



November 14, 2014

Mr. Gregory Hisel  
St. Francis Hospital  
62 Kibbe Rd  
Ellington, Connecticut 06029

Re: Total Activity Wipes  
Work Order: 359241

Dear Mr. Hisel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 17, 2014. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4443.

Sincerely,

Erin Trent for  
Lindsay Fabra  
Project Manager

Purchase Order: 0100320614  
Enclosures



# **Certificates of Analysis and QC Summary**

## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 – (843) 556-8171 – www.gel.com

### Certificate of Analysis Report for

STFR001 St. Francis Hospital

Client SDG: 359241 GEL Work Order: 359241

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Lindsay Fabra.

Reviewed by \_\_\_\_\_

*Eric S. Trent*

**GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

**Certificate of Analysis**

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

Client Sample ID: S-5-2  
 Sample ID: 359241001  
 Matrix: Filter  
 Collect Date: 12-OCT-14 16:00  
 Receive Date: 17-OCT-14  
 Collector: Client

Project: STFR00100  
 Client ID: STFR001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Liquid Scintillation Analysis											
Liquid Scint. Total activity "As Received"											
Total Activity	U	-0.201	+/-2.07	3.58	5.00	pCi/Filter		GXR1	10/29/14	0704 1430979	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

Client Sample ID:	S-5-3	Project:	STFR00100
Sample ID:	359241002	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:00		
Receive Date:	17-OCT-14		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Liquid Scintillation Analysis</b>												
<b>Liquid Scint. Total activity "As Received"</b>												
Total Activity	U	-0.927	+/-2.05	3.58	5.00	pCi/Filter		GXR1	10/29/14	0720	1430979	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**  
 Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID:	S-5-4	Project:	STFR00100
Sample ID:	359241003	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:00		
Receive Date:	17-OCT-14		
Collector:	Client		

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-0.328	+/-2.07	3.58	5.00	pCi/Filter		GXR1	10/29/14	0737	1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst	Comments
1	GL-RAD-A-041		

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID: S-5-5 Project: STFR00100  
Sample ID: 359241004 Client ID: STFR001  
Matrix: Filter  
Collect Date: 12-OCT-14 16:00  
Receive Date: 17-OCT-14  
Collector: Client

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.55	+/-2.13	3.59	5.00	pCi/Filter		GXR1	10/29/14	0753	1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

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### Notes:

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# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

Client Sample ID: S-5-6  
Sample ID: 359241005  
Matrix: Filter  
Collect Date: 12-OCT-14 16:00  
Receive Date: 17-OCT-14  
Collector: Client

Project: STFR00100  
Client ID: STFR001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-1.51	+/-2.03	3.59	5.00	pCi/Filter		GXR1	10/29/14	0809	1430979	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).



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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

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Client Sample ID:	S-5-7	Project:	STFR00100
Sample ID:	359241006	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:00		
Receive Date:	17-OCT-14		
Collector:	Client		

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Liquid Scintillation Analysis											
Liquid Scint. Total activity "As Received"											
Total Activity	U	-1.51	+/-2.03	3.58	5.00	pCi/Filter		GXR1	10/29/14	0826 1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID:	S-5-8	Project:	STFR00100
Sample ID:	359241007	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:00		
Receive Date:	17-OCT-14		
Collector:	Client		

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Liquid Scintillation Analysis											
Liquid Scint. Total activity "As Received"											
Total Activity	U	-0.169	+/-2.07	3.58	5.00	pCi/Filter		GXR1	10/29/14	0842 1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

Client Sample ID: S-5-9	Project: STFR00100
Sample ID: 359241008	Client ID: STFR001
Matrix: Filter	
Collect Date: 12-OCT-14 16:00	
Receive Date: 17-OCT-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-0.745	+/-2.06	3.58	5.00	pCi/Filter		GXR1	10/29/14	0859	1430979	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**  
 Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID:	S-5-10	Project:	STFR00100
Sample ID:	359241009	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:00		
Receive Date:	17-OCT-14		
Collector:	Client		

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	0.575	+/-2.09	3.58	5.00	pCi/Filter		GXR1	10/29/14	0915	1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**  
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID: S-5-11 Project: STFR00100  
Sample ID: 359241010 Client ID: STFR001  
Matrix: Filter  
Collect Date: 12-OCT-14 16:00  
Receive Date: 17-OCT-14  
Collector: Client

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-0.65	+/-2.06	3.58	5.00	pCi/Filter		GXR1	10/29/14	0931	1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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## Certificate of Analysis

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Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID:	S-5-12	Project:	STFR00100
Sample ID:	359241011	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:00		
Receive Date:	17-OCT-14		
Collector:	Client		

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-0.337	+/-2.07	3.59	5.00	pCi/Filter		GXR1	10/29/14	0948	1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).



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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

Client Sample ID: S-5-14 Project: STFR00100  
Sample ID: 359241013 Client ID: STFR001  
Matrix: Filter  
Collect Date: 12-OCT-14 16:00  
Receive Date: 17-OCT-14  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-0.843	+/-2.05	3.59	5.00	pCi/Filter		GXR1	10/29/14	1021	1430979	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).



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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID:	S-5-15	Project:	STFR00100
Sample ID:	359241014	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:00		
Receive Date:	17-OCT-14		
Collector:	Client		

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-0.295	+/-2.07	3.58	5.00	pCi/Filter		GXR1	10/29/14	1037	1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID: S-5-16 Project: STFR00100  
Sample ID: 359241015 Client ID: STFR001  
Matrix: Filter  
Collect Date: 12-OCT-14 16:00  
Receive Date: 17-OCT-14  
Collector: Client

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-0.225	+/-2.07	3.58	5.00	pCi/Filter		GXR1	10/29/14	1054	1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID: S-5-17 Project: STFR00100  
Sample ID: 359241016 Client ID: STFR001  
Matrix: Filter  
Collect Date: 12-OCT-14 16:00  
Receive Date: 17-OCT-14  
Collector: Client

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-0.641	+/-2.06	3.58	5.00	pCi/Filter		GXR1	10/29/14	1110	1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

Client Sample ID: S-5-18	Project: STFR00100
Sample ID: 359241017	Client ID: STFR001
Matrix: Filter	
Collect Date: 12-OCT-14 16:00	
Receive Date: 17-OCT-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Liquid Scintillation Analysis											
Liquid Scint. Total activity "As Received"											
Total Activity	U	-0.94	+/-2.05	3.59	5.00	pCi/Filter		GXR1	10/29/14	1126 1430979	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**  
 Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID:	S-5-19	Project:	STFR00100
Sample ID:	359241018	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:00		
Receive Date:	17-OCT-14		
Collector:	Client		

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-0.196	+/-2.07	3.58	5.00	pCi/Filter		GXR1	10/29/14	1143	1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID:	S-5-20	Project:	STFR00100
Sample ID:	359241019	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:00		
Receive Date:	17-OCT-14		
Collector:	Client		

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Liquid Scintillation Analysis											
Liquid Scint. Total activity "As Received"											
Total Activity	U	2.52	+/-2.18	3.64	5.00	pCi/Filter		GXR1	10/30/14	1344 1430979	1

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The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

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### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

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Client Sample ID:	S-6-1	Project:	STFR00100
Sample ID:	359241020	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:30		
Receive Date:	17-OCT-14		
Collector:	Client		

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	-0.393	+/-2.07	3.58	5.00	pCi/Filter		GXR1	10/29/14	1216	1430979	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

Client Sample ID: S-6-2  
Sample ID: 359241021  
Matrix: Filter  
Collect Date: 12-OCT-14 16:30  
Receive Date: 17-OCT-14  
Collector: Client  
Project: STFR00100  
Client ID: STFR001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.23	+/-2.00	3.39	5.00	pCi/Filter		GXR1	11/03/14	1938	1430980	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).



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Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

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Client Sample ID: S-6-3	Project: STFR00100
Sample ID: 359241022	Client ID: STFR001
Matrix: Filter	
Collect Date: 12-OCT-14 16:30	
Receive Date: 17-OCT-14	
Collector: Client	

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.30	+/-2.01	3.40	5.00	pCi/Filter		GXR1	11/03/14	1955	1430980	1

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**

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**GEL LABORATORIES LLC**

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

**Certificate of Analysis**

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID: S-6-4 Project: STFR00100  
Sample ID: 359241023 Client ID: STFR001  
Matrix: Filter  
Collect Date: 12-OCT-14 16:30  
Receive Date: 17-OCT-14  
Collector: Client

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.88	+/-2.03	3.41	5.00	pCi/Filter		GXR1	11/03/14	2011	1430980	1

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The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	GL-RAD-A-041	

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**Notes:**  
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

Client Sample ID: S-6-5	Project: STFR00100
Sample ID: 359241024	Client ID: STFR001
Matrix: Filter	
Collect Date: 12-OCT-14 16:30	
Receive Date: 17-OCT-14	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	2.23	+/-2.04	3.40	5.00	pCi/Filter		GXR1	11/03/14	2027	1430980	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID:	S-6-6	Project:	STFR00100
Sample ID:	359241025	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:30		
Receive Date:	17-OCT-14		
Collector:	Client		

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	0.595	+/-1.99	3.40	5.00	pCi/Filter		GXR1	11/03/14	2044	1430980	1

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID:	S-6-7	Project:	STFR00100
Sample ID:	359241026	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:30		
Receive Date:	17-OCT-14		
Collector:	Client		

---

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	2.40	+/-2.04	3.40	5.00	pCi/Filter		GXR1	11/03/14	2100	1430980	1

---

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	GL-RAD-A-041	

---

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

---

Client Sample ID: S-6-8	Project: STFR00100
Sample ID: 359241027	Client ID: STFR001
Matrix: Filter	
Collect Date: 12-OCT-14 16:30	
Receive Date: 17-OCT-14	
Collector: Client	

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.26	+/-2.01	3.40	5.00	pCi/Filter		GXR1	11/03/14	2117	1430980	1

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**  
 Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

---

Client Sample ID: S-6-9	Project: STFR00100
Sample ID: 359241028	Client ID: STFR001
Matrix: Filter	
Collect Date: 12-OCT-14 16:30	
Receive Date: 17-OCT-14	
Collector: Client	

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	0.765	+/-1.99	3.40	5.00	pCi/Filter		GXR1	11/03/14	2133	1430980	1

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**  
 Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

---

Client Sample ID:	S-6-10	Project:	STFR00100
Sample ID:	359241029	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:30		
Receive Date:	17-OCT-14		
Collector:	Client		

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.82	+/-2.02	3.40	5.00	pCi/Filter		GXR1	11/03/14	2149	1430980	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

---

Client Sample ID: S-6-11	Project: STFR00100
Sample ID: 359241030	Client ID: STFR001
Matrix: Filter	
Collect Date: 12-OCT-14 16:30	
Receive Date: 17-OCT-14	
Collector: Client	

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	2.44	+/-2.04	3.39	5.00	pCi/Filter		GXR1	11/03/14	2206	1430980	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID: S-6-12 Project: STFR00100  
Sample ID: 359241031 Client ID: STFR001  
Matrix: Filter  
Collect Date: 12-OCT-14 16:30  
Receive Date: 17-OCT-14  
Collector: Client

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.12	+/-2.00	3.39	5.00	pCi/Filter		GXR1	11/03/14	2222	1430980	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**  
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID:	S-6-13	Project:	STFR00100
Sample ID:	359241032	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:30		
Receive Date:	17-OCT-14		
Collector:	Client		

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.35	+/-2.00	3.38	5.00	pCi/Filter		GXR1	11/03/14	2238	1430980	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID:	S-6-14	Project:	STFR00100
Sample ID:	359241033	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:30		
Receive Date:	17-OCT-14		
Collector:	Client		

---

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.66	+/-2.01	3.39	5.00	pCi/Filter		GXR1	11/03/14	2255	1430980	1

---

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	GL-RAD-A-041	

---

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID: S-6-15                      Project: STFR00100  
Sample ID: 359241034                         Client ID: STFR001  
Matrix: Filter  
Collect Date: 12-OCT-14 16:30  
Receive Date: 17-OCT-14  
Collector: Client

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
<b>Rad Liquid Scintillation Analysis</b>												
Liquid Scint. Total activity "As Received"												
Total Activity	U	0.172	+/-1.97	3.39	5.00	pCi/Filter		GXR1	11/03/14	2311	1430980	1

The following Analytical Methods were performed:

---

Method	Description	Analyst	Comments
1	GL-RAD-A-041		

**Notes:**

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

---

Client Sample ID:	S-6-16	Project:	STFR00100
Sample ID:	359241035	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 16:30		
Receive Date:	17-OCT-14		
Collector:	Client		

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	0.872	+/-1.99	3.39	5.00	pCi/Filter		GXR1	11/03/14	2327	1430980	1

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**  
 Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
 Address : 62 Kibbe Rd  
 Ellington, Connecticut 06029  
 Contact: Mr. Gregory Hisel  
 Project: Total Activity Wipes

---

Client Sample ID: S-6-17	Project: STFR00100
Sample ID: 359241036	Client ID: STFR001
Matrix: Filter	
Collect Date: 12-OCT-14 16:30	
Receive Date: 17-OCT-14	
Collector: Client	

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.07	+/-2.00	3.39	5.00	pCi/Filter		GXR1	11/03/14	2344	1430980	1

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	GL-RAD-A-041	

**Notes:**  
 Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID: B-1-1 Project: STFR00100  
Sample ID: 359241037 Client ID: STFR001  
Matrix: Filter  
Collect Date: 12-OCT-14 17:00  
Receive Date: 17-OCT-14  
Collector: Client

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	2.16	+/-2.03	3.39	5.00	pCi/Filter		GXR1	11/04/14	0000	1430980	1

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	GL-RAD-A-041	

---

**Notes:**

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID:	B-1-2	Project:	STFR00100
Sample ID:	359241038	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 17:00		
Receive Date:	17-OCT-14		
Collector:	Client		

---

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Liquid Scintillation Analysis											
Liquid Scint. Total activity "As Received"											
Total Activity	U	1.81	+/-2.02	3.39	5.00	pCi/Filter		GXR1	11/04/14	0017 1430980	1

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	GL-RAD-A-041	

---

**Notes:**  
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd

Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

Client Sample ID: B-1-3      Project: STFR00100  
Sample ID: 359241039      Client ID: STFR001  
Matrix: Filter  
Collect Date: 12-OCT-14 17:00  
Receive Date: 17-OCT-14  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time Batch	Method
Rad Liquid Scintillation Analysis											
Liquid Scint. Total activity "As Received"											
Total Activity	U	2.11	+/-2.03	3.40	5.00	pCi/Filter		GXR1	11/04/14	0033 1430980	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: November 14, 2014

Company : St. Francis Hospital  
Address : 62 Kibbe Rd  
  
Ellington, Connecticut 06029  
Contact: Mr. Gregory Hisel  
Project: Total Activity Wipes

---

Client Sample ID:	B-1-4	Project:	STFR00100
Sample ID:	359241040	Client ID:	STFR001
Matrix:	Filter		
Collect Date:	12-OCT-14 17:00		
Receive Date:	17-OCT-14		
Collector:	Client		

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Liquid Scintillation Analysis												
Liquid Scint. Total activity "As Received"												
Total Activity	U	1.51	+/-2.01	3.40	5.00	pCi/Filter		GXR1	11/04/14	0049	1430980	1

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	GL-RAD-A-041	

### Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Report Date: November 14, 2014

Page 1 of 2

**St. Francis Hospital**  
**62 Kibbe Rd**  
**Ellington, Connecticut**

**Contact: Mr. Gregory Hisel**

**Workorder: 359241**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Liquid Scintillation</b>											
Batch	1430979										
QC1203196652	LCS										
Total Activity	86.9			82.5	pCi/Filter		95	(75%-125%)	GXR1	10/29/14	12:48
	Uncertainty			+/-3.80							
QC1203196653	LCSD										
Total Activity	86.9			85.7	pCi/Filter	3.79	98.6	(0%-20%)		10/29/14	13:05
	Uncertainty			+/-3.85							
QC1203196651	MB										
Total Activity			U	-0.447	pCi/Filter					10/29/14	12:32
	Uncertainty			+/-2.06							
Batch	1430980										
QC1203196659	LCS										
Total Activity	86.9			84.4	pCi/Filter		97.1	(75%-125%)	GXR1	11/04/14	01:22
	Uncertainty			+/-3.75							
QC1203196660	LCSD										
Total Activity	86.9			86.2	pCi/Filter	2.13	99.2	(0%-20%)		11/04/14	01:38
	Uncertainty			+/-3.77							
QC1203196658	MB										
Total Activity			U	0.907	pCi/Filter					11/04/14	01:06
	Uncertainty			+/-1.99							

**Notes:**

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a Tracer compound
- < Result is less than value reported
- > Result is greater than value reported
- BD Results are either below the MDC or tracer recovery is low
- FA Failed analysis.
- H Analytical holding time was exceeded
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

# GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

## QC Summary

Workorder: 359241

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Q											
R											
U											
UI											
UJ											
UL											
X											
Y											
^											
h											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# **Chain of Custody and Supporting Documentation**

Project #: 9 of 16  
 GEL Quote #: GEL P14-0945  
 COC Number (1): 359241  
 PO Number: \_\_\_\_\_

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

**GEL Chain of Custody and Analytical Request**

GEL Work Order Number: 359241

Client Name: St. Francis Hospital Phone #: \_\_\_\_\_  
 Project/Site Name: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Address: \_\_\_\_\_

Sample Analysis Requested (6) (Fill in the number of containers for each test)

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (7)	Field Filtered (8)	Sample Matrix (4)	Should this sample be considered:	Total number of containers	Preservative Type (6)	Comments
S-5-2	10-12-14	1600	N	N	P	Radioactive	1		Note: extra sample is required for sample specific QC
S-5-3									
S-5-4									
S-5-5									
S-5-6									
S-5-7									
S-5-8									
S-5-9									
S-5-10									
S-5-11									

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge) Fax Results:  / No

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Sample Collection Time Zone: Eastern Pacific Other \_\_\_\_\_

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards.

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>[Signature]</u>	<u>10/17/14</u>		<u>Fedex</u>		
			<u>[Signature]</u>	<u>10.16.14</u>	<u>0840</u>

GEL PM: \_\_\_\_\_ Date Shipped: \_\_\_\_\_  
 Method of Shipment: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

For Lab Receiving Use Only

Custody Seal Intact? YES NO  
 Cooler Temp: C

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, if no preservative is added = leave field blank

WHITE - LABORATORY VET LOW = FILL PINK = CLIENT

Page: 10 of 16  
 Project #: \_\_\_\_\_  
 GEL Quote #: GEL 814-0945  
 COC Number (1): \_\_\_\_\_  
 PO Number: \_\_\_\_\_  
**GEL Chain of Custody and Analytical Request**  
**GEL Work Order Number:** \_\_\_\_\_  
 GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: St. Francis Hospital Phone #: \_\_\_\_\_  
 Project/Site Name: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Address: \_\_\_\_\_

Sample ID <small>* For composites - indicate start and stop date/time</small>	*Date Collected (mm-dd-yy)	*Time Collected (Military (hhmm))	QC Code (b)	Field Filtered (a)	Sample Matrix (d)	Should this sample be considered:		Sample Analysis Requested (6) (Fill in the number of containers for each test)	Comments
						Radioactive	TSCA Regulated		
S-5-12	10-12-14	1600	N	N	P			1	Total Activity
S-5-13									
S-5-14									
S-5-15									
S-5-16									
S-5-17									
S-5-18									
S-5-19									
S-5-20									
S-6-1		1630							

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge) Fax Results:  Yes / No  
 Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4  
**Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards**

Chain of Custody Signatures			Sample Shipping and Delivery Details		
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>[Signature]</u>	<u>10/14/17</u>		<u>Fedex</u>		
			<u>[Signature]</u>	<u>10.16.17</u>	<u>1840</u>

GEL PM: \_\_\_\_\_  
 Method of Shipment: \_\_\_\_\_ Date Shipped: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
**WHITE = LABORATORY      YEL LOW = FII.F      PINK = CLIENT**  
 For Lab Receiving Use Only  
 Custody Seal Intact?  
 YES NO  
 Cooler Temp:  
C



Page: 11 of 16  
 Project #: GEL  
 GEL Quote #: 6EL P14-0745  
 COC Number (1): \_\_\_\_\_  
 PO Number: \_\_\_\_\_

**GEL Chain of Custody and Analytical Request**  
 GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Client Name: St. Francis Hospital Phone #: \_\_\_\_\_  
 Project/Site Name: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Collected by: \_\_\_\_\_

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Comments
						Radioactive	TSCA Regulated			
S-6-2	10-12-14	1630	N	N	P			1		Total Activity
S-6-3		1630								
S-6-4										
S-6-5										
S-6-6										
S-6-7										
S-6-8										
S-6-9										
S-6-10										
S-6-11										

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge) Fax Results:  Yes / No  
 Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4  
 Sample Collection Time Zone: Eastern Pacific Other \_\_\_\_\_  
 Sample Matrix: Mountain

**Chain of Custody Signatures**  
 Relinquished By (Signed) Date Time Received by (signed) Date Time  
 1 Bryce 10/14/14 Fedex  
 2 Amel Edwards 10.16.14/1890  
 3 \_\_\_\_\_

Method of Shipment: \_\_\_\_\_ Date Shipped: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

For Lab Receiving Use Only  
 Custody Seal Intact? YES NO  
 Cooler Temp: C

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank.

WHITE = LABORATORY VFI LOW = FI.FENT PINK = CLIENT

Page: 12 of 16  
 Project #: \_\_\_\_\_  
 GEL Quote #: 6E1 P14-0945  
 COC Number (1): \_\_\_\_\_  
 PO Number: \_\_\_\_\_

# GEL Chain of Custody and Analytical Request

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

GEL Work Order Number: \_\_\_\_\_

Client Name: St. Francis Hospital Phone #: \_\_\_\_\_  
 Project/Site Name: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Address: \_\_\_\_\_

Sample ID <small>* For composites - indicate start and stop date/time</small>	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (1)	Sample Matrix (4)	Should this sample be considered:		Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
						Radioactive	TSCA Regulated			
S-6-12	10-12-14	1630	N	N	P			1		Total Activity
S-6-13										
S-6-14										
S-6-15										
S-6-16										
S-6-17										
B-1-1		1700								
B-1-2										
B-1-3										
B-1-4										

TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge) Fax Results:  Yes / No  
 Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4  
 Sample Collection Time Zone: Eastern Pacific Other \_\_\_\_\_  
**Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards**

Chain of Custody Signatures		Sample Shipping and Delivery Details	
Relinquished By (Signed)	Date	Received by (signed)	Date
<u>[Signature]</u>	10/14/14	<u>Fedex</u>	
		<u>Sarah Edwards</u>	10/16/14
			3

GEL PM: \_\_\_\_\_ Date Shipped: \_\_\_\_\_  
 Method of Shipment: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

For Lab Receiving Use Only  
 Custody Seal Intact? YES / NO  
 Cooler Temp: \_\_\_\_\_

1.) Chain of Custody Number = Client Determined  
 2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite  
 3.) Field Filtered: For liquid matrices, indicate with a . Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

**SAMPLE RECEIPT & REVIEW FORM**

Client: <u>St. Francis</u>		SDG/AR/COC/Work Order: <u>359241</u>	
Received By: <u>SE</u>		Date Received: <u>10.16.14</u>	
Suspected Hazard Information	Yes <input type="checkbox"/>	No <input type="checkbox"/>	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
COC/Samples marked as radioactive?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u>
Classified Radioactive II or III by RSO?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If yes, Were swipes taken of sample containers < action levels?
COC/Samples marked containing PCBs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Package, COC, and/or Samples marked as beryllium or asbestos containing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If yes, samples are to be segregated as Safety Controlled Samples, and opened by the GEL Safety Group.
Shipped as a DOT Hazardous?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preservation Method: Ice bags Blue ice Dry ice <u>None</u> Other (describe) *all temperatures are recorded in Celsius <u>19</u>
2a Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temperature Device Serial #: <u>130469902</u> Secondary Temperature Device Serial # (If Applicable):
3 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4 Sample containers intact and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5 Samples requiring chemical preservation at proper pH?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6 VOA vials free of headspace (defined as < 6mm bubble)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
7 Are Encore containers present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(If yes, immediately deliver to Volatiles laboratory)
8 Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ID's and tests affected:
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample ID's affected: <u>none on samples</u>
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sample ID's affected:
12 Are sample containers identifiable as GEL provided?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
14 Carrier and tracking number.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Circle Applicable: FedEx Air <u>FedEx Ground</u> UPS Field Services Courier Other  <u>9622 0019 0</u> <u>(000 448 3673 4)</u> <u>00 7714 8934 0330</u>

Comments (Use Continuation Form if needed):

# **Data Package Qualifier Definitions**

## Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

- P Organics-The concentrations between the primary and confirmation columns/detectors is >40% difference.  
For HPLC, the difference is >70%.
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

# **Laboratory Certifications**

**List of current GEL Certifications as of 14 November 2014**

<b>State</b>	<b>Certification</b>
Alaska	UST-110
Arkansas	88-0651
CLIA	42D0904046
California NELAP	01151CA
Colorado	SC00012
Connecticut	PH-0169
Delaware	SC000122013-10
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-12-00283, P330-12-00284
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC000122013-10
Idaho Chemistry	SC00012
Idaho Radiochemistry	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA130005
Maryland	270
Massachusetts	M-SC012
Michigan	9976
Mississippi	SC000122013-10
Nebraska	NE-OS-26-13
Nevada	SC000122014-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
Oklahoma	9904
Pennsylvania NELAP	68-00485
Plant Material Permit	PDEP-12-00260
South Carolina Chemistry	10120001
South Carolina GVL	23611001
South Carolina Radiochemi	10120002
Tennessee	TN 02934
Texas NELAP	T104704235-14-9
Utah NELAP	SC000122014-16
Vermont	VT87156
Virginia NELAP	460202
Washington	C780-12
Wisconsin	999887790