



A Waters Company

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USA

SOIL-135



Final Report

Soil/Hazardous Waste Proficiency Testing

Soil Study

Open Date: 07/27/2026

Close Date: 09/10/2026

Report Issued Date: 09/14/2026



A Waters Company

September 14, 2026

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Enclosed is your final report for ERA's SOIL-135 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-135 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-135 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 "Emily Devers", written in a cursive style.

Emily Devers
Quality Assurance Manager

attachments





A Waters Company

Report Recipient	Contact/Phone Number	Reporting Type
No Recipients Selected		



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SOIL-135 Definitions & Study Discussion

Study Dates: 07/27/2026 - 09/10/2026

Report Issued: 09/14/2026

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-135 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-135 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-135 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.





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SOIL-135 Laboratory Exception Report

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EPA ID: Not Reported
ERA Customer Number: I519301
Report Issued: 09/14/2026
Study Dates: 07/27/2026 - 09/10/2026

Not Acceptable Evaluations

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
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SOIL Metals in Soil (cat# 620, lot# D135-540)

1030	Cadmium	mg/kg	219	190	123 - 209	Not Acceptable	EPA 7000B 2007
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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.

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Study # : SOIL-135



Final Report Results For Laboratory Hawaii Analytical Laboratory



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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Final Evaluation Report

Study: **SOIL-135**

ERA Customer Number: **I519301**

Laboratory Name: **Hawaii Analytical
Laboratory**

Inorganic 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-135





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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 Metals in Soil (cat# 620, lot# D135-540)

1000	Aluminum	mg/kg		7680	3290 - 10400	Not Reported				6870	1690	
1005	Antimony	mg/kg		248	24.8 - 293	Not Reported				116	60.6	
1010	Arsenic	mg/kg	207	211	119 - 232	Acceptable	EPA 7000B 2007	9/8/2026	1.90	170	19.4	
1015	Barium	mg/kg	488	440	294 - 490	Acceptable	EPA 7000B 2007	9/8/2026	1.81	392	53.1	
1020	Beryllium	mg/kg		310	207 - 346	Not Reported				276	34.4	
1025	Boron	mg/kg		191	81.3 - 210	Not Reported				135	21.1	
1030	Cadmium	mg/kg	219	190	123 - 209	Not Acceptable	EPA 7000B 2007	9/8/2026	3.05	164	18.2	
1035	Calcium	mg/kg		4280	2850 - 5110	Not Reported				3980	492	
1040	Chromium	mg/kg	291	254	156 - 291	Acceptable	EPA 7000B 2007	9/8/2026	2.60	223	26.0	
1050	Cobalt	mg/kg		167	119 - 198	Not Reported				158	17.9	
1055	Copper	mg/kg		204	136 - 227	Not Reported				182	22.0	
1070	Iron	mg/kg		7360	736 - 13200	Not Reported				6510	944	
1075	Lead	mg/kg	181	165	108 - 190	Acceptable	EPA 7000B 2007	9/8/2026	1.88	149	17.0	
1080	Lithium	mg/kg		139	80.2 - 170	Not Reported				125	14.9	
1085	Magnesium	mg/kg		1990	1010 - 2540	Not Reported				1780	244	
1090	Manganese	mg/kg		579	398 - 637	Not Reported				515	61.6	
1095	Mercury	mg/kg	7.9	16.0	6.40 - 17.6	Acceptable	EPA 7000B 2007	9/8/2026	-1.64	10.7	1.69	
1100	Molybdenum	mg/kg		115	69.0 - 128	Not Reported				98.3	10.3	
1105	Nickel	mg/kg		304	189 - 352	Not Reported				270	33.1	
1125	Potassium	mg/kg		2310	1220 - 2890	Not Reported				2060	282	



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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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 Metals in Soil (cat# 620, lot# D135-540) (Continued)

1140	Selenium	mg/kg	191	223	131 - 253	Acceptable	EPA 7000B 2007	9/8/2026	-0.0522	192	24.4	
1150	Silver	mg/kg	89	82.4	53.3 - 97.2	Acceptable	EPA 7000B 2007	9/8/2026	1.61	75.3	8.56	
1155	Sodium	mg/kg		565	316 - 735	Not Reported				525	77.1	
1160	Strontium	mg/kg		172	112 - 196	Not Reported				154	20.4	
1165	Thallium	mg/kg		180	111 - 204	Not Reported				158	17.5	
1175	Tin	mg/kg		168	85.4 - 201	Not Reported				143	16.1	
1180	Titanium	mg/kg		433	150 - 577	Not Reported				363	71.2	
1184	Uranium	mg/kg		74.9	35.1 - 98.1	Not Reported				66.6	10.5	
1185	Vanadium	mg/kg		234	150 - 257	Not Reported				202	23.0	
1190	Zinc	mg/kg		215	134 - 248	Not Reported				191	22.3	



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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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 TCLP Metals in Soil (cat# 629, lot# D135-544)

1005	Antimony	mg/L		1.41	0.955 - 1.87	Not Reported				1.41	0.152	
1010	Arsenic	mg/L	5.51	5.21	3.45 - 6.97	Acceptable	EPA 1311 1992	9/4/2026	0.512	5.21	0.585	
1015	Barium	mg/L	4.00	3.70	2.42 - 4.97	Acceptable	EPA 1311 1992	9/4/2026	0.712	3.70	0.426	
1020	Beryllium	mg/L		2.23	1.24 - 3.22	Not Reported				2.23	0.330	
1030	Cadmium	mg/L	1.89	1.93	1.26 - 2.60	Acceptable	EPA 1311 1992	9/4/2026	-0.172	1.93	0.223	
1040	Chromium	mg/L	1.70	1.55	0.870 - 2.22	Acceptable	EPA 1311 1992	9/4/2026	0.681	1.55	0.226	
1075	Lead	mg/L	4.22	3.21	1.09 - 5.32	Acceptable	EPA 1311 1992	9/4/2026	1.44	3.21	0.704	
1095	Mercury	mg/L	0.57	0.569	0.211 - 0.928	Acceptable	EPA 1311 1992	9/4/2026	0.00507	0.569	0.120	
1105	Nickel	mg/L		1.77	1.07 - 2.47	Not Reported				1.77	0.234	
1140	Selenium	mg/L	4.47	4.17	3.02 - 5.32	Acceptable	EPA 1311 1992	9/4/2026	0.783	4.17	0.382	
1150	Silver	mg/L	3.58	6.03	0.00 - 12.3	Acceptable	EPA 1311 1992	9/4/2026	-1.18	6.03	2.08	
1190	Zinc	mg/L		0.987	0.581 - 1.39	Not Reported				0.987	0.135	



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-135





Final Evaluation Report

Study: **SOIL-135**

ERA Customer Number: **I519301**

Laboratory Name: **Hawaii Analytical
Laboratory**

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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SOIL-135 Final Evaluation Report

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 Organochlorine Pesticides in Soil (cat# 468, lot# D135-728)

7025	Aldrin	µg/kg	373.88	441	127 - 547	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.531	337	69.4	
7110	alpha-BHC	µg/kg	300.88	348	98.5 - 443	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.487	271	61.6	
7115	beta-BHC	µg/kg	162.76	186	43.7 - 267	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.250	155	30.3	
7105	delta-BHC	µg/kg	367.49	414	115 - 564	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.402	339	70.0	
7120	gamma-BHC(Lindane)	µg/kg	109.52	119	21.3 - 169	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.751	95.1	19.2	
7240	alpha-Chlordane	µg/kg	53.17	76.7	25.5 - 101	Acceptable	EPA 8081B Update IV 2007	8/18/2026	-0.951	63.1	10.5	
7972	trans-Chlordane	µg/kg	265.02	330	124 - 397	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.0923	261	47.1	
7355	4,4'-DDD	µg/kg	395.77	444	158 - 586	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.338	372	71.0	
7360	4,4'-DDE	µg/kg	468.26	488	178 - 665	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.593	422	78.2	
7365	4,4'-DDT	µg/kg	281.66	355	85.2 - 484	Acceptable	EPA 8081B Update IV 2007	8/18/2026	-0.0491	285	61.8	
7470	Dieldrin	µg/kg	227.50	298	111 - 382	Acceptable	EPA 8081B Update IV 2007	8/18/2026	-0.420	246	45.2	
7540	Endrin	µg/kg	69.62	68.7	13.2 - 109	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.626	61.0	13.8	
7530	Endrin aldehyde	µg/kg	314.43	368	51.6 - 481	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.644	267	74.3	
7535	Endrin ketone	µg/kg	395.65	448	115 - 604	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.522	360	69.2	
7510	Endosulfan I	µg/kg	338.94	372	117 - 468	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.879	293	52.4	
7515	Endosulfan II	µg/kg	72.11	82.8	16.5 - 117	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.365	66.8	14.5	
7520	Endosulfan sulfate	µg/kg	106.04	115	20.6 - 172	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.566	96.3	17.1	
7685	Heptachlor	µg/kg	147.85	158	48.1 - 213	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.547	131	31.2	
7690	Heptachlor epoxide	µg/kg	199.41	243	85.1 - 313	Acceptable	EPA 8081B Update IV 2007	8/18/2026	0.00969	199	37.2	
7810	Methoxychlor	µg/kg	82.24	98.8	9.88 - 167	Acceptable	EPA 8081B Update IV 2007	8/18/2026	-0.000787	82.3	14.7	



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SOIL Chlordane in Soil (cat# 628, lot# D135-725)

7250	Chlordane, technical	µg/kg	970.5	776	170 - 1020	Acceptable	EPA 8081B Update IV 2007	8/18/2026	2.69	594	140	
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SOIL PCBs in Soil (cat# 624, lot# D135-726)

8880	Aroclor 1016	mg/kg	< 0.1	< 0.100	0.00 - 0.100	Acceptable	EPA 8082A 2000	8/10/2026				
8885	Aroclor 1221	mg/kg	< 0.1	< 0.100	0.00 - 0.100	Acceptable	EPA 8082A 2000	8/10/2026				
8890	Aroclor 1232	mg/kg	< 0.1	< 0.100	0.00 - 0.100	Acceptable	EPA 8082A 2000	8/10/2026				
8895	Aroclor 1242	mg/kg	< 0.1	< 0.100	0.00 - 0.100	Acceptable	EPA 8082A 2000	8/10/2026				
8900	Aroclor 1248	mg/kg	< 0.1	< 0.100	0.00 - 0.100	Acceptable	EPA 8082A 2000	8/10/2026				
8905	Aroclor 1254	mg/kg	7.817	9.57	2.10 - 12.9	Acceptable	EPA 8082A 2000	8/10/2026	0.196	7.48	1.74	
8910	Aroclor 1260	mg/kg	< 0.1	< 0.100	0.00 - 0.100	Acceptable	EPA 8082A 2000	8/10/2026				



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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CERTIFICATE OF RECOGNITION

ERA congratulates
Hawaii Analytical Laboratory
SOIL-135

For your participation and successful evaluation, we recognize the performance of this laboratory for achieving acceptable evaluation in the following standards.

Chlordane in Soil
Organochlorine Pesticides
in Soil
PCBs in Soil
TCLP Metals in Soil



Emily Devers
Quality Assurance Manager