



Imelda Quarto  
FQ Labs/Food Quality Labs  
3170-A Ualena St.  
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USA

**WS-270**  **Final Report**

**WatR™ Supply Proficiency Testing**

**WatR™ Supply Study**

**Open Date: 01/07/19**

**Close Date: 02/21/19**

**Report Issued Date: 02/25/19**



February 25, 2019

Imelda Quarto  
Food Quality Lab  
3170-A Ualena St.  
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Enclosed is your final report for ERA's WS-270 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-270 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 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.

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-270 WatR™ Supply Proficiency Testing study. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

Matthew Seebeck  
Quality Officer

attachments



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Report Recipient	Contact/Phone Number	Reporting Type	Evaluation Type
No Recipients Selected			



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## WS-270 Definitions & Study Discussion

Study Dates: 01/07/19 - 02/21/19

Report Issued: 02/25/19

### 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-270 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-270 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.

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 WS-270 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.





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# WS-270 Laboratory Exception Report

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EPA ID:  
ERA Customer Number:  
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Study Dates:

HI00028  
F574501  
02/25/19  
01/07/19 - 02/21/19

## 2009 TNI Evaluation Checks

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.



All analytes except PT catalog numbers 462, 604QR, 929, 731QR, 960, 735QR (PFAS) are included in ERA's A2LA accreditation. Lab Code: 1539-01  
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Study # : WS-270



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# Final Report Results For Laboratory FQ Labs/Food Quality Labs





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# 2009 TNI Evaluation Report

Study: **WS-270**

ERA Customer Number: **F574501**

Laboratory Name: **FQ Labs/Food Quality  
Labs**

## Microbiology Results





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# WS-270 2009 TNI Evaluation Final Complete Report

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HI00028  
F574501  
02/25/19  
01/07/19 - 02/21/19

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
<b>WS Microbe™ (Coliforms) (cat# 080B, lot# S270-085B)</b>												
2500	Total Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM923 COLILERT online	1/14/2019				
2500	Total Coliforms - Sample 2	CFU/100mL	Presence	Presence	Presence	Acceptable	SM923 COLILERT online	1/14/2019				
2500	Total Coliforms - Sample 3	CFU/100mL	Presence	Presence	Presence	Acceptable	SM923 COLILERT online	1/14/2019				
2500	Total Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM923 COLILERT online	1/14/2019				
2500	Total Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLILERT online	1/14/2019				
2500	Total Coliforms - Sample 6	CFU/100mL	Presence	Presence	Presence	Acceptable	SM923 COLILERT online	1/14/2019				
2500	Total Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLILERT online	1/14/2019				
2500	Total Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLILERT online	1/14/2019				
2500	Total Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM923 COLILERT online	1/14/2019				
2500	Total Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLILERT online	1/14/2019				

Total Coliforms Evaluation : **Acceptable**

Fecal Coliforms Evaluation : **Acceptable**

E.coli Evaluation : **Acceptable**

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 1, 4 and 9

Total Coliform Organism - Enterobacter cloacae (NCTC 10005), Samples 2, 3 and 6

Negative (1) Coliform Organism - Proteus mirabilis ( NCIMB 13283), Sample 5

Negative (2) Coliform Organism - Pseudomonas aeruginosa ( NCIMB 12469), Sample 8

Blank - Blank Pellet (Qualitative), Samples 7 and 10



All analytes except PT catalog numbers 462, 604QR, 929, 731QR, 960, 735QR (PFAS) are included in ERA's A2LA accreditation. Lab Code: 1539-01  
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# WS-270 2009 TNI Evaluation Final Complete Report

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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
<b>WS MicrobE™ (Coliforms) (cat# 080B, lot# S270-085B) (Continued)</b>												
2530	Fecal Coliforms - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM923 COLLERT online	1/14/2019				
2530	Fecal Coliforms - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLLERT online	1/14/2019				
2530	Fecal Coliforms - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLLERT online	1/14/2019				
2530	Fecal Coliforms - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM923 COLLERT online	1/14/2019				
2530	Fecal Coliforms - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLLERT online	1/14/2019				
2530	Fecal Coliforms - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLLERT online	1/14/2019				
2530	Fecal Coliforms - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLLERT online	1/14/2019				
2530	Fecal Coliforms - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLLERT online	1/14/2019				
2530	Fecal Coliforms - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM923 COLLERT online	1/14/2019				
2530	Fecal Coliforms - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM923 COLLERT online	1/14/2019				

Total Coliforms Evaluation : **Acceptable**

Fecal Coliforms Evaluation : **Acceptable**

E.coli Evaluation : **Acceptable**

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 1, 4 and 9

Total Coliform Organism - Enterobacteriaceae (NCTC 10005), Samples 2, 3, and 6

Negative (1) Coliform Organism - Proteus mirabilis (NCIMB 13283), Sample 5

Negative (2) Coliform Organism - Pseudomonas aeruginosa (NCIMB 12469), Sample 8

Blank - Blank Pellet (Qualitative), Samples 7 and 10



All analytes except PT catalog numbers 462, 604QR, 929, 731QR, 960, 735QR (PFAS) 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
<b>WS Microb™ (Coliforms) (cat# 080B, lot# S270-085B) (Continued)</b>												
2525	E.coli - Sample 1	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLerQ™ online	1/14/2019				
2525	E.coli - Sample 2	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLerQ™ online	1/14/2019				
2525	E.coli - Sample 3	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLerQ™ online	1/14/2019				
2525	E.coli - Sample 4	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLerQ™ online	1/14/2019				
2525	E.coli - Sample 5	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLerQ™ online	1/14/2019				
2525	E.coli - Sample 6	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLerQ™ online	1/14/2019				
2525	E.coli - Sample 7	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLerQ™ online	1/14/2019				
2525	E.coli - Sample 8	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLerQ™ online	1/14/2019				
2525	E.coli - Sample 9	CFU/100mL	Presence	Presence	Presence	Acceptable	SM9223 COLerQ™ online	1/14/2019				
2525	E.coli - Sample 10	CFU/100mL	Absence	Absence	Absence	Acceptable	SM9223 COLerQ™ online	1/14/2019				

Total Coliforms Evaluation : **Acceptable**

Fecal Coliforms Evaluation : **Acceptable**

E.coli Evaluation : **Acceptable**

Fecal Coliform Organism - Escherichia coli (ATCC 35421), Samples 1, 4 and 9

Total Coliform Organism - Enterobacteriaceae (NCTC 10005), Samples 2, 3, and 6

Negative (1) Coliform Organism - Proteus mirabilis (NCIMB 13283), Sample 5

Negative (2) Coliform Organism - Pseudomonas aeruginosa (NCIMB 12469), Sample 8

Blank - Blank Pellet (Qualitative), Samples 7 and 10



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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
<b>WS SourceWat™ MicrobE™ (cat# 595, lot# S270-078)</b>												
2500	Total Coliforms (MF)	CFU/100mL		182	72.0 - 240	Not Reported				132	41.8	
2530	Fecal Coliforms (MF)	CFU/100mL		182	32.0 - 149	Not Reported				68.8	29.4	
2525	E.coli (MF)	CFU/100mL		182	57.0 - 302	Not Reported				131	61.5	
2500	Total Coliforms (MPN)	MPN/100mL	172.2	167	106 - 285	Acceptable	SM9223 COL.letQT online	1/14/2019	-0.00206	174	44.8	
2530	Fecal Coliforms (MPN)	MPN/100mL		167	121 - 237	Not Reported				170	29.0	
2525	E.coli (MPN)	MPN/100mL	172.2	167	105 - 285	Acceptable	SM9223 COL.letQT online	1/14/2019	-0.00143	173	44.8	

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.

### WS Heterotrophic Plate Count (cat# 079, lot# S270-084)

2555	Heterotrophic Plate Count (MF, PP)	CFU/mL	404	348	326 - 711	Acceptable	SM9215B PCA online	1/14/2019	-0.0385	482	96.3	
2555	Heterotrophic Plate Count (MPN)	MPN/mL	386	331	186 - 870	Acceptable	SM 9215 E. SimPlate	1/14/2019	-0.00773	402	171	

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.



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# CERTIFICATE OF EXCELLENCE

In recognition of the quality of your laboratory in proficiency testing for

**WS-270**

## FQ Labs/Food Quality Labs

is issued this certificate of achievement by ERA. This laboratory has been recognized as a Laboratory of Excellence for achieving 100% acceptable data in this study which included 730 participating laboratories. This achievement is a demonstration of the superior quality of the laboratory in evaluation of the standards listed below.

Heterotrophic Plate Count  
MicrobE™ (Coliforms)  
WS SourceWatR™  
MicrobE™



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Matthew Seebeck  
Quality Officer