4.60	4.00		30.00	2.00	2.00	4.00	66.00	0.49											0.049
45	5.00**	4.30*		35.00	0.00	2.00	2.00	63.00	0.43	1.36	1.36	1.40	1.40	1.44	3.48	0.08	0.00	0.48	0.00*	
47	4.45	4.03		40.07*	0.00	4.01	4.01	55.92**							6.28	0.12	0.07*	0.79**	1.01**	
49	7.23**	5.85**		27.25	3.40	0.35	3.75	69.00*	0.29**						6.25	0.41**	2.14**	1.48**	1.68**	
50	4.55	4.20	4.10	28.00	3.50	2.50	6.00	64.00	0.50						3.90	0.20*	0.60**	0.00	0.00*	0.020
67	4.56	4.08	4.06	21.00**	1.00	6.00*	7.00	73.00**	0.70**	0.70	1.00	1.00	1.53	1.16	3.57	0.11	0.00	0.08	0.05	
69	4.73	4.11		30.75	2.40	2.25	64.60		0.44				1.13	0.90	4.95	0.29**	0.07*	0.55*	0.10	
73	4.60	4.11	4.07	32.25	2.15	1.25	3.40	64.35	0.49				1.11	0.99	3.01	0.10	0.02	0.12	0.06	
77	4.65	4.10											0.76	0.58	0.50	0.01	0.01	0.01	0.16*	0.043
78	4.70	4.10							0.71**				1.20							
83		3.96							0.44											
84	4.60	4.10	4.05	44.50**	1.50	1.50	3.00	52.50**	0.65*	0.15	0.15	0.95	0.95	0.65	3.70	0.07	0.12**	0.30	0.04	
88	4.72	4.35*		30.75	1.50	2.40	3.90	63.37	0.51	18.13**	18.13**	19.63**	1.26	1.01	5.00	0.09	0.03	0.13	0.07	0.041
93	4.40*	4.10		35.70	3.60	4.00	6.00	60.70*	0.89**	0.53	0.53	19.63**	1.31	0.82	3.92	0.25**	0.00	0.90**	0.20**	
94	4.60	4.25	4.15	32.19	1.56	2.78	4.34	63.47	0.52				1.31	0.82	3.77	0.04	0.01	0.12	0.05	
95			4.01	34.00	0.00	4.00	4.00	62.00	0.43					6.35**	6.65	0.10	0.14	0.14	0.07	0.040
96	4.97**	4.25		34.92	1.30	1.40	2.70	64.36	0.59	1.00	1.00				0.13	0.20**	0.46	0.20**		
98	4.56	4.04																		
100	6.45**	5.40**							0.56											
101	4.65	4.21		31.30	0.50	5.30	5.80	62.90	0.48	1.32	1.32		1.34		0.13	0.14**	0.28	0.07		0.058
104	3.10**			29.50	4.10*	2.50	6.60	63.90	0.54		0.90				5.29	0.04	0.00	0.31	0.10	
112									0.51						8.65**	0.00*	0.10**	0.45	0.22**	0.055
117				31.00	2.00	2.00	4.00	64.00	0.50											
118	5.40**	4.90**		21.80**	43.00**	31.80**	74.80**	63.90	1.92**	0.40	12.00**	12.00**	1.34	1.06	17.55**	2.05**	0.00	12.10**	3.85**	
120	4.60	4.00		34.90	2.30	3.70	6.00	58.90*	0.47						3.80	0.14	0.09*	0.15	0.04	0.030
122	4.60	4.00		32.00	8.00	8.00	8.00	60.00*	0.17**											

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Table 5. Results of Chemical Analysis Sample B 8 - 2 L A B E X methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μ m	% Silt 20-50 μ m	% Silt 50-200 μ m	% Sand μ m	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
M1	4.61	4.10	4.07	10	28	25	27	28	30	13	13	8	16	13	23	24	23	25	25	10
MED1	0.09	0.09	0.03	32.00	4.00	2.40	4.00	63.59	0.49	0.70	0.70	2.09	1.17	0.90	3.92	0.10	0.02	0.15	0.07	0.042
MAD1	1.86	1.69	2.11	2.70	1.60	1.05	1.60	2.00	0.05	0.31	0.31	1.29	0.23	0.17	0.91	0.03	0.02	0.14	0.03	0.009
F1	24	26	10	1.70	1.91	1.95	1.91	1.70	1.69	2.44	2.44	2.29	1.86	2.44	1.99	1.74	1.99	1.95	1.95	2.106
M2	4.60	4.10	4.07	23	26	24	26	22	22	12	12	5	13	12	21	20	17	21	19	10
MED2	0.05	0.06	0.03	32.00	4.00	2.33	4.00	63.80	0.49	0.66	0.66	1.00	1.20	0.88	3.90	0.10	0.01	0.14	0.06	0.042
MAD2	1.74	1.72	2.11	2.00	1.55	0.95	1.55	0.80	0.04	0.35	0.35	0.30	0.14	0.16	0.84	0.03	0.01	0.10	0.01	0.009
F2	13.71	9.76	1.11	1.99	1.72	1.74	1.72	1.76	1.76	1.99	1.99	5.03	2.44	1.99	2.04	1.78	2.19	2.04	2.11	2.106
CV1%	1.92	2.38	1.11	17.81	186.1	157.2	186.1	8.16	53.30	219.1	219.1	107.1	162.3	110.6	63.71	198.8	278.4	296.7	238.9	25.798
CV2%	1.52	1.89	1.11	9.48	63.41	63.12	42.65	4.03	11.55	69.59	69.59	46.34	18.74	25.59	33.95	50.98	141.4	76.77	55.67	75.798
CV3%			1.11	8.38	61.66	58.66	42.65	1.54	9.51	69.59	69.59	46.34	18.74	25.59	33.95	38.83	137.5	75.52	31.60	25.798

Table 6. Results of Chemical Analysis Sample 8.8 - 2 O T H E R methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μ m	% Silt 20-50 μ m	% Silt 2-50 μ m	% Sand μ m	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
9	4.60	4.00		36.00			2.00	62.00	0.44		1.60			1.99	0.11		0.35	0.14	0.052
24	4.66	4.14	4.16	33.50			1.50	65.00	1.13**		2.00		0.85	4.66	0.09		0.10	0.05	
30	4.65			31.50			4.80	63.70	0.35*		1.53			3.34	0.09		0.13	0.06	0.044
38									0.87**					3.76	0.13			0.02	
45	4.66	4.08		30.35	1.50				0.73*					3.65	0.08		0.08	0.05	
69									0.43		1.89		1.33	6.17**	0.10	0.00	0.52	0.23	0.039
73	4.65	4.14		32.00	2.00	2.50	4.50	63.50	0.48			0.92	2.70	2.70	0.06	0.06	0.09	0.06	0.035
77	4.50	4.50**	3.90	9.00**			60.00**	31.00**	0.49		10.80**			2.60	0.09	0.30**	0.50	0.30**	
80	4.35**		3.85	30.20	6.00**	3.00	9.00	60.80	0.50		2.00			2.90	0.10	0.10	0.20	0.10	
83	4.77	4.40		41.33**			0.00	58.67	0.41			0.85	1.13	3.15	0.07	0.04	0.43	0.13	
97				29.90	2.30	1.80	4.10	64.10	0.48		4.50*	10.70	3.00**	1.93	0.06	0.08	0.38	0.50**	
98	4.79	4.16	4.26	31.11	2.01				0.90**			4.85	1.30	3.15	0.12	0.03	0.14	0.05	0.041
99	4.60	4.10		33.30			2.35	64.35	0.54			5.00	0.94	2.70	0.10	0.12	0.20	0.02	0.040
112	4.50	4.00	4.00	26.04			9.00	64.96	0.50					5.43*					0.038
120	4.72	3.95	4.00																
121																			
N1	12	10	5	12	5	10	10	10	15		7	5	8	13	13	13	12	13	7
MED1	4.65	4.12	4.00	31.31	2.01	4.30	4.30	63.60	0.50		2.00	4.85	1.04	3.15	0.10	0.06	0.20	0.06	0.040
MAD1	0.06	0.08	0.15	1.70	0.29	2.55	2.55	1.38	0.06		0.40	4.00	0.21	0.55	0.01	0.04	0.12	0.04	0.002
F1	1.99	2.11	5.03	1.99	5.03	2.11	2.11	2.11	2.29		3.60	5.03	2.29	2.44	2.44	2.44	1.99	2.44	3.595
N2	11	9	5	10	9	9	9	9	12		6	5	7	12	12	12	12	11	7
MED2	4.65	4.10	4.00	31.31	2.01	4.30	4.30	63.70	0.49		1.95	4.85	0.94	3.03	0.10	0.06	0.20	0.06	0.040
MAD2	0.05	0.06	0.15	1.26	0.29	2.10	2.10	1.26	0.03		0.20	4.00	0.14	0.53	0.01	0.03	0.12	0.04	0.002
F2	2.65	2.98	5.03	2.11	5.95	2.98	2.98	2.98	1.99		2.65	5.03	3.60	1.99	1.99	1.99	1.99	2.65	3.595
CV1X	2.57	4.02	3.84	24.25	174.7	16.37	174.7	16.37	36.61		90.28	88.66	52.57	35.50	32.37	96.67	61.02	101.1	12.263
CV2X	1.93	3.03	3.84	8.01	71.90	3.18	71.90	3.18	18.02		45.32	88.66	19.18	30.47	19.93	77.71	61.02	72.54	12.263
CV3X	1.93	3.03	3.84	8.01	71.90	3.18	71.90	3.18	7.79		11.11	88.66	19.18	25.13	19.93	68.19	61.02	72.54	12.263

Table 7. Results of Chemical Analysis Sample B 8 - 3 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
2				24.00			20.00**	59.00**	2.09				0.05	0.05	22.00	2.06	0.01	10.70	3.67		
2	6.10	5.10		39.00**	23.00	34.00	57.00	4.00	1.76		54.50**				19.00	2.14	0.01	11.40	3.80		
6	6.20	5.15		24.00	18.00	47.50	65.50	10.00	1.93				2.80**		15.00	2.10	0.00	12.15	3.60	0.185	
7	5.90	5.20		23.50	19.50	48.60	68.10	8.60	1.94		4.00*		0.14		18.29	1.70*	0.10	7.80**	2.60**		
9	6.10	5.00*		24.00			58.00	18.00	2.08		19.00		0.07	0.05	19.91	2.22	0.95**	11.11	3.46	0.192	
24	5.66**	5.07	5.49	11.50**	57.50		57.50	30.50	1.99							0.10	0.10	11.50	3.20		
24		5.13							1.85						16.70	1.73*	0.10	9.80	3.00		
26	6.15	5.15	5.45	35.80**	26.50*	32.70	59.20	5.00	2.25				0.10	0.00	20.84	0.42**	0.04	13.95	5.25**		
30	6.15			36.00**	26.00*	28.00	54.00	10.00			20.53					2.12	0.03	11.66	3.60	0.205**	
30	6.12			13.00**			26.30**	60.00**	2.20	0.00	37.17**				21.10	1.91	0.11	14.66	3.68	0.191	
31	6.16	5.23	5.48	25.00	11.00*	39.00	50.00	25.00		1.75**					20.72	2.50*	0.01	11.25	1.67**		
35	6.28	5.17	5.58*	19.00			67.00	14.00	2.35	0.00	26.10*	2.35			17.10	2.05	0.25*	12.00	3.29		
38	6.60**	5.80**		26.50	26.40*	32.40	58.80	14.70	2.09				4.70**		21.50	2.40	0.05	11.55	3.90		
41	6.20	5.20		25.60	16.70	53.65	70.35	4.05							19.75	1.90	0.20	11.70	3.55		
41																					
43				41.00**	18.00	36.00	54.00	5.00													
43	6.20	5.10		25.00	19.50	45.00	64.50	10.50	2.15	0.00	19.27	13.15	1.03**		18.10	1.63*	0.10	9.60	3.06	0.201*	
44	6.30	5.30*		26.00	14.00	40.00	54.00	20.00	2.16	0.00		14.46	0.10	0.00	12.79**	2.30	0.09	9.59	4.46*		
45	5.95	5.10		32.32*	17.68	21.72	39.40*	28.28					0.00								
45				26.45	15.10	51.55	66.65	6.90	2.13	0.22**		17.07			21.57	2.08	1.30**	11.48	9.68**		
47	6.80**	6.10**	5.06	27.46	21.84	31.64	53.48	32.46	2.11			6.01									
60																					
60																					
67	5.91	5.09	5.49	21.00	20.00	32.00	52.00	22.00	2.18	0.00	18.00	8.40	0.19	0.02	20.60	2.15	0.03	11.41	3.45	0.187	
69	6.24	5.16		23.70	19.20	48.55	67.75	8.55	2.07		33.60*			0.24	20.73	2.09	0.03	12.23	3.62		
69	6.08	5.13		23.70	19.60				1.93												
73	6.15	5.24	5.52	21.66	16.50	32.00	48.50	29.85	2.35				0.07	0.10	21.75	1.44**	0.07	5.83**	2.38**		
77	6.14	5.14													20.04	2.10	0.05	12.68	3.72		
77	6.09	5.13		25.50	19.50	43.00	59.50	12.00	2.10					19.73	2.13	0.04	12.70	3.70	0.186		
78	6.20	5.20							2.20			20.00			16.08	1.51**	0.01	8.65*	4.14	0.190	
80	5.40**	4.00**	4.00**	5.00**			4.50**	90.50**	2.10		3.00**		0.70**		24.31	0.70**	0.50**	16.30**	0.50**		
83		5.12						1.40**													
83	5.89		5.26**	21.10	29.50**	35.80	65.30	13.60	1.80		24.00		0.10		18.20	1.90	0.30*	10.40	2.60**	0.185	
84				20.00	22.00	28.00	50.00	30.00													
84	6.10	5.20	5.50	41.00**	13.00	26.00	39.00*	20.00	2.25		13.50		0.10	0.00	18.60	0.53**	0.17	12.00	3.65		
88	6.11	5.21		24.00	15.50	42.32	57.82	10.84	2.67		20.30		0.10		19.50	2.05	0.09	11.60	3.33	0.189	
94	6.00	5.10	5.45	27.45	18.40	44.65	63.05	9.50	2.16	1.19**			0.10	0.00	21.40	0.96**	0.01	13.12	3.86		

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Table 7. Results of Chemical Analysis Sample 88 - 3 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 2-50 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
95																				
96	6.04	5.13	5.44	28.00	18.00	38.00	56.00	16.00	1.95		15.50	10.30	5.66**		22.79	2.04	11.54	3.51	0.175*	
97	6.03	5.40**		27.58	17.97	39.03	57.00	14.96	2.55						21.93	1.98	13.09	3.65		
98	6.04	5.14		27.33			55.33	17.33	1.69							1.51**	12.70	2.27**	0.170**	
99	6.26	5.19	5.76**	23.05	19.15	43.15	62.30	16.30	2.05						15.85	2.34	12.53	3.32		
100	7.30**	5.48**		23.63	13.62				4.00**		18.00	22.65	0.21	0.15	18.44	2.55*	11.94	3.60		
101	5.92	5.07		22.25	22.65	37.05	59.70	18.05	2.25		19.60		0.45**			2.21	14.10	4.84**		
101	5.81	5.28*		25.45	18.50	49.15	67.65	6.90	1.85				0.14		22.71	2.26	13.79	3.85		
104	5.18**			20.45	20.60	44.10	64.70	14.85	2.12			14.40	0.14		22.89	0.79**	12.27	3.93		
120	6.00	5.10		23.60	18.50	46.70	66.40	10.00	2.35				0.08	0.09	20.10	2.00	10.60	3.41	0.195	
120	6.20	5.20		29.70	18.50	46.70	65.20	4.90	2.24				0.09	0.03	21.00	2.22	11.60	3.00	0.180	
121	6.29	5.08	5.73**	7.04**			72.00	20.96	2.09			16.00	0.09	0.03	17.39	2.44	13.40	3.15	0.190	
122	6.10	5.10		27.00			64.00	9.00	1.73										0.179	
N1	41	39	14	43	33	30	40	40	42	7	16	11	22	11	36	40	40	40	16	
MED1	6.11	5.14	5.49	24.00	19.15	39.02	58.40	14.78	2.10	0.00	19.44	14.40	0.12	0.05	19.98	2.07	11.68	3.60	0.188	
MAD1	0.09	0.06	0.04	3.00	2.45	6.47	6.35	5.98	0.15	0.00	4.25	4.10	0.06	0.05	1.64	0.17	0.99	0.29	0.004	
F1	1.77	1.78	1.91	1.76	1.84	1.69	1.64	1.64	1.64	3.60	1.86	2.65	1.76	2.65	1.66	1.64	1.64	1.64	1.859	
N2	35	34	10	34	32	30	37	37	40				16	11	35	32	37	30	14	
MED2	6.11	5.14	5.49	24.00	18.83	39.02	59.20	14.00	2.10		19.27	14.40	0.10	0.05	20.04	2.11	11.70	3.60	0.188	
MAD2	0.09	0.04	0.02	2.17	1.95	6.47	5.50	5.40	0.15		1.27	4.10	0.03	0.05	1.60	0.11	0.83	0.20	0.003	
F2	1.82	1.67	2.11	1.67	1.68	1.69	1.80	1.80	1.64		2.44	2.65	1.86	2.65	1.82	1.68	1.80	1.69	1.915	
CV1X	5.25	5.31	7.52	29.45	21.26	20.51	24.27	88.53	17.59	147.4	55.41	43.60	194.1	107.5	12.44	27.81	136.5	35.63	4.615	
CV2X	1.98	1.25	0.71	11.81	19.81	20.51	12.99	53.65	9.77		33.97	43.60	59.38	107.5	11.00	9.96	10.97	9.04	3.449	
CV3X	1.98	0.97	0.47	10.72	13.90	20.51	10.27	53.65	9.77		14.44	43.60	49.09	107.5	11.00	6.49	10.05	7.97	2.420	

Table 8. Results of Chemical Analysis Sample 8 8 - 3 L A B E X methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 50-100 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
2	6.10	5.10		39.00**	23.00	34.00	57.00	4.00	2.09				0.05	0.05	22.00	2.14	0.01	11.40	3.80		
6	6.20	5.15		24.00	18.00	47.50	65.50	10.00	1.76*		54.50**		2.80**		19.00	2.10	0.00	12.15	3.60	0.185	
7	5.90**	5.20		23.50	19.50	48.60	68.10	8.60	1.93						15.00**	1.70	0.10	7.80*	2.60*		
24		5.13							1.99												
26	6.15	5.15	5.45	35.80*	26.50**	32.70	59.20	5.00	2.25		20.53		0.10	0.00	20.84	0.42**	0.04	13.95	5.25**		
30	6.15	5.23	5.48	36.00**	26.00**	28.00	54.00	10.00	2.20	0.00					20.72	2.12	0.03	11.66	3.60	0.205	
31	6.16	5.17	5.58	25.00	11.00**	39.00	50.00	25.00	1.75**							2.50	0.01	11.25	1.67**		
35	6.28	5.17		19.00			67.00	14.00													
38	6.60**	5.80**		26.50	26.40**	32.40	58.80	14.70	2.09		26.10*	2.35									
41	6.20	5.20		25.60	16.70	53.65	70.35	4.05							21.50	2.40	0.05	11.55	3.90		
43				41.00**	18.00	36.00	54.00	5.00													
43	6.20	5.10		25.00	19.50	45.00	64.50	10.50	2.15	1.03**										0.201	
44	6.30	5.30		26.00	14.00	40.00	54.00	20.00	2.16	0.00	19.27	13.15	0.10	0.00	18.10*	1.63*	0.10	9.60	3.06		
45	5.95**	5.10		32.32	17.68	21.72	39.40	28.28**				14.46	0.00*		12.79**	2.30	0.09	9.59	4.46*		
47	6.80**	6.10**		26.45	15.10	51.55	66.65	6.90	1.83	0.22	6.01	6.01	0.00*		21.57	2.08	1.30**	11.48	9.68**		
60	6.16	5.06		27.46	21.84	31.64	53.48	32.46**	2.11												
67	5.91**	5.09	5.49	21.00	20.00	32.00	52.00	22.00	2.07	0.00	18.00	8.40	0.19*	0.02	20.60	2.15	0.03	11.41	3.45	0.187	
69	6.24	5.16		23.70	19.20	48.55	67.75	8.55	2.18		33.60**		0.07	0.10	21.75	1.44*	0.07	5.83**	2.38**		
73	6.15	5.24	5.52	21.66	16.50	32.00	48.50	29.85**	2.35						20.04	2.10	0.05	12.68	3.72		
77	6.14	5.14									20.00				16.08**	1.51*	0.01	8.65	4.14	0.190	
78	6.20	5.20							2.20												
83		5.12							1.40**												
84	6.10	5.20	5.50	41.00**	13.00	26.00	39.00	20.00	2.25		13.50*		0.10		18.60	0.53**	0.17	12.00	3.65		
88	6.11	5.21		24.00	15.50	42.32	57.82	10.84	2.47		20.30				19.50	2.05	0.09	11.60	3.33	0.189	
94	6.00	5.10	5.45	27.45	18.40	44.65	63.05	9.50	2.16	1.19**			0.10	0.00	21.40	0.96**	0.01	13.12	3.86		
95			5.44	28.00	18.00	38.00	56.00	16.00	1.95		15.50		5.66**		22.79	2.04		11.54	3.51	0.175	
96	6.04	5.13		27.58	17.97	39.03	57.00	14.96	2.55**						21.93	1.98	0.26**	13.09	3.65		
98	6.04	5.14									19.60										
100	7.30**	5.48**							2.25												
101	5.81**	5.28		25.45	18.50	49.15	67.65	6.90	1.85				0.14		22.71	0.79**	0.06	12.27	3.93		
104	5.18**			20.45	20.60	44.10	64.70	14.85	2.12			14.40			22.89	2.00	0.10	10.60	3.41	0.195	
120	6.20	5.20		29.70	18.50	46.70	65.20	4.90	2.24				0.09	0.03	21.00	2.44	0.54**	13.40	3.15	0.190	
122	6.10	5.10		27.00			64.00	9.00	1.73**												
N1	29	29	8	27	25	25	27	27	26	6	10	7	13	7	21	23	22	23	23	9	
MED1	6.15	5.16	5.49	26.45	18.40	39.03	58.80	10.50	2.14	0.11	19.95	13.15	0.10	0.02	20.84	2.05	0.07	11.55	3.65	0.190	
MAD1	0.05	0.05	0.04	2.45	1.70	7.03	5.90	4.46	0.12	0.11	3.20	4.75	0.04	0.02	1.16	0.25	0.04	0.95	0.28	0.005	
F1	1.88	1.88	2.29	1.91	1.95	1.95	1.91	1.91	1.72	2.65	2.11	3.60	2.44	3.60	2.04	1.99	1.76	1.99	1.99	2.983	
N2	21	26	8	23	21	25	27	24	23		8	7	10	7	18	19	18	22	18	9	
MED2	6.15	5.15	5.49	25.60	18.00	39.03	58.80	10.00	2.15		19.44	13.15	0.10	0.02	21.20	2.10	0.05	11.58	3.63	0.190	
MAD2	0.05	0.05	0.04	1.86	1.50	7.03	5.90	4.78	0.09		1.27	4.75	0.02	0.02	0.77	0.11	0.04	0.84	0.23	0.005	
F2	2.04	1.72	2.29	1.99	2.04	1.95	1.91	1.74	1.99		2.29	3.60	2.11	3.60	1.82	2.11	1.82	1.76	1.82	2.983	
CV1X	5.46	4.14	0.79	21.28	20.14	21.26	13.97	59.53	11.36	131.1	47.56	49.27	197.6	118.9	13.01	32.54	172.7	17.03	37.46	4.370	
CV2X	1.21	1.16	0.79	14.16	13.05	21.26	13.97	50.73	7.85		18.35	49.27	50.84	118.9	6.60	14.02	77.37	13.53	11.32	4.370	
CV3X	1.21	1.16	0.79	11.94	13.05	21.26	13.97	50.73	7.08		9.08	49.27	26.09	118.9	5.84	8.89	77.37	11.58	7.74	4.370	

Table 9. Results of Chemical Analysis Sample 8 B - 3 O T H E R methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μ m	% Silt 20-50 μ m	% Silt 50-200 μ m	% Sand μ m	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
2				24.00			20.00**	59.00**								2.06	0.01	10.70	3.67		
9	6.10	5.00		24.00			58.00	18.00	1.94		4.00		0.14		18.29	2.22	0.95**	11.11	3.46	0.192	
24	5.66	5.07	5.49	11.50**			57.50	30.50	2.08		19.00		0.07	0.05	19.91	2.14	0.10	11.50	3.20		
26			5.50	20.00					1.85						16.70	1.73	0.10	9.80	3.00		
30	6.12			13.00**			26.30*	60.00**	2.35	0.00	37.17				21.10	1.91	0.11	14.66	3.68	0.191	
38															17.10	2.05	0.25	12.00	3.29		
41													4.70**		19.75	1.90	0.20	11.70	3.55		
45									2.13		17.07										
60	6.08	5.13		23.70	19.60				2.00					0.24	17.90	2.23	1.03**	13.10	5.37**		
69									1.93						20.73	2.09	0.03	12.23	3.62		
77	6.09	5.13		25.50	19.50	43.00	59.50	12.00	2.10						19.73	2.13	0.04	12.70	3.70	0.186	
80	5.40**	4.00**	4.00**	5.00**			4.50**	90.50**	2.10		3.00		0.70*		24.31	0.70**	0.50*	16.30**	0.50**		
83	5.89		5.26	21.10	29.50**	35.80	65.30	13.60	1.80		24.00		0.10		18.20	1.90	0.30	10.40	2.60*		
84				20.00	28.00	28.00	50.00	30.00													
97	6.03	5.40**		27.33	43.15	43.15	55.33	17.33	1.69			10.30	0.30			1.51*	0.14	12.70	2.27**	0.185	
98				23.05			62.30	16.30	2.05			22.65									
99	6.26	5.19	5.76	23.63	13.62	37.05	59.70	18.05	4.00**		18.00		0.21	0.15	15.85	2.34	0.69**	12.53	3.32	0.170	
101	5.92	5.07		22.25	22.65		66.40	10.00	1.68				0.45		18.44	2.55	0.14	11.94	3.60		
120	6.00	5.10		23.60					2.35				0.08	0.09	20.10	2.22	0.00	13.79	3.85	0.180	
121	6.29	5.08	5.73	7.04**			72.00	20.96	2.09		16.00				17.39		0.61*	11.60	3.00	0.179	
N1	12	10	6	16	8	5	13	13	16		6		9		15	17	17	17	17	7	
MED1	6.06	5.09	5.50	22.65	20.80	37.05	58.00	18.05	2.07		18.50		0.21		18.44	2.09	0.14	12.00	3.46	0.185	
MAD1	0.10	0.04	0.24	2.10	1.75	5.95	7.30	6.05	0.13		10.00		0.13		1.34	0.17	0.11	0.70	0.24	0.006	
F1	1.99	2.11	2.65	1.86	2.29	5.03	2.44	2.44	1.86		2.65		2.98		2.29	2.19	2.19	2.19	2.19	3.595	
N2	11	8	5	12	7	5	11	10	15		6		8		15	16	14	16	14	7	
MED2	6.08	5.09	5.50	23.62	19.60	37.05	59.50	17.67	2.05		18.50		0.18		18.44	2.11	0.13	11.97	3.51	0.185	
MAD2	0.08	0.03	0.23	0.97	2.40	5.95	4.17	3.68	0.11		10.00		0.10		1.34	0.14	0.09	0.73	0.19	0.006	
F2	2.65	2.29	5.03	1.99	3.60	5.03	2.65	2.11	2.29		2.65		2.29		2.29	1.86	1.91	1.86	1.91	3.595	
CV1X	3.99	7.06	11.35	33.24	20.87	14.91	38.81	76.72	24.25		66.86		188.0		10.75	20.02	104.5	12.55	28.56	3.866	
CV2X	2.77	1.03	3.29	8.81	17.41	14.91	19.74	35.00	9.68		66.86		80.71		10.75	11.61	97.12	10.01	9.88	3.866	
CV3X	2.77	1.03	3.29	8.81	17.41	14.91	9.72	35.00	9.68		66.86		67.08		10.75	9.36	76.51	10.01	7.59	3.866	

Table 10. Results of Chemical Analysis Sample 88 - 4 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
6	6.76	5.56		42.50	31.00	9.00	40.00	17.50	1.74		22.50**		5.20**		32.70	1.40	1.30	16.80	11.90	0.180	
7	6.60	5.60		40.30	32.90	10.10	43.00	16.70	1.61		0.30		0.14		30.10	1.30	1.30	13.40	9.90	0.211	
9	6.40	5.30**		44.00			32.00	24.00	1.75			2.00			24.68	1.28	1.57	13.52	7.59**		
11	6.80	5.55	6.20	40.95	29.95	9.40	39.35	19.70	2.07		7.00		0.07	0.05	39.40	1.50	1.45	19.65	13.20		
24	6.38	5.50	6.22	40.50			38.00	22.50	1.97						34.50	1.42	1.47	15.55	12.30		
24		7.28**							0.61**												
26	6.70	5.55	6.15	64.30**	22.40	6.50	28.90	6.80**	2.27				0.00	0.00	39.62	0.28**	0.90	16.50	13.23		
26		6.20	6.20	34.00	25.00				1.90						33.10	1.23	1.76	13.40	11.10		
27				42.40	27.20	11.75	38.95	18.65	2.06		4.05		0.06			33.40**				0.185	
27	6.65	5.50	9.00**																		
30	6.77			58.00**	24.40	5.60	30.00	12.00	1.24**		3.13					1.53	1.24	16.33	12.09	0.184	
30	6.65			26.20*	49.70		49.70	24.10	1.98		24.96**				42.71	1.40	1.50	21.97**	12.83	0.191	
31	6.71	5.53	6.14*	43.00	16.00	12.00	28.00	29.00*	2.19	0.00			0.04	0.04	35.04	1.51	1.40	16.58	11.15		
34	6.64	5.55							2.75						35.89	1.64	1.69	1.48**	12.43		
35	6.78	5.51	6.21	21.00**			45.00	34.00**	3.00**	0.15					37.20	1.50	1.60	14.80	10.19		
38	7.00	6.30**		45.90	26.45	8.15	34.60	19.50			1.90	20.90	8.50**		32.60	1.20	1.40	16.00	6.20**		
41	6.80	5.60		49.80	25.00	13.00	38.00	12.20	2.07						43.60	1.60	1.40	15.50	13.90		
43				63.00**	24.00	8.00	32.00	5.00**													
43	6.80	5.50		39.00	31.30	7.00	38.30	22.40	2.14	1.54	7.71	30.40	0.00		36.30	1.30	1.14	18.35	10.65	0.186	
44	6.70	5.90**		41.00	28.00	15.00		16.00	1.98	4.10		27.53	0.05		39.82	1.54	3.91**	18.18	15.38**		
47	7.80**	6.93**		47.45	30.10	9.05	39.15	13.40	1.76	0.38		50.50	0.22		36.01	1.12*	1.04	15.78	11.17		
48	6.55	5.40*		46.30	23.50	13.00	36.30*	17.50	2.08						35.50	1.95**	2.35**	21.15	6.25**	0.165	
50	6.70	5.60	6.30**	32.50	34.00	11.00	45.00	20.50	2.10		4.00	20.60									
67	6.56	5.50	6.19	20.00**	39.00	16.00*	52.00	24.00	2.14	1.10		30.20	0.16		41.41	1.60	1.49	17.34	12.45	0.187	
69	6.85	5.55	43.55	32.45	11.10	43.55		12.90	1.88						39.99	1.46	1.20	17.66	12.82		
69	6.60	5.47	41.10		33.55				1.98												
73				40.70	28.65	9.05	37.70	21.60	1.97		6.66	19.43	0.13	0.12	41.25	1.26	1.33	16.41	13.67	0.169	
73	6.88	5.61	6.22	45.50	29.00	10.00	39.00	15.50	2.13						39.60	1.56	1.04	8.30**	11.95		
77	6.80	5.55							2.02						35.58	1.52	1.40	18.81	13.06	0.172	
78	6.80	5.60							2.13						38.19	1.56	1.40	18.46	12.97		
80	5.60**	4.90**	4.80**	12.60**			5.80**	81.60**	2.13		0.60	32.00	0.70**		32.08	0.74**	1.03	13.12	13.12	0.190	
83			6.09**	40.00	17.10	25.30**	42.40	17.60	1.80		12.00				39.20	0.50**	0.50**	20.40	0.50**		
83	6.53	5.48							1.70			25.50			32.60	1.40	17.70**	14.00	8.80*		
84				40.00	20.00	4.00	24.00	36.00**	1.80												0.180
84	6.70	5.55	6.20	46.50	24.00	8.00	32.00	21.50	2.10		2.00				39.70	0.40**	1.07	17.25	9.30		
88	6.70	5.61		30.75	30.25	8.45	38.70	20.48	1.04**		6.23		0.10		31.80	1.54	1.74	15.60	12.00	0.128**	

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Continuation of:
Table 10. Results of Chemical Analysis Sample 88-4 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 2-50 µm	% Sand	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
93	6.70	5.81**		35.70	27.68	11.33	30.60	33.70**	3.63**	2.00	3.33	41.93	0.08	0.05	23.91	1.41	0.00**	24.68**	1.61**		
94	6.70	5.58	6.20	42.72			39.00	18.28	2.17	2.88			0.19	0.00	41.71	0.71**	0.74*	18.22	12.78		
95																					
96	6.50	5.47		45.25	6.44**	6.44	12.87**	18.47	2.44		7.00	24.97	0.20	0.18*	34.62	1.41	1.24	18.05	12.59	0.153	
97	6.43	5.70*		40.67			39.00	20.33	1.57			34.80		0.12	33.05	0.95*	1.47	16.03	7.40**		
98				36.00	33.80	8.80	42.60	17.60	1.85					0.33*		1.53	2.14*	17.63	11.00		
98	6.54	5.44		36.00	33.80	8.80	42.60	17.60	1.85			34.80			33.05	1.53	2.14*	17.63	11.00		
98	6.54	5.48		38.80	21.65				3.10**		5.50		0.25	0.18*	31.46	1.88*	1.50	18.87	8.96*		
99	6.77	5.52	6.43**	38.75	31.30	13.40	44.70	16.55	2.11				0.12		43.38	0.64**	0.78*	16.59	12.84		
101	6.43	5.57		38.80	36.35	10.40	46.75	14.45	1.55			30.25				1.64	1.40	21.31	12.74		
101	6.48	5.53		36.65	33.30	12.85	46.15	17.20	1.96						43.18	1.36	1.41	15.90	12.71	0.175	
104	5.77**								2.20												
112	6.80	5.50		46.40			31.50	21.15	1.10			25.75								0.190	
119				11.23**	23.69	28.11**	51.80	38.06**	0.63**							0.15**	0.38**	53.92**	0.88**		
120	6.70	5.50		37.40	36.40	11.60	48.00	14.60	2.35				0.06	0.02	38.80	1.75	1.88	18.80	11.00	0.170	
120	6.50	5.40*		34.20			45.90	19.90	2.26			16.00			38.40	1.62	2.02*	18.40	11.50	0.180	
121	6.68	5.64	6.20	25.71*			44.67	29.62**	1.79						26.08					0.151	
122	6.80	5.50		51.00			32.00	17.00	1.61												
N1	45	43	17	46	35	32	42	43	48	11	17	17	22	11	39	43	42	42	42	19	
MED1	6.70	5.55	6.20	40.59	28.65	10.05	39.00	18.65	1.98	1.10	5.50	27.53	0.13	0.05	36.01	1.42	1.40	17.03	11.93	0.180	
MAD1	0.10	0.05	0.02	4.63	4.65	1.93	5.85	2.95	0.18	0.95	2.21	6.63	0.07	0.03	3.41	0.14	0.23	1.43	0.99	0.010	
F1	1.75	1.76	2.19	1.63	1.82	1.68	1.64	1.76	1.62	2.65	2.19	2.19	1.76	2.65	1.78	1.76	1.64	1.64	1.64	2.106	
M2	42	36	11	39	34	30	40	35	41	11	15	17	19	10	39	34	36	37	34	18	
MED2	6.70	5.54	6.20	40.67	28.83	9.70	39.00	18.28	1.98	1.10	4.05	27.53	0.10	0.05	36.01	1.50	1.40	16.80	12.20	0.180	
MAD2	0.10	0.04	0.01	3.33	4.45	1.70	5.69	2.22	0.15	0.95	2.18	6.63	0.05	0.03	3.41	0.10	0.17	1.30	0.90	0.009	
F2	1.64	1.66	2.65	1.78	1.67	1.69	1.64	1.82	1.77	2.65	2.29	2.19	2.11	2.11	1.78	1.67	1.66	1.80	1.67	1.817	
CV1X	4.66	6.68	12.39	26.38	23.47	44.03	24.16	54.06	25.47	88.80	96.52	37.82	263.4	104.2	13.57	236.6	142.2	38.25	31.28	10.034	
CV2X	2.01	1.14	0.40	13.96	19.29	27.29	16.98	19.78	10.76	88.80	63.31	37.82	72.11	99.10	13.57	12.33	23.45	11.94	11.04	7.785	
CV3X	2.01	0.88	0.30	11.35	19.29	25.82	16.98	17.87	10.76	88.80	63.31	37.82	66.95	87.40	13.57	8.99	16.44	11.94	9.21	7.785	

Table 11. Results of Chemical Analysis Sample B 8 - 4 L A B E X methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 50-100 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
6	6.76	5.56		42.50	31.00	9.00	40.00	17.50	1.74*		22.50**		5.20**		32.70	1.40	1.30	16.80	11.90	0.180	
7	6.60	5.60		40.30	32.90	10.10	43.00	16.70	1.61**						30.10	1.30	1.30	13.40	9.90*		
11	6.80	5.55	6.20	40.95	29.95	9.40	39.35	19.70	2.07			2.00**			39.40	1.45	1.45	19.65	13.20		
24		7.28**							0.61**												
26	6.70	5.55	6.15	64.30**	22.40	6.50	28.90	6.80	2.27				0.00	0.00	39.62	0.28**	0.90	16.50	13.23		
27	6.65	5.50	9.00**										0.06								
30	6.77			58.00*	24.40	5.60	30.00	12.00	1.24**		3.13				42.71	1.53	1.24	16.33	12.09	0.184	
30	6.65			26.20*			49.70	24.10	1.98		24.96**				35.04	1.40	1.50	21.97**	12.83	0.191	
31	6.71	5.53	6.14*	43.00	16.00*	12.00	28.00	29.00	1.98	0.00			0.04	0.04	35.89	1.51	1.40	16.58	11.15		
34	6.64	5.55							2.19	0.00						1.64	1.69	1.48**	12.43		
35	6.78	5.51	6.21	21.00**			45.00	34.00**	2.75		1.90	20.90			43.60	1.60	1.40	15.50	13.90		
38	7.00*	6.30**		45.90	26.45	8.15	34.60	19.50	2.07				0.00								
41	6.80	5.60		49.80	25.00	13.00	38.00	12.20													
43				63.00**	24.00	8.00	32.00	5.00**													
43	6.80	5.50		39.00	31.30	7.00	38.30	22.40	2.14	1.54		30.40	0.00							0.186	
44	6.70	5.90**		41.00	28.00	15.00	41.00	16.00	1.98	4.10	7.71	27.53	0.05		36.30	1.30	1.14	18.35	10.65		
47	7.80**	6.93**		47.45	30.10	9.05	39.15	13.40	1.76	0.38		50.50*	0.22		39.82	1.54	3.91**	18.18	15.38**		
48	6.55	5.40		46.30	23.30	13.00	36.30	17.50	2.08						36.01	1.12	1.04	15.78	11.17		
50	6.70	5.60	6.30*	32.50	34.00	11.00	45.00	20.50	2.10		4.00	20.60	0.16	0.02	35.50	1.95**	2.35**	21.15	6.25**	0.165	
67	6.56	5.50	6.19	20.00**	39.00	16.00*	52.00	24.00	2.14	1.10		30.20			41.41	1.60	1.49	17.34	12.45	0.187	
69	6.85	5.55	6.22	43.55	32.45	11.10	43.55	12.90	1.88						39.60	1.56	1.04	8.30**	11.95		
73	6.68	5.61		40.70	28.65	9.05	37.70	21.60	2.13						38.19	1.56	1.40	18.46	12.97		
77	6.80	5.55													32.08	0.74**	1.03	13.50	13.12	0.190	
78	6.80	5.60																			
83		5.48							2.13												
84	6.70	5.55	6.20	46.50	24.00	8.00	32.00	21.50	1.80		2.00	25.50	0.10		39.70	0.40**	1.07	17.25	9.30*	0.128**	
88	6.70	5.61		30.75	30.25	8.45	38.70	20.48	2.10		6.23				31.80	1.54	1.74	15.60	12.00		
93	6.70	5.81**		35.70	33.70**	11.33	30.60	33.70**	3.63**	2.00	3.33	41.93	0.08	0.05	23.91**	1.41	0.00**	24.68**	1.61**		
94	6.70	5.58	6.20	42.72	27.68	11.33	39.00	18.28	2.17	2.88			0.19	0.00	41.71	0.71**	0.74	18.22	12.78		
96	6.50	5.47		45.25	6.44**	6.44	12.87**	18.47	2.44		7.00				34.62	1.41	1.24	18.05	12.59		
98	6.54	5.44																			
98	6.54	5.48		38.75	31.30	13.40	44.70	16.55	2.11				0.12		43.38	0.64**	0.78	16.59	12.84		
101	6.43	5.57		36.65	33.30	12.85	46.15	17.20	1.96			30.25			43.18	1.36	1.41	15.90	12.71	0.175	
104	5.77**								2.20												
112				11.23**	23.69	28.11**	51.80	38.06**	0.63**				0.06	0.02	38.80	0.15**	0.38**	53.92**	0.88**		
119				37.40	36.40	11.60	48.00	14.60	2.35							1.75	1.88	18.80	11.00	0.170	
120	6.70	5.50		51.00	32.00				1.61**												
122	6.60	5.50																			

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Continuation of :

Table 11. Results of Chemical Analysis Sample 88-4 L A B E X methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μ m	% Silt 20-50 μ m	% Silt 2-50 μ m	% Sand μ m	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
M1	33	32	11	29	25	25	28	29	30	9	10	11	13	6	24	26	26	26	26	10
HED1	6.70	5.55	6.20	41.00	28.65	10.10	38.85	18.28	2.08	1.54	5.12	30.20	0.08	0.02	38.50	1.41	1.30	17.03	12.26	0.182
MAD1	0.10	0.05	0.02	5.30	4.25	2.10	6.15	3.32	0.12	1.21	2.29	4.70	0.04	0.02	3.11	0.15	0.25	1.38	0.90	0.008
F1	1.84	1.68	2.65	1.88	1.95	1.95	1.70	1.88	1.69	2.98	2.11	2.65	2.44	2.65	1.74	1.72	1.72	1.72	1.72	2.106
N2	31	27	9	24	24	24	27	25	23	9	8	10	12	6	23	19	22	21	22	9
HED2	6.70	5.55	6.20	41.75	29.30	9.75	39.00	17.50	2.10	1.54	3.67	30.23	0.07	0.02	38.80	1.51	1.30	16.80	12.44	0.184
MAD2	0.08	0.05	0.01	4.25	3.80	1.80	6.00	2.98	0.09	1.21	1.72	3.71	0.04	0.02	2.91	0.10	0.20	1.25	0.54	0.006
F2	1.86	1.91	2.98	1.74	1.74	1.74	1.91	1.95	1.99	2.98	2.29	2.11	1.99	2.65	1.99	2.11	1.76	2.04	1.76	2.983
CV1%	4.10	7.11	12.66	28.26	23.73	40.36	21.69	37.73	28.18	81.91	96.37	41.45	282.1	86.00	12.68	36.77	51.30	46.27	29.70	10.159
CV2%	1.72	0.97	0.69	16.05	17.63	26.71	17.41	25.35	8.14	81.91	48.07	28.04	75.22	86.00	10.30	9.61	22.65	10.62	9.28	4.752
CV3%	1.52	0.97	0.33	12.21	15.10	25.08	17.41	25.35	7.48	81.91	48.07	21.06	75.22	86.00	10.30	9.61	22.65	10.62	6.74	4.752

Table 12. Results of Chemical Analysis Sample 8 8 - 4 O T H E R methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
9	6.40	5.30		44.00			32.00	24.00	1.75		0.30		0.14		24.68	1.28	1.57	13.52	7.59	0.211
24	6.38	5.50	6.22	40.50			38.00	22.50	1.97		7.00		0.07	0.05	34.50	1.42	1.47	15.55	12.30	
26			6.20	34.00	25.00				1.90						33.10	1.23	1.76	13.40	11.10	
27				42.40	27.20	11.75	38.95	18.65	2.06		4.05					33.40**				
38									3.00**	0.15			8.50**		37.20	1.50	1.60	14.80	10.19	0.185
41	6.60	5.47		41.10	33.55				1.85						32.60	1.20	1.40	16.00	6.20	
69									1.98					0.24	39.99	1.46	1.20	17.66	12.82	
73									1.97		6.66	19.43	0.13	0.12	41.25	1.26	1.33	16.41	13.67	0.169
77	6.72	5.57		45.50	29.00	10.00	39.00	15.50	2.02		0.60		0.70*		35.58	1.52	1.40	18.81	13.06	0.172
80	5.60**	4.90**	4.80**	12.60**			5.80**	81.60**	1.80						39.20	0.50**	0.50**	20.40	0.50**	
83	6.53		6.09	40.00	17.10	25.30**	42.40	17.60	1.70		12.00				32.60	1.40	1.70**	14.00	8.80	
84				40.00	20.00	4.00*	24.00	36.00**	1.57			24.97	0.20			0.95	1.47	16.03	7.40	0.180
97	6.43	5.70		40.67			39.00	20.33	1.85			34.80			33.05	1.53	2.14**	17.63	11.00	0.153
98				36.00	33.80	8.80	42.60	17.60	1.85			34.80			33.05	1.53	2.14**	17.63	11.00	
99				36.00	33.80	8.80	42.60	17.60	1.85		5.50		0.25	0.18	31.46	1.88	1.50	18.87	8.96	
101	6.77	5.52	6.43*	38.80	21.65	10.40	46.75	14.45	3.10**				0.33			1.64	1.40	21.31	12.74	
112	6.48	5.53		38.80	36.35				1.55	1.10					38.40	1.62	2.02**	18.40	11.50	0.190
120	6.50	5.40		46.40			31.50	21.15	2.26				0.06	0.06	26.08					0.180
121	6.68	5.64	6.20	34.20	45.90	19.90	44.67	29.62*	1.79											0.151
N1	12	11	6	17	10	7	14	14	18		7	6	9	5	15	17	16	16	16	9
MED1	6.52	5.50	6.20	40.00	28.10	10.00	39.00	20.12	1.88		5.50	25.36	0.20	0.12	33.10	1.46	1.49	17.02	11.00	0.180
MAD1	0.13	0.07	0.07	4.00	5.70	1.20	4.64	2.52	0.12		1.50	7.65	0.13	0.06	2.48	0.18	0.14	1.63	1.93	0.010
F1	1.99	2.65	2.65	2.19	2.11	3.60	1.91	1.91	1.82		3.60	2.65	2.98	5.03	2.29	2.19	1.86	1.86	1.86	2.983
N2	11	10	5	16	10	6	13	12	16		7	6	8	5	15	15	11	16	15	9
MED2	6.53	5.51	6.20	40.00	28.10	9.40	39.00	19.28	1.85		5.50	25.36	0.17	0.12	33.10	1.46	1.47	17.02	11.00	0.180
MAD2	0.13	0.05	0.02	3.20	5.70	0.80	3.60	1.78	0.12		1.50	7.65	0.09	0.06	2.48	0.16	0.07	1.63	1.82	0.010
F2	2.65	2.11	5.03	1.86	2.11	2.65	2.44	1.99	1.86		3.60	2.65	2.29	5.03	2.29	2.29	2.65	1.86	2.29	2.983
CV1%	4.65	3.73	9.04	20.92	22.82	54.43	28.56	64.86	20.38		72.60	27.20	225.7	55.47	13.30	231.7	155.0	13.50	32.72	9.884
CV2%	2.19	1.95	1.78	12.62	22.82	27.19	16.03	19.79	9.39		72.60	27.20	83.03	55.47	13.30	15.04	9.63	13.50	21.04	9.884
CV3%	2.19	1.95		9.14	22.82	11.09	16.03	14.47	9.39		72.60	27.20	53.76	55.47	13.30	15.04	9.63	13.50	21.04	9.884

Table 13. Results of Chemical Analysis Sample 8 - 5 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 50-75 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
2	8.20	7.30		34.00*	21.00	20.50	41.50	24.50**	0.56	10.75		2.50	0.15		11.00	0.11	0.02	34.25	1.10		
6	8.35	7.65		17.00	21.50	24.50	46.00	37.00	0.47		4.10				8.25	0.10	0.15	51.00	1.25	0.080*	
9	7.70	6.90**		24.00	23.75	23.75	45.75	39.15	0.54	13.00	2.00				28.36**	0.12	0.41	26.56	1.00		
11	8.00	7.35	7.50	15.10	22.00	23.75	45.75	39.15	0.61						10.50		0.10		1.15		
24		7.28	7.22								1.00										
24	7.67	7.13	7.20	16.00	21.00	21.00	42.00	42.00	0.75*						9.20	0.15*	0.18	20.75	0.90		
26		7.50	7.50	20.00	21.00	21.00	37.20	28.60*	0.74*	9.30							0.34	183.3**	5.20**		
26	8.10	7.05*	7.45	34.20*	21.50	15.70	42.20	25.00**	0.68	14.25					9.66	0.14	0.06	42.49	2.12**		
30	8.33			32.80*	22.20	20.00	26.10**	62.00**			0.00					0.08	0.15	34.88	0.97	0.087**	
30	7.99			11.90	13.00**	23.00	36.00	42.00	0.48		5.58**				9.85	0.13	0.19	89.65**	1.61	0.072	
31	8.19	7.41	7.48	22.00	19.00	19.00	43.00	40.00	0.55	13.43					9.65	0.13**	0.15	29.79	0.73		
34	8.12	7.44							0.33**	12.00					12.27	0.10	0.39		0.94		
35	8.35	7.50	7.60	11.00	19.35	21.05	40.40	34.25	2.75**	0.00**					9.15	0.19**	0.53				
38				25.35	20.40	27.90*	48.30	30.30	0.61		0.00	7.45**	2.00**		9.80	0.10	0.40	12.70	0.70		
41	9.20**	8.20**							0.59						8.80	0.10	0.30	30.30	1.10	0.072	
41	8.20	7.40		21.40	20.40	20.60	45.30	37.00	0.55	13.80		3.40	0.00								
43	8.40	7.40		17.70	24.70	20.60	39.00	25.00**			1.36										
43				36.00**	19.00	20.00	43.00	40.00	0.48	14.60		3.85	0.05								
44	7.60*	7.40		17.00	19.00	24.00	43.00	40.00	0.51			0.10									
45				28.35	12.65**	10.00**	22.65**	49.00**	0.61	10.04		17.75**			12.09	0.33**	0.88**	19.58	26.55**		
47	7.78	6.90**		18.00	15.70*	21.60	37.30	44.60*	0.55	14.80					6.14	0.10	0.27	40.58	1.60		
48	8.00	6.90**		14.50	17.50	15.50	33.00	38.00	0.50	11.40					9.45	0.20**	0.85**	49.65	1.10	0.050**	
50	8.30	7.60	7.65	25.39	20.82	19.80	40.62	25.38**	0.55												
60	8.15	7.27								12.30					7.25	0.10	0.45	43.70	1.61		
60	7.99	7.34	7.57	12.00	10.00**	31.00**	41.00	37.00	0.83**		0.20	1.30	0.06		10.50	0.19**	0.19	33.87	0.92	0.065	
67	8.41	7.54		19.00	22.35	25.25	47.60	33.40	0.51	9.45		3.30									
69				41.10**	33.55**				0.49												
69	7.94	7.25							0.44	10.30					8.94	0.09	0.18	35.15	0.99		
73	8.13	7.54	7.57	16.40	16.40	16.40	57.70**	42.30	0.49	14.10					13.70*	0.14	0.39	16.96	5.42**		
77	8.21	7.43		21.50	21.00	21.00	42.00	36.50	0.63	7.60					8.74	0.11	0.18	49.12	1.12		
77	8.16	7.38							2.13**						8.76	0.11	0.20	50.60	1.20	0.068	
78	8.00	6.90**							0.63			4.00			6.28	0.01**	0.01	72.59**	0.54	0.070	
80	6.50**	5.10**	4.70**	67.00**			10.60**	17.40**	0.50		0.60		0.80**		34.80**	0.30**	0.70**	31.40	0.70		
83		7.50		18.70	31.20**	20.80	52.00	29.30*	0.50	15.80					7.30	0.10	1.10**	44.40	0.70		
83	8.03		7.43	24.50	18.00	16.00	34.00	41.50	0.40		2.00	2.60			42.80**	0.10	0.26	35.50	0.85		
84	8.25	7.50	7.60	20.00	16.00*	20.00	36.00	44.00	0.65		1.40	2.00	0.08		14.95**	0.10	0.24	33.20	0.97	0.070	
84				18.25	21.50	17.92	39.42	39.19	1.08**												
86	8.31	7.50																			0.067

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Continuation of:
Table 13. Results of Chemical Analysis Sample 8 B - 5 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 2-50 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K' me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
93	8.10	7.70		23.20			41.65	35.20	1.01**	11.88	0.00	1.39	0.02	0.00	6.96	0.24**	0.00	19.46	1.20	
94	8.15	7.40	7.45	21.80	23.04	24.72	47.76	36.93	0.57	14.62			0.10	0.00	9.14	0.03**	0.06	34.48	0.85	0.070
95			7.52	22.00	20.00	22.00	42.00	36.00	0.51		2.00		9.55**		34.17**	0.07*		27.49	0.73	
96	7.52*	6.83**		21.10	20.28	22.16	37.67	36.46	0.73*			1.66			11.30	0.26**	0.37	24.06	1.13	0.064
97	7.80	7.30		24.33			37.67	36.67	0.52						7.76	0.09	0.61*	47.60	0.57	
98	8.21	7.41		16.92	21.55	20.48	42.03	39.07	0.52			3.20				0.11	0.37	22.18	1.22	
99	8.35	7.33	7.88**	15.65	22.30		21.30**		1.05**	7.62	11.25**				14.28*	0.08	0.29	13.10	0.81	
100	7.60*	5.55**			-2.00				0.60		1.02					0.15*	0.31	24.03	1.63*	
101	7.79	7.04*		17.50	23.30	22.25	45.55	36.90	0.56	12.00			0.26*			0.14	0.20	19.61	1.04	
101	7.68	7.18		18.90	22.65	23.75	46.40	34.70	0.56	16.77			0.06		10.72	0.12	0.16	30.69	1.21	
104	7.20**			15.20	24.70	20.35	45.05	39.75	0.60						12.38	0.03**	0.28	18.35	0.94	0.085**
112				15.00	22.00	17.00	39.00	44.00	0.60	9.80										0.060*
117	5.50**	4.60**		15.50	0.90**	11.80*	12.70**	71.80**	0.50	0.40**					1.60**	0.30**	0.02	2.60	1.70**	
118	8.10	7.20		39.00**			46.40	39.00	0.61	12.80		1.00	0.01	0.00	8.80	0.12	0.24	40.44	0.50	0.070
120	8.30	7.50		32.50*	23.90	20.50	44.40	32.60	0.54	14.20			0.01	0.00	9.20	0.12	0.12	41.20	0.70	0.070
121	8.27	7.53	7.57	16.04			47.00	36.96	0.54			7.00*			7.61					0.050**
122	8.10	7.60		26.00			50.00	24.00**	0.33**											
N1	45	43	17	45	36	33	43	43	51	29	16	16	17	8	38	41	41	39	42	17
MED1	8.10	7.38	7.50	20.00	21.25	20.60	42.00	36.96	0.56	12.00	1.38	2.90	0.06	0.00	9.55	0.11	0.24	33.87	1.02	0.070
MAD1	0.17	0.13	0.07	4.33	1.85	2.40	4.00	3.04	0.06	2.10	0.98	1.17	0.06	0.00	1.60	0.02	0.12	9.84	0.21	0.003
F1	1.75	1.76	2.19	1.75	1.66	1.84	1.76	1.76	1.72	1.88	1.86	1.86	2.19	2.29	1.65	1.77	1.77	1.78	1.64	2.187
N2	41	34	15	41	29	31	37	34	43	27	13	14	14	7	32	29	37	36	36	13
MED2	8.12	7.40	7.50	19.00	21.50	20.60	42.00	37.00	0.55	12.30	1.02	2.55	0.06	0.00	9.20	0.11	0.20	32.30	0.98	0.070
MAD2	0.13	0.10	0.07	3.35	1.15	1.65	3.55	2.25	0.05	1.90	0.98	1.03	0.05	0.00	1.30	0.01	0.10	9.51	0.20	0.002
F2	1.77	1.67	2.29	1.77	1.88	1.86	1.80	1.67	1.76	1.91	2.44	1.91	1.91	3.60	1.68	1.88	1.80	1.66	1.66	2.437
CV1X	6.76	8.87	9.23	43.06	30.69	19.98	23.23	24.77	59.45	33.35	148.8	98.66	287.2	264.5	68.77	54.92	80.03	75.18	216.2	13.974
CV2X	2.97	2.12	1.67	28.33	10.58	16.06	10.51	10.43	14.18	19.25	92.40	61.46	107.9		20.40	18.34	61.17	37.87	29.02	6.609
CV3X	2.50	1.82	1.67	21.93	8.38	12.99	10.51	8.51	10.75	19.25	92.40	49.48	95.62		17.55	15.06	58.58	37.87	27.95	3.632

Table 14. Results of Chemical Analysis Sample 8 8 - 5 L A B E X methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
2	8.20	7.30		34.00	21.00	20.50	41.50	24.50*	0.56	10.75	2.50		0.00	0.00	11.00	0.11	0.02	34.25	1.10		
6	8.35	7.65		17.00	21.50	24.50	46.00	37.00	0.47	13.00	2.00				8.25	0.10	0.15	51.00	1.25	0.080	
11	8.00	7.35	7.50	15.10	22.00	23.75	45.75	39.15	0.61						10.50		0.10		1.15		
24		7.28	7.22																		
26	8.10	7.05*	7.45	34.20	21.50	15.70	37.20	28.60	0.68	14.25	0.00		0.00	0.00	9.66	0.14	0.06	42.49	2.12**		
30	8.33	7.41	7.48	32.80	22.20	20.00	42.20	25.00*	0.55	13.43					9.65	0.08	0.15	34.88	0.97	0.087	
31	8.19	7.44		22.00	13.00**	23.00	36.00	42.00	0.33**	12.00					12.27	0.03	0.15	29.79	0.73		
34	8.12	7.44							2.75**	0.00**						0.10	0.39		0.94		
35	8.35	7.50	7.60	11.00			45.00	34.00			0.00	7.45**									
38	9.20**	8.20**		25.35	19.35	21.05	40.40	34.25	0.59	13.80					8.80	0.10	0.30	30.30	1.10	0.072	
41	8.20	7.40		21.40	20.40	27.90	48.30	30.30	0.55		3.40		0.00								
43	8.40	7.40		17.70	24.70	20.60	45.30	37.00													
44				36.00**	19.00	20.00	39.00	25.00*													
47	7.60	7.40		17.00	19.00	24.00	43.00	40.00	0.48	14.60	1.36	3.85	0.05								
48	8.00	6.90**		28.35	12.65**	10.00	22.65**	49.00*	0.61	10.04	17.75**				12.09	0.33**	0.88**	19.58	26.55**		
50	8.30	7.60	7.65	18.00	15.70*	21.60	37.30	44.60	0.55	14.80			0.00		6.14	0.10	0.27	40.58	1.60*		
60	8.15	7.27		25.39	20.82	19.80	40.62	25.38*	0.55	11.40					9.45	0.20*	0.85**	49.65	1.10	0.050	
67	7.99	7.34	7.57	12.00	10.00**	31.00	41.00	37.00	0.83**		0.20	1.30	0.06	0.00	10.50	0.19*	0.19	33.87	0.92	0.065	
69	8.41	7.54	7.57	19.00	22.35	25.25	47.60	33.40	0.51	9.45*		3.30			13.70	0.14	0.39	16.96	5.42**		
73	8.13	7.54	7.57		41.30**	16.40	57.70**	42.30	0.49	14.10		4.00			8.74	0.11	0.18	49.12	1.12		
77	8.21	7.43					-2.00			14.10					6.28	0.01*	0.01	72.59**	0.54*	0.070	
78	8.00	6.90**							0.63	15.80											
83		7.50							0.50												
84	8.25	7.50	7.60	24.50	18.00	16.00	34.00	41.50	0.65			2.00			42.80**	0.10	0.26	35.50	0.85		
88	8.31	7.50		18.25	21.50	17.92	39.42	39.19	1.08**		1.40		0.08		14.95	0.10	0.24	33.20	0.97	0.067	
93	8.10	7.70*		23.20	23.04	24.72	41.65	35.20	1.01**	11.88	0.00	1.39	0.02	0.00	6.96	0.24**	0.00	19.46	1.20		
94	8.15	7.40	7.45	21.80	23.04	24.72	47.76	36.93	0.57	14.62			0.10	0.00	9.14	0.03	0.06	34.48	0.85		
95			7.52	22.00	20.00	22.00	42.00	36.00	0.51				9.55**		34.17**	0.07	0.37	27.49	0.73	0.070	
96	7.52**	6.83**		21.10	20.28	22.16		36.46	0.73		2.00				11.30	0.26**	0.01	24.06	1.13		
98	8.21	7.41					-2.00		0.60		1.02										
100	7.60	5.55**		18.90	22.65	23.75	46.40	34.70	0.56	16.77			0.06		10.72	0.15	0.31	24.03	1.63*		
101	7.68	7.18		15.20	24.70	20.35	45.05	39.75	0.60			3.20			12.38	0.12	0.16	30.69	1.21	0.085	
104	7.20**								0.60												
112				15.00	22.00	17.00	39.00	44.00	0.50	9.80		1.00	0.01	0.00	1.60**	0.30**	0.02	2.60**	1.70**	0.060	
118	5.50**	4.60**		15.50	0.90**	11.80	12.70**	71.80**	0.75*	0.40**					9.20	0.12	0.12	41.20	0.70	0.070	
120	8.30	7.50		32.50	23.90	20.50	44.40	32.60	0.54	14.20											
122	8.10	7.60		26.00			50.00	24.00*	0.33**												

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Continuation of :

Table 14. Results of Chemical Analysis Sample 8 B - 5 L A B E X methods

LAB No.	pH H ₂ O	pH KCl	pH CaCl ₂	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO ₃	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
N1	33	33	11	30	28	28	30	31	34	21	10	11	11	5	24	25	25	24	26	11
HED1	8.15	7.40	7.52	21.25	20.91	20.55	41.83	36.93	0.57	13.43	1.19	3.20	0.05	0.00	10.08	0.11	0.18	33.54	1.10	0.070
MAD1	0.15	0.12	0.07	4.25	1.83	3.20	3.70	3.53	0.06	1.43	0.90	0.80	0.04	0.00	1.59	0.03	0.12	8.31	0.17	0.005
F1	1.84	1.84	2.65	1.69	1.70	1.70	1.69	1.86	1.67	2.04	2.11	2.65	2.65	5.03	1.74	1.95	1.95	1.74	1.72	2.648
N2	29	26	11	29	23	28	27	30	28	19	9	10	10	5	21	21	23	22	22	11
HED2	8.15	7.42	7.52	21.10	21.50	20.55	42.00	36.70	0.56	13.80	1.02	2.85	0.04	0.00	9.66	0.10	0.16	33.54	1.04	0.070
MAD2	0.15	0.08	0.07	4.25	1.22	3.20	3.05	3.30	0.05	1.00	0.98	0.93	0.03	0.00	1.34	0.02	0.10	7.36	0.14	0.005
F2	1.88	1.72	2.65	1.88	1.99	1.70	1.91	1.69	1.70	2.11	2.98	2.11	2.11	5.03	2.04	2.04	1.99	1.76	1.76	2.648
CV1X	6.97	8.57	1.48	31.10	32.06	21.68	19.70	24.36	59.79	35.80	198.8	56.66	302.9		70.17	62.09	92.58	41.87	219.5	14.486
CV2X	2.68	1.90	1.48	29.83	10.44	21.68	10.30	17.87	12.17	15.48	90.65	40.61	91.77		21.96	47.55	66.72	30.08	25.03	14.486
CV3X	2.68	1.51	1.48	29.83	9.05	21.68	10.30	10.68	10.94	14.18	90.65	40.61	91.77		21.96	36.73	30.08	16.68	14.486	

Table 15. Results of Chemical Analysis Sample 8 8 - 5 O T H E R methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total	
9	7.70	6.90		24.00			38.00	38.00	0.54		4.10		0.15		28.36**	0.12	0.41	26.56	1.00		
24	7.67	7.13	7.20	16.00			42.00	42.00*	0.75*		1.00		0.13	0.05	9.20	0.15*	0.18	20.75	0.90		
26			7.50	20.00	21.00				0.74*	9.30								183.3**	5.20**		
30	7.99			11.90			26.10	62.00**	0.48		5.58				9.85	0.13	0.34	89.65*	1.61	0.072	
38									0.61	10.50			2.00**		9.15	0.19**	0.53				
41															9.80	0.10	0.40	12.70	0.70		
45									0.51	12.30		0.10			7.25	0.10	0.45	43.70	1.61		
60									0.49												
69	7.94	7.25		41.10**	33.55**				0.44	10.30					8.94	0.09	0.18	35.15	0.99		
77	8.16	7.38		21.50	21.00	21.00	42.00	36.50	2.13**	7.60				0.00	8.76	0.11	0.20	50.60	1.20	0.068	
80	6.50**	5.10**	4.70**	67.00**			52.00	17.40**	0.50		0.60		0.80		34.80**	0.30**	0.70	31.40	0.70		
83	8.03		7.43	18.70	31.20**	20.80	36.80	29.30**	0.40		2.00	2.60			7.30	0.10	1.10**	44.40	0.70		
84				20.00	16.00**	20.00	36.80	44.00**													
97	7.80	7.30		24.33			37.67	36.67	0.52			1.66			7.76	0.09	0.61	47.60	0.07	0.070	
98				16.92	21.55	20.48	42.03	39.07	0.52			16.39			7.76	0.11	0.37	22.18	1.22	0.064	
99	8.35	7.33	7.88	15.65	22.30	21.30*	21.30*		1.05**	7.62	11.25				14.28**	0.08	0.29	13.10	0.81		
101	7.79	7.04		17.50	23.30	22.25	46.40	36.90	0.56	12.00			0.26			0.14	0.20	19.61	1.04		
120	8.10	7.20		39.00**			46.40	39.00	0.61	12.80			0.01	0.00	8.80	0.12	0.24	40.44	0.50	0.070	
121	8.27	7.53	7.57	16.04			47.00	36.96	0.54			7.00			7.61					0.050**	
N1	12	10	6	15	8	5	13	12	17	8	6	5	6		14	16	16	15	16	6	
MED1	7.97	7.23	7.67	20.00	21.93	20.80	42.00	37.48	0.54	10.40	3.05	2.60	0.21		9.05	0.11	0.36	35.15	0.95	0.069	
MAD1	0.19	0.13	0.19	4.00	1.15	0.32	4.40	1.56	0.06	1.75	2.25	2.50	0.14		1.05	0.02	0.16	12.97	0.25	0.002	
F1	1.99	2.11	2.65	2.29	2.29	5.03	2.44	1.99	2.19	2.29	2.65	5.03	2.65		1.91	1.86	2.29	1.86	1.86	2.648	
N2	11	9	5	12	5	5	12	8	15	8	6	5	5		11	14	15	14	15	5	
MED2	7.99	7.25	7.50	18.10	21.55	20.80	42.00	37.48	0.52	10.40	3.05	2.60	0.15		8.80	0.11	0.34	33.28	0.90	0.070	
MAD2	0.19	0.12	0.07	2.08	0.55	0.32	4.37	0.90	0.04	1.75	2.25	2.50	0.11		1.00	0.01	0.14	11.83	0.20	0.002	
F2	2.65	2.98	5.03	1.99	5.03	5.03	1.99	2.29	2.29	2.29	2.65	5.03	5.03		2.65	1.91	1.91	1.91	2.29	5.034	
CV1%	5.84	9.41	15.16	56.06	22.78	3.60	29.86	25.51	58.75	18.37	89.08	106.0	124.0		66.36	40.52	59.61	91.00	94.08	11.316	
CV2%	2.71	2.46	2.93	18.76	4.01	3.60	21.14	4.57	17.17	18.37	89.08	106.0	102.4		10.56	17.23	45.32	54.42	43.34	3.943	
CV3%	2.71	2.46	2.93	18.76	4.01	3.60	15.91	2.71	11.03	18.37	89.08	106.0	102.4		10.56	15.08	45.32	40.41	43.34	3.943	

Table 16. Results of Chemical Analysis Sample 8 8 - 6 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total		
2																						
2									2.07**							1.41**	1.38**	15.20**	12.10**			
6	4.97	4.13		7.00	17.50	37.00	54.50	38.50	4.26		28.00**		0.05	0.05	17.20	0.00	0.00	0.55	0.10	0.235		
7	4.90	4.30		3.40	19.00	35.50	54.50	42.10	4.51				3.85	3.45	16.90	0.00	0.70**	0.00**	0.00			
11	4.95	4.20	4.30*	0.50	13.20	32.60	45.80	53.70	5.54		3.50		16.20**		26.20	0.00	0.40	0.40	0.10			
24	5.13	4.40**	4.24	5.00			42.50	52.00	4.85		5.00		3.34	3.50	24.31	0.03	0.01	0.30	0.05			
24		4.17	4.18						5.52													
30	4.96			17.00	17.00	22.00	39.00	44.00	4.63		2.06		0.06	0.07	29.37	0.06	0.07	0.27	0.03	0.241		
30	5.08			0.50			12.60**	86.90	4.85		23.37**		0.04	0.06	24.68	0.00	0.00	0.28	0.00	0.253		
31	4.93	4.18	4.13	10.00	10.00	27.00	37.00	53.00	6.03				1.08	0.95	25.29	0.04	0.04	0.31	0.07			
34	4.94	4.24							4.70				44.40**	2.75	35.30	0.05	0.05	0.35	0.10			
41	5.05	4.20		6.90	15.75	39.75	55.50	37.60	6.00		3.20			2.75	38.85	0.00	0.10	0.00**	0.10	0.260		
41									5.10						35.47					0.220		
43	5.10	4.10		2.00					5.10				3.65	3.11	25.35	0.15*	0.65**	0.90**	0.50**			
50	4.90	4.30	4.20	2.50	12.00	24.50	36.50	56.00	4.43		2.40		2.61	2.47	29.70	0.15*	0.02	0.25	0.15			
67	4.84	4.18	4.17	2.00	11.00	25.00	36.00	52.00	4.82		4.56		3.50	3.75	21.44	0.05	0.05	0.41	0.07	0.226		
69	5.05	4.21		8.70	17.95	34.95	52.90	38.40	5.14				0.80	3.57	26.69	0.04	0.04	0.41	0.07			
69	5.14	4.21		10.35	17.95				4.59						13.80	0.50**	0.60**	10.80**	0.60**			
69				11.65	15.60				5.80		2.00				3.20**	0.25**	0.24**	0.35	0.02	0.070**		
73	4.94	4.22	4.18	4.45	14.98	27.88	42.86	52.70	5.55		1.00		2.15	1.90	26.25	0.06	0.04	0.33	0.06	0.197		
77	5.08	4.25		10.00	18.00	31.00	49.00	41.00	3.98		15.40**		2.91	1.80	27.20	0.10	0.11	0.50	0.03	0.220		
77	5.01	4.23							6.14				3.05	2.77	20.70	0.07	0.21*	0.30	0.03	0.240		
80	6.20**	5.20**	4.80**	4.50	15.50	19.50	35.00	61.50	0.30**													
84	4.90	4.20	4.20	12.00	4.00**	22.00	26.00	62.00	5.73													
84				13.75	13.00	29.04	42.04	34.36	3.98													
88	4.98	4.30		25.17**	24.37*	11.88	36.25	40.00	0.20**													
119									6.14													
120	4.90	4.10							5.73													
120	4.90	4.10							5.73													
N1	22	21	9	20	17	15	17	17	24		10		13	13	20	22	22	23	23	10		
MED1	4.97	4.21	4.20	6.95	15.60	27.88	42.04	52.00	4.85		4.03		3.05	2.77	25.35	0.06	0.06	0.37	0.07	0.231		
MAD1	0.07	0.04	0.03	4.00	2.40	5.88	6.04	9.90	0.63		2.00		0.80	0.80	3.97	0.05	0.05	0.07	0.04	0.011		
F1	1.76	2.04	2.98	1.78	2.19	2.29	2.19	2.19	1.74		2.11		2.44	2.44	1.78	1.76	1.76	1.99	1.99	2.106		
N2	21	19	8	19	16	15	16	17	21		7		11	13	19	17	16	17	19	9		
MED2	4.96	4.20	4.19	6.90	15.68	27.88	42.27	52.00	5.10		2.40		2.91	2.77	25.35	0.04	0.04	0.35	0.06	0.235		
MAD2	0.06	0.03	0.02	3.50	2.30	5.88	6.15	9.90	0.47		1.10		0.74	0.80	3.91	0.02	0.02	0.05	0.03	0.015		
F2	2.04	2.11	2.29	2.11	1.86	2.29	1.86	2.19	2.04		3.60		2.65	2.44	2.11	2.19	1.86	2.19	2.11	2.983		
CV1X	5.29	5.23	4.54	76.46	28.71	25.80	26.19	25.12	33.83		107.3		171.0	44.84	31.62	173.2	328.7	320.3	298.1	23.889		
CV2X	1.71	1.47	1.14	66.66	21.73	25.80	19.40	25.12	11.96		46.30		49.67	44.84	24.06	86.20	92.18	21.44	63.29	7.757		
CV3X	1.71	1.47	0.74	66.66	17.81	25.80	19.40	25.12	11.96		46.30		49.67	44.84	24.06	73.07	70.32	21.44	63.29	7.757		

Table 17. Results of Chemical Analysis Sample 8 B - 6 L A B E X methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μ m	% Silt 20-50 μ m	% Silt 50-100 μ m	% Sand μ m	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
2									2.07**				0.05	0.05	16.90**	0.00	0.70**	0.00**	0.00	
7	4.90	4.30	4.17	3.40	19.00	35.50	54.50**	42.10	4.51				16.20**	0.05						
24	4.96	4.18	4.13	17.00	17.00	22.00	39.00	44.00	5.52		2.06					0.06	0.07*	0.27	0.03	0.241
30	4.93	4.24	4.20	10.00	10.00	27.00	37.00	53.00	4.85				1.08	0.95	24.68	0.00	0.00*	0.28	0.00	
34	4.94	4.20	4.18	6.90	15.75	39.75	55.50**	37.60	6.03					2.75	25.29	0.04	0.04	0.31	0.07	
41	5.05	4.10	4.10	2.00	12.00	24.50	36.50	56.00	4.70		3.20				35.30**	0.05	0.05	0.35	0.10	
43	5.10	4.30	4.20	2.00	11.00	25.00	36.00	52.00	6.00						35.47**					0.260
50	4.90	4.20	4.17	8.70	17.95	34.95	52.90**	38.40	5.10		2.40				25.35	0.15	0.65**	0.90**	0.50**	0.220
67	4.84	4.18	4.20	4.50	15.50	19.50	35.00	61.50	4.43		4.56					0.75**	0.04	0.40	0.06	
77	5.01	4.23	4.20	13.75	13.00	29.04	42.04*	34.36	5.55		1.00				26.69	0.04	0.04	0.41	0.07	
84	4.90	4.30	4.20	25.17	24.37	11.88	36.25	40.00	3.98		15.40				3.20**	0.25*	0.24**	0.35	0.02	
88	4.98	4.30	4.20						0.20**					1.90	26.25	0.06	0.04	0.33	0.06	0.197
119									6.14					1.80	27.20	0.29**	11.63**	68.76**	7.07**	
120	4.90	4.10												1.80	27.20	0.10	0.11*	0.50	0.03	0.220
N1	13	13												7	10	12	12	12	12	5
MED1	4.94	4.20	4.18	6.90	15.63	26.00	38.00	43.05	14		5			7	10	12	12	12	12	5
MAD1	0.04	0.03	0.02	4.40	3.00	5.25	2.50	7.07	4.84		2.40			1.90	25.80	0.06	0.06	0.35	0.06	0.220
F1	2.44	2.44	5.03	2.65	2.11	2.11	2.11	2.11	0.70		1.40			0.95	1.26	0.05	0.04	0.07	0.04	0.021
N2	13	13							1.91		5.03			3.60	2.11	1.99	1.99	1.99	1.99	5.034
MED2	4.94	4.20	4.18	6.90	15.63	26.00	36.50	43.05	12		5			6	6	10	8	9	10	5
MAD2	0.04	0.03	0.02	4.40	3.00	5.25	3.60	7.07	4.98		2.40			1.90	25.80	0.06	0.04	0.35	0.05	0.220
F2	2.44	2.44	5.03	2.65	2.11	2.11	3.60	2.11	0.55		1.40			0.95	0.70	0.03	0.01	0.05	0.03	0.021
CV1X	1.47	1.52	0.62	80.69	26.36	29.31	18.80	18.80	34.47		5.03			3.60	2.65	2.11	2.29	2.98	2.11	5.034
CV2X	1.47	1.52	0.62	80.69	26.36	29.31	5.90	18.80	13.15		103.9			56.83	35.50	135.1	279.7	311.3	289.8	9.385
CV3X	1.47	1.52	0.62	80.69	26.36	29.31	3.34	18.80	13.15		103.9			56.83	3.38	95.82	60.19	19.13	71.29	9.385
											103.9			58.57	3.38	79.65	9.52	19.13	71.29	9.385

Table 18. Results of Chemical Analysis Sample 8 B - 6 OTHER methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 2-50 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% H Total
2																				
6	4.97	4.13		7.00	17.50	37.00	54.50	38.50	4.26		28.00		3.85	3.45	17.20	1.41**	1.38**	15.20**	12.10**	0.235
11	4.95	4.20	4.30	0.50	13.20	32.60	45.80	53.70	5.54		3.50		3.34	3.50	26.20	0.00	0.00	0.55	0.10	
24	5.13	4.40	4.24	5.00			42.50	52.00	4.85		5.00				24.31	0.03	0.01	0.40	0.10	
30	5.08			0.50			12.60	86.90	4.63		23.37				29.37	0.04	0.06	0.30	0.05	
41													44.40**	4.66	38.85	0.00	0.10	0.41	0.03	0.253
69	5.14	4.21		10.35	17.95				5.14						25.35	0.04	0.03	0.00	0.10	
69				11.65	15.60				4.59											
73	4.94	4.22	4.18	4.45	14.98	27.88	42.86	52.70	5.80				2.61	2.47	29.70	0.15*	0.02	0.25	0.15	
77	5.08	4.25		10.00	18.00	31.00	49.00	41.00	5.35					3.75	21.44	0.05	0.05	0.41	0.07	0.226
80	6.20**	5.20**	4.80						0.30**		2.00		0.80	3.75	13.80	0.50**	0.60**	10.80**	0.60**	
84				12.00	4.00	22.00	26.00	62.00	5.73					2.77	20.70	0.07	0.21*	0.30	0.03	0.070**
120	4.90	4.10																		0.240
N1	9	8		9	7	5	7	7	10		5			6	10	10	10	11	11	5
MED1	5.08	4.22		7.00	15.60	31.00	42.86	52.70	5.00		5.00		3.20	3.48	24.83	0.05	0.06	0.40	0.10	0.235
MAD1	0.11	0.06		3.35	2.35	3.12	6.14	9.30	0.48		3.00		0.62	0.49	4.34	0.04	0.05	0.10	0.05	0.009
F1	2.98	2.29		2.98	3.60	5.03	3.60	3.60	2.11		5.03		2.65	2.65	2.11	2.11	2.11	2.65	2.65	5.034
N2	8	7		9	7	5	7	7	9		5		5	6	10	8	8	9	9	
MED2	5.03	4.21		7.00	15.60	31.00	42.86	52.70	5.14		5.00		3.05	3.48	24.83	0.04	0.04	0.37	0.07	
MAD2	0.08	0.04		3.35	2.35	3.12	6.14	9.30	0.51		3.00		0.44	0.49	4.34	0.02	0.03	0.07	0.03	
F2	2.29	3.60		2.98	3.60	5.03	3.60	3.60	2.98		5.03		5.03	2.65	2.11	2.29	2.29	2.98	2.98	
CV1X	7.35	7.75		62.06	31.64	16.63	34.63	26.93	32.92		88.96		160.8	20.52	27.21	182.5	168.6	188.8	282.7	33.185
CV2X	1.75	2.12		62.06	31.64	16.63	34.63	26.93	10.11		88.96		38.31	20.52	27.21	94.00	106.7	43.13	47.25	
CV3X	1.75	2.12		62.06	31.64	16.63	34.63	26.93	10.11		88.96		38.31	20.52	27.21	72.23	82.49	43.13	47.25	

Table 19. Results of Chemical Analysis Sample 8-8-7 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 50-100 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total		
6	10.65	9.50		33.00	16.50	11.00	27.50	39.50	0.23	24.00	1.50				8.50	0.00*	10.55	51.00	6.90	0.030		
11	10.05	9.20	9.45**	32.30	17.20	10.70	27.90	39.80	0.00**	26.50	1.00				10.25	0.20	13.35		6.20			
34	10.36	9.39													12.28							
35	10.37	9.28	9.66	27.00	23.00**	23.00**	23.00	50.00		26.00			5.00		10.40	0.10	13.20	11.30	3.00			
41	10.30	9.20		26.90	14.40	12.80	27.20	45.90	0.27						9.60	0.40	13.90	23.30	3.60			
43				41.00	10.00**	8.00	18.00	41.00														
43	10.50	9.40		24.80	18.40	8.30	26.70	48.50	0.23	28.15	1.00									0.020		
47	10.08	8.98		24.95	14.10	12.55	26.65	48.40	0.20	23.50												
50	10.60	9.60	9.90**	17.00	11.00**	8.00	19.00	37.50	0.25	25.25					10.13	0.71**	4.51**	24.10	28.80**	0.010		
67	10.22	9.27	9.68	12.00**	18.00	17.00	35.00	40.00	0.61**		0.00	1.30			8.65	0.40	3.20**	41.70	4.60			
69	10.52	9.46		24.60	17.35	14.25	31.60	43.75	0.21													
69	10.43	9.33		32.50	18.10				0.22	24.80	0.00				9.86	0.22	9.81	29.60	3.88	0.029		
77	10.22	9.05		25.00	14.50	10.00	24.50	50.50	0.16*	24.90					9.37	0.19	8.74	30.11	4.01			
77	10.42	9.38							3.55**	21.25					8.72	0.30	13.49	46.56	6.92	0.023		
83		9.48							28.80						9.94	0.25	9.88	45.38	5.42			
83	10.92**		9.66	31.20	23.00**	8.40	31.40	37.40	0.30*	31.63	1.00				7.90	0.30	185.0**	38.00	3.90			
88	10.39	9.47		26.75	18.25	10.31	28.56	43.20	0.20		1.00				13.75**	0.25	12.17	31.30	4.16	0.021		
93	10.51	9.55		45.20**					0.23	28.63	0.00		0.00		7.83	0.48*	0.00**	17.35	1.40			
97	9.90*	9.05		42.67**					0.43**		0.00											
98	10.50	9.33							0.23		0.93										0.027	
98				30.95	17.35	9.05	26.40	41.70	0.22		19.15**				7.80	0.27	13.21	18.94	4.79			
101	10.31	9.27		35.85	16.75	9.65	26.40	37.75	0.28	24.00												
101	10.18	9.20		25.05	15.85	13.40	29.25	45.70	0.36**	34.33*												
104	10.07			28.10	14.90	15.70	30.60	41.30	0.24		0.65										0.020	
112									0.27		1.25											
112	10.50	9.50		38.60			20.10	39.90		27.10					7.50	0.58**	13.15	30.70	5.10	0.025		
118	10.60	9.50		15.10	25.60**	25.60**	51.20**	33.70	0.23	7.46**	0.00											
N1	23	22	5																			
MED1	10.39	9.36	9.66	27.55	16.98	18	21	21	0.23	17	7	10			18	19	19	18	19	9		
MAD1	0.13	0.14	0.02	4.20	1.35	2.50	3.70	41.00	0.23	26.00	1.00	1.00			9.49	0.25	12.17	30.41	4.25	0.023		
F1	1.99	1.76	5.03	1.76	1.82	1.82	2.04	3.50	0.03	2.00	1.00	0.33			0.95	0.06	1.73	10.89	1.12	0.003		
N2	22	22							1.99	2.19	3.60	2.11			1.82	2.11	2.11	1.82	2.11	2.983		
MED2	10.38	9.36		27.00	16.98	10.51	26.68	41.00	0.23	26.25	0.50	9			17	16	15	18	18	9		
MAD2	0.14	0.14		3.95	1.13	2.16	3.13	3.50	0.02	2.08	0.50	0.30			9.37	0.24	12.91	30.41	4.21	0.023		
F2	1.76	1.76		2.11	1.86	1.86	2.04	2.04	1.82	1.86	2.65	2.98			0.88	0.06	0.96	10.89	0.99	0.003		
CV1X	2.18	1.79	1.47	28.41	21.23	38.52	26.03	11.15	1.82	1.86	2.65	2.98			2.19	1.86	2.29	1.82	1.82	2.983		
CV2X	1.91	1.79		22.25	8.94	24.33	18.06	11.15	170.8	21.32	221.6	205.8			17.85	55.99	202.2	36.80	97.78	25.159		
CV3X	1.70	1.79		22.25	8.94	24.33	18.06	11.15	13.61	11.77	102.7	59.91			15.25	45.77	19.60	36.80	32.92	25.159		
									9.77	9.56	102.7	59.91			15.25	32.25	13.63	36.80	32.92	25.159		

Table 20. Results of Chemical Analysis Sample 8.8 - 7 L A B E X methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 50-100 µm	% Sand	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total		
11	10.05	9.20	9.45	32.30	17.20	10.70	27.90	39.80	0.24	27.00	1.00*				10.25	0.20	13.35		6.20			
34	10.36	9.39							0.00**	26.50					12.28							
35	10.37	9.28	9.66	27.00	14.40	23.00	23.20	50.00	0.27	26.00					9.60	0.40	13.90	23.30	3.60			
41	10.30			26.90	10.00	8.00	18.00	41.00														
43		9.40		41.00**	14.40	8.30	26.70	48.50	0.23	28.15		1.00										
47	10.08	8.98		24.80	14.10	12.55	26.65	48.40	0.20	23.50	38.00**				10.13	0.71	4.51	24.10	28.80**	0.020		
50	10.60	9.60	9.90	17.00**	11.00	8.00	19.00	37.50	0.25	25.25					8.65	0.40	3.20	41.70	4.60	0.010		
67	10.22	9.27	9.68	12.00**	18.00	17.00	35.00	40.00	0.61**						9.85	0.22	9.81	29.60	3.88	0.029		
69	10.52	9.46		24.60	17.35	14.25	31.60	43.75	0.22	24.80					9.94	0.25	9.88	45.38	5.42			
77	10.42	9.38								28.80												
83		9.48		26.75	18.25	10.31	28.56	43.20	0.30*	31.63												
88	10.39	9.47		45.20**			18.60	36.20	0.23	28.63	1.40*		0.00		13.75	0.25	12.17	31.30	4.16	0.021		
93	10.51	9.55							0.43**						7.83	0.48	0.00	17.35	1.40			
98	10.50	9.33		25.05	15.85	13.40	29.25	45.70	0.36*	34.33					7.95	0.23	5.56	26.43	4.25			
101	10.18	9.20		28.10	14.90	15.70	30.60	41.30	0.24						12.35	0.16	14.03	14.10	2.64			
104	10.07								0.27													
112				15.10**	25.60**	25.60	51.20**	33.70	0.23	7.46**	0.00				7.50	0.58	13.15	30.70	5.10			
118	10.60	9.50																				
N1	16	16		14	12	13	14	14	15	12	6	6			12	11	11	10	11	5		
MED1	10.38	9.39		25.90	16.53	12.80	27.55	42.25	0.24	26.75	0.50	0.83			9.90	0.25	9.88	28.02	4.25	0.020		
MAD1	0.14	0.11		1.75	1.80	2.90	3.55	3.55	0.03	1.92	0.50	0.33			1.60	0.09	4.02	4.32	0.85	0.001		
F1	1.86	1.86		1.91	1.99	2.44	1.91	1.91	2.29	1.99	2.65	2.65			1.99	2.65	2.65	2.11	2.65	5.034		
M2	16	16		9	11	13	13	14	12	11	5	6			12	11	11	10	10	5		
MED2	10.38	9.39		26.75	15.85	12.80	27.20	42.25	0.24	27.00	0.00	0.83			9.90	0.25	9.88	28.02	4.21	0.020		
MAD2	0.14	0.11		1.70	1.75	2.90	3.40	3.55	0.02	1.75	0.00	0.33			1.60	0.09	4.02	4.32	0.75	0.001		
F2	1.86	1.86		2.98	2.65	2.44	2.44	1.91	1.99	2.65	5.03	2.65			1.99	2.65	2.65	2.11	2.11	5.034		
CV1X	1.74	1.67		32.52	23.69	38.09	28.66	11.08	46.26	24.16	207.8	76.25			18.70	47.92	51.99	32.57	113.1	30.166		
CV2X	1.74	1.67		8.58	17.79	38.09	19.21	11.08	16.14	10.81	125.2	76.25			18.70	47.92	51.99	32.57	31.74	30.166		
CV3X	1.74	1.67		8.58	17.79	38.09	19.21	11.08	8.57	10.81		76.25			18.70	47.92	51.99	32.57	31.74	30.166		

Table 21. Results of Chemical Analysis Sample B 8 - 7 O T H E R methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
6	10.65	9.50		33.00	16.50	11.00	27.50	39.50	0.23	24.00		1.50	5.00		8.50	0.00	10.55*	51.00	6.90	0.030
41															10.40	0.10	13.20	11.30	3.00	
69	10.43	9.33		32.50	18.10	10.00	24.50	50.50	0.21	24.90					9.37	0.19	8.74**	30.11	4.01	
77	10.22	9.05		25.00	14.50	8.40	31.40	37.40	3.55**	21.25					8.72	0.30	13.49	46.56	6.92	0.023
83	10.92		9.66	31.20	23.00**		20.00	37.33	0.20		1.00	0.93			7.90	0.30	185.0**	38.00	3.90	
97	9.90	9.05		42.67			30.95	41.70	0.23			19.15			7.80	0.21	12.91	43.17	3.13	0.027
98	10.31	9.27		30.95	17.35	9.05	26.40	41.70	0.22	24.00						0.27	13.21	18.94	4.79	
101	10.50	9.50		35.85	16.75	9.65	26.40	37.75	0.28	27.10		1.25				0.54**	11.95	40.88	6.49	0.025
112				38.60			20.10	39.90												
N1	7	6		8	6	5	7	7		5						8	8	8	8	
MED1	10.43	9.30		32.75	17.05	9.65	26.40	39.50	0.23	24.00					6	8	13.06	39.44	4.40	
MAD1	0.21	0.20		2.45	0.80	0.60	1.90	2.10	0.02	0.90					8.61	0.24	0.77	8.23	1.34	
F1	3.60	2.65		2.29	2.65	5.03	3.60	3.60	2.29	5.03					0.74	0.06	2.29	2.29	2.29	
N2	7	6		8	5	5	7	7		5					2.65	2.29	2.29	2.29	2.29	
MED2	10.43	9.30		32.75	16.75	9.65	26.40	39.50	0.22	24.00					6	7	6	8	8	
MAD2	0.21	0.20		2.45	0.60	0.60	1.90	2.10	0.01	0.90					8.61	0.21	13.06	39.44	4.40	
F2	3.60	2.65		2.29	5.03	5.03	3.60	3.60	3.60	5.03					0.74	0.09	0.30	8.23	1.34	
CV1%	2.88	1.99		14.85	14.76	9.14	15.02	10.62	173.5	7.75					2.65	3.60	2.65	2.29	2.29	
CV2%	2.88	1.99		14.85	7.24	9.14	15.02	10.62	15.36	7.75					10.17	62.60	170.1	37.03	31.63	
CV3%	2.88	1.99		14.85	7.24	9.14	15.02	10.62	15.36	7.75					10.17	52.88	8.12	37.03	31.63	
															10.17	52.88	4.12	37.03	31.63	

Table 22. Results of Chemical Analysis Sample 8 B - B A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Hg me/100g	% N Total	
2																					
2	6.65	4.90		38.00**	24.50*	37.50	62.00	0.00	0.36				0.05	0.05	14.50	0.29	0.05	10.15	0.91		
6	6.40	4.90		22.00	17.50	52.50	70.00	8.00	0.31		48.50		3.00**		11.25	0.20	0.05	10.55	0.90	0.050	
7	6.20	4.90		22.20	18.90	51.20	70.10	7.50	0.36				0.00	0.00	9.70	0.10*	0.10	5.80**	0.70		
26	6.40	4.90	5.61	35.00**	24.00*	35.00	59.00	6.00	0.43				0.00		12.80	0.27	0.07	12.22	2.21**		
26			5.60	23.00	21.00				0.36						11.30	0.20	0.11	9.00	0.70		
27	6.55			37.20**	26.40**	33.40	59.80	3.00			22.47					0.26	0.05	9.56	0.84	0.062	
30	6.28			22.00			19.00**	59.00**	0.22		30.74				12.19	0.26	0.10	11.61	0.87	0.052	
34	6.19	4.91							0.10**				0.01	0.01	13.63	0.27	0.13	9.14	0.84		
41													3.50**		13.00	0.20	0.20	9.70	0.80		
41	6.40	5.20*		24.70	16.00	55.20	71.20	4.00	0.37		18.50		0.00		12.90	0.30	0.10	10.30	1.00	0.040	
43	6.55	4.80		42.00**	29.00**	29.00	58.00	0.00	0.31												
43	6.75	4.85		27.50	18.00	52.00	70.00	2.50	0.35												
48	6.45	5.00	5.80	34.20*	11.80	47.80	59.60	7.50	0.30				0.17		11.72	0.22	0.11	11.53	1.19**		
50	6.45	5.00		20.00	17.50	35.50	53.00	23.00*	0.30						12.55	0.45*	0.90**	12.55	0.90	0.025	
60	6.47	4.78		28.59	18.38	39.94	58.32	28.59**	0.34						10.65	0.29	0.34**	10.80	1.34**		
67	6.39	4.86	5.66	17.00*	22.00	52.00	74.00	10.00	0.58**		20.30	1.20			11.93	0.28	0.07	10.29	0.89	0.046	
77	6.46	4.95		22.50	18.50	47.50	66.00	11.50	0.36						12.03	0.30	0.09	10.46	0.85		
77	6.64	5.01																			
83		4.85																			
83	6.29		5.89	24.60	46.90**	19.20**	66.10	9.30	0.30	2.55	26.00	17.00			11.10	0.30	0.40**	9.70	0.70	0.060	
84				24.00	16.00	36.00	52.00	24.00*	0.40												
84	6.35	4.90	5.65	24.00	15.00	44.00	59.00	17.00	0.35		12.00	12.00	0.05		12.65	0.21	0.19	9.95	0.85	0.026	
88	6.78	4.89		23.00	15.25	46.02	61.27	13.17	0.34		16.59	16.59	0.15	0.00	12.80	0.25	0.07	10.10	0.83		
94	6.50	5.00	5.65	25.23	18.09	49.78	67.87	6.92	0.34	1.18					12.53	0.12*	0.00	10.69	0.79		
96	6.50	5.00		27.38	16.32	47.33	63.65	8.97	0.45						14.49	0.33	0.31**	11.34	0.99		
97	6.20	5.80**		36.67**			55.00	8.33	0.29				0.13			0.22	0.19	11.13	0.57**	0.040	
98	6.19	5.00																			
98				22.30	16.05	48.45	64.50	13.65	0.30						9.00	0.29	0.28*	10.32	0.81		
101	6.62	6.49**		25.55	16.10	41.45	57.55	16.90	0.41				0.19			0.34	0.06	13.71**	0.94		
101	6.64	5.71**		23.65	16.65	54.05	70.70	5.65	0.38				0.08		13.60	0.13	0.02	9.46	0.97		
104	5.37**			29.20	14.15	46.55	60.70	10.20	0.44						15.06	0.20	0.47**	8.50	0.81	0.055	
118	6.50	4.60*		24.20	42.00**	32.80	74.80	1.00	0.29	0.40	20.85	14.00			10.90	0.74**	0.10	10.85	1.20**		

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Continuation of :

Table 22. Results of Chemical Analysis Sample B 8 - 8 A L L methods

LAB No.	pH H2O	pH KCl	pH CaCl2	X Clay	X Silt 2-20 μ m	X Silt 20-50 μ m	X Silt 2-50 μ m	X Sand μ m	X Org. Carbon	X CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	X N Total
N1	26	23	7	27	25	24	26	26	26	7	7	7	12	23	23	27	27	27	27	10
MED1	6.46	4.90	5.65	24.60	18.00	46.29	61.64	8.65	0.35	22.47	18.40	18.40	0.11	12.53	12.53	0.27	0.10	10.30	0.87	0.048
MAD1	0.14	0.10	0.04	2.60	2.00	5.97	4.42	4.59	0.05	5.88	2.45	2.45	0.08	1.07	1.07	0.05	0.05	0.60	0.07	0.008
F1	1.72	1.99	3.60	1.91	1.95	1.74	1.72	1.72	1.72	3.60	3.60	3.60	1.99	1.99	1.99	1.91	1.91	1.91	1.91	2.106
N2	25	20	7	22	21	23	25	24	24	7	7	7	10	23	23	26	22	25	22	10
MED2	6.46	4.90	5.65	24.00	17.50	46.55	62.00	8.17	0.35	22.47	18.40	18.40	0.07	12.53	12.53	0.27	0.10	10.30	0.85	0.048
MAD2	0.11	0.05	0.04	1.63	1.45	5.45	4.10	3.75	0.04	5.88	2.45	2.45	0.07	1.07	1.07	0.04	0.04	0.60	0.05	0.008
F2	1.95	1.78	3.60	1.76	2.04	1.99	1.95	1.74	1.74	3.60	3.60	3.60	2.11	1.99	1.99	1.72	1.76	1.95	1.76	2.106
CV1X	4.14	7.97	1.76	22.83	39.04	20.76	17.11	100.6	24.11	43.78	41.03	41.03	194.2	11.86	11.86	43.00	109.9	13.83	31.42	26.826
CV2X	2.60	2.34	1.76	14.11	17.13	17.20	9.99	69.41	15.21	43.78	41.03	41.03	82.61	11.86	11.86	28.76	67.59	9.27	10.34	26.826
CV3X	2.60	1.39	1.76	9.64	13.35	17.20	9.99	61.36	15.21	43.78	41.03	41.03	82.61	11.86	11.86	19.43	60.61	9.27	10.34	26.826

Table 23. Results of Chemical Analysis Sample 8 8 - 8 L A B E X methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 µm	% Silt 20-50 µm	% Silt 50-75 µm	% Sand µm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
2	6.65	4.90		38.00*	24.50	37.50	62.00	0.00	0.36				0.05	0.05	14.50	0.29	0.01	9.70	1.00	
6	6.40	4.90		22.00	17.50	52.50	70.00	8.00	0.31		48.50		3.00**		11.25	0.20	0.05	10.55	0.90	0.050
7	6.20	4.90		22.20	18.90	51.20	70.10	7.50	0.36				0.00		9.70	0.10	0.10	5.80**	0.70	
26	6.40	4.90	5.61	35.00	24.00	35.00	59.00	6.00	0.43				0.00		12.80	0.27	0.07	12.22	2.21**	
27																				
30	6.55			37.20*	26.40*	33.40	59.80	3.00			22.47		0.00		12.90	0.26	0.05	9.56	0.84	0.062
41	6.40	5.20*		24.70	16.00	55.20	71.20	4.00	0.37						10.30	0.10	10.30	1.00		0.040
43				42.00**	29.00**	29.00	58.00	0.00	0.31											
43	6.55	4.80		27.50	18.00	52.00	70.00	2.50	0.35											
48	6.75	4.85		34.20	11.80	47.80	59.60	7.50	0.35				0.17		11.72	0.22	0.11	11.53	1.19	0.025
50	6.45	5.00	5.80**	20.00	17.50	35.50	53.00**	23.00**	0.30				0.05		12.55	0.45**	0.90**	12.55	0.90	
60	6.47	4.78		28.59	18.38	39.94	58.32	28.59**	0.34				0.15		14.49	0.33	0.31**	11.34	0.99	
67	6.39	4.86	5.66	17.00	22.00	52.00	74.00	10.00	0.58**		20.30	1.20	0.08		12.03	0.30	0.09	10.46	0.85	
77	6.64	5.01																		
83		4.85							0.30	2.55										
84	6.35	4.90	5.65	24.00	15.00	44.00	59.00	17.00	0.35		12.00	17.00	0.05		12.65	0.21	0.19	9.95	0.85	
88	6.78	4.89		23.00	15.25	46.02	61.27	13.17	0.34				0.05		12.80	0.25	0.07	10.10	0.83	0.026
94	6.50	5.00	5.65	25.23	18.09	49.78	67.87	6.92	0.34	1.18	16.59		0.15		12.53	0.12	0.00	10.69	0.79	
96	6.50	5.00		27.38	16.32	47.33	63.65	8.97	0.45						14.49	0.33	0.31**	11.34	0.99	
98	6.19	5.00																		
101	6.64	5.71**		23.65	16.65	54.05	70.70	5.65	0.38				0.08		13.60	0.13	0.02	9.46	0.97	
104	5.37**			29.20	14.15	46.55	60.70	10.20	0.44						15.06	0.20	0.47**	8.50	0.81	0.055
118	6.50	4.60*		24.20	42.00**	32.80	74.80	1.00	0.29	0.40		20.85			10.90	0.74**	0.10	10.85	1.20	
N1	20	19	5	19	19	19	19	19	18		5	5	8		15	16	16	16	16	6
MED1	6.49	4.90	5.65	25.23	18.00	46.55	62.00	7.50	0.35		20.30	17.00	0.07		12.65	0.26	0.10	10.38	0.90	0.045
MAD1	0.09	0.10	0.01	3.23	2.75	5.95	4.00	3.50	0.04		3.71	3.00	0.07		0.93	0.05	0.05	0.75	0.09	0.014
F1	1.78	2.11	5.03	2.11	2.11	2.11	2.11	2.11	1.82		5.03	5.03	2.29		2.29	1.86	1.86	1.86	1.86	2.648
N2	19	18		18	18	19	19	17	17		5	5	7		15	14	13	15	15	6
MED2	6.50	4.90		24.97	17.75	46.55	62.00	6.92	0.35		20.30	17.00	0.05		12.65	0.24	0.07	10.46	0.90	0.045
MAD2	0.10	0.08		2.87	2.13	5.95	4.00	3.08	0.03		3.71	3.00	0.05		0.93	0.05	0.03	0.76	0.09	0.014
F2	2.11	1.82		1.82	1.82	2.11	2.11	2.19	2.19		5.03	5.03	3.60		2.29	1.91	2.44	2.29	2.29	2.648
CV1%	4.47	4.33	1.15	23.71	33.51	18.10	9.65	85.39	18.85		53.26	48.37	221.7		10.93	53.87	134.9	14.89	33.76	32.558
CV2%	2.40	2.46		21.47	23.47	18.10	9.65	68.38	13.32		53.26	48.37	87.09		10.93	30.57	65.81	9.88	14.67	32.558
CV3%	2.40	1.46		18.00	18.53	18.10	9.65	68.38	13.32		53.26	48.37	87.09		10.93	30.57	65.81	9.88	14.67	32.558

Table 24. Results of Chemical Analysis Sample B B - 8 O T H E R methods

LAB No.	pH H2O	pH KCl	pH CaCl2	% Clay	% Silt 2-20 μm	% Silt 20-50 μm	% Silt 2-50 μm	% Sand μm	% Org. Carbon	% CaCO3	P Bray (ppm)	P Olsen (ppm)	Ex. Acidity me/100g	Ex. Al me/100g	CEC me/100g	ex. K me/100g	ex. Na me/100g	ex. Ca me/100g	ex. Mg me/100g	% N Total
2																				
26			5.60	23.00	21.00*		19.00	59.00**	0.36		30.74		0.01		11.30	0.29	0.05	10.15	0.91	
30	6.28			22.00					0.22						12.19	0.20	0.11	9.00	0.70	
34	6.19	4.91							0.10				0.01		13.63	0.26	0.10	11.61	0.87	0.052
41													3.50		10.65	0.27	0.13	9.14	0.84	
60															13.00	0.20	0.20	9.70	0.80	
77	6.46	4.95		22.50	18.50*	47.50	66.00	11.50	0.36						11.93	0.29	0.34	10.80	1.34**	
83	6.29		5.89	24.60	46.90**	19.20	66.10	9.30	0.40						11.10	0.28	0.07	10.29	0.89	0.046
84				24.00	16.00	36.00	52.00	24.00			26.00					0.30	0.40	9.70	0.70	
97	6.20	5.80		36.67**			55.00	8.33	0.29											
98				22.30	16.05	48.45	64.50	13.65	0.30			18.40	0.13		9.00	0.22	0.19	11.13	0.57	0.060
101	6.62	6.49		25.55	16.10	41.45	57.55	16.90	0.41			22.80	0.19			0.29	0.28	10.32	0.81	0.040
N1	6			8	6	5	7	7								0.34	0.06	13.71**	0.94	
MED1	6.29			23.50	17.30	41.45	57.55	13.65	0.33	8					8	11	11	11	11	
MAD1	0.09			1.15	1.28	6.05	6.95	4.35	0.06						11.62	0.28	0.13	10.29	0.84	
F1	2.65			2.29	2.65	5.03	3.60	3.60	2.29						0.77	0.02	0.07	0.59	0.07	
N2	6			7	5	5	7	6							2.29	2.65	2.65	2.65	2.65	
MED2	6.29			23.00	16.10	41.45	57.55	12.58	0.33	8					8	11	11	10	10	
MAD2	0.09			1.00	0.10	6.05	6.95	3.76	0.06						11.62	0.28	0.13	10.22	0.83	
F2	2.65			3.60	5.03	3.60	3.60	2.65	2.29						0.77	0.02	0.07	0.55	0.08	
CV1X	2.42			18.06	49.47	27.66	28.21	81.02	31.87						2.29	2.65	2.65	2.11	2.11	
CV2X	2.42			5.24	11.28	27.66	28.21	38.05	31.87						11.62	15.72	64.64	12.04	21.86	
CV3X	2.42			5.24	27.66	28.21	38.05	31.87	31.87						11.62	15.72	64.64	7.79	13.60	
															11.62	15.72	64.64	7.79	13.60	

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