



A Waters Company

Carrie McCrillis
Oilfield Environmental & Compliance
307 Roemer Way
Suite 300
Santa Maria, CA 93454

SOIL-74



Final Report

Soil/Hazardous Waste Proficiency Testing

Soil Study

Open Date: 04/18/11

Close Date: 06/02/11

Report Issued Date: 06/23/11



June 23, 2011

Carrie McCrillis
Oilfield Environmental & Compliance
307 Roemer Way
Suite 300
Santa Maria, CA 93454

Enclosed is your final report for ERA's SOIL-74 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-74 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-74 Proficiency Testing study. If you have any questions, please contact the proficiency testing department, or myself, at 1-800-372-0122.

Sincerely,

Jay R. McBurney
Quality Program Manager

attachments
jrm



A Waters Company

Report Recipient	Contact/Phone Number	Reporting Type
California	Fred Choske / 510-620-3175	All Analytes

SOIL-74 Definitions & Study Discussion

Study Dates: 04/18/11 - 06/02/11

Report Issued: 06/23/11

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. The assigned values are directly traceable to the commercially prepared starting materials used to manufacture the PT standards. 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-74 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.

ERA's SOIL-74 Proficiency Testing study reports shall not be reproduced except in its entirety and not without the permission of the participating laboratory. The report must not be used by the participating laboratories to claim product endorsement any agency of the U. S. government.

The data contained herein are confidential and intended for your use only.

If you have any questions or concerns regarding your assessment in ERA's SOIL Proficiency Testing program, please contact Jay McBurney, Quality Program Manager, or the proficiency testing department at 1-800-372-0122.



Study: **SOIL-74**

ERA Customer Number: **O460853**

Laboratory Name: **Oilfield Environmental &
Compliance**

Organic Results





A Waters Company

SOIL-74 Final Complete Report

Carrie McCrillis
Quality Assurance Officer
Oilfield Environmental & Compliance
307 Roemer Way
Suite 300
Santa Maria, CA 93454
(805) 922-4772

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

CA01480
O460853
06/23/11
04/18/11 - 06/02/11

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
SOIL Base/Neutrals and Acids in Soil (cat# 467)							
5500	Acenaphthene	µg/kg		8820	2470 - 10500	Not Reported	
5505	Acenaphthylene	µg/kg		6760	1590 - 8240	Not Reported	
5145	2-Amino-1-methylbenzene (o-toluidine)	µg/kg		0.00		Not Reported	
5545	Aniline	µg/kg		0.00		Not Reported	
5555	Anthracene	µg/kg		7620	1960 - 9770	Not Reported	
5595	Benzidine	µg/kg		0.00		Not Reported	
5610	Benzoic acid	µg/kg		0.00		Not Reported	
5575	Benzo(a)anthracene	µg/kg		3620	1170 - 4710	Not Reported	
5585	Benzo(b)fluoranthene	µg/kg		0.00		Not Reported	
5600	Benzo(k)fluoranthene	µg/kg		0.00		Not Reported	
5590	Benzo(g,h,i)perylene	µg/kg		5230	996 - 6150	Not Reported	
5580	Benzo(a)pyrene	µg/kg		8950	2060 - 11400	Not Reported	
5630	Benzyl alcohol	µg/kg		0.00		Not Reported	
5760	bis(2-Chloroethoxy)methane	µg/kg		3070	494 - 3810	Not Reported	
5765	bis(2-Chloroethyl)ether	µg/kg		0.00		Not Reported	
5780	bis(2-Chloroisopropyl)ether	µg/kg		12200	1570 - 13400	Not Reported	
5660	4-Bromophenyl-phenylether	µg/kg		13700	4090 - 16800	Not Reported	
5670	Butylbenzylphthalate	µg/kg		9720	2170 - 13300	Not Reported	
5680	Carbazole	µg/kg		0.00		Not Reported	
5745	4-Chloroaniline	µg/kg		0.00		Not Reported	
5700	4-Chloro-3-methylphenol	µg/kg		11500	3190 - 12700	Not Reported	
5790	1-Chloronaphthalene	µg/kg		0.00		Not Reported	
5795	2-Chloronaphthalene	µg/kg		5110	1070 - 5980	Not Reported	
5800	2-Chlorophenol	µg/kg		12700	2050 - 14000	Not Reported	
5825	4-Chlorophenyl-phenylether	µg/kg		12600	3420 - 15900	Not Reported	
5855	Chrysene	µg/kg		0.00		Not Reported	
5895	Dibenz(a,h)anthracene	µg/kg		4150	1070 - 5560	Not Reported	
5905	Dibenzofuran	µg/kg		13700	3540 - 16300	Not Reported	
5925	Di-n-butylphthalate	µg/kg		8500	2010 - 11200	Not Reported	
4610	1,2-Dichlorobenzene	µg/kg		0.00		Not Reported	
4615	1,3-Dichlorobenzene	µg/kg		0.00		Not Reported	
4620	1,4-Dichlorobenzene	µg/kg		8080	808 - 8890	Not Reported	





A Waters Company

SOIL-74 Final Complete Report

Carrie McCrillis
Quality Assurance Officer
Oilfield Environmental & Compliance
307 Roemer Way
Suite 300
Santa Maria, CA 93454
(805) 922-4772

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

CA01480
O460853
06/23/11
04/18/11 - 06/02/11

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
SOIL Base/Neutrals and Acids in Soil (cat# 467) (Continued)							
5945	3,3'-Dichlorobenzidine	µg/kg		0.00		Not Reported	
6000	2,4-Dichlorophenol	µg/kg		8220	1290 - 9040	Not Reported	
6005	2,6-Dichlorophenol	µg/kg		6260	1900 - 6890	Not Reported	
6070	Diethylphthalate	µg/kg		9160	1960 - 11800	Not Reported	
6130	2,4-Dimethylphenol	µg/kg		0.00		Not Reported	
6135	Dimethylphthalate	µg/kg		5540	1400 - 6710	Not Reported	
6175	2,4-Dinitrophenol	µg/kg		0.00		Not Reported	
6185	2,4-Dinitrotoluene	µg/kg		10400	1990 - 12700	Not Reported	
6190	2,6-Dinitrotoluene	µg/kg		0.00		Not Reported	
6200	Di-n-octylphthalate	µg/kg		13200	1970 - 18700	Not Reported	
6065	bis(2-Ethylhexyl)phthalate	µg/kg		12900	3400 - 16800	Not Reported	
6265	Fluoranthene	µg/kg		3690	1260 - 5030	Not Reported	
6270	Fluorene	µg/kg		0.00		Not Reported	
6275	Hexachlorobenzene	µg/kg		10400	3190 - 12700	Not Reported	
4835	Hexachlorobutadiene	µg/kg		0.00		Not Reported	
6285	Hexachlorocyclopentadiene	µg/kg		0.00		Not Reported	
4840	Hexachloroethane	µg/kg		0.00		Not Reported	
6315	Indeno(1,2,3-cd)pyrene	µg/kg	3720	5270	527 - 7740	Acceptable	EPA 8270C
6320	Isophorone	µg/kg		10400	2400 - 11900	Not Reported	
6360	4,6-Dinitro-2-methylphenol	µg/kg		0.00		Not Reported	
6385	2-Methylnaphthalene	µg/kg		4070	1130 - 4490	Not Reported	
6400	2-Methylphenol	µg/kg		7400	740 - 8140	Not Reported	
6410	3&4-Methylphenol	µg/kg		6500	785 - 7150	Not Reported	
5005	Naphthalene	µg/kg		3060	504 - 3560	Not Reported	
6460	2-Nitroaniline	µg/kg		0.00		Not Reported	
6465	3-Nitroaniline	µg/kg		0.00		Not Reported	
6470	4-Nitroaniline	µg/kg		0.00		Not Reported	
5015	Nitrobenzene	µg/kg		0.00		Not Reported	
6490	2-Nitrophenol	µg/kg		6780	678 - 7460	Not Reported	
6500	4-Nitrophenol	µg/kg		3630	600 - 4920	Not Reported	
6525	N-Nitrosodiethylamine	µg/kg		0.00		Not Reported	
6530	N-Nitrosodimethylamine	µg/kg		0.00		Not Reported	



Carrie McCrillis
Quality Assurance Officer
Oilfield Environmental & Compliance
307 Roemer Way
Suite 300
Santa Maria, CA 93454
(805) 922-4772

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

CA01480
O460853
06/23/11
04/18/11 - 06/02/11

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
SOIL Base/Neutrals and Acids in Soil (cat# 467) (Continued)							
6535	N-Nitrosodiphenylamine	µg/kg		0.00		Not Reported	
6545	N-Nitroso-di-n-propylamine	µg/kg		5740	574 - 7100	Not Reported	
6590	Pentachlorobenzene	µg/kg		0.00		Not Reported	
6605	Pentachlorophenol	µg/kg		14100	1410 - 15500	Not Reported	
6615	Phenanthrene	µg/kg		6010	1890 - 7370	Not Reported	
6625	Phenol	µg/kg		5600	560 - 6260	Not Reported	
6665	Pyrene	µg/kg		2740	824 - 3600	Not Reported	
5095	Pyridine	µg/kg		0.00		Not Reported	
6715	1,2,4,5-Tetrachlorobenzene	µg/kg		0.00		Not Reported	
6735	2,3,4,6-Tetrachlorophenol	µg/kg		0.00		Not Reported	
5155	1,2,4-Trichlorobenzene	µg/kg		3730	521 - 4150	Not Reported	
6835	2,4,5-Trichlorophenol	µg/kg		5670	763 - 6470	Not Reported	
6840	2,4,6-Trichlorophenol	µg/kg		7300	1330 - 8150	Not Reported	

