



A Waters Company

Donny Juarez
Energy Laboratories
PO Box 247
Casper, WY 82602
USA

RAD-114  ***Final Report***

The RadChem logo is a circular emblem with a radiation symbol (three blades) in the center, surrounded by a thick purple border. A small "TM" trademark symbol is located at the bottom right of the circle.

RadChem™ Proficiency Testing

RadChem™ Study

Reference Date: 07/09/18

Open Date: 07/09/18

Close Date: 08/23/18

Report Issued Date: 08/27/18



A Waters Company

August 27, 2018

Donny Juarez
Energy Laboratories
PO Box 247
Casper, WY 82602

Enclosed is your final report for ERA's RadCheM™ Proficiency Testing (PT) study, RAD-114. Your final report includes an evaluation of all results submitted by your laboratory to ERA.

Data Evaluation Protocols: All of the analytes in ERA's RAD-114 study have been evaluated by comparing your results to the acceptance limits and evaluation criteria contained in the current TNI FoPT tables.

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. If you need help, 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.

At the request of the TNI Accreditation Council, we have included a Laboratory Exception Report that includes a list of all analytes reported with less than qualifiers when the assigned value was greater than "0." In addition, because we have received many requests from laboratories, this report also includes a list of all analytes with "Not Acceptable" evaluations.

Some states have elected not to convert to the 2009 TNI Standards at this time. If you have released your results to a state that has retained the 2003 NELAC Evaluation Criteria, your final report will include a section that evaluates the results according to the 2003 Standard in addition to the 2009 TNI Standards.

Thank you for your participation in ERA's RadCheM™ Proficiency Testing study, RAD-114. 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



A Waters Company

Report Recipient	Contact/Phone Number	Reporting Type	Evaluation Type
Alabama	Tom DeLoach / 334-271-7791	All Analytes	2009 TNI
California ELAP	Christine Sotelo / 916-341-5175	All Analytes	2009 TNI
Colorado	Ben Chouaf / 303-692-3045	All Analytes	2009 TNI
EPA Region 8	Marcie Tidd / (303) 312-7764	All Analytes	2009 TNI
Florida	Vanessa Soto / 904-791-1599	All Analytes	2009 TNI
Georgia	Lynne Grubb / 404-657-3189	All Analytes	2009 TNI
Idaho	Ernie Bader / 208-334-2235 x 290	All Analytes	2009 TNI
Louisiana (WS)	Grant Aucoin / 225-219-5235	All Analytes	2009 TNI
Montana	Russell Leu / 406-444-5259	All Analytes	2009 TNI
Nebraska	Laurie Wieting / 402-471-8407	All Analytes	2009 TNI
Nevada	Paige Menicucci / 775-687-9311	All Analytes	2003 NELAC
New Mexico (WS)	Bethany Anderson / 505-476-8648	All Analytes	2009 TNI
North Dakota	Cynthia Auen / 701-328-6172	All Analytes	2009 TNI
Oregon	Stephanie Ringsage / 503-693-4126	All Analytes	2009 TNI
South Dakota	Stacy Ellwanger / 605-773-4757	All Analytes	2009 TNI
Texas	Frank Jamison / (512) 239-3754	All Analytes	2009 TNI
Utah	Cathy Mitchell / (801) 965-2588	All Analytes	2009 TNI
Washington	Rebecca Wood / 360-871-8811	All Analytes	2009 TNI



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RAD-114 Definitions & Study Discussion

Study Dates: 07/09/18 - 08/23/18

Report Issued: 08/27/18

RAD 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) tables. 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 tables.

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.

RAD Study Discussion

ERA's RAD-114 RadCheM™ Proficiency Testing (PT) study has been reviewed by ERA senior management and certified compliant with the requirements of the 2009 TNI PT Standard and the criteria contained in the most current TNI Fields of Proficiency Testing (FoPT) tables.

ERA's RAD-114 RadCheM™ PT 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 PT Standard and the criteria contained in the most current TNI FoPT tables.

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 RAD-114 RadCheM™ 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 RadCheM™ Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122.



Study # : RAD-114





A Waters Company

RAD-114 Laboratory Exception Report

Donny Juarez
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PO Box 247
Casper, WY 82602
307-235-0515 x3244

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

WY00002
E772828
08/27/18
07/09/18 - 08/23/18

2009 TNI Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
<i>RAD NaturalIS™ (cat# 811, lot# R114-751)</i>							
3055	Uranium (Nat)	pCi/L	22.4	51.8	42.2 - 57.1	Not Acceptable	SM 7500-U C-2000 2000





Final Report Results For Laboratory Energy Laboratories



2009 TNI Evaluation Report

Study: **RAD-114**

ERA Customer Number: **E772828**

Laboratory Name: **Energy Laboratories**

RAD Results





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RAD-114 2009 TNI Evaluation Final Complete Report

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Quality Assurance Manager
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EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

WY00002
E772828
08/27/18
07/09/18 - 08/23/18

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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RAD GroSS™ Alpha/Beta (cat# 809, lot# R114-759)

2830	Gross Alpha	pCi/L	13.3	16.0	7.79 - 22.6	Acceptable	EPA 900.0 GPC 1980	8/21/2018	-0.975	16.4	3.17	
2840	Gross Beta	pCi/L	40.6	49.0	33.2 - 56.1	Acceptable	EPA 900.0 GPC 1980	8/21/2018	-0.477	43.0	5.08	

RAD NaturalS™ (cat# 811, lot# R114-751)

2965	Radium-226	pCi/L	10.5	9.08	6.81 - 10.6	Acceptable	EPA 903.0 GPC 1980	8/6/2018	1.44	8.80	1.18	
2970	Radium-228	pCi/L	1.8	2.28	1.07 - 3.60	Acceptable	EPA Ra-05	7/24/2018	-1.27	2.44	0.500	
3055	Uranium (Nat)	pCi/L	22.4	51.8	42.2 - 57.1	Not Acceptable	SM 7500-U C-2000 2000	8/7/2018	-6.94	49.3	3.88	
3055	Uranium (Nat) mass	µg/L		75.5	61.5 - 83.2	Not Reported				73.8	5.35	

All analytes 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 # : RAD-114





Final Report Results For Laboratory Energy Laboratories

2003 NELAC Evaluation Report

Study: **RAD-114**

ERA Customer Number: **E772828**

Laboratory Name: **Energy Laboratories**

RAD Results





A Waters Company

RAD-114 2003 NELAC Evaluation Final Complete Report

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

WY00002
E772828
08/27/18
07/09/18 - 08/23/18

NELAC 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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Study # : RAD-114



CERTIFICATE OF RECOGNITION

ERA congratulates
Energy Laboratories
RAD-114

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

GroSS™ Alpha/Beta



Matthew Seebeck
Quality Officer