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## SITE INVESTIGATION REPORT ADDENDUM

**Bay Spring Realty Company  
90 Bay Spring Avenue  
Map 2/Lot 154  
Barrington, Rhode Island  
RIDEM File No. SR-01-0106  
(Former Case No. 2013-024)**

### **Prepared for:**

Bay Spring Realty Company  
909 North Main Street  
Providence, Rhode Island 02904

### **Prepared by:**

Resource Control Associates, Inc.

474 Broadway  
Pawtucket, Rhode Island 02860

14 Lilac Street  
Sharon, Massachusetts 02067

April 27, 2015



April 27, 2015

Mr. Nicholas Noons, Sanitary Engineer  
RI Department of Environmental Management  
Office of Waste Management  
235 Promenade Street  
Providence, RI 02908-5767

**SUBJECT: SIR Addendum**

Bay Spring Realty Company  
90 Bay Spring Avenue  
Map 2/Lot 154  
Barrington, Rhode Island  
RIDEM File No. SR-01-0106 (Former Case No. 2013-024)

Dear Mr. Noons:

On behalf of Bay Spring Realty Company, Resource Control Associates, Inc. (Resource Controls) has prepared this SIR Addendum for the property located at 90 Bay Spring Avenue, Barrington, Rhode Island (the Site) – RIDEM File No. SR-01-0106 (Former Case No. 2013-024). A Locus Map showing the location of the Site relative to regional geographic features is included as Attachment 1, and a Site Plan is attached as Attachment 2.

Resource Controls completed a Site Investigation Report dated October 30, 2014 to further evaluate Recognized Environmental Conditions that were identified during ASTM efforts to adequately assess the nature and extent of contamination identified at the Site and to evaluate and identify a proposed remedy for each release.

In accordance with the directive from the Rhode Island Department of Environmental Management (RIDEM) dated February 24, 2015 received via email, an additional round of groundwater samples from select monitoring wells were collected and analyzed to evaluate the potential impacts of a possible release of VOC-impacted water that may have been released into the subsurface during the cistern remedial excavation on May 21 and 28, 2014.

## FIELD ACTIVITIES

On April 9, 2015, at the request of the RIDEM, groundwater was gauged to the nearest 0.01 foot using an electronic interface probe, and groundwater samples were collected from monitoring wells MW-3, MW-5, MW-101, MW-104, MW-105 and MW-106. No light non-aqueous phase liquid (LNAPL) was detected. Fluid level measurements are summarized on the well monitoring form included in Attachment 3. The inferred direction of groundwater flow is to the south and southeast.

Groundwater samples were collected by low flow sampling methodology. The samples were collected in clean, preserved glassware, labeled in the field, placed on ice and submitted under standard chain-of custody protocol to ESS Laboratory (ESS) of Cranston, Rhode Island. The samples were analyzed for volatile organic compounds (VOCs) and/or dissolved RCRA-8 metals by EPA Methods 6010C, 7010 and 7470A. Laboratory analytical results are summarized in Attachment 4; laboratory reports are included as Attachment 5.

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## **ANALYTICAL RESULTS**

Attachment 4 summarizes current and historical groundwater analytical results. VOC concentrations were detected in MW-5 (1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene and 4-isopropyltoluene) and MW-105 (1,1,1-trichloroethane, 1,1-dichloroethane and trichloroethene) above the laboratory reporting limits but below the RIDEM GA Groundwater Objectives. Dissolved lead concentrations were detected in MW-3 and MW-101 above the RIDEM GA Groundwater Objective. Dissolved barium concentrations were detected in MW-3 and MW-106 above the laboratory detection limit but below the RIDEM GA Groundwater Objective. Dissolved arsenic was detected in MW-101 above the RIDEM GA Groundwater Objective. Laboratory analytical results indicate that concentrations of contaminants detected in groundwater from each well are similar to the previous sampling event conducted in October 2014.

## **SITE-SPECIFIC HYDROGEOLOGICAL PROPERTIES**

The Water Table Elevation Contour Plan dated October 9, 2014 included as Figure 5 of the October 30, 2014 SIR and the Water Table Elevation Contour Plan dated April 9, 2015 and included herein as Attachment 2, indicate that the inferred direction of groundwater flow beneath the Site is to the south and southeast with an average hydraulic gradient of approximately 0.011 (1.1 feet over 100 feet).

Bedrock was not encountered during site investigation activities at depths ranging to approximately 20 feet below grade. The unconsolidated overburden at the Site is generally described as fine to medium/coarse sand, and is interpreted as a glacial outwash unit. This interpretation is consistent with the Rhode Island GIS "Glacial Deposits" data layer, which depicts the Site as being underlain by an outwash plain. Hydraulic conductivity values for glacial outwash suggested in the literature range from  $1 \times 10^{-3}$  to  $1 \times 10^{-1}$  centimeters per second (cm/s). Given the aforementioned Site hydrogeologic properties, had the release that occurred during the cistern removal impacted the subsurface environment, reported concentrations in the downgradient wells that were sampled in April 2015 would have exhibited elevated concentrations compared with historical data; no such relative elevated concentrations were reported.

## **CONCLUSIONS & RECOMMENDATIONS**

Based on the results of the October 29, 2014 groundwater gauging and sampling efforts, Resource Controls offers the following conclusions:

- Laboratory analytical results for the groundwater sampling indicate the following:
  - VOCs were detected at concentrations below the RIDEM GA Groundwater Objectives;
  - Dissolved barium was detected at concentrations below the RIDEM GA Groundwater Objective;
  - Dissolved lead and dissolved arsenic were detected at concentrations exceeding the RIDEM GA Groundwater Objectives; and
  - Concentrations of contaminants of concern in groundwater from each well are similar to the previous sampling event conducted in October 2014.
- Given the calculated Site hydrogeologic properties, had the release that occurred during the cistern removal impacted the subsurface environment, reported concentrations in the downgradient wells that were sampled in April 2015 would have exhibited elevated concentrations compared with historical data; no such relative elevated concentrations were reported.

Resource Controls does not suggest a change to the previously recommended remedial alternative – the implementation of engineering and institutional controls as a cost-effective remedial alternative that is in compliance with the intent of the RIDEM Remediation Regulations, is consistent with current and future land use, and manages actual and potential risks to human health and the environment.

## LIMITATIONS

This report is not intended to guarantee that the Subject Property is or is not free from conditions, materials or substances that could adversely impact the environment or pose a threat to public health and safety. Rather, it is intended to be used as a summary of available information on existing conditions, the conclusions of which are based upon a reasonable review of information found in accordance with normally accepted industry standards and protocols, subject to and as limited by the scope and budget established with the client.

Should further research on the Subject Property be warranted, Resource Controls must review any additional data obtained and the conclusions presented herein may be modified accordingly.

Conclusions stated herein are based on the available information summarized herein and refer only to the specific Subject Property investigated. No warranty is implied or given and the report is subject to the agreement for the work, including the Standard Terms and Conditions attached to said agreement.

Please do not hesitate to contact the undersigned if additional information is needed.

Very truly yours,

**RESOURCE CONTROL ASSOCIATES, INC.**



Mark J. House  
Vice President and Principal Scientist

Attachments:	Attachment 1      Locus Map
	Attachment 2      Water Table Elevation Contour Plan
	Attachment 3      Well Monitoring Form
	Attachment 4      Table 1 – Summary of Groundwater Analytical Results
	Attachment 5      Laboratory Report
	Attachment 6      Additional Limitations

cc:      Bay Spring Realty Company

**ATTACHMENT 1**

**Locus Map**



Source: Rhode Island Geographic Information System (RIGIS)

1955 (Photorevised 1970 and 1975) USGS Topographic Map - Bristol, Rhode Island-Massachusetts Quad

### LOCUS MAP

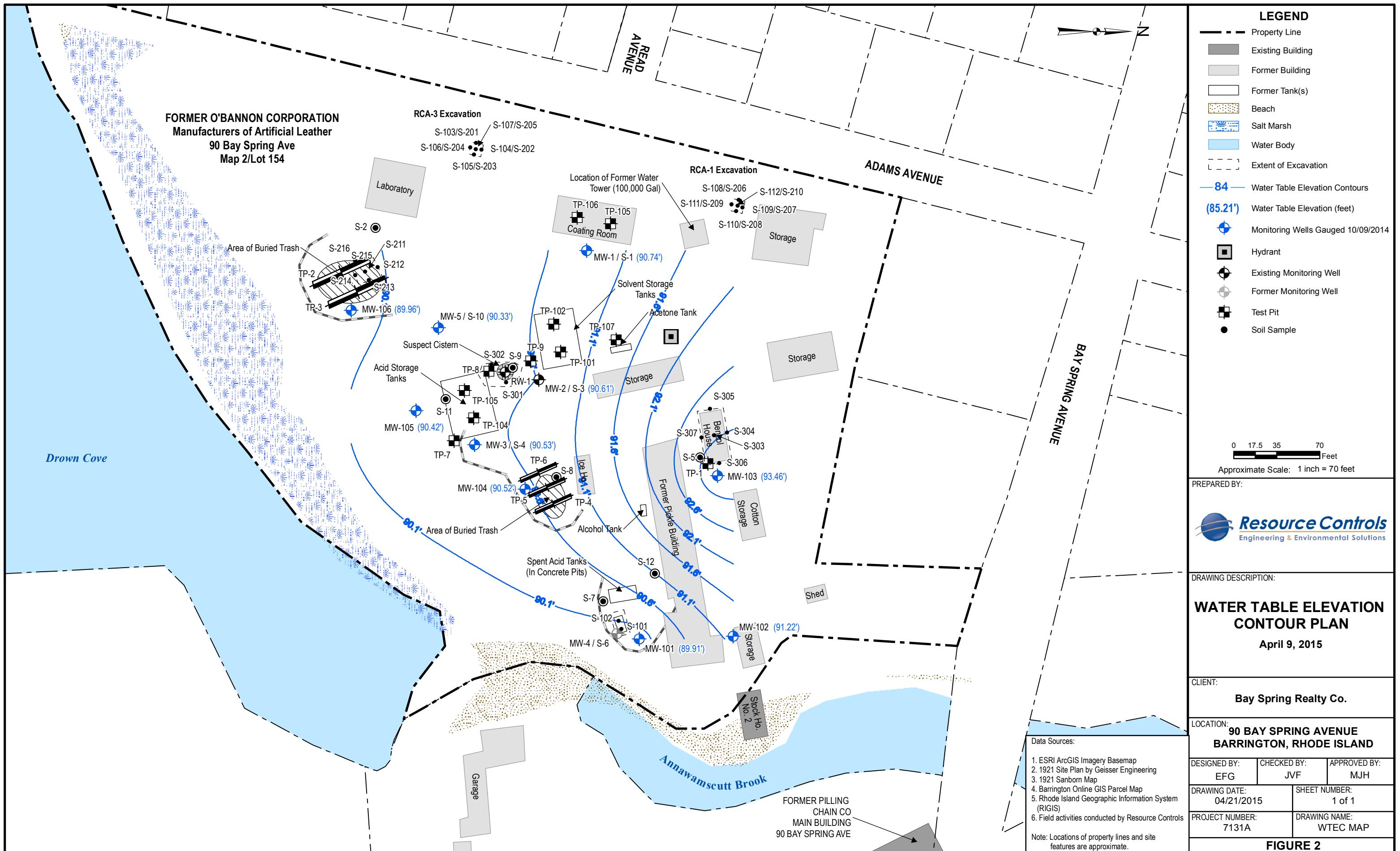
#### 90 BAY SPRING AVENUE BARRINGTON, RHODE ISLAND



DRAWN BY	PROJECT	PRINT DATE	FIGURE
EFG	7131A	04/18/2014	1

**ATTACHMENT 2**

**Water Table Elevation Contour Plan**



**ATTACHMENT 3**  
**Well Monitoring Form**



## WELL MONITORING FORM

**Project:** Bay Spring Realty Co., Barrington

**Project No.:** 7131A

**Location:** 90 Bay Spring Avenue

**Date:** 04/09/15

**Operator:** EFG

**Method:** Interface Probe

Well ID	Top of Casing Elevation	Depth to LNAPL	Depth to Water	Depth to Bottom	LNAPL Thickness	LNAPL Specific Gravity	Water Equivalent	Corrected Depth to Water	Corrected Water Table Elevation
	(feet)	(feet)	(feet)	(feet)	(feet)	(unitless)	(feet)	(feet)	(feet)
MW-1	101.78	ND	11.04	17.37	ND	NA	NA	NA	90.74
MW-2	101.97	ND	11.36	12.59	ND	NA	NA	NA	90.61
MW-3	95.66	ND	5.13	13.21	ND	NA	NA	NA	90.53
MW-5	98.61	ND	8.28	14.30	ND	NA	NA	NA	90.33
MW-101	96.29	ND	6.38	12.48	ND	NA	NA	NA	89.91
MW-102	97.05	ND	5.83	14.85	ND	NA	NA	NA	91.22
MW-103	100.98	ND	7.52	12.89	ND	NA	NA	NA	93.46
MW-104	96.20	ND	5.68	13.79	ND	NA	NA	NA	90.52
MW-105	97.18	ND	6.76	12.73	ND	NA	NA	NA	90.42
MW-106	97.50	ND	7.54	14.59	ND	NA	NA	NA	89.96

*NM = Not Measured; ND = None Detected at >0.01 feet; NA = Not Applicable; DRY = No Water in Well*

**NOTES:**

**ATTACHMENT 4**

**Table 1 – Summary of Groundwater Analytical Results**

TABLE 2  
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

BAY SPRING REALTY CO.  
90 BAY SPRING AVENUE  
BARRINGTON, RHODE ISLAND

Sample Identification Date Sampled	AOC-1: UST Area				AOC-4: Waste Disposal Area No. 1				AOC-5: Cistern Area								AOC-6: Drum Storage Area/Benzol House		AOC-7: Waste Disposal Area No. 2				AOC-8: Acid Storage Tanks				AOC-9: Solvent Storage Tanks				AOC-10: Coating Room		RIDEM Groundwater Objectives			
	MW-4 11/26/2012 2/13/2013	MW-101 6/6/2014 10/9/2014	MW-102 4/9/2015 6/6/2014	MW-106 6/6/2014 10/9/2014	MW-108 4/9/2015 11/26/2012	MW-3 6/6/2014 2/13/2013	MW-109 10/9/2014 4/9/2015	MW-5 11/26/2012 6/6/2014	MW-10 6/6/2014 10/9/2014	MW-105 4/9/2015 5/30/2014	RW-1 6/6/2014 10/9/2014	MW-104 6/6/2014 10/9/2014	MW-105 4/9/2015 10/9/2014	MW-103 6/6/2014 10/9/2014	MW-104 4/9/2015 10/9/2014	MW-3 11/26/2012 2/13/2013	MW-10 6/6/2014 10/9/2014	MW-105 4/9/2015 10/9/2014	MW-2 11/26/2012 6/6/2014	MW-1 11/26/2012 6/6/2014	RIDEM GA Objectives GB UCLs															
<b>VOLATILE ORGANIC COMPOUNDS (ug/L)</b>																																				
1,1,1-Trichloroethane	<1	-	-	-	-	-	-	1.2	-	-	<1	<0.010	<1	43,000	2.9	0.033	23.2	-	2.7	-	-	1.2	-	<1	0.0021	<1	<0.1	<1	<1	-	200	68,000				
1,1,2-Trichloroethane	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	140	<1	<0.010	<1	-	<1	-	-	<1	-	<1	<0.010	<1	<0.1	<1	<1	-	5	NS				
1,1,2,2-Tetrafluoroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NS	NS					
1,1-Dichloroethane	<1	-	-	-	-	-	-	3	-	-	<1	0.0018	<1	<1	<0.010	<1	25,000	14.3	0.0261	7	-	-	-	3	-	<1	0.0018	<1	<0.1	<1	<1	-	7	23,000		
1,2,4-Trimethylbenzene	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	4.5	3.2	0.011	1.2	-	<1	<0.010	<1	-	62.7	-	-	1	-	4.1	<0.010	<1	<0.1	<1	<1	-	NS	NS
1,2-Dibromo-3-Chloropropane	<5	-	-	-	-	-	-	<5	-	-	<5	<0.050	<5	<5	<0.050	<5	1.1	-	<5	<0.050	<5	-	<5	-	<5	<0.050	<5	<0.5	<5	<5	-	0.2	NS			
1,2-Dibromoethane	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	<1	<0.010	<1	<1.0	<1	<0.010	<1	-	<1	-	<1	<0.010	<1	<0.1	<1	<1	-	0.05	NS				
1,2-Dichloroethane	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	<1	<0.010	<1	110	<1	<0.010	<1	-	<1	-	<1	<0.010	<1	<0.1	<1	<1	-	5	67,000				
1,3,5-Trimethylbenzene	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	139	79.5	0.0084	37.4	-	3.1	<0.010	<1	-	285	-	-	<1	-	<0.010	<1	<0.1	<1	<1	-	NS	NS	
2-Butanone	<10	-	-	-	-	-	-	<10	-	-	<10	<0.010	<10	<10	<0.010	<10	820	<10	<0.010	<10	-	<10	-	<10	<0.010	<10	<10	<10	-	NS	NS					
2-Hexanone	<10	-	-	-	-	-	-	<10	-	-	<10	<0.010	<10	29	-	<10	<0.010	<10	-	<10	-	<10	<0.010	<10	<10	<10	-	NS	NS							
4-Isopropyltoluene	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	9.4	8.9	0.0058	6.5	-	<1	<0.010	<1	-	8	-	-	<1	-	<0.010	<1	<0.1	<1	<1	-	NS	NS	
4-Methyl-2-Pentanone	<25	-	-	-	-	-	-	<25	-	-	<25	<0.025	<25	130	<25	<0.0250	<25	-	<25	-	<25	<0.0250	<25	<25	<25	-	25	-	NS	NS						
Acetone	<10	-	-	-	-	-	-	<10	-	-	<10	<0.010	<10	102	<10	<0.010	<10	290	<10	<0.010	<10	-	<10	-	<10	<0.010	<10	104	<10	<10	-	NS	NS			
Benzene	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	1.1	-	<0.010	<1	120	<1	<0.010	<1	-	102	-	<10	<0.010	<10	10.4	<10	<10	-	18,000	NS			
Carbon Disulfide	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	<1	<0.010	<1	1.6	<1	<0.010	<1	-	1.1	-	3.4	<1	<0.010	<1	<0.1	<1	<1	-	NS	NS			
Carbon Tetrachloride	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	1,400	<1	<0.010	<1	2.6	<1	<0.010	<1	-	1.6	-	<1	<0.010	<1	<0.1	<1	<1	-	5	NS			
Chloroethane	<2	-	-	-	-	-	-	<2	-	-	<2	<0.020	<2	170	<2	<0.020	<2	-	<2	-	<2	<0.020	<2	<2	<2	-	2	NS								
Chlorofrom	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	16	<1	<0.010	<1	830	3.8	<0.010	<1	-	1	-	<1	<0.010	<1	<0.1	<1	<1	-	70	69,000			
cis-1,2-Dichloroethene	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	<1	<0.010	<1	7,800	<1	<0.010	<1	-	4.4	-	<1	<0.010	<1	<0.1	<1	<1	-	700	16,000				
Ethylbenzene	<1	-	-	-	-	-	-	<1	-	-	<1	<0.010	<1	<1	<0.010	<1	40	<1	<0.010	<1	-	3.4	-	<												

**ATTACHMENT 5**  
**Laboratory Report**



**CERTIFICATE OF ANALYSIS**

Julie Freshman  
Resource Controls  
474 Broadway  
Pawtucket, RI 02860-1377

**RE: Bay Spring Realty (7131A)**  
**ESS Laboratory Work Order Number: 1504211**

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard  
Laboratory Director

**REVIEWED**

**By ESS Laboratory at 2:48 pm, Apr 16, 2015**

**Analytical Summary**

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**SAMPLE RECEIPT**

The following samples were received on April 09, 2015 for the analyses specified on the enclosed Chain of Custody Record.

<b>Lab Number</b>	<b>Sample Name</b>	<b>Matrix</b>	<b>Analysis</b>
1504211-01	MW-5	Ground Water	8260B
1504211-02	MW-105	Ground Water	8260B
1504211-03	MW-3	Ground Water	6010C, 7010, 7470A, 8260B
1504211-04	MW-104	Ground Water	6010C, 7010, 7470A
1504211-05	MW-106	Ground Water	6010C, 7010, 7470A
1504211-06	MW-101	Ground Water	6010C, 7010, 7470A



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**PROJECT NARRATIVE**

**8260B Volatile Organic Compounds**

CD51032-BS1

Blank Spike recovery is above upper control limit (B+).

Acetone (140% @ 70-130%)

CD51032-BSD1

Relative percent difference for duplicate is outside of criteria (D+).

Acetone (31% @ 25%)

**No other observations noted.**

**End of Project Narrative.**

**DATA USABILITY LINKS**

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**CURRENT SW-846 METHODOLOGY VERSIONS**

**Analytical Methods**

1010A - Flashpoint  
6010C - ICP  
6020A - ICP MS  
7010 - Graphite Furnace  
7196A - Hexavalent Chromium  
7470A - Aqueous Mercury  
7471B - Solid Mercury  
8011 - EDB/DBCP/TCP  
8015D - GRO/DRO  
8081B - Pesticides  
8082A - PCB  
8100M - TPH  
8151A - Herbicides  
8260B - VOA  
8270D - SVOA  
8270D SIM - SVOA Low Level  
9014 - Cyanide  
9038 - Sulfate  
9040C - Aqueous pH  
9045D - Solid pH (Corrosivity)  
9050A - Specific Conductance  
9056A - Anions (IC)  
9060A - TOC  
9095B - Paint Filter  
MADEP 04-1.1 - EPH / VPH

**Prep Methods**

3005A - Aqueous ICP and Graphite Furnace Digestion  
3020A - Aqueous ICP MS Digestion  
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion  
3060A - Solid Hexavalent Chromium Digestion  
3510C - Separatory Funnel Extraction  
3520C - Liquid / Liquid Extraction  
3540C - Manual Soxhlet Extraction  
3541 - Automated Soxhlet Extraction  
3546 - Microwave Extraction  
3580A - Waste Dilution  
5030B - Aqueous Purge and Trap  
5030C - Aqueous Purge and Trap  
5035 - Solid Purge and Trap



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-5

Date Sampled: 04/09/15 11:05

Percent Solids: N/A

Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-01

Sample Matrix: Ground Water

Units: mg/L

Analyst: MD

**8260B Volatile Organic Compounds**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyzed</b>	<b>Sequence</b>	<b>Batch</b>
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,1-Dichloroethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,1-Dichloroethene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,1-Dichloropropene	ND (0.0020)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
<b>1,2,4-Trimethylbenzene</b>	<b>0.0012 (0.0010)</b>		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,2-Dibromoethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,2-Dichloroethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,2-Dichloropropane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
<b>1,3,5-Trimethylbenzene</b>	<b>0.0374 (0.0010)</b>		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,3-Dichloropropane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1,4-Dioxane - Screen	ND (0.500)		8260B		1	04/10/15 23:31	CYD0156	CD51032
1-Chlorohexane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
2,2-Dichloropropane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
2-Butanone	ND (0.0100)		8260B		1	04/10/15 23:31	CYD0156	CD51032
2-Chlorotoluene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
2-Hexanone	ND (0.0100)		8260B		1	04/10/15 23:31	CYD0156	CD51032
4-Chlorotoluene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
<b>4-Isopropyltoluene</b>	<b>0.0065 (0.0010)</b>		8260B		1	04/10/15 23:31	CYD0156	CD51032
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Acetone	ND (0.0100)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Benzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Bromobenzene	ND (0.0020)		8260B		1	04/10/15 23:31	CYD0156	CD51032



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-5

Date Sampled: 04/09/15 11:05

Percent Solids: N/A

Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-01

Sample Matrix: Ground Water

Units: mg/L

Analyst: MD

**8260B Volatile Organic Compounds**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyzed</b>	<b>Sequence</b>	<b>Batch</b>
Bromochloromethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Bromodichloromethane	ND (0.0006)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Bromoform	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Bromomethane	ND (0.0020)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Carbon Disulfide	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Carbon Tetrachloride	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Chlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Chloroethane	ND (0.0020)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Chloroform	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Chloromethane	ND (0.0020)		8260B		1	04/10/15 23:31	CYD0156	CD51032
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Dibromochloromethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Dibromomethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Dichlorodifluoromethane	ND (0.0020)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Diethyl Ether	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Di-isopropyl ether	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Ethylbenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Hexachlorobutadiene	ND (0.0006)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Hexachloroethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Isopropylbenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Methylene Chloride	ND (0.0020)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Naphthalene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
n-Butylbenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
n-Propylbenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
sec-Butylbenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Styrene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
tert-Butylbenzene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Tetrachloroethene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-5

Date Sampled: 04/09/15 11:05

Percent Solids: N/A

Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-01

Sample Matrix: Ground Water

Units: mg/L

Analyst: MD

**8260B Volatile Organic Compounds**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyzed</b>	<b>Sequence</b>	<b>Batch</b>
Tetrahydrofuran	ND (0.0050)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Toluene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Trichloroethene	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Trichlorofluoromethane	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Vinyl Acetate	ND (0.0050)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Vinyl Chloride	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Xylene O	ND (0.0010)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Xylene P,M	ND (0.0020)		8260B		1	04/10/15 23:31	CYD0156	CD51032
Xylenes (Total)	ND (0.0020)		8260B		1	04/10/15 23:31		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			04/10/15 23:31		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	129 %		70-130
Surrogate: 4-Bromofluorobenzene	123 %		70-130
Surrogate: Dibromofluoromethane	121 %		70-130
Surrogate: Toluene-d8	118 %		70-130



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-105

Date Sampled: 04/09/15 11:10

Percent Solids: N/A

Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-02

Sample Matrix: Ground Water

Units: mg/L

Analyst: MD

**8260B Volatile Organic Compounds**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyzed</b>	<b>Sequence</b>	<b>Batch</b>
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
<b>1,1,1-Trichloroethane</b>	<b>0.0232 (0.0010)</b>		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
<b>1,1-Dichloroethane</b>	<b>0.0070 (0.0010)</b>		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,1-Dichloroethene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,1-Dichloropropene	ND (0.0020)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,2-Dibromoethane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,2-Dichloroethane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,2-Dichloropropane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,3-Dichloropropane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1,4-Dioxane - Screen	ND (0.500)		8260B		1	04/10/15 23:56	CYD0156	CD51032
1-Chlorohexane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
2,2-Dichloropropane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
2-Butanone	ND (0.0100)		8260B		1	04/10/15 23:56	CYD0156	CD51032
2-Chlorotoluene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
2-Hexanone	ND (0.0100)		8260B		1	04/10/15 23:56	CYD0156	CD51032
4-Chlorotoluene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
4-Isopropyltoluene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Acetone	ND (0.0100)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Benzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Bromobenzene	ND (0.0020)		8260B		1	04/10/15 23:56	CYD0156	CD51032



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-105

Date Sampled: 04/09/15 11:10

Percent Solids: N/A

Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-02

Sample Matrix: Ground Water

Units: mg/L

Analyst: MD

**8260B Volatile Organic Compounds**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyzed</b>	<b>Sequence</b>	<b>Batch</b>
Bromochloromethane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Bromodichloromethane	ND (0.0006)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Bromoform	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Bromomethane	ND (0.0020)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Carbon Disulfide	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Carbon Tetrachloride	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Chlorobenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Chloroethane	ND (0.0020)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Chloroform	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Chloromethane	ND (0.0020)		8260B		1	04/10/15 23:56	CYD0156	CD51032
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Dibromochloromethane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Dibromomethane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Dichlorodifluoromethane	ND (0.0020)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Diethyl Ether	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Di-isopropyl ether	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Ethylbenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Hexachlorobutadiene	ND (0.0006)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Hexachloroethane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Isopropylbenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Methylene Chloride	ND (0.0020)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Naphthalene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
n-Butylbenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
n-Propylbenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
sec-Butylbenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Styrene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
tert-Butylbenzene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Tetrachloroethene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-105

Date Sampled: 04/09/15 11:10

Percent Solids: N/A

Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-02

Sample Matrix: Ground Water

Units: mg/L

Analyst: MD

**8260B Volatile Organic Compounds**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyzed</b>	<b>Sequence</b>	<b>Batch</b>
Tetrahydrofuran	ND (0.0050)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Toluene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	04/10/15 23:56	CYD0156	CD51032
<b>Trichloroethene</b>	<b>0.0046 (0.0010)</b>		8260B		1	04/10/15 23:56	CYD0156	CD51032
Trichlorofluoromethane	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Vinyl Acetate	ND (0.0050)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Vinyl Chloride	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Xylene O	ND (0.0010)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Xylene P,M	ND (0.0020)		8260B		1	04/10/15 23:56	CYD0156	CD51032
Xylenes (Total)	ND (0.0020)		8260B		1	04/10/15 23:56		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			04/10/15 23:56		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	108 %		70-130
Surrogate: 4-Bromofluorobenzene	118 %		70-130
Surrogate: Dibromofluoromethane	106 %		70-130
Surrogate: Toluene-d8	119 %		70-130



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-3

Date Sampled: 04/09/15 12:10

Percent Solids: N/A

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-03

Sample Matrix: Ground Water

Units: mg/L

Extraction Method: 3005A/200.7

**Dissolved Metals**

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	ND (0.002)		7010		1	KJK	04/14/15 13:26	50	25	CD51104
Barium	<b>0.090</b> (0.025)		6010C		1	KJK	04/14/15 2:13	50	25	CD51104
Cadmium	ND (0.0025)		6010C		1	KJK	04/14/15 2:13	50	25	CD51104
Chromium	ND (0.010)		6010C		1	KJK	04/14/15 2:13	50	25	CD51104
Lead	<b>0.062</b> (0.010)		6010C		1	KJK	04/14/15 2:13	50	25	CD51104
Mercury	ND (0.00020)		7470A		1	BJV	04/13/15 12:23	20	40	CD51106
Selenium	ND (0.025)		6010C		1	KJK	04/14/15 2:13	50	25	CD51104
Silver	ND (0.005)		6010C		1	KJK	04/14/15 2:13	50	25	CD51104



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-3

Date Sampled: 04/09/15 12:10

Percent Solids: N/A

Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-03

Sample Matrix: Ground Water

Units: mg/L

Analyst: MD

**8260B Volatile Organic Compounds**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyzed</b>	<b>Sequence</b>	<b>Batch</b>
1,1,1,2-Tetrachloroethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,1,1-Trichloroethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,1,2,2-Tetrachloroethane	ND (0.0005)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,1,2-Trichloroethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,1-Dichloroethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,1-Dichloroethene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,1-Dichloropropene	ND (0.0020)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,2,3-Trichlorobenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,2,3-Trichloropropane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,2,4-Trichlorobenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,2,4-Trimethylbenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,2-Dibromo-3-Chloropropane	ND (0.0050)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,2-Dibromoethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,2-Dichlorobenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,2-Dichloroethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,2-Dichloropropane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,3,5-Trimethylbenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,3-Dichlorobenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,3-Dichloropropane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,4-Dichlorobenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1,4-Dioxane - Screen	ND (0.500)		8260B		1	04/11/15 0:21	CYD0156	CD51032
1-Chlorohexane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
2,2-Dichloropropane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
2-Butanone	ND (0.0100)		8260B		1	04/11/15 0:21	CYD0156	CD51032
2-Chlorotoluene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
2-Hexanone	ND (0.0100)		8260B		1	04/11/15 0:21	CYD0156	CD51032
4-Chlorotoluene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
4-Isopropyltoluene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
4-Methyl-2-Pentanone	ND (0.0250)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Acetone	ND (0.0100)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Benzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Bromobenzene	ND (0.0020)		8260B		1	04/11/15 0:21	CYD0156	CD51032



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-3

Date Sampled: 04/09/15 12:10

Percent Solids: N/A

Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-03

Sample Matrix: Ground Water

Units: mg/L

Analyst: MD

**8260B Volatile Organic Compounds**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyzed</b>	<b>Sequence</b>	<b>Batch</b>
Bromochloromethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Bromodichloromethane	ND (0.0006)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Bromoform	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Bromomethane	ND (0.0020)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Carbon Disulfide	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Carbon Tetrachloride	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Chlorobenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Chloroethane	ND (0.0020)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Chloroform	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Chloromethane	ND (0.0020)		8260B		1	04/11/15 0:21	CYD0156	CD51032
cis-1,2-Dichloroethene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
cis-1,3-Dichloropropene	ND (0.0004)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Dibromochloromethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Dibromomethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Dichlorodifluoromethane	ND (0.0020)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Diethyl Ether	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Di-isopropyl ether	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Ethyl tertiary-butyl ether	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Ethylbenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Hexachlorobutadiene	ND (0.0006)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Hexachloroethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Isopropylbenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Methyl tert-Butyl Ether	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Methylene Chloride	ND (0.0020)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Naphthalene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
n-Butylbenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
n-Propylbenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
sec-Butylbenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Styrene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
tert-Butylbenzene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Tertiary-amyl methyl ether	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Tetrachloroethene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-3

Date Sampled: 04/09/15 12:10

Percent Solids: N/A

Initial Volume: 5

Final Volume: 5

Extraction Method: 5030B

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-03

Sample Matrix: Ground Water

Units: mg/L

Analyst: MD

**8260B Volatile Organic Compounds**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyzed</b>	<b>Sequence</b>	<b>Batch</b>
Tetrahydrofuran	ND (0.0050)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Toluene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
trans-1,2-Dichloroethene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
trans-1,3-Dichloropropene	ND (0.0004)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Trichloroethene	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Trichlorofluoromethane	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Vinyl Acetate	ND (0.0050)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Vinyl Chloride	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Xylene O	ND (0.0010)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Xylene P,M	ND (0.0020)		8260B		1	04/11/15 0:21	CYD0156	CD51032
Xylenes (Total)	ND (0.0020)		8260B		1	04/11/15 0:21		[CALC]
Trihalomethanes (Total)	ND (0.0010)		8260B			04/11/15 0:21		[CALC]

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	114 %		70-130
Surrogate: 4-Bromofluorobenzene	115 %		70-130
Surrogate: Dibromofluoromethane	112 %		70-130
Surrogate: Toluene-d8	121 %		70-130



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-104

Date Sampled: 04/09/15 12:15

Percent Solids: N/A

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-04

Sample Matrix: Ground Water

Units: mg/L

Extraction Method: 3005A/200.7

**Dissolved Metals**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyst</b>	<b>Analyzed</b>	<b>I/V</b>	<b>F/V</b>	<b>Batch</b>
Arsenic	ND (0.002)		7010		1	KJK	04/14/15 13:32	50	25	CD51104
Barium	ND (0.025)		6010C		1	KJK	04/14/15 2:17	50	25	CD51104
Cadmium	ND (0.0025)		6010C		1	KJK	04/14/15 2:17	50	25	CD51104
Chromium	ND (0.010)		6010C		1	KJK	04/14/15 2:17	50	25	CD51104
Lead	ND (0.010)		6010C		1	KJK	04/14/15 2:17	50	25	CD51104
Mercury	ND (0.00020)		7470A		1	BJV	04/13/15 12:25	20	40	CD51106
Selenium	ND (0.025)		6010C		1	KJK	04/14/15 2:17	50	25	CD51104
Silver	ND (0.005)		6010C		1	KJK	04/14/15 2:17	50	25	CD51104



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-106

Date Sampled: 04/09/15 13:30

Percent Solids: N/A

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-05

Sample Matrix: Ground Water

Units: mg/L

Extraction Method: 3005A/200.7

**Dissolved Metals**

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	ND (0.002)		7010		1	KJK	04/14/15 13:37	50	25	CD51104
<b>Barium</b>	<b>0.026 (0.025)</b>		6010C		1	KJK	04/14/15 19:21	50	25	CD51104
Cadmium	ND (0.0025)		6010C		1	KJK	04/14/15 19:21	50	25	CD51104
Chromium	ND (0.010)		6010C		1	KJK	04/14/15 19:21	50	25	CD51104
Lead	ND (0.010)		6010C		1	KJK	04/14/15 19:21	50	25	CD51104
Mercury	ND (0.00020)		7470A		1	BJV	04/13/15 12:27	20	40	CD51106
Selenium	ND (0.025)		6010C		1	KJK	04/14/15 19:21	50	25	CD51104
Silver	ND (0.005)		6010C		1	KJK	04/14/15 19:21	50	25	CD51104



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

Client Sample ID: MW-101

Date Sampled: 04/09/15 13:45

Percent Solids: N/A

ESS Laboratory Work Order: 1504211

ESS Laboratory Sample ID: 1504211-06

Sample Matrix: Ground Water

Units: mg/L

Extraction Method: 3005A/200.7

**Dissolved Metals**

<b>Analyte</b>	<b>Results (MRL)</b>	<b>MDL</b>	<b>Method</b>	<b>Limit</b>	<b>DF</b>	<b>Analyst</b>	<b>Analyzed</b>	<b>I/V</b>	<b>F/V</b>	<b>Batch</b>
Arsenic	<b>0.009 (0.002)</b>		7010		1	KJK	04/14/15 13:43	50	25	CD51104
Barium	ND (0.025)		6010C		1	KJK	04/14/15 2:25	50	25	CD51104
Cadmium	ND (0.0025)		6010C		1	KJK	04/14/15 2:25	50	25	CD51104
Chromium	ND (0.010)		6010C		1	KJK	04/14/15 2:25	50	25	CD51104
Lead	<b>0.036 (0.010)</b>		6010C		1	KJK	04/14/15 2:25	50	25	CD51104
Mercury	ND (0.00020)		7470A		1	BJV	04/13/15 12:30	20	40	CD51106
Selenium	ND (0.025)		6010C		1	KJK	04/14/15 2:25	50	25	CD51104
Silver	ND (0.005)		6010C		1	KJK	04/14/15 2:25	50	25	CD51104



# ESS Laboratory

*Division of Thielsch Engineering, Inc.*

# BAL Laboratory

*The Microbiology Division  
of Thielsch Engineering, Inc.*



## CERTIFICATE OF ANALYSIS

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

## Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Qualifier
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### Dissolved Metals

#### Batch CD51104 - 3005A/200.7

##### Blank

Arsenic	ND	0.002	mg/L
Barium	ND	0.025	mg/L
Cadmium	ND	0.0025	mg/L
Chromium	ND	0.010	mg/L
Lead	ND	0.010	mg/L
Selenium	ND	0.025	mg/L
Silver	ND	0.005	mg/L

##### LCS

Arsenic	0.218	0.050	mg/L	0.2500	87	80-120
Barium	0.213	0.025	mg/L	0.2500	85	80-120
Cadmium	0.103	0.0025	mg/L	0.1250	82	80-120
Chromium	0.213	0.010	mg/L	0.2500	85	80-120
Lead	0.212	0.010	mg/L	0.2500	85	80-120
Selenium	0.404	0.025	mg/L	0.5000	81	80-120
Silver	0.107	0.005	mg/L	0.1250	86	80-120

##### LCS Dup

Arsenic	0.242	0.050	mg/L	0.2500	97	80-120	10	20
Barium	0.231	0.025	mg/L	0.2500	92	80-120	8	20
Cadmium	0.110	0.0025	mg/L	0.1250	88	80-120	7	20
Chromium	0.229	0.010	mg/L	0.2500	92	80-120	7	20
Lead	0.227	0.010	mg/L	0.2500	91	80-120	7	20
Selenium	0.436	0.025	mg/L	0.5000	87	80-120	8	20
Silver	0.114	0.005	mg/L	0.1250	91	80-120	7	20

#### Batch CD51106 - 245.1/7470A

##### Blank

Mercury	ND	0.00020	mg/L
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##### Blank

Mercury	ND	0.00020	mg/L
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##### LCS

Mercury	0.00589	0.00020	mg/L	0.006000	98	80-120
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##### LCS Dup

Mercury	0.00589	0.00020	mg/L	0.006000	98	80-120	0.05	20
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### 8260B Volatile Organic Compounds

#### Batch CD51032 - 5030B

##### Blank

1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L
1,1,1-Trichloroethane	ND	0.0010	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,2-Trichloroethane	ND	0.0010	mg/L
1,1-Dichloroethane	ND	0.0010	mg/L
1,1-Dichloroethene	ND	0.0010	mg/L



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**8260B Volatile Organic Compounds**

**Batch CD51032 - 5030B**

1,1-Dichloropropene	ND	0.0020	mg/L
1,2,3-Trichlorobenzene	ND	0.0010	mg/L
1,2,3-Trichloropropane	ND	0.0010	mg/L
1,2,4-Trichlorobenzene	ND	0.0010	mg/L
1,2,4-Trimethylbenzene	ND	0.0010	mg/L
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L
1,2-Dibromoethane	ND	0.0010	mg/L
1,2-Dichlorobenzene	ND	0.0010	mg/L
1,2-Dichloroethane	ND	0.0010	mg/L
1,2-Dichloropropane	ND	0.0010	mg/L
1,3,5-Trimethylbenzene	ND	0.0010	mg/L
1,3-Dichlorobenzene	ND	0.0010	mg/L
1,3-Dichloropropane	ND	0.0010	mg/L
1,4-Dichlorobenzene	ND	0.0010	mg/L
1,4-Dioxane - Screen	ND	0.500	mg/L
1-Chlorohexane	ND	0.0010	mg/L
2,2-Dichloropropane	ND	0.0010	mg/L
2-Butanone	ND	0.0100	mg/L
2-Chlorotoluene	ND	0.0010	mg/L
2-Hexanone	ND	0.0100	mg/L
4-Chlorotoluene	ND	0.0010	mg/L
4-Isopropyltoluene	ND	0.0010	mg/L
4-Methyl-2-Pentanone	ND	0.0250	mg/L
Acetone	ND	0.0100	mg/L
Benzene	ND	0.0010	mg/L
Bromobenzene	ND	0.0020	mg/L
Bromochloromethane	ND	0.0010	mg/L
Bromodichloromethane	ND	0.0006	mg/L
Bromoform	ND	0.0010	mg/L
Bromomethane	ND	0.0020	mg/L
Carbon Disulfide	ND	0.0010	mg/L
Carbon Tetrachloride	ND	0.0010	mg/L
Chlorobenzene	ND	0.0010	mg/L
Chloroethane	ND	0.0020	mg/L
Chloroform	ND	0.0010	mg/L
Chloromethane	ND	0.0020	mg/L
cis-1,2-Dichloroethene	ND	0.0010	mg/L
cis-1,3-Dichloropropene	ND	0.0004	mg/L
Dibromochloromethane	ND	0.0010	mg/L
Dibromomethane	ND	0.0010	mg/L
Dichlorodifluoromethane	ND	0.0020	mg/L
Diethyl Ether	ND	0.0010	mg/L
Di-isopropyl ether	ND	0.0010	mg/L
Ethyl tertiary-butyl ether	ND	0.0010	mg/L
Ethylbenzene	ND	0.0010	mg/L



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Qualifier
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**8260B Volatile Organic Compounds**

**Batch CD51032 - 5030B**

Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0020	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0311		mg/L	0.02500		124	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0286		mg/L	0.02500		114	70-130			
<i>Surrogate: Dibromofluoromethane</i>	0.0300		mg/L	0.02500		120	70-130			
<i>Surrogate: Toluene-d8</i>	0.0304		mg/L	0.02500		122	70-130			

**LCS**

1,1,1,2-Tetrachloroethane	10.4	ug/L	10.00	104	70-130
1,1,1-Trichloroethane	10.4	ug/L	10.00	104	70-130
1,1,2,2-Tetrachloroethane	9.81	ug/L	10.00	98	70-130
1,1,2-Trichloroethane	9.36	ug/L	10.00	94	70-130
1,1-Dichloroethane	9.30	ug/L	10.00	93	70-130
1,1-Dichloroethene	8.94	ug/L	10.00	89	70-130
1,1-Dichloropropene	9.42	ug/L	10.00	94	70-130
1,2,3-Trichlorobenzene	9.63	ug/L	10.00	96	70-130
1,2,3-Trichloropropane	9.21	ug/L	10.00	92	70-130
1,2,4-Trichlorobenzene	9.42	ug/L	10.00	94	70-130
1,2,4-Trimethylbenzene	10.2	ug/L	10.00	102	70-130
1,2-Dibromo-3-Chloropropane	8.68	ug/L	10.00	87	70-130
1,2-Dibromoethane	10.1	ug/L	10.00	101	70-130
1,2-Dichlorobenzene	9.52	ug/L	10.00	95	70-130
1,2-Dichloroethane	10.6	ug/L	10.00	106	70-130
1,2-Dichloropropane	8.90	ug/L	10.00	89	70-130
1,3,5-Trimethylbenzene	10.8	ug/L	10.00	108	70-130



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**8260B Volatile Organic Compounds**

**Batch CD51032 - 5030B**

1,3-Dichlorobenzene	9.71		ug/L	10.00	97	70-130				
1,3-Dichloropropane	10.6		ug/L	10.00	106	70-130				
1,4-Dichlorobenzene	9.95		ug/L	10.00	100	70-130				
1,4-Dioxane - Screen	179		ug/L	200.0	89	0-332				
1-Chlorohexane	9.10		ug/L	10.00	91	70-130				
2,2-Dichloropropane	10.6		ug/L	10.00	106	70-130				
2-Butanone	54.8		ug/L	50.00	110	70-130				
2-Chlorotoluene	10.1		ug/L	10.00	101	70-130				
2-Hexanone	55.2		ug/L	50.00	110	70-130				
4-Chlorotoluene	10.2		ug/L	10.00	102	70-130				
4-Isopropyltoluene	9.89		ug/L	10.00	99	70-130				
4-Methyl-2-Pentanone	49.5		ug/L	50.00	99	70-130				
Acetone	69.8		ug/L	50.00	140	70-130				B+
Benzene	9.70		ug/L	10.00	97	70-130				
Bromobenzene	9.61		ug/L	10.00	96	70-130				
Bromochloromethane	9.96		ug/L	10.00	100	70-130				
Bromodichloromethane	9.62		ug/L	10.00	96	70-130				
Bromoform	10.2		ug/L	10.00	102	70-130				
Bromomethane	10.8		ug/L	10.00	108	70-130				
Carbon Disulfide	8.95		ug/L	10.00	90	70-130				
Carbon Tetrachloride	8.35		ug/L	10.00	84	70-130				
Chlorobenzene	9.81		ug/L	10.00	98	70-130				
Chloroethane	9.35		ug/L	10.00	94	70-130				
Chloroform	10.1		ug/L	10.00	101	70-130				
Chloromethane	10.5		ug/L	10.00	105	70-130				
cis-1,2-Dichloroethene	9.89		ug/L	10.00	99	70-130				
cis-1,3-Dichloropropene	9.84		ug/L	10.00	98	70-130				
Dibromochloromethane	9.53		ug/L	10.00	95	70-130				
Dibromomethane	9.86		ug/L	10.00	99	70-130				
Dichlorodifluoromethane	10.6		ug/L	10.00	106	70-130				
Diethyl Ether	9.80		ug/L	10.00	98	70-130				
Di-isopropyl ether	9.16		ug/L	10.00	92	70-130				
Ethyl tertiary-butyl ether	9.36		ug/L	10.00	94	70-130				
Ethylbenzene	9.93		ug/L	10.00	99	70-130				
Hexachlorobutadiene	10.4		ug/L	10.00	104	70-130				
Hexachloroethane	9.29		ug/L	10.00	93	70-130				
Isopropylbenzene	9.91		ug/L	10.00	99	70-130				
Methyl tert-Butyl Ether	9.48		ug/L	10.00	95	70-130				
Methylene Chloride	8.89		ug/L	10.00	89	70-130				
Naphthalene	8.00		ug/L	10.00	80	70-130				
n-Butylbenzene	9.99		ug/L	10.00	100	70-130				
n-Propylbenzene	9.82		ug/L	10.00	98	70-130				
sec-Butylbenzene	10.2		ug/L	10.00	102	70-130				
Styrene	9.44		ug/L	10.00	94	70-130				
tert-Butylbenzene	9.85		ug/L	10.00	98	70-130				



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**8260B Volatile Organic Compounds**

**Batch CD51032 - 5030B**

Tertiary-amyl methyl ether	9.20		ug/L	10.00	92	70-130				
Tetrachloroethene	9.56		ug/L	10.00	96	70-130				
Tetrahydrofuran	9.34		ug/L	10.00	93	70-130				
Toluene	10.3		ug/L	10.00	103	70-130				
trans-1,2-Dichloroethene	8.78		ug/L	10.00	88	70-130				
trans-1,3-Dichloropropene	9.86		ug/L	10.00	99	70-130				
Trichloroethene	9.89		ug/L	10.00	99	70-130				
Trichlorofluoromethane	9.22		ug/L	10.00	92	70-130				
Vinyl Acetate	11.9		ug/L	10.00	119	70-130				
Vinyl Chloride	11.0		ug/L	10.00	110	70-130				
Xylene O	10.4		ug/L	10.00	104	70-130				
Xylene P,M	21.0		ug/L	20.00	105	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0299</i>		mg/L	<i>0.02500</i>	<i>120</i>	<i>70-130</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0301</i>		mg/L	<i>0.02500</i>	<i>120</i>	<i>70-130</i>				
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0296</i>		mg/L	<i>0.02500</i>	<i>118</i>	<i>70-130</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0301</i>		mg/L	<i>0.02500</i>	<i>120</i>	<i>70-130</i>				

**LCS Dup**

1,1,1,2-Tetrachloroethane	10.4		ug/L	10.00	104	70-130	0	25		
1,1,1-Trichloroethane	10.4		ug/L	10.00	104	70-130	0.3	25		
1,1,2,2-Tetrachloroethane	9.50		ug/L	10.00	95	70-130	3	25		
1,1,2-Trichloroethane	9.35		ug/L	10.00	94	70-130	0.1	25		
1,1-Dichloroethane	9.07		ug/L	10.00	91	70-130	3	25		
1,1-Dichloroethene	8.98		ug/L	10.00	90	70-130	0.4	25		
1,1-Dichloropropene	9.50		ug/L	10.00	95	70-130	0.8	25		
1,2,3-Trichlorobenzene	9.30		ug/L	10.00	93	70-130	3	25		
1,2,3-Trichloropropane	8.99		ug/L	10.00	90	70-130	2	25		
1,2,4-Trichlorobenzene	9.11		ug/L	10.00	91	70-130	3	25		
1,2,4-Trimethylbenzene	10.2		ug/L	10.00	102	70-130	0.6	25		
1,2-Dibromo-3-Chloropropane	8.44		ug/L	10.00	84	70-130	3	25		
1,2-Dibromoethane	10.1		ug/L	10.00	101	70-130	0.2	25		
1,2-Dichlorobenzene	9.48		ug/L	10.00	95	70-130	0.4	25		
1,2-Dichloroethane	10.2		ug/L	10.00	102	70-130	3	25		
1,2-Dichloropropane	8.66		ug/L	10.00	87	70-130	3	25		
1,3,5-Trimethylbenzene	10.6		ug/L	10.00	106	70-130	2	25		
1,3-Dichlorobenzene	9.61		ug/L	10.00	96	70-130	1	25		
1,3-Dichloropropane	10.7		ug/L	10.00	107	70-130	1	25		
1,4-Dichlorobenzene	9.71		ug/L	10.00	97	70-130	2	25		
1,4-Dioxane - Screen	163		ug/L	200.0	81	0-332	9	200		
1-Chlorohexane	9.09		ug/L	10.00	91	70-130	0.1	25		
2,2-Dichloropropane	10.4		ug/L	10.00	104	70-130	2	25		
2-Butanone	47.0		ug/L	50.00	94	70-130	15	25		
2-Chlorotoluene	9.94		ug/L	10.00	99	70-130	1	25		
2-Hexanone	49.2		ug/L	50.00	98	70-130	12	25		
4-Chlorotoluene	10.5		ug/L	10.00	105	70-130	2	25		
4-Isopropyltoluene	9.88		ug/L	10.00	99	70-130	0.1	25		



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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**8260B Volatile Organic Compounds**

**Batch CD51032 - 5030B**

4-Methyl-2-Pentanone	47.7		ug/L	50.00	95	70-130	4	25		
Acetone	51.1		ug/L	50.00	102	70-130	31	25		D+
Benzene	9.48		ug/L	10.00	95	70-130	2	25		
Bromobenzene	9.78		ug/L	10.00	98	70-130	2	25		
Bromo-chloromethane	9.80		ug/L	10.00	98	70-130	2	25		
Bromo-dichloromethane	9.40		ug/L	10.00	94	70-130	2	25		
Bromoform	10.1		ug/L	10.00	101	70-130	1	25		
Bromomethane	10.5		ug/L	10.00	105	70-130	3	25		
Carbon Disulfide	8.91		ug/L	10.00	89	70-130	0.4	25		
Carbon Tetrachloride	8.16		ug/L	10.00	82	70-130	2	25		
Chlorobenzene	9.83		ug/L	10.00	98	70-130	0.2	25		
Chloroethane	10.3		ug/L	10.00	103	70-130	9	25		
Chloroform	9.91		ug/L	10.00	99	70-130	2	25		
Chloromethane	10.1		ug/L	10.00	101	70-130	4	25		
cis-1,2-Dichloroethene	9.57		ug/L	10.00	96	70-130	3	25		
cis-1,3-Dichloropropene	9.92		ug/L	10.00	99	70-130	0.8	25		
Dibromochloromethane	9.56		ug/L	10.00	96	70-130	0.3	25		
Dibromomethane	9.60		ug/L	10.00	96	70-130	3	25		
Dichlorodifluoromethane	10.2		ug/L	10.00	102	70-130	4	25		
Diethyl Ether	9.64		ug/L	10.00	96	70-130	2	25		
Di-isopropyl ether	9.02		ug/L	10.00	90	70-130	2	25		
Ethyl tertiary-butyl ether	9.31		ug/L	10.00	93	70-130	0.5	25		
Ethylbenzene	10.1		ug/L	10.00	101	70-130	1	25		
Hexachlorobutadiene	9.88		ug/L	10.00	99	70-130	5	25		
Hexachloroethane	9.15		ug/L	10.00	92	70-130	2	25		
Isopropylbenzene	9.96		ug/L	10.00	100	70-130	0.5	25		
Methyl tert-Butyl Ether	9.53		ug/L	10.00	95	70-130	0.5	25		
Methylene Chloride	8.84		ug/L	10.00	88	70-130	0.6	25		
Naphthalene	7.36		ug/L	10.00	74	70-130	8	25		
n-Butylbenzene	9.75		ug/L	10.00	98	70-130	2	25		
n-Propylbenzene	9.87		ug/L	10.00	99	70-130	0.5	25		
sec-Butylbenzene	10.2		ug/L	10.00	102	70-130	0.1	25		
Styrene	9.39		ug/L	10.00	94	70-130	0.5	25		
tert-Butylbenzene	9.87		ug/L	10.00	99	70-130	0.2	25		
Tertiary-allyl methyl ether	9.02		ug/L	10.00	90	70-130	2	25		
Tetrachloroethene	9.64		ug/L	10.00	96	70-130	0.8	25		
Tetrahydrofuran	8.86		ug/L	10.00	89	70-130	5	25		
Toluene	10.1		ug/L	10.00	101	70-130	2	25		
trans-1,2-Dichloroethene	8.74		ug/L	10.00	87	70-130	0.5	25		
trans-1,3-Dichloropropene	9.76		ug/L	10.00	98	70-130	1	25		
Trichloroethene	9.70		ug/L	10.00	97	70-130	2	25		
Trichlorofluoromethane	9.24		ug/L	10.00	92	70-130	0.2	25		
Vinyl Acetate	11.8		ug/L	10.00	118	70-130	1	25		
Vinyl Chloride	10.7		ug/L	10.00	107	70-130	3	25		
Xylene O	10.4		ug/L	10.00	104	70-130	0.9	25		



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**Quality Control Data**

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8260B Volatile Organic Compounds

**Batch CD51032 - 5030B**

Xylene P,M	20.9		ug/L	20.00	104	70-130	0.7	25	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0294</i>		mg/L	<i>0.02500</i>	<i>118</i>	<i>70-130</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0302</i>		mg/L	<i>0.02500</i>	<i>121</i>	<i>70-130</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0292</i>		mg/L	<i>0.02500</i>	<i>117</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0307</i>		mg/L	<i>0.02500</i>	<i>123</i>	<i>70-130</i>			



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls

Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**Notes and Definitions**

U	Analyte included in the analysis, but not detected
D+	Relative percent difference for duplicate is outside of criteria (D+).
D	Diluted.
B+	Blank Spike recovery is above upper control limit (B+).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report
[2C]	Result was taken from the second column. Dual column analysis.



**CERTIFICATE OF ANALYSIS**

Client Name: Resource Controls  
Client Project ID: Bay Spring Realty

ESS Laboratory Work Order: 1504211

**ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS**

**ENVIRONMENTAL**

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)  
A2LA Accredited: Testing Cert# 2864.01  
<http://www.a2la.org/scopepdf/2864-01.pdf>

Rhode Island Potable and Non Potable Water: LAI00179  
<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750  
[http://www.ct.gov/dph/lib/dph/environmental\\_health/environmental\\_laboratories/pdf/OutofStateCommercialLaboratories.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf)

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI0002  
<http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls>

Massachusetts Potable and Non Potable Water: M-RI002  
<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424  
<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313  
<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006  
[http://datamine2.state.nj.us/DEP\\_OPRA/OpraMain/pi\\_main?mode=pi\\_by\\_site&sort\\_order=PI\\_NAMEA&Select+a+Site:=58715](http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715)

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752  
[http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory\\_accreditation\\_program/590095](http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095)

**CHEMISTRY**

A2LA Accredited: Testing Cert # 2864.01  
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)  
<http://www.A2LA.org/dirsearchnew/newsearch.cfm>

CPSC ID# 1141  
Lead Paint, Lead in Children's Metals Jewelry  
<http://www.cpsc.gov/cgi-bin/labapplist.aspx>

**Sample and Cooler Receipt Checklist**

Client: Resource Controls

Client Project ID:

Shipped/Delivered Via: Client

ESS Project ID: 15040211

Date Project Due: 4/16/15

Days For Project: 5 Day

**Items to be checked upon receipt:**

1. Air Bill Manifest Present?

Air No.:

 \* No

2. Were Custody Seals Present?

 No

3. Were Custody Seals Intact?

 N/A

4. Is Radiation count &lt; 100 CPM?

 Yes

5. Is a cooler present?

 Yes

Cooler Temp: 3.9

Iced With: Icepacks

6. Was COC included with samples?

 Yes

7. Was COC signed and dated by client?

 Yes

8. Does the COC match the sample

 Yes

9. Is COC complete and correct?

 Yes

10. Are the samples properly preserved?

 Yes

11. Proper sample containers used?

 Yes

12. Any air bubbles in the VOA vials?

 No

13. Holding times exceeded?

 No

14. Sufficient sample volumes?

 Yes

15. Any Subcontracting needed?

 No16. Are ESS labels on correct containers?  Yes |  No17. Were samples received intact?  Yes |  No

ESS Sample IDs: \_\_\_\_\_

Sub Lab: \_\_\_\_\_

Analysis: \_\_\_\_\_

TAT: \_\_\_\_\_

18. Was there need to call project manager to discuss status? If yes, please explain:

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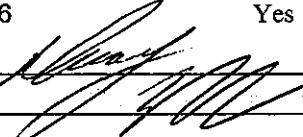


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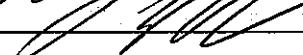
Who was called?: \_\_\_\_\_

By whom? \_\_\_\_\_

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	40 ml - VOA	3	HCL
2	Yes	40 ml - VOA	3	HCL
3	Yes	250 ml Plastic	1	NP
3	Yes	40 ml - VOA	3	HCL
4	Yes	250 ml Plastic	1	NP
5	Yes	250 ml Plastic	1	NP
6	Yes	250 ml Plastic	1	NP

Completed By: 

Date/Time: 4/9/15 1507

Reviewed By: 

Date/Time: 4/9/15 1510



**ATTACHMENT 6**

**Additional Limitations**

## ADDITIONAL LIMITATIONS

1. The observations described in this Report were made under the conditions stated herein. The conclusions presented in the Report are based solely upon the services described therein and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. The work described in the Report was carried out in accordance with our Proposal and Associated Statement of Standard Terms and Conditions.
2. In preparing the Report, Resource Controls has relied on certain information provided by state and local officials and other parties referenced therein and on information contained in the files of state and/or local agencies available to Resource Controls at the time of the site evaluation. Although there may have been some degree of overlap in the information provided by the various sources, Resource Controls did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment.
3. Observations and explorations were made of the site as indicated within the Report. Where access to portions of the site were unavailable or limited, Resource Controls renders no opinion as to the presence of hazardous materials, asbestos, lead paint or oil, or to the presence of indirect evidence relating to the same, in that portion of the site or structure. In addition, Resource Controls renders no opinion as to the presence of hazardous materials, lead paint, oil or asbestos or to the presence of indirect evidence relating to hazardous materials, oil, lead paint or asbestos, where direct observation of the interior walls, floor, or ceiling of a structure on a site was obstructed by objects or coverings on or over these structures.
4. The purpose of this Report was to assess the physical and chemical characteristics of the subject site with respect to the presence in the environment of hazardous materials, lead paint, asbestos or oil. No specific attempt was made to check the regulatory compliance of present or past owners or operators of the site with federal, state or local laws and regulations, environmental or otherwise.
5. Except as noted within the text of this Report, no quantitative laboratory testing was performed as part of this evaluation. Where such analyses have been conducted by an outside laboratory, Resource Controls has relied upon the data provided and has not conducted an independent third party evaluation of the reliability of this data.
6. Chemical analyses performed for specific parameters during the course of studies have been used, in part, as a basis for determining the areas of environmental concern. Additional chemical constituents not searched for may be present at the site. Defined areas of environmental concern do not cover the potential additional constituents.
7. Governmental agencies' interpretations, requirements and enforcement policies may impact the type and scope of any site remediation required for a site. In addition, statutes, rules and regulations may be legislatively changed and inter-agency and intra-agency policies may be changed from present practice. If such changes occur, it may be necessary to re-evaluate their impact on the scope of any site remediation required.
8. Any water level readings made in the test pits, borings and/or wells and were made under the conditions stated on the logs. This data may have been reviewed and interpretations have been made in the text of this Report. However, it must be noted that fluctuations in the level of groundwater may occur due to variations in rainfall, temperature and other factors different from those prevailing at the time measurements were made.
9. Any and all cost estimates or opinions presented are based on Resource Controls opinion of most probable costs and are based on information available at the time of the estimate. Such estimates may vary from actual contract values based on many market and engineering variables beyond the control of Resource Controls. No warranty or guarantee is offered on the accuracy or validity of the estimates provided.