



Donny Juarez
Energy Laboratories
2393 Salt Creek Hwy
Casper, WY 82601
USA

WP-324  ***Final Report***

WatR™ Pollution Proficiency Testing

WatR™ Pollution Study

Open Date: 01/18/2022

Close Date: 03/04/2022

Report Issued Date: 03/08/2022



A Waters Company

March 8, 2022

Donny Juarez
Energy Laboratories
2393 Salt Creek Hwy
Casper, WY 82601

Enclosed is your final report for ERA's WP-324 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-324 WatR™ Pollution 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 WP-324 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".

Matthew Seebeck
Quality Officer

attachments





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Report Recipient	Contact/Phone Number	Reporting Type
ANAB	Zaneta Popovska / 414-501-5341	All Analytes
Florida	Vanessa Soto / 904-791-1599	All Analytes
Montana	Russell Leu / 406-444-5259	All Analytes
Nevada	Paige Menicucci / 775-687-9311	All Analytes
Texas	Frank Jamison / (512) 239-3754	All Analytes



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WP-324 Definitions & Study Discussion

Study Dates: 01/18/2022 - 03/04/2022

Report Issued: 03/08/2022

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 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 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.

WP Study Discussion

ERA's WP-324 WatR™Pollution Proficiency Testing 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 WP-324 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 2016 TNI Standard and the criteria contained in the most current TNI FoPT table.

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-324 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.





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WP-324 Laboratory Exception Report

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Casper, WY 82601
307-235-0515 x3244

EPA ID:
ERA Customer Number:
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Study Dates:

WY00002
E772828
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01/18/2022 - 03/04/2022

Not Acceptable Evaluations

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
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WP Simple Nutrients (cat# 584, lot# P324-505)

1515	Ammonia as N	mg/L	16.2	13.4	10.7 - 16.0	Not Acceptable	EPA 350.1 2 1993
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WP Trace Metals (cat# 586, lot# P324-500)

1000	Aluminum	µg/L	1599	1380	1140 - 1590	Not Acceptable	EPA 200.7 4.4 1994
1005	Antimony	µg/L	288	184	136 - 225	Not Acceptable	EPA 6010B 2 1996
1010	Arsenic	µg/L	1046	708	598 - 808	Not Acceptable	EPA 6010B 2 1996
1025	Boron	µg/L	1568	1340	1140 - 1540	Not Acceptable	EPA 6010B 2 1996
1040	Chromium	µg/L	344	443	377 - 509	Not Acceptable	EPA 6010B 2 1996
1070	Iron	µg/L	1112	1360	1160 - 1560	Not Acceptable	EPA 6010B 2 1996
1070	Iron	µg/L	1622	1360	1160 - 1560	Not Acceptable	EPA 200.7 4.4 1994
1075	Lead	µg/L	1775	1340	1140 - 1540	Not Acceptable	EPA 6010B 2 1996
1090	Manganese	µg/L	1478	1810	1540 - 2080	Not Acceptable	EPA 6010B 2 1996
1140	Selenium	µg/L	94.9	124	105 - 143	Not Acceptable	EPA 6010B 2 1996
1140	Selenium	µg/L	96.6	124	105 - 143	Not Acceptable	EPA 200.7 4.4 1994
1150	Silver	µg/L	394	508	432 - 584	Not Acceptable	EPA 200.7 4.4 1994
1185	Vanadium	µg/L	1433	1720	1460 - 1980	Not Acceptable	EPA 6010B 2 1996

WP Tin & Titanium (cat# 573, lot# P324-517)

1180	Titanium	µg/L	74.3	92.9	79.0 - 107	Not Acceptable	EPA 6020A 1 2007
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All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.





Final Report Results For Laboratory Energy Laboratories

All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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Study # : WP-324





Final Evaluation Report

Study: **WP-324**

ERA Customer Number: **E772828**

Laboratory Name: **Energy Laboratories**

Inorganic Results

All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, 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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WP Minerals (cat# 581, lot# P324-506)

1505	Alkalinity as CaCO3	mg/L	49.7	47.1	40.0 - 54.2	Acceptable	SM2320B 22nd ED 2011	1/27/2022	0.743	47.8	2.61	kjp
1575	Chloride	mg/L	64.2	63.5	55.3 - 71.9	Acceptable	EPA 300.0 2.1 1993	1/29/2022	0.0513	64.1	2.28	dmb
1610	Conductivity at 25°C	µmhos/cm	423	426	383 - 469	Acceptable	SM2510B 22nd ED 2011	1/27/2022	0.155	421	12.7	mmn
1730	Fluoride	mg/L	2.5	2.54	2.04 - 2.95	Acceptable	EPA 300.0 2.1 1993	1/29/2022	-0.481	2.57	0.141	dmb
1125	Potassium	mg/L	32.2	34.9	27.9 - 41.9	Acceptable	EPA 6010B 2 1996	2/8/2022	-1.44	34.9	1.89	srm
1155	Sodium	mg/L	57.3	62.4	49.9 - 74.9	Acceptable	EPA 6010B 2 1996	2/8/2022	-1.58	62.3	3.18	srm
2000	Sulfate	mg/L	37.1	36.5	29.7 - 42.0	Acceptable	EPA 300.0 2.1 1993	1/29/2022	-0.0171	37.1	1.71	dmb
1955	Total Dissolved Solids at 180°C	mg/L		284	239 - 329	Not Reported				280	18.8	
1950	Total Solids at 105°C	mg/L		284	239 - 329	Not Reported				286	26.3	

WP Minerals (cat# 581, lot# P324-506)

1505	Alkalinity as CaCO3	mg/L		47.1	40.0 - 54.2	Not Reported				47.8	2.61	
1575	Chloride	mg/L		63.5	55.3 - 71.9	Not Reported				64.1	2.28	
1610	Conductivity at 25°C	µmhos/cm		426	383 - 469	Not Reported				421	12.7	
1730	Fluoride	mg/L	2.68	2.54	2.04 - 2.95	Acceptable	SM4500F- C 22nd ED 2011	1/28/2022	0.796	2.57	0.141	kjp
1125	Potassium	mg/L	36.6	34.9	27.9 - 41.9	Acceptable	EPA 200.7 4.4 1994	2/2/2022	0.890	34.9	1.89	srm
1155	Sodium	mg/L	65.1	62.4	49.9 - 74.9	Acceptable	EPA 200.7 4.4 1994	2/2/2022	0.874	62.3	3.18	srm
2000	Sulfate	mg/L		36.5	29.7 - 42.0	Not Reported				37.1	1.71	
1955	Total Dissolved Solids at 180°C	mg/L		284	239 - 329	Not Reported				280	18.8	
1950	Total Solids at 105°C	mg/L		284	239 - 329	Not Reported				286	26.3	



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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WP Minerals (cat# 581, lot# P324-506)

1505	Alkalinity as CaCO3	mg/L		47.1	40.0 - 54.2	Not Reported				47.8	2.61	
1575	Chloride	mg/L		63.5	55.3 - 71.9	Not Reported				64.1	2.28	
1610	Conductivity at 25°C	µmhos/cm		426	383 - 469	Not Reported				421	12.7	
1730	Fluoride	mg/L		2.54	2.04 - 2.95	Not Reported				2.57	0.141	
1125	Potassium	mg/L	30.8	34.9	27.9 - 41.9	Acceptable	EPA 200.8 5.4 1994	2/9/2022	-2.18	34.9	1.89	jcg
1155	Sodium	mg/L	56.3	62.4	49.9 - 74.9	Acceptable	EPA 200.8 5.4 1994	2/9/2022	-1.90	62.3	3.18	jcg
2000	Sulfate	mg/L		36.5	29.7 - 42.0	Not Reported				37.1	1.71	
1955	Total Dissolved Solids at 180°C	mg/L		284	239 - 329	Not Reported				280	18.8	
1950	Total Solids at 105°C	mg/L		284	239 - 329	Not Reported				286	26.3	

WP Minerals (cat# 581, lot# P324-506)

1505	Alkalinity as CaCO3	mg/L		47.1	40.0 - 54.2	Not Reported				47.8	2.61	
1575	Chloride	mg/L		63.5	55.3 - 71.9	Not Reported				64.1	2.28	
1610	Conductivity at 25°C	µmhos/cm		426	383 - 469	Not Reported				421	12.7	
1730	Fluoride	mg/L		2.54	2.04 - 2.95	Not Reported				2.57	0.141	
1125	Potassium	mg/L	34.3	34.9	27.9 - 41.9	Acceptable	EPA 6020A 1 2007	2/15/2022	-0.326	34.9	1.89	jcg
1155	Sodium	mg/L	56	62.4	49.9 - 74.9	Acceptable	EPA 6020A 1 2007	2/11/2022	-1.99	62.3	3.18	jcg
2000	Sulfate	mg/L		36.5	29.7 - 42.0	Not Reported				37.1	1.71	
1955	Total Dissolved Solids at 180°C	mg/L		284	239 - 329	Not Reported				280	18.8	
1950	Total Solids at 105°C	mg/L		284	239 - 329	Not Reported				286	26.3	



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.





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WP Hardness (cat# 580, lot# P324-507)

1960	Total Suspended Solids	mg/L		74.9	60.8 - 83.7	Not Reported				73.3	3.52	
1035	Calcium	mg/L	39.9	40.8	34.7 - 46.9	Acceptable	EPA 6010B 2 1996	2/18/2022	-0.952	41.9	2.07	srm
1085	Magnesium	mg/L	11.8	12.0	10.2 - 13.8	Acceptable	EPA 6010B 2 1996	2/18/2022	-0.683	12.2	0.596	srm
1550	Calcium Hardness as CaCO3	mg/L	105	102	86.7 - 117	Acceptable	SM2340B 22nd ED 2011	2/2/2022	0.212	104	4.94	jlw
1755	Total Hardness as CaCO3	mg/L	155	151	128 - 174	Acceptable	SM2340B 22nd ED 2011	2/2/2022	0.0738	155	6.06	jlw

WP Hardness (cat# 580, lot# P324-507)

1960	Total Suspended Solids	mg/L		74.9	60.8 - 83.7	Not Reported				73.3	3.52	
1035	Calcium	mg/L	42.2	40.8	34.7 - 46.9	Acceptable	EPA 200.7 4.4 1994	2/2/2022	0.160	41.9	2.07	srm
1085	Magnesium	mg/L	12	12.0	10.2 - 13.8	Acceptable	EPA 200.7 4.4 1994	2/2/2022	-0.348	12.2	0.596	srm
1550	Calcium Hardness as CaCO3	mg/L		102	86.7 - 117	Not Reported				104	4.94	
1755	Total Hardness as CaCO3	mg/L		151	128 - 174	Not Reported				155	6.06	

WP Hardness (cat# 580, lot# P324-507)

1960	Total Suspended Solids	mg/L		74.9	60.8 - 83.7	Not Reported				73.3	3.52	
1035	Calcium	mg/L	37.3	40.8	34.7 - 46.9	Acceptable	EPA 200.8 5.4 1994	2/9/2022	-2.21	41.9	2.07	jcg
1085	Magnesium	mg/L	11.7	12.0	10.2 - 13.8	Acceptable	EPA 200.8 5.4 1994	2/9/2022	-0.851	12.2	0.596	jcg
1550	Calcium Hardness as CaCO3	mg/L		102	86.7 - 117	Not Reported				104	4.94	
1755	Total Hardness as CaCO3	mg/L		151	128 - 174	Not Reported				155	6.06	



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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WP Hardness (cat# 580, lot# P324-507)

1960	Total Suspended Solids	mg/L		74.9	60.8 - 83.7	Not Reported				73.3	3.52	
1035	Calcium	mg/L	38.6	40.8	34.7 - 46.9	Acceptable	EPA 6020A 1 2007	2/11/2022	-1.58	41.9	2.07	jcg
1085	Magnesium	mg/L	10.9	12.0	10.2 - 13.8	Acceptable	EPA 6020A 1 2007	2/11/2022	-2.19	12.2	0.596	jcg
1550	Calcium Hardness as CaCO3	mg/L		102	86.7 - 117	Not Reported				104	4.94	
1755	Total Hardness as CaCO3	mg/L		151	128 - 174	Not Reported				155	6.06	

WP pH (cat# 577, lot# P324-977)

1900	pH	S.U.	6.24	6.19	5.99 - 6.39	Acceptable	SM4500H+ B 22nd ED 2011	1/27/2022	0.766	6.21	0.0401	mnm
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WP Solids (cat# 241, lot# P324-499)

1960	Total Suspended Solids	mg/L	79	79.3	64.6 - 88.4	Acceptable	SM 2540 D-2015 2015	1/27/2022	0.380	77.8	3.26	mnm
1955	Total Dissolved Solids at 180°C	mg/L	618	593	534 - 652	Acceptable	SM2540C 23rd ED 2015	1/27/2022	1.15	593	21.4	mnm
1950	Total Solids at 105°C	mg/L		701	631 - 771	Not Reported				693	25.2	

WP Simple Nutrients (cat# 584, lot# P324-505)

1515	Ammonia as N	mg/L	16.2	13.4	10.7 - 16.0	Not Acceptable	EPA 350.1 2 1993	2/4/2022	3.44	13.4	0.812	dmb
1820	Nitrate + Nitrite as N	mg/L	13	15.0	12.5 - 17.3	Acceptable	EPA 300.0 2.1 1993	2/1/2022	-2.44	15.1	0.865	dmb
1810	Nitrate as N	mg/L	13.2	15.0	12.5 - 17.4	Acceptable	EPA 353.2 (calc)	2/9/2022	-2.18	15.1	0.858	jlw
1870	ortho-Phosphate as P	mg/L	1.78	1.70	1.44 - 1.96	Acceptable	EPA 365.1 2 1993	1/25/2022	0.925	1.70	0.0898	dmb
1827	Total Nitrogen	mg/L		28.4	16.2 - 40.6	Not Reported				28.4	1.70	



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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WP Simple Nutrients (cat# 584, lot# P324-505)

1515	Ammonia as N	mg/L		13.4	10.7 - 16.0	Not Reported				13.4	0.812	
1820	Nitrate + Nitrite as N	mg/L	13.2	15.0	12.5 - 17.3	Acceptable	EPA 353.2 2 1993	2/3/2022	-2.21	15.1	0.865	nts
1810	Nitrate as N	mg/L		15.0	12.5 - 17.4	Not Reported				15.1	0.858	
1870	ortho-Phosphate as P	mg/L		1.70	1.44 - 1.96	Not Reported				1.70	0.0898	
1827	Total Nitrogen	mg/L		28.4	16.2 - 40.6	Not Reported				28.4	1.70	

WP Complex Nutrients (cat# 579, lot# P324-525)

1795	Total Kjeldahl Nitrogen	mg/L		12.5	9.23 - 15.5	Not Reported				12.5	0.785	
1910	Total phosphorus as P	mg/L	3.79	3.78	3.11 - 4.41	Acceptable	EPA 6010B 2 1996	2/17/2022	-0.0538	3.80	0.202	srm

WP Complex Nutrients (cat# 579, lot# P324-525)

1795	Total Kjeldahl Nitrogen	mg/L		12.5	9.23 - 15.5	Not Reported				12.5	0.785	
1910	Total phosphorus as P	mg/L	3.83	3.78	3.11 - 4.41	Acceptable	EPA 200.7 4.4 1994	2/15/2022	0.144	3.80	0.202	srm

WP Complex Nutrients (cat# 579, lot# P324-525)

1795	Total Kjeldahl Nitrogen	mg/L		12.5	9.23 - 15.5	Not Reported				12.5	0.785	
1910	Total phosphorus as P	mg/L	3.98	3.78	3.11 - 4.41	Acceptable	EPA 365.1 2 1993	1/29/2022	0.885	3.80	0.202	dmb

WP Nitrite (cat# 888, lot# P324-770)

1840	Nitrite as N	mg/L	1.49	1.47	1.23 - 1.71	Acceptable	SM4500NO2- B 22nd ED 2011	1/26/2022	0.235	1.47	0.0811	nts
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All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.





A Waters Company

WP-324 Final Evaluation Report

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307-235-0515 x3244

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WP Demand (cat# 578, lot# P324-516)

1530	BOD	mg/L	35.4	34.1	17.2 - 51.0	Acceptable	SM 5210 B-2016 2016	2/2/2022	0.231	33.8	7.09	kjp
1555	CBOD	mg/L	34.9	30.9	12.9 - 48.8	Acceptable	SM 5210 B-2016 2016	2/3/2022	0.464	31.8	6.78	kjp
1565	COD	mg/L		54.7	37.4 - 69.7	Not Reported				54.1	5.55	
2040	TOC	mg/L	20.8	21.6	17.5 - 25.7	Acceptable	EPA 9060A 2004	2/1/2022	-0.509	21.4	1.20	nts

WP Demand (cat# 578, lot# P324-516)

1530	BOD	mg/L		34.1	17.2 - 51.0	Not Reported				33.8	7.09	
1555	CBOD	mg/L		30.9	12.9 - 48.8	Not Reported				31.8	6.78	
1565	COD	mg/L		54.7	37.4 - 69.7	Not Reported				54.1	5.55	
2040	TOC	mg/L	20.9	21.6	17.5 - 25.7	Acceptable	SM 5310 C-2014 2014	2/2/2022	-0.426	21.4	1.20	nts

WP Oil & Grease (cat# 582, lot# P324-518)

1803	n-Hexane Extractable Material(O&G)(Grav)	mg/L	88.8	90.0	63.2 - 105	Acceptable	EPA 1664A 1999	1/26/2022	0.0752	88.2	7.47	
1803	n-Hexane Extractable Material(O&G)(IR)	mg/L		111	79.5 - 128	Not Reported				91.4	12.1	



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.





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WP Trace Metals (cat# 586, lot# P324-500)

1000	Aluminum	µg/L		1380	1140 - 1590	Not Reported				1400	82.4	
1005	Antimony	µg/L		184	136 - 225	Not Reported				180	10.9	
1010	Arsenic	µg/L		708	598 - 808	Not Reported				681	30.4	
1015	Barium	µg/L		1800	1530 - 2070	Not Reported				1810	68.4	
1020	Beryllium	µg/L		128	109 - 147	Not Reported				126	6.48	
1025	Boron	µg/L		1340	1140 - 1540	Not Reported				1320	78.8	
1030	Cadmium	µg/L		270	230 - 310	Not Reported				265	11.9	
1040	Chromium	µg/L		443	377 - 509	Not Reported				446	19.0	
1050	Cobalt	µg/L		591	502 - 680	Not Reported				608	29.2	
1055	Copper	µg/L		959	815 - 1100	Not Reported				947	43.4	
1070	Iron	µg/L		1360	1160 - 1560	Not Reported				1370	70.6	
1075	Lead	µg/L		1340	1140 - 1540	Not Reported				1360	64.8	
1090	Manganese	µg/L		1810	1540 - 2080	Not Reported				1840	79.2	
1100	Molybdenum	µg/L		543	472 - 609	Not Reported				537	24.7	
1105	Nickel	µg/L		850	747 - 958	Not Reported				865	42.8	
1140	Selenium	µg/L		124	105 - 143	Not Reported				124	9.63	
1150	Silver	µg/L	394	508	432 - 584	Not Acceptable	EPA 200.7 4.4 1994	3/3/2022	-4.06	509	28.3	jcg
1160	Strontium	µg/L		297	252 - 342	Not Reported				299	14.0	
1165	Thallium	µg/L		419	342 - 488	Not Reported				421	25.9	
1185	Vanadium	µg/L		1720	1460 - 1980	Not Reported				1700	66.3	



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.





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WP Trace Metals (cat# 586, lot# P324-500) (Continued)

1190	Zinc	µg/L		1490	1270 - 1710	Not Reported				1490	66.6	
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All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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WP Trace Metals (cat# 586, lot# P324-500)

1000	Aluminum	µg/L	1396	1380	1140 - 1590	Acceptable	EPA 200.8 5.4 1994	1/27/2022	-0.0605	1400	82.4	jcg
1005	Antimony	µg/L	186	184	136 - 225	Acceptable	EPA 200.8 5.4 1994	2/8/2022	0.572	180	10.9	jcg
1010	Arsenic	µg/L	760	708	598 - 808	Acceptable	EPA 200.8 5.4 1994	1/27/2022	2.60	681	30.4	jcg
1015	Barium	µg/L	1862	1800	1530 - 2070	Acceptable	EPA 200.8 5.4 1994	1/27/2022	0.750	1810	68.4	jcg
1020	Beryllium	µg/L	122	128	109 - 147	Acceptable	EPA 200.8 5.4 1994	1/27/2022	-0.622	126	6.48	jcg
1025	Boron	µg/L	1282	1340	1140 - 1540	Acceptable	EPA 200.8 5.4 1994	2/24/2022	-0.543	1320	78.8	jcg
1030	Cadmium	µg/L	289	270	230 - 310	Acceptable	EPA 200.8 5.4 1994	1/27/2022	2.01	265	11.9	jcg
1040	Chromium	µg/L	457	443	377 - 509	Acceptable	EPA 200.8 5.4 1994	1/27/2022	0.570	446	19.0	jcg
1050	Cobalt	µg/L	638	591	502 - 680	Acceptable	EPA 200.8 5.4 1994	1/27/2022	1.02	608	29.2	jcg
1055	Copper	µg/L	1023	959	815 - 1100	Acceptable	EPA 200.8 5.4 1994	1/27/2022	1.75	947	43.4	jcg
1070	Iron	µg/L	1469	1360	1160 - 1560	Acceptable	EPA 200.8 5.4 1994	1/27/2022	1.37	1370	70.6	jcg
1075	Lead	µg/L	1366	1340	1140 - 1540	Acceptable	EPA 200.8 5.4 1994	1/27/2022	0.0444	1360	64.8	jcg
1090	Manganese	µg/L	1980	1810	1540 - 2080	Acceptable	EPA 200.8 5.4 1994	1/27/2022	1.72	1840	79.2	jcg
1100	Molybdenum	µg/L	539	543	472 - 609	Acceptable	EPA 200.8 5.4 1994	2/8/2022	0.0697	537	24.7	jcg
1105	Nickel	µg/L	915	850	747 - 958	Acceptable	EPA 200.8 5.4 1994	1/27/2022	1.17	865	42.8	jcg
1140	Selenium	µg/L	128	124	105 - 143	Acceptable	EPA 200.8 5.4 1994	1/27/2022	0.371	124	9.63	jcg
1150	Silver	µg/L	497	508	432 - 584	Acceptable	EPA 200.8 5.4 1994	2/24/2022	-0.415	509	28.3	jcg
1160	Strontium	µg/L	310	297	252 - 342	Acceptable	EPA 200.8 5.4 1994	1/27/2022	0.775	299	14.0	jcg
1165	Thallium	µg/L	419	419	342 - 488	Acceptable	EPA 200.8 5.4 1994	2/24/2022	-0.0857	421	25.9	jcg
1185	Vanadium	µg/L	1776	1720	1460 - 1980	Acceptable	EPA 200.8 5.4 1994	1/27/2022	1.10	1700	66.3	jcg



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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WP Trace Metals (cat# 586, lot# P324-500) (Continued)

1190	Zinc	µg/L	1393	1490	1270 - 1710	Acceptable	EPA 200.8 5.4 1994	2/24/2022	-1.49	1490	66.6	jcg
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All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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WP Trace Metals (cat# 586, lot# P324-500)

1000	Aluminum	µg/L	1361	1380	1140 - 1590	Acceptable	EPA 6020A 1 2007	2/15/2022	-0.485	1400	82.4	jcg
1005	Antimony	µg/L	171	184	136 - 225	Acceptable	EPA 6020A 1 2007	2/12/2022	-0.802	180	10.9	jcg
1010	Arsenic	µg/L	654	708	598 - 808	Acceptable	EPA 6020A 1 2007	2/15/2022	-0.889	681	30.4	jcg
1015	Barium	µg/L	1757	1800	1530 - 2070	Acceptable	EPA 6020A 1 2007	2/12/2022	-0.786	1810	68.4	jcg
1020	Beryllium	µg/L	120	128	109 - 147	Acceptable	EPA 6020A 1 2007	2/15/2022	-0.930	126	6.48	jcg
1025	Boron	µg/L	1372	1340	1140 - 1540	Acceptable	EPA 6020A 1 2007	3/3/2022	0.599	1320	78.8	jcg
1030	Cadmium	µg/L	240	270	230 - 310	Acceptable	EPA 6020A 1 2007	2/12/2022	-2.11	265	11.9	jcg
1040	Chromium	µg/L	447	443	377 - 509	Acceptable	EPA 6020A 1 2007	2/15/2022	0.0427	446	19.0	jcg
1050	Cobalt	µg/L	606	591	502 - 680	Acceptable	EPA 6020A 1 2007	2/15/2022	-0.0728	608	29.2	jcg
1055	Copper	µg/L	975	959	815 - 1100	Acceptable	EPA 6020A 1 2007	2/15/2022	0.644	947	43.4	jcg
1070	Iron	µg/L	1278	1360	1160 - 1560	Acceptable	EPA 6020A 1 2007	2/12/2022	-1.33	1370	70.6	jcg
1075	Lead	µg/L	1368	1340	1140 - 1540	Acceptable	EPA 6020A 1 2007	2/15/2022	0.0752	1360	64.8	jcg
1090	Manganese	µg/L	1825	1810	1540 - 2080	Acceptable	EPA 6020A 1 2007	2/15/2022	-0.234	1840	79.2	jcg
1100	Molybdenum	µg/L	494	543	472 - 609	Acceptable	EPA 6020A 1 2007	2/12/2022	-1.75	537	24.7	jcg
1105	Nickel	µg/L	829	850	747 - 958	Acceptable	EPA 6020A 1 2007	2/12/2022	-0.838	865	42.8	jcg
1140	Selenium	µg/L	114	124	105 - 143	Acceptable	EPA 6020A 1 2007	2/15/2022	-1.08	124	9.63	jcg
1150	Silver	µg/L	484	508	432 - 584	Acceptable	EPA 6020A 1 2007	2/12/2022	-0.876	509	28.3	jcg
1160	Strontium	µg/L	306	297	252 - 342	Acceptable	EPA 6020A 1 2007	2/15/2022	0.489	299	14.0	jcg
1165	Thallium	µg/L	450	419	342 - 488	Acceptable	EPA 6020A 1 2007	2/15/2022	1.11	421	25.9	jcg
1185	Vanadium	µg/L	1716	1720	1460 - 1980	Acceptable	EPA 6020A 1 2007	3/3/2022	0.192	1700	66.3	jcg



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.





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WP Trace Metals (cat# 586, lot# P324-500) (Continued)

1190	Zinc	µg/L	1553	1490	1270 - 1710	Acceptable	EPA 6020A 1 2007	3/3/2022	0.908	1490	66.6	jcg
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All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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WP Trace Metals (cat# 586, lot# P324-500)

1000	Aluminum	µg/L	1516	1380	1140 - 1590	Acceptable	EPA 6010B 2 1996	2/23/2022	1.40	1400	82.4	srm
1005	Antimony	µg/L	288	184	136 - 225	Not Acceptable	EPA 6010B 2 1996	2/23/2022	9.92	180	10.9	srm
1010	Arsenic	µg/L	1046	708	598 - 808	Not Acceptable	EPA 6010B 2 1996	2/17/2022	12.0	681	30.4	srm
1015	Barium	µg/L	2008	1800	1530 - 2070	Acceptable	EPA 6010B 2 1996	2/17/2022	2.89	1810	68.4	srm
1020	Beryllium	µg/L	131	128	109 - 147	Acceptable	EPA 6010B 2 1996	2/17/2022	0.768	126	6.48	srm
1025	Boron	µg/L	1568	1340	1140 - 1540	Not Acceptable	EPA 6010B 2 1996	2/17/2022	3.09	1320	78.8	srm
1030	Cadmium	µg/L	279	270	230 - 310	Acceptable	EPA 6010B 2 1996	2/17/2022	1.17	265	11.9	srm
1040	Chromium	µg/L	344	443	377 - 509	Not Acceptable	EPA 6010B 2 1996	2/8/2022	-5.39	446	19.0	srm
1050	Cobalt	µg/L	663	591	502 - 680	Acceptable	EPA 6010B 2 1996	2/17/2022	1.88	608	29.2	srm
1055	Copper	µg/L	994	959	815 - 1100	Acceptable	EPA 6010B 2 1996	2/17/2022	1.08	947	43.4	srm
1070	Iron	µg/L	1112	1360	1160 - 1560	Not Acceptable	EPA 6010B 2 1996	2/8/2022	-3.69	1370	70.6	srm
1075	Lead	µg/L	1775	1340	1140 - 1540	Not Acceptable	EPA 6010B 2 1996	2/17/2022	6.36	1360	64.8	srm
1090	Manganese	µg/L	1478	1810	1540 - 2080	Not Acceptable	EPA 6010B 2 1996	2/8/2022	-4.62	1840	79.2	srm
1100	Molybdenum	µg/L	608	543	472 - 609	Acceptable	EPA 6010B 2 1996	2/17/2022	2.87	537	24.7	srm
1105	Nickel	µg/L	907	850	747 - 958	Acceptable	EPA 6010B 2 1996	2/17/2022	0.982	865	42.8	srm
1140	Selenium	µg/L	94.9	124	105 - 143	Not Acceptable	EPA 6010B 2 1996	2/8/2022	-3.06	124	9.63	srm
1150	Silver	µg/L	440	508	432 - 584	Acceptable	EPA 6010B 2 1996	2/8/2022	-2.43	509	28.3	srm
1160	Strontium	µg/L	333	297	252 - 342	Acceptable	EPA 6010B 2 1996	2/17/2022	2.42	299	14.0	srm
1165	Thallium	µg/L		419	342 - 488	Not Reported				421	25.9	
1185	Vanadium	µg/L	1433	1720	1460 - 1980	Not Acceptable	EPA 6010B 2 1996	2/8/2022	-4.08	1700	66.3	srm



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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WP Trace Metals (cat# 586, lot# P324-500) (Continued)

1190	Zinc	µg/L	1669	1490	1270 - 1710	Acceptable	EPA 6010B 2 1996	2/17/2022	2.65	1490	66.6	srm
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All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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Study # : WP-324



A Waters Company

WP-324 Final Evaluation Report

Donny Juarez
Quality Assurance Manager
Energy Laboratories
2393 Salt Creek Hwy
Casper, WY 82601
307-235-0515 x3244

EPA ID:
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01/18/2022 - 03/04/2022

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WP Trace Metals (cat# 586, lot# P324-500)

1000	Aluminum	µg/L	1599	1380	1140 - 1590	Not Acceptable	EPA 200.7 4.4 1994	2/3/2022	2.40	1400	82.4	srm
1005	Antimony	µg/L	202	184	136 - 225	Acceptable	EPA 200.7 4.4 1994	2/3/2022	2.04	180	10.9	srm
1010	Arsenic	µg/L	774	708	598 - 808	Acceptable	EPA 200.7 4.4 1994	2/3/2022	3.06	681	30.4	srm
1015	Barium	µg/L	2017	1800	1530 - 2070	Acceptable	EPA 200.7 4.4 1994	2/3/2022	3.02	1810	68.4	srm
1020	Beryllium	µg/L	144	128	109 - 147	Acceptable	EPA 200.7 4.4 1994	2/3/2022	2.77	126	6.48	srm
1025	Boron	µg/L	1465	1340	1140 - 1540	Acceptable	EPA 200.7 4.4 1994	2/3/2022	1.78	1320	78.8	srm
1030	Cadmium	µg/L	289	270	230 - 310	Acceptable	EPA 200.7 4.4 1994	2/3/2022	2.01	265	11.9	srm
1040	Chromium	µg/L	491	443	377 - 509	Acceptable	EPA 200.7 4.4 1994	2/3/2022	2.36	446	19.0	srm
1050	Cobalt	µg/L	665	591	502 - 680	Acceptable	EPA 200.7 4.4 1994	2/3/2022	1.95	608	29.2	srm
1055	Copper	µg/L	1010	959	815 - 1100	Acceptable	EPA 200.7 4.4 1994	2/3/2022	1.45	947	43.4	srm
1070	Iron	µg/L	1622	1360	1160 - 1560	Not Acceptable	EPA 200.7 4.4 1994	2/3/2022	3.54	1370	70.6	srm
1075	Lead	µg/L	1463	1340	1140 - 1540	Acceptable	EPA 200.7 4.4 1994	2/3/2022	1.54	1360	64.8	srm
1090	Manganese	µg/L	2009	1810	1540 - 2080	Acceptable	EPA 200.7 4.4 1994	2/3/2022	2.09	1840	79.2	srm
1100	Molybdenum	µg/L	579	543	472 - 609	Acceptable	EPA 200.7 4.4 1994	2/3/2022	1.69	537	24.7	srm
1105	Nickel	µg/L	861	850	747 - 958	Acceptable	EPA 200.7 4.4 1994	2/4/2022	-0.0911	865	42.8	srm
1140	Selenium	µg/L	96.6	124	105 - 143	Not Acceptable	EPA 200.7 4.4 1994	2/4/2022	-2.89	124	9.63	srm
1150	Silver	µg/L		508	432 - 584	Not Reported				509	28.3	
1160	Strontium	µg/L	321	297	252 - 342	Acceptable	EPA 200.7 4.4 1994	2/3/2022	1.56	299	14.0	srm
1165	Thallium	µg/L		419	342 - 488	Not Reported				421	25.9	
1185	Vanadium	µg/L	1866	1720	1460 - 1980	Acceptable	EPA 200.7 4.4 1994	2/3/2022	2.46	1700	66.3	srm



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.





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WP Trace Metals (cat# 586, lot# P324-500) (Continued)

1190	Zinc	µg/L	1619	1490	1270 - 1710	Acceptable	EPA 200.7 4.4 1994	2/3/2022	1.90	1490	66.6	srm
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WP Hexavalent Chromium (cat# 898, lot# P324-984)

1045	Hexavalent Chromium	µg/L	793	832	701 - 952	Acceptable	SM3500Cr B 22nd ED 2011	2/4/2022	-0.976	830	37.6	dmb
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WP Tin & Titanium (cat# 573, lot# P324-517)

1175	Tin	µg/L	1034	1000	700 - 1300	Acceptable	EPA 200.8 5.4 1994	1/27/2022	0.948	979	58.4	jcg
1180	Titanium	µg/L	88.4	92.9	79.0 - 107	Acceptable	EPA 200.8 5.4 1994	2/8/2022	-0.934	92.5	4.41	jcg

WP Tin & Titanium (cat# 573, lot# P324-517)

1175	Tin	µg/L	882	1000	700 - 1300	Acceptable	EPA 6020A 1 2007	2/12/2022	-1.66	979	58.4	jcg
1180	Titanium	µg/L	74.3	92.9	79.0 - 107	Not Acceptable	EPA 6020A 1 2007	2/12/2022	-4.13	92.5	4.41	jcg

WP Tin & Titanium (cat# 573, lot# P324-517)

1175	Tin	µg/L		1000	700 - 1300	Not Reported				979	58.4	
1180	Titanium	µg/L	89.2	92.9	79.0 - 107	Acceptable	EPA 6010B 2 1996	2/8/2022	-0.752	92.5	4.41	srm

WP Tin & Titanium (cat# 573, lot# P324-517)

1175	Tin	µg/L		1000	700 - 1300	Not Reported				979	58.4	
1180	Titanium	µg/L	92.3	92.9	79.0 - 107	Acceptable	EPA 200.7 4.4 1994	2/4/2022	-0.0484	92.5	4.41	srm

WP Uranium (cat# 4400, lot# P324-4402)

1184	Uranium (mass)	µg/L	182	193	145 - 225	Acceptable	EPA 200.8 5.4 1994	1/27/2022	-1.12	192	9.39	jcg
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WP Uranium (cat# 4400, lot# P324-4402)

1184	Uranium (mass)	µg/L	185	193	145 - 225	Acceptable	EPA 6020A 1 2007	2/15/2022	-0.798	192	9.39	jcg
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All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.





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WP Silica (cat# 890, lot# P324-775)

1990	Silica as SiO2	mg/L	46	52.7	39.5 - 65.9	Acceptable	EPA 6020A 1 2007	2/12/2022	-2.05	52.5	3.20	jcg
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WP Silica (cat# 890, lot# P324-775)

1990	Silica as SiO2	mg/L	45.6	52.7	39.5 - 65.9	Acceptable	EPA 6010B 2 1996	2/8/2022	-2.17	52.5	3.20	srm
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WP Silica (cat# 890, lot# P324-775)

1990	Silica as SiO2	mg/L	58	52.7	39.5 - 65.9	Acceptable	EPA 200.7 4.4 1994	2/3/2022	1.71	52.5	3.20	srm
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WP Sulfide (cat# 891, lot# P324-071)

2005	Sulfide	mg/L	7.76	8.50	4.16 - 12.0	Acceptable	SM 4500-S2 F-2011 2011	1/31/2022	0.267	7.38	1.43	nts
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WP Sulfide (cat# 891, lot# P324-071)

2005	Sulfide	mg/L	7.65	8.50	4.16 - 12.0	Acceptable	SM 4500-S2 D-2011 2011	1/31/2022	0.191	7.38	1.43	nts
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WP Acidity (cat# 885, lot# P324-915)

1500	Acidity as CaCO3	mg/L	1625	1640	1480 - 1800	Acceptable	SM2310B 22nd ED 2011	2/11/2022	0.626	1600	43.1	dmb
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WP Bromide (cat# 887, lot# P324-769)

1540	Bromide	mg/L	6.27	7.12	6.01 - 8.26	Acceptable	EPA 300.0 2.1 1993	1/29/2022	-2.23	7.18	0.408	dmb
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All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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Study # : WP-324



Final Evaluation Report

Study: **WP-324**

ERA Customer Number: **E772828**

Laboratory Name: **Energy Laboratories**

Microbiology Results

All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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WP WasteWatR™ Coliform MicrobE™ (cat# 576, lot# P324-083)

2500	Total Coliforms (MF)	CFU/100mL		378	169 - 844	Not Reported				378	113	
2530	Fecal Coliforms (MF)	CFU/100mL		204	79.0 - 524	Not Reported				204	74.0	
2525	E.coli (MF)	CFU/100mL		217	71.0 - 668	Not Reported				217	99.6	
2500	Total Coliform (MPN-Multiple Well)	MPN/100mL	411	443	208 - 940	Acceptable	SM9223 COL118QT 23rd ED 2016	1/25/2022	-0.0154	443	122	
2530	Fecal Coliform (MPN-Multiple Well)	MPN/100mL	345	278	130 - 593	Acceptable	Colilert®-18 (Fecal Coliforms) 2010	1/25/2022	0.0495	278	77.1	
2525	E.coli (MPN-Multiple Well)	MPN/100mL	411	445	196 - 1010	Acceptable	SM9223 COL118QT 23rd ED 2016	1/25/2022	-0.0163	445	136	

WP WasteWatR™ Coliform MicrobE™ (cat# 576, lot# P324-083)

2500	Total Coliforms (MF)	CFU/100mL		378	169 - 844	Not Reported				378	113	
2530	Fecal Coliforms (MF)	CFU/100mL		204	79.0 - 524	Not Reported				204	74.0	
2525	E.coli (MF)	CFU/100mL		217	71.0 - 668	Not Reported				217	99.6	
2500	Total Coliform (MPN-Multiple Well)	MPN/100mL	517	443	208 - 940	Acceptable	SM9223 COLertQT 23rd ED 2016	1/25/2022	0.0324	443	122	
2530	Fecal Coliform (MPN-Multiple Well)	MPN/100mL		278	130 - 593	Not Reported				278	77.1	
2525	E.coli (MPN-Multiple Well)	MPN/100mL	517	445	196 - 1010	Acceptable	SM9223 COLertQT 23rd ED 2016	1/25/2022	0.0304	445	136	



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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Study # : WP-324

Final Evaluation Report

Study: **WP-324**

ERA Customer Number: **E772828**

Laboratory Name: **Energy Laboratories**

Organic Results

All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.

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WP Gasoline Range Organics (GRO) in Water (cat# 640, lot# P324-762)

9408	Gasoline Range Organics (GRO)	µg/L	2656	3120	1200 - 5450	Acceptable	EPA 8015C 3 2007	2/2/2022	-1.06	3540	840	adw
4375	Benzene in GRO	µg/L		13.8	6.93 - 22.0	Not Reported				12.6	1.23	
4765	Ethylbenzene in GRO	µg/L		52.4	32.5 - 73.4	Not Reported				52.1	13.1	
5140	Toluene in GRO	µg/L		159	88.8 - 207	Not Reported				156	4.64	
5260	Xylenes, total in GRO	µg/L		268	168 - 372	Not Reported				265	55.8	

WP Diesel Range Organics (DRO) in Water (cat# 641, lot# P324-764)

9369	Diesel Range Organics (DRO)	µg/L	2658	4440	1190 - 5540	Acceptable	EPA 8015C 3 2007	2/1/2022	-0.957	3510	891	adw
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WP Total Petroleum Hydrocarbons (TPH) in Water (cat# 642, lot# P324-642)

1853	TPH (Gravimetric)	mg/L	46.1	65.0	29.8 - 93.9	Acceptable	EPA 1664A SGT 1999	2/4/2022	-0.197	48.5	12.2	
1853	TPH (IR)	mg/L		80.0	37.2 - 116	Not Reported				68.4	15.7	



All analytes except for 1,1-Biphenyl, 1,2-Diphenylhydrazine, 1,3-Dinitrobenzene, 2,3-Dichloroaniline, Acetophenone, Atrazine, Azobenzene, Benzaldehyde, Caprolactam, n-Decane and n-Octadecane in the Base/Neutrals, catalog # 833, are included in ERA's A2LA accreditation. Lab Code 1539.01.



CERTIFICATE OF RECOGNITION

ERA congratulates
Energy Laboratories
WP-324

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

Acidity	Bromide	Complex Nutrients	Demand
Diesel Range Organics (DRO) in Water	Gasoline Range Organics (GRO) in Water	Hardness	Hexavalent Chromium
Minerals	Nitrite	Oil & Grease	pH
Silica	Solids	Sulfide	Total Petroleum Hydrocarbons (TPH) in Water
Uranium	WasteWatR™ Coliform MicrobE™		



Matthew Seebeck
Quality Officer