



Donny Juarez
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USA

SOIL-123  **Final Report**

Soil/Hazardous Waste Proficiency Testing

Soil Study

Open Date: 07/24/2023

Close Date: 09/07/2023

Report Issued Date: 09/11/2023



A Waters Company

September 11, 2023

Donny Juarez
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Enclosed is your final report for ERA's SOIL-123 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-123 Proficiency Testing study have been evaluated using the following tiered approach. If the analyte is listed in the most current TNI Fields of Proficiency Testing (FoPT) table the evaluation was completed by comparing the reported result to the acceptance limits generated using the criteria contained in the table and the evaluation criteria contained in the 2016 TNI Standard, Volume 3. If the analyte is not included in the TNI FoPT table, the reported result has been evaluated using the procedures outlined in ERA's Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 730002268).

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 many 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 useful in helping you work through your technical issues.

Thank you for your participation in ERA's SOIL-123 Proficiency Testing study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Huff", with a horizontal line drawn through it.

Craig Huff
Senior Technical Manager

attachments





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Report Recipient	Contact/Phone Number	Reporting Type
Florida	Vanessa Soto / 904-791-1599	All Analytes



SOIL-123 Definitions & Study Discussion

Study Dates: 07/24/2023 - 09/07/2023

Report Issued: 09/11/2023

SOIL Study Definitions

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

The ERA Assigned Values are compliant with the most current TNI Fields of Proficiency Testing (FoPT) table. The Assigned Values for the Organic Proficiency Testing Standards are 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 assigned values for the Inorganic Proficiency Testing Standards, with the exception of the TCLP Metals in Soil and Total Organic Carbon (TOC) in the Nutrients in Soil sample, are equal to the maximum amount of the parameter available in the standard by applicable EPA methodologies. The assigned values for the TCLP metals and TOC are equal to the mean of the study data, after the removal of outliers. All parameters not added to the standard are given an Assigned Value of "< PTRL", per the guidelines contained in the 2016 TNI Standard. The assigned values are directly traceable to the commercially prepared starting materials used to manufacture the PT standards.

The Acceptance Limits are established per the criteria contained in the most current TNI FoPT table 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-123 Proficiency Testing (PT) study has been reviewed by ERA senior management and certified compliant with the requirements of the 2016 TNI Standard and the criteria contained in the most current TNI Fields of Proficiency Testing (FoPT) table.

ERA's SOIL-123 study standards were examined for any anomalies. A full review of all homogeneity, stability and accuracy verification data was completed. All analytical verification data for all analytes in the standards met the acceptance criteria contained in the 2016 TNI Standard and the criteria contained in the most current TNI FoPT table.

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-123 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 our Proficiency Testing Department at 1-800-372-0122.



SOIL-123 Laboratory Exception Report



A Waters Company

Donny Juarez
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307-235-0515 x3244

EPA ID:	WY00002
ERA Customer Number:	E772828
Report Issued:	09/11/2023
Study Dates:	07/24/2023 - 09/07/2023

Not Acceptable Evaluations

There were no Not Acceptable evaluations for this study.



All analytes except for 1,1-Biphenyl, Acetophenone, Atrazine, Benzaldehyde and Caprolactam in the Base/Neutrals & Acids, catalog # 467, Lithium in the Metals, cat # 620, and Nitrite as N and Nitrate + Nitrite as N in the Anions, cat # 873, are included in ERA's A2LA accreditation. Lab Code 1539.01.

16341 Table Mountain Pkwy • Golden, CO 80403 • 800.372.0122 • 303.431.8454 • fax 303.421.0159 • www.eraqc.com



Study # : SOIL-123



Final Report Results For Laboratory Energy Laboratories

All analytes except for 1,1-Biphenyl, Acetophenone, Atrazine, Benzaldehyde and Caprolactam in the Base/Neutrals & Acids, catalog # 467, Lithium in the Metals, cat # 620, and Nitrite as N and Nitrate + Nitrite as N in the Anions, cat # 873, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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Study # : SOIL-123





Final Evaluation Report

Study: **SOIL-123**

ERA Customer Number: **E772828**

Laboratory Name: **Energy Laboratories**

Organic Results



All analytes except for 1,1-Biphenyl, Acetophenone, Atrazine, Benzaldehyde and Caprolactam in the Base/Neutrals & Acids, catalog # 467, Lithium in the Metals, cat # 620, and Nitrite as N and Nitrate + Nitrite as N in the Anions, cat # 873, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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Study # : SOIL-123





SOIL-123 Final Evaluation Report

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307-235-0515 x3244

EPA ID:
ERA Customer Number:
Report Issued:
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WY00002
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TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
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SOIL Gasoline Range Organics (GRO) in Soil (cat# 630, lot# D123-763)

9408	Gasoline Range Organics (GRO)	mg/kg	1802	1910	474 - 2780	Acceptable	EPA 8015C 3 2007	8/4/2023	0.375	1630	470	adw
4375	Benzene in GRO	mg/kg		6.01	0.00 - 7.20	Not Reported				2.06	1.41	
4765	Ethylbenzene in GRO	mg/kg		52.4	17.4 - 69.5	Not Reported				32.9	17.6	
5140	Toluene in GRO	mg/kg		143	16.8 - 162	Not Reported				60.8	31.5	
5260	Xylenes, total in GRO	mg/kg		283	99.8 - 374	Not Reported				174	102	

SOIL Diesel Range Organics (DRO) in Soil (cat# 631, lot# D123-765)

9369	Diesel Range Organics (DRO)	mg/kg	2101	2780	800 - 3640	Acceptable	EPA 8015C 3 2007	8/12/2023	-0.195	2220	599	dsa
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All analytes except for 1,1-Biphenyl, Acetophenone, Atrazine, Benzaldehyde and Caprolactam in the Base/Neutrals & Acids, catalog # 467, Lithium in the Metals, cat # 620, and Nitrite as N and Nitrate + Nitrite as N in the Anions, cat # 873, are included in ERA's A2LA accreditation. Lab Code 1539.01.



CERTIFICATE OF EXCELLENCE

In recognition of the quality of your laboratory in proficiency testing for

SOIL-123

Energy Laboratories

is issued this certificate of achievement by ERA. This laboratory has been recognized as a Laboratory of Excellence for achieving 100% acceptable data in this study which included 250 participating laboratories. This achievement is a demonstration of the superior quality of the laboratory in evaluation of the standards listed below.

Diesel Range Organics
(DRO) in Soil

Gasoline Range Organics
(GRO) in Soil



Craig Huff
Senior Technical Manager