



**Julie Weisz**  
**Energy Laboratories**  
**400 West Boxelder Road**  
**Gillette, WY 82718**  
**USA**

***WP-306***  ***Final Report***

**WatR™ Pollution Proficiency Testing**

**WatR™ Pollution Study**

**Open Date: 07/13/20**

**Close Date: 08/27/20**

**Report Issued Date: 08/31/20**



A Waters Company

August 31, 2020

Julie Weisz  
Energy Laboratories  
400 West Boxelder Road  
Gillette, WY 82718

Enclosed is your final report for ERA's WP-306 WatR™ Pollution 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 WP-306 WatR™ Pollution Proficiency Testing study have been evaluated using the following tiered approach. If the analyte is listed in the most current TNI/NELAP 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/NELAP 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 WP-306 WatR™ Pollution 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 "Matthew Seebeck", is written over a white background.

Matthew Seebeck  
Quality Officer

attachments



A Waters Company

Report Recipient	Contact/Phone Number	Reporting Type
No Recipients Selected		



# WP-306 Definitions & Study Discussion

**Study Dates: 07/13/20 - 08/27/20**

**Report Issued: 08/31/20**

## WP 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/NELAP Fields of Proficiency Testing (FoPT) table. A parameter not added to the standard is given an Assigned Value of "< PTRL" per the guidelines contained in the 2009 TNI Standards. 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/NELAP FoPT table or ERA's SOP for the Generation of Performance Acceptance Limits™ as applicable. This report is scored by the criteria in the 2016 TNI Standard, Volume 3, instead of by the criteria in the 2009 TNI Standard to which the Proficiency Testing Provider is accredited. This is a planned change and is endorsed by the TNI Proficiency Testing Program Executive Committee for transition to the 2016 TNI Standard.

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.

## WP Study Discussion

ERA's WP-306 WatR™Pollution Proficiency Testing study has been reviewed by ERA senior management and certified compliant with the requirements of the 2009 TNI Standard and the 2016 TNI Standard, Volume 3, Section 5.9 and the criteria contained in the most current TNI/NELAP Fields of Proficiency Testing (FoPT) table.

ERA's WP-306 WatR™Pollution 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 met the acceptance criteria contained in the 2009 TNI Standard and the criteria contained in the most current TNI/NELAP FoPT table.

All analytes are included in ERA's A2LA accreditation, certification number 1539.01.

All activities associated with this proficiency testing study were performed by Waters/ERA with the exception of those noted below. The following physical samples/products were manufactured for Waters/ERA by a subcontractor:

Microbiology products with the following catalog numbers:  
880, 935, 079, 077, 080, 595, 595A, 576, 576A

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 WP-306 WatR™Pollution study reports shall not be reproduced except in their entirety and not without the permission of the participating laboratories. The report must not be used by the participating laboratories to claim product endorsement by 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 WatR™Pollution Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122.





A Waters Company

# WP-306 Laboratory Exception Report

Julie Weisz  
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400 West Boxelder Road  
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(307) 686-7175-2044

EPA ID: WY00006  
ERA Customer Number: E351102  
Report Issued: 08/31/20  
Study Dates: 07/13/20 - 08/27/20

## Not Acceptable Evaluations

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
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**WP Total Residual Chlorine (cat# 587, lot# P306-501)**

1940	Total Residual Chlorine	mg/L	3	2.54	1.87 - 2.96	Not Acceptable	SM 4500-Cl G-2011 2011
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This report is scored by the criteria in the 2016 TNI Standard, Volume 3, instead of by the criteria in the 2009 TNI Standard to which the Proficiency Testing Provider is accredited. This is a planned change and is endorsed by the TNI Proficiency Testing Program Executive Committee for transition to the 2016 TNI Standard.





# Final Report Results For Laboratory Energy Laboratories





# Final Evaluation Report

## Study: **WP-306**

ERA Customer Number: **E351102**

Laboratory Name: **Energy Laboratories**

## Inorganic Results





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# WP-306 Final Evaluation Report

Julie Weisz  
QA Officer  
Energy Laboratories  
400 West Boxelder Road  
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(307) 686-7175-2044

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

WY00006  
E351102  
08/31/20  
07/13/20 - 08/27/20

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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### WP Minerals (cat# 581, lot# P306-506)

1505	Alkalinity as CaCO3	mg/L	50	51.0	43.4 - 58.7	Acceptable	SM 2320 B-2011 2011	7/25/2020	-0.591	51.3	2.26	Julie Weisz
1575	Chloride	mg/L	67	65.7	57.3 - 74.3	Acceptable	EPA 300.0 2.1 1993	7/27/2020	-0.0408	67.1	2.37	Julie Weisz
1610	Conductivity at 25°C	µmhos/cm	430	432	389 - 475	Acceptable	SM 2510 B-2011 2011	7/23/2020	-0.221	432	11.2	Julie Weisz
1730	Fluoride	mg/L	2.12	2.10	1.67 - 2.45	Acceptable	EPA 300.0 2.1 1993	7/27/2020	0.0685	2.11	0.154	Julie Weisz
1125	Potassium	mg/L		33.0	26.4 - 39.6	Not Reported				33.4	1.57	
1155	Sodium	mg/L		65.1	52.1 - 78.1	Not Reported				66.0	3.36	
2000	Sulfate	mg/L	35.7	35.2	28.6 - 40.6	Acceptable	EPA 300.0 2.1 1993	7/27/2020	0.121	35.5	1.97	Julie Weisz
1955	Total Dissolved Solids at 180°C	mg/L		286	241 - 331	Not Reported				288	19.8	
1950	Total Solids at 105°C	mg/L		293	248 - 338	Not Reported				300	17.0	

### WP pH (cat# 577, lot# P306-977)

1900	pH	S.U.	6.01	6.05	5.85 - 6.25	Acceptable	SM 4500-H+ B-2011 2011	7/23/2020	-0.753	6.05	0.0499	Julie Weisz
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### WP Solids (cat# 241, lot# P306-499)

1960	Total Suspended Solids	mg/L	78.9	90.2	74.3 - 100	Acceptable	SM 2540 D-2011 2011	7/25/2020	-1.23	85.4	5.29	Julie Weisz
1955	Total Dissolved Solids at 180°C	mg/L	302	314	269 - 359	Acceptable	SM 2540 C-2011 2011	7/25/2020	-0.262	306	15.8	Julie Weisz
1950	Total Solids at 105°C	mg/L		399	354 - 444	Not Reported				402	19.5	

### WP Simple Nutrients (cat# 584, lot# P306-505)

1515	Ammonia as N	mg/L		5.13	3.98 - 6.32	Not Reported				5.15	0.362	
1820	Nitrate + Nitrite as N	mg/L		12.3	10.2 - 14.2	Not Reported				12.3	0.611	
1810	Nitrate as N	mg/L	12.7	12.3	10.2 - 14.3	Acceptable	EPA 300.0 2.1 1993	7/27/2020	0.694	12.3	0.643	Julie Weisz
1870	ortho-Phosphate as P	mg/L		2.88	2.45 - 3.31	Not Reported				2.88	0.185	



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A Waters Company

# WP-306 Final Evaluation Report

**Julie Weisz**  
**QA Officer**  
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**Gillette, WY 82718**  
**(307) 686-7175-2044**

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

**WY00006**  
**E351102**  
**08/31/20**  
**07/13/20 - 08/27/20**

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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**WP Nitrite (cat# 888, lot# P306-770)**

1840	Nitrite as N	mg/L	3.22	3.33	2.88 - 3.78	Acceptable	EPA 300.0 2.1 1993	7/27/2020	-0.776	3.37	0.194	Julie Weisz
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**WP Demand (cat# 578, lot# P306-516)**

1530	BOD	mg/L	74.7	71.8	38.1 - 106	Acceptable	SM 5210 B-2011 2011	7/22/2020	0.177	72.5	12.3	Julie Weisz
1555	CBOD	mg/L	78.9	65.1	29.6 - 101	Acceptable	SM 5210 B-2011 2011	7/22/2020	0.904	68.1	12.0	Julie Weisz
1565	COD	mg/L	107	116	89.8 - 138	Acceptable	HACH 8000 VIS	7/23/2020	-0.827	115	9.34	Julie Weisz
2040	TOC	mg/L		46.0	38.2 - 53.4	Not Reported				46.0	2.51	

**WP Oil & Grease Concentrate (cat# 4120, lot# P306-4122)**

1803	n-Hexane Extractable Material(O&G)(Grav)	mg/L	92.8	120	86.5 - 138	Acceptable	EPA 1664A 1999	7/22/2020	-1.49	108	10.4	Brandon Bowe
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**WP Turbidity (cat# 893, lot# P306-777)**

2055	Turbidity	NTU	20.2	20.3	17.0 - 23.7	Acceptable	SM 2130 B-2011 2011	7/20/2020	0.0467	20.2	0.936	Julie Weisz
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**WP Acidity (cat# 885, lot# P306-915)**

1500	Acidity as CaCO3	mg/L	1160	1220	1100 - 1340	Acceptable	SM 2310 B-2011 2011	7/25/2020	-0.647	1190	50.8	Julie Weisz
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**WP Bromide (cat# 887, lot# P306-769)**

1540	Bromide	mg/L	8.01	7.91	6.71 - 9.16	Acceptable	EPA 300.0 2.1 1993	7/27/2020	0.0433	7.99	0.479	Julie Weisz
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**WP Total Residual Chlorine (cat# 587, lot# P306-501)**

1945	Free Residual Chlorine	mg/L		2.49	1.83 - 2.90	Not Reported				2.38	0.252	
1940	Total Residual Chlorine	mg/L	3	2.54	1.87 - 2.96	Not Acceptable	SM 4500-Cl G-2011 2011	7/20/2020	2.58	2.45	0.215	Julie Weisz



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## Final Evaluation Report

Study: **WP-306**

ERA Customer Number: **E351102**

Laboratory Name: **Energy Laboratories**

## Microbiology Results





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# WP-306 Final Evaluation Report

**Julie Weisz**  
**QA Officer**  
**Energy Laboratories**  
**400 West Boxelder Road**  
**Gillette, WY 82718**  
**(307) 686-7175-2044**

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

**WY00006**  
**E351102**  
**08/31/20**  
**07/13/20 - 08/27/20**

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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**WP WasteWatR™ Coliform MicrobE™ (cat# 576, lot# P306-083)**

2500	Total Coliforms (MF)	CFU/100mL		114	56.0 - 232	Not Reported				114	29.3	
2530	Fecal Coliforms (MF)	CFU/100mL		62.0	15.0 - 256	Not Reported				61.7	40.2	
2525	E.coli (MF)	CFU/100mL		70.0	14.0 - 335	Not Reported				69.8	53.5	
2500	Total Coliforms (MPN)	MPN/100mL	110	133	64.4 - 274	Acceptable	SM9223 COL118QT-2004 2004	7/20/2020	-0.0532	133	35.0	Julie Weisz
2530	Fecal Coliforms (MPN)	MPN/100mL	67.7	76.1	34.2 - 169	Acceptable	Colilert®-18 (Fecal Coliforms) 2010	7/20/2020	-0.0376	76.1	22.5	Julie Weisz
2525	E.coli (MPN)	MPN/100mL	110	128	60.8 - 271	Acceptable	SM9223 COL118QT-2004 2004	7/20/2020	-0.0436	128	35.1	Julie Weisz



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## Final Evaluation Report

Study: **WP-306**

ERA Customer Number: **E351102**

Laboratory Name: **Energy Laboratories**

## Organic Results





A Waters Company

# WP-306 Final Evaluation Report

**Julie Weisz**  
**QA Officer**  
**Energy Laboratories**  
**400 West Boxelder Road**  
**Gillette, WY 82718**  
**(307) 686-7175-2044**

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

**WY00006**  
**E351102**  
**08/31/20**  
**07/13/20 - 08/27/20**

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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**WP Total Organic Halides (TOX) (cat# 895, lot# P306-670)**

2045	Total Organic Halides (TOX)	µg/L	1060	1310	761 - 1790	Acceptable	EPA 9020B 2 1994	7/16/2020	-1.27	1160	75.0	David Bowles
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**WP Total Petroleum Hydrocarbons (TPH) in Water (cat# 642, lot# P306-642)**

1853	TPH (Gravimetric)	mg/L	36.1	55.0	24.9 - 79.4	Acceptable	EPA 1664A 1999	7/22/2020	0.219	34.9	5.46	Brandon Bowe
1853	TPH (IR)	mg/L		67.6	31.1 - 97.6	Not Reported				52.7	19.9	



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# CERTIFICATE OF RECOGNITION

ERA congratulates  
Energy Laboratories  
WP-306

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

Acidity

Minerals

pH

Total Organic Halides  
(TOX)

WasteWatR™ Coliform  
MicrobE™

Bromide

Nitrite

Simple Nutrients

Total Petroleum  
Hydrocarbons (TPH) in  
Water

Demand

Oil & Grease  
Concentrate

Solids

Turbidity



---

Matthew Seebeck  
Quality Officer



A Waters Company

**Julie Weisz**  
**Energy Laboratories**  
**400 West Boxelder Road**  
**Gillette, WY 82718**  
**USA**

**091520C**



***Final Report***

# **QuiK™ Response Proficiency Testing**



A Waters Company

September 23, 2020

Julie Weisz  
Energy Laboratories  
400 West Boxelder Road  
Gillette, WY 82718

Enclosed is your final report for ERA's QuiK™ Response program. Your final report includes an evaluation of all results submitted by your laboratory to ERA. The assigned value(s) and acceptance limits were not available to your laboratory at or before the time of reporting.

All analytes in ERA's QuiK™ Response program are evaluated using the following tiered approach. If the analyte is listed in the most current TNI Fields of Proficiency Testing (FoPT) tables the evaluation was completed by comparing the reported result to the acceptance limits generated using the criteria contained in the tables and the evaluation criteria contained in the 2016 TNI Standard, Volume 3. If the analyte is not included in the TNI 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 730002268). All analytes are included in ERA's A2LA accreditation, certification number 1539.01.

All activities associated with this QuiK™ Response project were performed by Waters/ERA with the exception of these samples/products which were manufactured for Waters/ERA by a subcontractor: Microbiology products with the following catalog numbers; 081, 084, 085, 078, 078A, 083, 083A and Volatiles in Gas Cylinder, catalog number 1100.

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 the quality of your routine data.

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

If you are using this report for DMRQA Corrective Action, please note the following: permittees must submit a copy of this report to your DMR-QA Coordinator, along with your corrective action documentation. Contract Laboratories should send a copy of this report to your permittees upon receipt.

Thank you for your participation in ERA's QuiK™ Response program. 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 "Matthew Seebeck".

Matthew Seebeck  
Quality Officer

cc: Project File Number 091520C





A Waters Company

Report Recipient	Contact/Phone Number	Reporting Type
No Recipients Selected		

# 091520C Laboratory Exception Report



A Waters Company

**Julie Weisz**  
**QA Officer**  
**Energy Laboratories**  
**400 West Boxelder Road**  
**Gillette, WY 82718**  
**(307) 686-7175-2044**

**EPA ID:**  
**ERA Customer Number:**

**WY00006**  
**E351102**

## Not Acceptable Evaluations

There were no Not Acceptable evaluations for this study.



This report is scored by the criteria in the 2016 TNI Standard, Volume 3, instead of by the criteria in the 2009 TNI Standard to which the Proficiency Testing Provider is accredited. This is a planned change and is endorsed by the TNI Proficiency Testing Program Executive Committee for transition to the 2016 TNI Standard.





# Final Report Results For Laboratory Energy Laboratories





## Final Evaluation Report

Project Number: **091520C**

ERA Customer Number: **E351102**

Laboratory Name: **Energy Laboratories**

## Inorganic Results





# 091520C Final Evaluation Report

A Waters Company

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**(307) 686-7175-2044**

**EPA ID:**  
**ERA Customer Number:**

**WY00006**  
**E351102**

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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**WP Total Residual Chlorine (cat# 501, lot# 091520C) Study Dates: 09/15/20 - 09/23/20**

1945	Free Residual Chlorine	mg/L		1.31	0.971 - 1.56	Not Reported				1.29	0.133	
1940	Total Residual Chlorine	mg/L	1.34	1.34	0.993 - 1.59	Acceptable	SM 4500-Cl G-2011 2011	9/20/2020	0.331	1.31	0.0866	Julie Weisz



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