



A Waters Company

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

WS-192



Final Report

WatR™ Supply Proficiency Testing

WatR™ Supply Study

Open Date: 07/09/12

Close Date: 08/23/12

Report Issued Date: 09/12/12



A Waters Company

September 12, 2012

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

Enclosed is your final report for ERA's WS-192 WatR™Supply 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 WS-192 WatR™Supply Proficiency Testing (PT) 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 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).

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 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.

Please note the following changes to our final reports:

- 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 WS-192 WatR™Supply 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 that reads "Jay R. McBurney". The signature is written in a cursive, flowing style.

Jay R. McBurney
Quality Program Manager

attachments
jrm



A Waters Company

Report Recipient	Contact/Phone Number	Reporting Type	Evaluation Type
North Carolina (WS)	Chris Goforth / 919-807-8871	All Analytes	2009 TNI

WS-192 Definitions & Study Discussion

Study Dates: 07/09/12 - 08/23/12

Report Issued: 09/12/12

WS Study Definitions

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

The ERA Assigned Values are compliant with the current TNI Fields of Proficiency Testing (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 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.

WS Study Discussion

ERA's WS-192 WatR™Supply 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 most current TNI Fields of Proficiency Testing (FoPT) tables.

ERA's WS-192 WatR™Supply 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 in the standards 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 WS-192 WatR™Supply 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™Supply Proficiency Testing program, please contact our Proficiency Testing Department at 1-800-372-0122.



WS-192 Laboratory Exception Report

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

EPA ID:
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Study Dates:

NC01230
E559701
09/12/12
07/09/12 - 08/23/12

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: **WS-192**

ERA Customer Number: **E559701**

Laboratory Name: **Environmental Testing
Solutions, Inc.**

Microbiology Results





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WS-192 2009 TNI Evaluation Final Complete Report

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Supervisor
Environmental Testing Solutions, Inc.
PO Box 7565
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828-350-9364

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

NC01230
E559701
09/12/12
07/09/12 - 08/23/12

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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WS MicrobE™ (Coliforms) (cat# 080D)

2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2500	Total Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2500	Total Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2500	Total Coliforms - Sample 10	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			

Total Coliforms Evaluation : Acceptable

Fecal Coliforms Evaluation : Not Reported

E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 6 and 9

Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 10

Negative (1) Coliform Organism - Proteus mirabilis, Sample 8

Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 3

Blank - No Organism, Samples 5 and 7





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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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WS MicrobE™ (Coliforms) (cat# 080D) (Continued)

2530	Fecal Coliforms - Sample 1	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 2	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 3	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 4	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 5	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 6	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 7	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 8	CFU/100mL		Absence	Absence	Not Reported						
2530	Fecal Coliforms - Sample 9	CFU/100mL		Presence	Presence	Not Reported						
2530	Fecal Coliforms - Sample 10	CFU/100mL		Absence	Absence	Not Reported						

Total Coliforms Evaluation : Acceptable
Fecal Coliforms Evaluation : Not Reported
E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 6 and 9
 Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 10
 Negative (1) Coliform Organism - Proteus mirabilis, Sample 8
 Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 3
 Blank - No Organism, Samples 5 and 7



All analytes 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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WS MicrobE™ (Coliforms) (cat# 080D) (Continued)

2525	E.coli - Sample 1	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2525	E.coli - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2525	E.coli - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLILERT 21st ED 2005	7/11/2012	0			

Total Coliforms Evaluation : Acceptable

Fecal Coliforms Evaluation : Not Reported

E.coli Evaluation : Acceptable

Fecal Coliform Organism - Escherichia coli, Samples 4, 6 and 9

Total Coliform Organism - Enterobacter cloacae, Samples 1, 2 and 10

Negative (1) Coliform Organism - Proteus mirabilis, Sample 8

Negative (2) Coliform Organism - Pseudomonas aeruginosa, Sample 3

Blank - No Organism, Samples 5 and 7



All analytes 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
WS WS SourceWatR™ MicrobE™ (cat# 595)												
2500	Total Coliforms (MF)	CFU/100mL		52.0	3.00 - 69.0	Not Reported				14.8	16.4	
2530	Fecal Coliforms (MF)	CFU/100mL		52.0	3.00 - 53.0	Not Reported				12.2	12.5	
2525	E.coli (MF)	CFU/100mL		52.0	7.00 - 56.0	Not Reported				20.4	12.1	
2500	Total Coliforms (MPN)	MPN/100mL		62.0	23.1 - 90.4	Not Reported				45.7	16.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		62.0	8.66 - 87.6	Not Reported				27.6	19.7	
2525	E.coli (MPN)	MPN/100mL	29.2	62.0	22.3 - 91.8	Acceptable	SM9223 COLertQIT 21st ED 2005	7/11/2012	-0.923	45.2	17.4	

Per Section 6.4.3 a of the 2009 TNI Standard, "The assigned values for quantitative microbiology analytes shall be equal to the mean of the assigned value verification and/or homogeneity testing per Sections 7.1 and 7.2". The final acceptance limits are derived from the calculated study mean and study standard deviation from laboratory-reported results. Disagreement between the assigned values and study means/acceptance limits are due to the inherent variability of microbiology methods and differences in the methods used by ERA and participant laboratories. For quantitative microbiology analytes, the assigned value is not used in the evaluation of laboratories.

