



**ENVIRONMENTAL  
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The Industry Standard™

Mark McNeal  
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L72258

***RAD-75***



***Final Report***

**RadChem™ Proficiency Testing**

**RadChem™ Study**

**Open Date: 10/06/08**

**Close Date: 11/20/08**

**Report Issued Date: 12/04/08**



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December 4, 2008

Mark McNeal  
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Steamboat Springs, CO 80487

Enclosed is your final report for ERA's RadCheM™ Proficiency Testing (PT) study, RAD-75. 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-75 study have been evaluated by comparing your results to the acceptance limits and evaluation criteria contained in the NELAC standards, National Environmental Laboratory Accreditation Conference (NELAC) PT Field of Testing list (October 2007).

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 well over three hundred 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 helpful in helping you work through your technical issues.

Thank you for your participation in ERA's RadCheM™ Proficiency Testing study, RAD-75. If you have any questions, please contact Curtis Wood, Director, Director of Regulatory Affairs and Business Development, Sherrod Kyle, Manager, Radiochemistry or myself at 1-800-372-0122.

Sincerely,

Shawn Kassner  
Proficiency Testing Manager

Jay R. McBurney  
Quality Program Manager

attachments  
smk



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<b>Report Recipient</b>	<b>Contact/Phone Number</b>	<b>Reporting Type</b>
Alaska	Lance Morris / 907-375-8210	All Analytes
Arizona	Terry Norcop / 602-364-0720	All Analytes
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# RAD-75 Definitions & Study Discussion

**Study Dates: 10/06/08 - 11/20/08**

**Report Issued: 12/04/08**

## 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 USEPA/NELAC FoPT tables.

The Acceptance Limits are established per the criteria contained in the most current USEPA/NELAC 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-75 RadCheM™ Proficiency Testing (PT) study has been reviewed by ERA senior management and certified compliant with the requirements of the USEPA's National Standards for Water Proficiency Testing Studies Criteria Document (December 1998) and the criteria contained in the most current NELAC FoPT tables.

ERA's RAD-75 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 USEPA's National Criteria Document for Water Proficiency Testing Studies, December 1998, and the criteria contained in the most current NELAC FoPT tables.

ERA's RAD-75 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 Shawn Kassner, Proficiency Testing Manager, or Curtis Wood, Director of Regulatory Affairs and Business Development, at 1-800-372-0122.





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Study: **RAD-75**

ERA Customer Number: **A144801**

Laboratory Name: **ACZ Laboratories**

## **RAD Results**





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EPA ID: CO00028  
ERA Customer Number: A144801  
Report Issued: 12/04/08  
Study Dates: 10/06/08 - 11/20/08

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
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**RAD Gamma EmitterS™**

0007	Barium-133	pCi/L		63.5	52.8 - 69.9	Not Reported	
0005	Cesium-134	pCi/L	24.1	25.6	19.7 - 28.4	Acceptable	EPA 901.1
0006	Cesium-137	pCi/L	28.3	25.6	21.6 - 31.2	Acceptable	EPA 901.1
0003	Cobalt-60	pCi/L	41.2	49.1	44.2 - 56.6	Not Acceptable	EPA 901.1
0004	Zinc-65	pCi/L		68.6	61.2 - 83.0	Not Reported	

**RAD GroSS™ Alpha/Beta**

0001	Gross Alpha	pCi/L	30.8	26.9	13.6 - 35.5	Acceptable	EPA 900.0 GPC
0002	Gross Beta	pCi/L	34.2	38.0	25.1 - 45.5	Acceptable	EPA 900.0 GPC

**RAD NaturalS™**

0012	Radium-226	pCi/L	14.0	16.1	12.0 - 18.4	Acceptable	EPA 903.1 SC
0013	Radium-228	pCi/L	12.2	14.1	9.38 - 17.1	Acceptable	EPA 904.0
0014	Uranium (Nat)	pCi/L	46.2	50.3	40.8 - 55.9	Acceptable	EPA 200.8
0014	Uranium (Nat) mass	µg/L		74.0	60.1 - 82.3	Not Reported	

**RAD NaturalS™**

0012	Radium-226	pCi/L	18.1	16.1	12.0 - 18.4	Acceptable	EPA 903.0 GPC
0013	Radium-228	pCi/L		14.1	9.38 - 17.1	Not Reported	
0014	Uranium (Nat)	pCi/L		50.3	40.8 - 55.9	Not Reported	
0014	Uranium (Nat) mass	µg/L		74.0	60.1 - 82.3	Not Reported	

