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SOIL-70 Final Report

Soil/Hazardous Waste Proficiency Testing

Soil Study

Open Date: 04/19/10

Close Date: 06/03/10

Report Issued Date: 06/24/10

June 24, 2010

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Enclosed is your final report for ERA's SOIL-70 Proficiency Testing (PT) study. Your final report includes an evaluation of all results submitted by your laboratory to ERA.

Data Evaluation Protocols: All analytes in ERA's SOIL-70 Proficiency Testing (PT) study have been evaluated using the following tiered approach. If the analyte is listed in the most current National Environmental Laboratory Accreditation Conference (NELAC) PT Field of Testing tables, the evaluation was completed by comparing the reported result to the acceptance limits generated using the criteria contained in the NELAC FoPT tables. If the analyte is not included in the NELAC FoPT tables, the reported result has been evaluated using the procedures outlined in ERA's Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 0260).

Corrective Action Help: As part of your accreditation(s), you may be required to identify the root cause of any "Not Acceptable" results, implement the necessary corrective actions, and then satisfy your PT requirements by participating in a Supplemental (QuiK™ Response) or future ERA PT study. ERA's technical staff is available to help your laboratory resolve any technical issues that may be impairing your PT performance and possibly affecting your routine data quality. Our laboratory and technical staff have well over three hundred years of collective experience in performing the full range of environmental analyses. As part of our technical support, ERA offers QC samples that can be helpful in helping you work through your technical issues.

Thank you for your participation in ERA's SOIL-70 Proficiency Testing study. If you have any questions, please contact Shawn Kassner, Proficiency Testing Manager, or Curtis Wood, Director of Regulatory Affairs and Business Development, at 1-800-372-0122.

Sincerely,

Shawn Kassner
Proficiency Testing Manager

Jay R. McBurney
Quality Program Manager

attachments
smk

Report Recipient	Contact/Phone Number	Reporting Type
Florida	Steve Arms / 904-791-1502	All Analytes

SOIL-70 Definitions & Study Discussion

Study Dates: 04/19/10 - 06/03/10 **Report Issued: 06/24/10**

SOIL Study Definitions

The Reported Value is the value that the laboratory reported to ERA.

The ERA assigned value for the Organic Proficiency Testing Standards is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation as applicable. The ERA assigned value for the Inorganic Proficiency Testing Standards, with the exception of the TCLP Metals in Soil, is equal to the maximum amount of the parameter available in the standard by applicable EPA methodologies. The ERA assigned value for the TCLP metals is equal to the mean of ERA's internal analytical analyses. All NELAC parameters not added to a standard are given an assigned Value of "0", per the guidance issued by the NELAC Board of Directors, on December 14, 2000. Non-NELAC parameters not added to a standard may be given an assigned value of less than a minimum verified concentration as determined in the background soil for applicable EPA methodologies.

The Acceptance Limits are established per the NELAC PT program criteria or ERA's SOP for the Generation of Performance Acceptance Limits™ as applicable.

The Performance Evaluation:

Acceptable	= Reported Value falls within the Acceptance Limits.
Not Acceptable	= Reported Value falls outside the Acceptance Limits.
No Evaluation	= Reported Value cannot be evaluated.
Not Reported	= No Value reported.

The Method Description is the method the laboratory reported to ERA.

SOIL Study Discussion

ERA's SOIL-70 Proficiency Testing (PT) study has been reviewed by ERA senior management and certified compliant with the requirements of the National Environmental Laboratory Accreditation Conference (NELAC), Proficiency Testing Program Standards, Chapter 2, July 2003.

Per the requirements of the NELAC Proficiency Testing Program, a full review of all homogeneity, stability, and accuracy verification data was completed. All analytical verification data for all analytes in the Soil study standards met the acceptance criteria contained in the NELAC Proficiency Testing Program Standards, Chapter 2, July 2003. If the analyte is included in the NELAC Fields of Testing list the acceptance limits were calculated based on the NELAC Proficiency Testing Program Standards, Chapter 2, July 2003. If the analyte is not included in the NELAC Fields of Testing list, the acceptance limits were calculated using the procedures outlined in ERA's Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 0260, Rev. 2.0).

The data submitted by participating laboratories was also examined for study anomalies. There were no anomalies observed during the statistical review of the data.

If you have any questions or concerns regarding your assessment in ERA's SOIL Proficiency Testing program, please contact Shawn Kassner, Proficiency Testing Manager, or Curtis Wood, Director of Regulatory Affairs and Business Development, at 1-800-372-0122.

Study: **SOIL-70**

ERA Customer Number: **S744803**

Laboratory Name: **State of Florida DEP Chemistry Laboratory**

Inorganic Results

SOIL-70 Final Complete Report

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EPA ID: **FL01181**
ERA Customer Number: **S744803**
Report Issued: **06/24/10**
Study Dates: **04/19/10 - 06/03/10**

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
SOIL Cyanide in Soil (cat# 621)							
1635	Cyanide, total	mg/kg	47.3	54.1	21.3 - 72.3	Acceptable	EPA 9012B
1640	Reactive Cyanide	mg/kg		< 25.0		Not Reported	
SOIL Ignitability/Flashpoint (cat# 874)							
1780	Ignitability/Flashpoint	°F	142	138	121 - 155	Acceptable	EPA 1010A

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Organic Results

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Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
SOIL Nitroaromatics & Nitramines in Soil (cat# 871)							
9306	4-Amino-2,6-dinitrotoluene	µg/kg		2090	951 - 2730	Not Reported	
9303	2-Amino-4,6-dinitrotoluene	µg/kg		1670	974 - 1980	Not Reported	
6160	1,3-Dinitrobenzene	µg/kg	7280	6460	3700 - 7860	Acceptable	EPA 8270D
6185	2,4-Dinitrotoluene	µg/kg		2280	294 - 4180	Not Reported	
6190	2,6-Dinitrotoluene	µg/kg		6260	2330 - 9080	Not Reported	
9522	HMX	µg/kg		1650	928 - 1940	Not Reported	
5015	Nitrobenzene	µg/kg		2090	278 - 3820	Not Reported	
9507	2-Nitrotoluene	µg/kg		10100	7800 - 11100	Not Reported	
9510	3-Nitrotoluene	µg/kg		9260	4640 - 13500	Not Reported	
9513	4-Nitrotoluene	µg/kg		2890	1520 - 3930	Not Reported	
9432	RDX	µg/kg		2180	1200 - 2650	Not Reported	
6415	Tetryl	µg/kg		0.00		Not Reported	
6885	1,3,5-Trinitrobenzene	µg/kg	2630	2040	332 - 3230	Acceptable	EPA 8270D
9651	2,4,6-Trinitrotoluene	µg/kg		5330	2750 - 6520	Not Reported	
SOIL Organochlorine Pesticides in Soil (cat# 468)							
7025	Aldrin	µg/kg	274	399	116 - 503	Acceptable	EPA 8081B
7110	alpha-BHC	µg/kg	230	354	102 - 458	Acceptable	EPA 8081B
7115	beta-BHC	µg/kg	43.9	57.3	5.73 - 103	Acceptable	EPA 8081B
7105	delta-BHC	µg/kg	231	311	75.9 - 423	Acceptable	EPA 8081B
7120	gamma-BHC(Lindane)	µg/kg	69.5	94.5	14.6 - 143	Acceptable	EPA 8081B
7240	alpha-Chlordane	µg/kg	72.7	95.4	31.3 - 135	Acceptable	EPA 8081B
7245	gamma-Chlordane	µg/kg	142	206	83.4 - 273	Acceptable	EPA 8081B
7355	4,4'-DDD	µg/kg	145	177	51.3 - 257	Acceptable	EPA 8081B
7360	4,4'-DDE	µg/kg	231	271	95.7 - 384	Acceptable	EPA 8081B
7365	4,4'-DDT	µg/kg	70	84.3	16.4 - 133	Acceptable	EPA 8081B
7470	Dieldrin	µg/kg	156	266	77.0 - 310	Acceptable	EPA 8081B
7540	Endrin	µg/kg	225	229	99.9 - 326	Acceptable	EPA 8081B
7530	Endrin aldehyde	µg/kg	223	312	35.6 - 393	Acceptable	EPA 8081B
7535	Endrin ketone	µg/kg	272	328	83.7 - 452	Acceptable	EPA 8081B
7510	Endosulfan I	µg/kg	76.2	184	19.8 - 202	Acceptable	EPA 8081B
7515	Endosulfan II	µg/kg	101	178	28.5 - 196	Acceptable	EPA 8081B
7520	Endosulfan sulfate	µg/kg	376	488	111 - 700	Acceptable	EPA 8081B
7685	Heptachlor	µg/kg	104	125	35.8 - 174	Acceptable	EPA 8081B
7690	Heptachlor epoxide	µg/kg	173	240	83.8 - 323	Acceptable	EPA 8081B
7810	Methoxychlor	µg/kg	228	235	23.5 - 413	Acceptable	EPA 8081B
SOIL Chlordane in Soil (cat# 628)							
7250	Chlordane, technical	µg/kg	409	497	99.9 - 676	Acceptable	EPA 8081B
SOIL Toxaphene in Soil (cat# 627)							
8250	Toxaphene	µg/kg	637	924	92.4 - 1350	Acceptable	EPA 8081B

ACCREDITED Lab Code: 1539-01

All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

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Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
SOIL Organophosphorus Pesticides in Soil (cat# 878)							
7075	Azinphos-methyl (Guthion)	µg/kg	640	991	64.8 - 1480	Acceptable	EPA 8141B NPD
7300	Chlorpyrifos	µg/kg	267	642	59.5 - 706	Acceptable	EPA 8141B NPD
7395	Demeton-O	µg/kg		0.00		Not Reported	
7385	Demeton-S	µg/kg		0.00		Not Reported	
7410	Diazinon	µg/kg	254	767	0.00 - 844	Acceptable	EPA 8141B NPD
8610	Dichlorvos (DDVP)	µg/kg		0.00		Not Reported	
8625	Disulfoton	µg/kg	542	837	380 - 921	Acceptable	EPA 8141B NPD
7955	Ethyl Parathion	µg/kg	514	643	269 - 988	Acceptable	EPA 8141B NPD
7770	Malathion	µg/kg	238	439	84.4 - 559	Acceptable	EPA 8141B NPD
7825	Methyl Parathion	µg/kg	378	583	130 - 710	Acceptable	EPA 8141B NPD
7985	Phorate	µg/kg	419	645	153 - 764	Acceptable	EPA 8141B NPD
8110	Ronnel	µg/kg		469	103 - 534	Not Reported	
8200	Stirophos (tetrachlorovinphos)	µg/kg		832	0.00 - 915	Not Reported	
8185	Terbufos	µg/kg	237	347	166 - 382	Acceptable	EPA 8141B NPD
SOIL PCBs in Soil (cat# 624)							
8880	Aroclor 1016	mg/kg	< 0.01	0.00		Acceptable	EPA 8082A
8885	Aroclor 1221	mg/kg	< 0.00667	0.00		Acceptable	EPA 8082A
8890	Aroclor 1232	mg/kg	3.02	3.75	0.634 - 5.41	Acceptable	EPA 8082A
8895	Aroclor 1242	mg/kg	< 0.01	0.00		Acceptable	EPA 8082A
8900	Aroclor 1248	mg/kg	< 0.00667	0.00		Acceptable	EPA 8082A
8905	Aroclor 1254	mg/kg	< 0.00667	0.00		Acceptable	EPA 8082A
8910	Aroclor 1260	mg/kg	< 0.01	0.00		Acceptable	EPA 8082A