

Kelley E. Keenan

Environmental Testing Solutions, Inc. PO Box 7565 Asheville, NC 28802-7565



DMR-QA Study

Open Date: 03/19/12

Close Date: 07/06/12

Report Issued Date: 07/27/12



July 27, 2012

Kelley E. Keenan Environmental Testing Solutions, Inc. PO Box 7565 Asheville, NC 28802-7565

Enclosed is your final report for ERA's DMR-QA 32 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 DMR-QA 32 Proficiency Testing study have been evaluated using the following tiered approach. If the analyte is listed in the 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 current TNI FoPT tables. 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 0260).

If you have any "Not Acceptable" evaluations for the DMR-QA 32 study, and these results have been reported by your permittees, a letter of corrective action and order form are attached for your convenience. If you have a "Not Acceptable" evaluation, but no letter of corrective action or order form, ERA recommends that you contact your permittees for the corrective action requirements that their state or regional DMR-QA Coordinator may require.

Thank you for your participation in ERA's DMR-QA 32 Proficiency Testing study. If you have any questions, please contact our proficiency testing department at 1-800-372-0122.

Sincerely,

Ay & Mc Buena

Jay R. McBurney Quality Program Manager

attachments jrm



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Report Recipient	Contact/Phone Number	Reporting Type	Evaluation Type
North Carolina (WP)	Dana Satterwhite / 919-733-3908 x 243	All Analytes	2009 TNI
South Carolina	Carol Smith / 803-896-0992	All Analytes	2003 NELAC



DMRQA-32 Definitions & Study Discussion

Study Dates: 03/19/12 - 07/06/12

DMRQA Study Definitions

The Reported Value is the value that the laboratory reported to ERA.

The ERA Assigned Values are compliant with the current FoPT tables. 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 FoPT tables, or ERA's SOP for the Generation of Performance Acceptance LimitsTM 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.

Report Issued: 07/27/12

DMRQA Study Discussion

ERA's DMR-QA 32 Proficiency Testing study has been reviewed by ERA senior management and certified compliant with the requirements of the 2009 TNI PT Standards and the criteria contained in the current TNI FoPT tables.

ERA's DMR-QA 32 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 current TNI Fields of Proficiency Testing (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 DMR-QA 32 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 DMRQA Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122.







DMR-QA 32 Laboratory Exception Report

A Waters Company

Kelley E. Keenan Supervisor Environmental Testing Solutions, Inc. PO Box 7565 Asheville, NC 28802-7565 828-350-9364
 EPA ID:
 NC01230

 ERA Customer Number:
 E559701

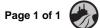
 Report Issued:
 07/27/12

 Study Dates:
 03/19/12 - 07/06/12

2009 TNI Evaluation Check: There are no values reported with < where the assigned value was greater than 0.

2009 TNI Not Acceptable Evaluations: There were no Not Acceptable evaluations for this study.

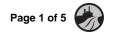






Final Report Results For Laboratory Environmental Testing Solutions, Inc.







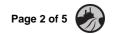
2009 TNI Evaluation Report Study: DMR-QA 32

ERA Customer Number: E559701

Laboratory Name: Environmental Testing Solutions, Inc.

WET Results







DMR-QA 32 2009 TNI Evaluation Final Complete Report

A Waters Company

Kelley E. Keenan Supervisor Environmental Testing Solutions, Inc. PO Box 7565 Asheville, NC 28802-7565 828-350-9364

EPA ID:	NC01230
ERA Customer Number:	E559701
Report Issued:	07/27/12
Study Dates:	03/19/12 - 07/06/12

Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name		
48Hr., Act	DMRQA Fathead minnow (Test Code 13) (cat# WET002) 18Hr., Acute, Non-Renewal, 25° C, MHSF Potassium chloride												
0754	LC50	45.1	45.6	23.9 - 67.4	Acceptable	EPA 2000 2002	5/9/2012	-0.0499	45.6	10.9			
Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name		
7-day Sho	Fathead minnow (Test Code 15) (cat# WET004) ort term Chronic, Daily Renewal, MHSF m chloride				-								
0808	IC25 (ON) Growth	32.6	35.5	17.5 - 53.5	Acceptable	EPA 1000 2002	5/15/2012	-0.32	35.5	9.00			
0810	NOEC (ON) Growth	25	25.0	12.5 - 50.0	Acceptable	EPA 1000 2002	5/15/2012	0					
0756	NOEC Survival	25	25.0	12.5 - 50.0	Acceptable	EPA 1000 2002	5/15/2012	0					

Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
	Cariadaphpia dubia (Tast Cada 10) (catt WET008)										

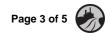
DMRQA Ceriodaphnia dubia (Test Code 19) (cat# WET008)

48Hr., Acute Renewal, 25° C, MHSF

Potassium chloride

0764 LC50	25.9	34.2	17.9 - 50.4	Acceptable	EPA 2002 2002	4/11/2012	-1.02	34.2	8.10		
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DMR-QA 32 2009 TNI Evaluation Final Complete Report

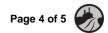
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Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
7-day Sh	Ceriodaphnia dubia (Test Code 21) (cat# WET010) nort term Chronic, Daily Renewal, MHSF Im chloride										
0767	IC25 Reproduction	29.5	25.9	12.3 - 39.5	Acceptable	EPA 1002 2002	4/10/2012	0.527	25.9	6.79	
0768	NOEC Reproduction	25	25.0	12.5 - 50.0	Acceptable	EPA 1002 2002	4/10/2012	0			
0766	NOEC Survival	25	25.0	12.5 - 50.0	Acceptable	EPA 1002 2002	4/10/2012	0			
Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
	Mysid (Test Code 42) (cat# WET016)										
	cute, Non-Renewal, 25° C, 40 FSW ım chloride										
		28.7	36.1	16.2 - 56.0	Acceptable	EPA 2007 2002	4/10/2012	-0.741	36.1	9.96	
Potassiu	Im chloride	28.7 Reported Value	36.1 Assigned Value %	16.2 - 56.0 Acceptance Limits %	Acceptable Performance Evaluation	EPA 2007 2002 Method Description	4/10/2012 Analysis Date	-0.741 Z Score	36.1 Study Mean	9.96 Study Standard Deviation	Analyst Name
Potassiu 0798 Analyte Code DMRQA 7-day Sh	LC50	Reported	Assigned	Acceptance	Performance		Analysis		Study	Study Standard	Analyst Name
Potassiu 0798 Analyte Code DMRQA 7-day Sh	Test End Point Mysid (Test Code 43) (cat# WET017) Teort term Chronic, Daily Renewal, 40 FSW	Reported	Assigned	Acceptance	Performance		Analysis		Study	Study Standard	Analyst Name
Potassiu 0798 Analyte Code DMRQA 7-day Sh Potassiu	Test End Point Mysid (Test Code 43) (cat# WET017) Poort term Chronic, Daily Renewal, 40 FSW Im chloride	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name







DMR-QA 32 2009 TNI Evaluation Final Complete Report

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Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
48Hr., Ac	Inland silverside (Test Code 44) (cat# WET018) sute, Non-Renewal, 25° C, 40 FSW m chloride										
0803	LC50	61.6	69.8	60.2 - 79.4	Acceptable	EPA 2006 2002	5/12/2012	-1.71	69.8	4.80	
					•						
Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
7-day Sh	Inland Silverside (Test Code 45) (cat# WET013) ort term Chronic, Daily Renewal, 40 FSW m chloride										
0825	IC25 (ON) Growth	54.2	59.2	49.1 - 69.4	Acceptable	EPA 1006.0 2002	5/12/2012	-0.99	59.2	5.08	
0826	NOEC (ON) Growth	50	50.0	25.0 - 100	Acceptable	EPA 1006.0 2002	5/12/2012	0			
0824	NOEC Survival	50	50.0	25.0 - 100	Acceptable	EPA 1006.0 2002	5/12/2012	0			

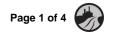






Final Report Results For Laboratory Environmental Testing Solutions, Inc.



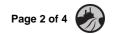




2003 NELAC Evaluation Report Study: DMR-QA 32 ERA Customer Number: E559701 Laboratory Name: Environmental Testing Solutions, Inc.

WET Results







DMR-QA 32 2003 NELAC Evaluation Final Complete

A Waters Company

Report Kelley E. Keenan Supervisor Environmental Testing Solutions, Inc. PO Box 7565 Asheville, NC 28802-7565 828-350-9364

 EPA ID:
 NC01230

 ERA Customer Number:
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TNI Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
48Hr., Ac	Fathead minnow (Test Code 13) (cat# WET002) cute, Non-Renewal, 25° C, MHSF m chloride	-	-	-	-						
3410	LC50	45.1	45.6	23.9 - 67.4	Acceptable	EPA 2000 2002	5/9/2012	-0.0499	45.6	10.9	
TNI Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
7-day Sh	Fathead minnow (Test Code 15) (cat# WET004) ort term Chronic, Daily Renewal, MHSF m chloride										
3410	IC25 (ON) Growth	32.6	35.5	17.5 - 53.5	Acceptable	EPA 1000 2002	5/15/2012	-0.32	35.5	9.00	
3410	NOEC (ON) Growth	25	25.0	12.5 - 50.0	Acceptable	EPA 1000 2002	5/15/2012	0			
3410	NOEC Survival	25	25.0	12.5 - 50.0	Acceptable	EPA 1000 2002	5/15/2012	0			
5410			20.0	1210 0010	71000010010	21771000 2002	0/10/2012	Ű			
TNI Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
TNI Analyte Code DMRQA 48Hr., Ac	I	Reported	Assigned	Acceptance	Performance		Analysis	-		Standard	Analyst Name
TNI Analyte Code DMRQA 48Hr., Ac	Test End Point Ceriodaphnia dubia (Test Code 19) (cat# WET008) cute Renewal, 25° C, MHSF	Reported	Assigned	Acceptance	Performance		Analysis	-		Standard	Analyst Name
TNI Analyte Code DMRQA 48Hr., Ac Potassiu	Test End Point Ceriodaphnia dubia (Test Code 19) (cat# WET008) sute Renewal, 25° C, MHSF m chloride	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Mean	Standard Deviation	Analyst Name
TNI Analyte Code DMRQA 48Hr., Ac Potassiu 3315 TNI Analyte Code DMRQA 7-day Sh	Test End Point Ceriodaphnia dubia (Test Code 19) (cat# WET008) sute Renewal, 25° C, MHSF m chloride LC50	Reported Value 25.9 Reported	Assigned Value % 34.2 Assigned	Acceptance Limits % 17.9 - 50.4 Acceptance	Performance Evaluation Acceptable Performance	Method Description	Analysis Date 4/11/2012 Analysis	Z Score	Mean 34.2 Study	Standard Deviation 8.10 Study Standard	·
TNI Analyte Code DMRQA 48Hr., Ac Potassiu 3315 TNI Analyte Code DMRQA 7-day Sh	Test End Point Ceriodaphnia dubia (Test Code 19) (cat# WET008) sute Renewal, 25° C, MHSF m chloride LC50 Test End Point Ceriodaphnia dubia (Test Code 21) (cat# WET010) ort term Chronic, Daily Renewal, MHSF	Reported Value 25.9 Reported	Assigned Value % 34.2 Assigned	Acceptance Limits % 17.9 - 50.4 Acceptance	Performance Evaluation Acceptable Performance	Method Description	Analysis Date 4/11/2012 Analysis	Z Score	Mean 34.2 Study	Standard Deviation 8.10 Study Standard	·
TNI Analyte Code DMRQA 48Hr., Ac Potassiu 3315 TNI Analyte Code DMRQA 7-day Sh Potassiu	Test End Point Ceriodaphnia dubia (Test Code 19) (cat# WET008) cute Renewal, 25° C, MHSF m chloride LC50 Test End Point Ceriodaphnia dubia (Test Code 21) (cat# WET010) ort term Chronic, Daily Renewal, MHSF m chloride	Reported Value 25.9 Reported Value	Assigned Value % 34.2 Assigned Value %	Acceptance Limits % 17.9 - 50.4 Acceptance Limits %	Performance Evaluation Acceptable Performance Evaluation	Method Description EPA 2002 2002 Method Description	Analysis Date 4/11/2012 Analysis Date	Z Score -1.02 Z Score	Mean 34.2 Study Mean	Standard Deviation 8.10 Study Standard Deviation	·
TNI Analyte Code DMRQA 48Hr., Ac Potassiu 3315 TNI Analyte Code DMRQA 7-day Sh Potassiu 3315	Test End Point Ceriodaphnia dubia (Test Code 19) (cat# WET008) sute Renewal, 25° C, MHSF m chloride LC50 Test End Point Ceriodaphnia dubia (Test Code 21) (cat# WET010) ort term Chronic, Daily Renewal, MHSF m chloride	Reported Value 25.9 Reported Value	Assigned Value % 34.2 Assigned Value %	Acceptance Limits % 17.9 - 50.4 Acceptance Limits %	Performance Evaluation Acceptable Performance Evaluation Acceptable	Method Description EPA 2002 2002 Method Description EPA 1002 2002	Analysis Date 4/11/2012 Analysis Date 4/10/2012	Z Score -1.02 Z Score 0.527	Mean 34.2 Study Mean	Standard Deviation 8.10 Study Standard Deviation	·





DMR-QA 32 2003 NELAC Evaluation Final Complete

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TNI Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
48Hr., Ac	Mysid (Test Code 42) (cat# WET016) sute, Non-Renewal, 25° C, 40 FSW m chloride	-	-	-	-				-		
3395	LC50	28.7	36.1	16.2 - 56.0	Acceptable	EPA 2007 2002	4/10/2012	-0.741	36.1	9.96	
TNI Analyte Code	Test End Point	Reported Value	Assigned Value %	Acceptance Limits %	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
7-day Sh	Mysid (Test Code 43) (cat# WET017) ort term Chronic, Daily Renewal, 40 FSW m chloride										
3395	IC25 (ON) Growth	28.0	28.5	15.4 - 41.7	Acceptable	EPA 1007 2002	4/11/2012	-0.0813	28.5	6.59	
3395	NOEC (ON) Growth	12.5	25.0	12.5 - 50.0	Acceptable	EPA 1007 2002	4/11/2012	0			
3395	NOEC Survival	25	25.0	12.5 - 50.0	Acceptable	EPA 1007 2002	4/11/2012	0			
TNI Analyte Code	Test End Point	Reported	Assigned	Acceptance	Performance	Method Description	Analysis	Z Score	Study	Study Standard	Analyst Name
Coue		Value	Value %	Limits %	Evaluation	method bescription	Date	2 00010	Mean	Deviation	5
DMRQA I 48Hr., Ac	Inland silverside (Test Code 44) (cat# WET018) sute, Non-Renewal, 25° C, 40 FSW m chloride	value	Value %	Limits %	Evaluation		Date		Mean		
DMRQA I 48Hr., Ac Potassiu	ute, Non-Renewal, 25° C, 40 FSW	61.6	69.8	Limits %	Evaluation Acceptable	EPA 2006 2002	Date 5/12/2012	-1.71	Mean 69.8		
DMRQA I 48Hr., Ac Potassiu	ute, Non-Renewal, 25° C, 40 FSW m chloride									Deviation	Analyst Name
DMRQA I 48Hr., Ac Potassiu 3380 TNI Analyte Code DMRQA I 7-day Sh	ute, Non-Renewal, 25° C, 40 FSW m chloride LC50	61.6 Reported	69.8	60.2 - 79.4	Acceptable Performance	EPA 2006 2002	5/12/2012 Analysis	-1.71	69.8 Study	Deviation 4.80 Study Standard	
DMRQA I 48Hr., Ac Potassiu 3380 TNI Analyte Code DMRQA I 7-day Sh	ute, Non-Renewal, 25° C, 40 FSW m chloride LC50 Test End Point Inland Silverside (Test Code 45) (cat# WET013) ort term Chronic, Daily Renewal, 40 FSW	61.6 Reported	69.8	60.2 - 79.4	Acceptable Performance	EPA 2006 2002	5/12/2012 Analysis	-1.71	69.8 Study	Deviation 4.80 Study Standard	
DMRQA I 48Hr., Ac Potassiu 3380 TNI Analyte Code DMRQA I 7-day Shi Potassiu	rute, Non-Renewal, 25° C, 40 FSW m chloride LC50 Test End Point Inland Silverside (Test Code 45) (cat# WET013) ort term Chronic, Daily Renewal, 40 FSW m chloride	61.6 Reported Value	69.8 Assigned Value %	60.2 - 79.4 Acceptance Limits %	Acceptable Performance Evaluation	EPA 2006 2002 Method Description	5/12/2012 Analysis Date	-1.71 Z Score	69.8 Study Mean	Deviation 4.80 Study Standard Deviation	
DMRQA I 48Hr., Ac Potassiu 3380 TNI Analyte Code DMRQA I 7-day Shi Potassiu 3380 3380	tute, Non-Renewal, 25° C, 40 FSW m chloride LC50 Test End Point Inland Silverside (Test Code 45) (cat# WET013) ort term Chronic, Daily Renewal, 40 FSW m chloride IC25 (ON) Growth	61.6 Reported Value	69.8 Assigned Value %	60.2 - 79.4 Acceptance Limits % 49.1 - 69.4	Acceptable Performance Evaluation	EPA 2006 2002 Method Description EPA 1006.0 2002	5/12/2012 Analysis Date	-1.71 Z Score	69.8 Study Mean	Deviation 4.80 Study Standard Deviation	



