

Stonecipher & Clark
Environmental Solutions, LLC

Fall 2015 Sampling

530 Waits River Road
Bradford, Vermont
SMS #20134379

Fall 2015 Groundwater Sampling Report

530 Waits River Road

Bradford, Vermont

SMS #20134379

Prepared For:

George Pratt

Care of: Stacey Thomson

53 Route 10

Orford, NH 03777

Prepared By:

Stonecipher & Clark Environmental Solutions, LLC

111 Saranac Street, Studio 15

Littleton, New Hampshire 03561

Project# 2014-051

Stonecipher & Clark Environmental Solutions, LLC

Project: 2014-051

December 17, 2015

Mr. Hugo Martinez
Environmental Analyst
VTDEC
Waste Management & Prevention Division
1 National Life Drive – Davis 1
Montpelier, VT 05620-3704

Subject: 530 Waits River Road, Bradford, Vermont, SMS #20134379 – Fall 2015
Sampling

Dear Mr. Martinez:

Attached is a summary report for Fall 2015 groundwater sampling at the above mentioned facility. Water elevations were collected at all on-Site monitoring wells and a sample was collected from MW-1. MW-2R remained dry during this round of sampling.

Groundwater

On November 19, 2015, S&C performed groundwater sampling. S&C utilized a water level to measure depth to groundwater at the following well locations: MW-1, MW-3, MW-4 and MW-5. MW-2R remained dry. MW-1 was purged of approximately three well volumes of water and allowed to recharge prior to collection of the groundwater sample. The groundwater sample was collected, stored on ice and submitted under proper chain of custody to Eastern Analytical, Inc. of Concord, New Hampshire for analysis for Volatile Organic Compounds (VOCs) via EPA Method 8021B.

Conclusions/Recommendations

MW-1 was at the Preventative Action Level limit for one constituent and below detectable limits for all other constituents analyzed during the Fall 2014 sampling round and below detectable limits for all constituents analyzed during the Fall 2015 sampling round. MW-2R was dry at the time of sampling. S&C recommends continued bi-annual sampling at MW-2R via Method 8021B with respect to the 530 Waits River Road, Bradford, Vermont facility. Sampling should occur following heavy rain events to increase the likelihood of groundwater within MW-2R. S&C recommends discontinuation of sampling at MW-1 as two below-standard sampling rounds have occurred.

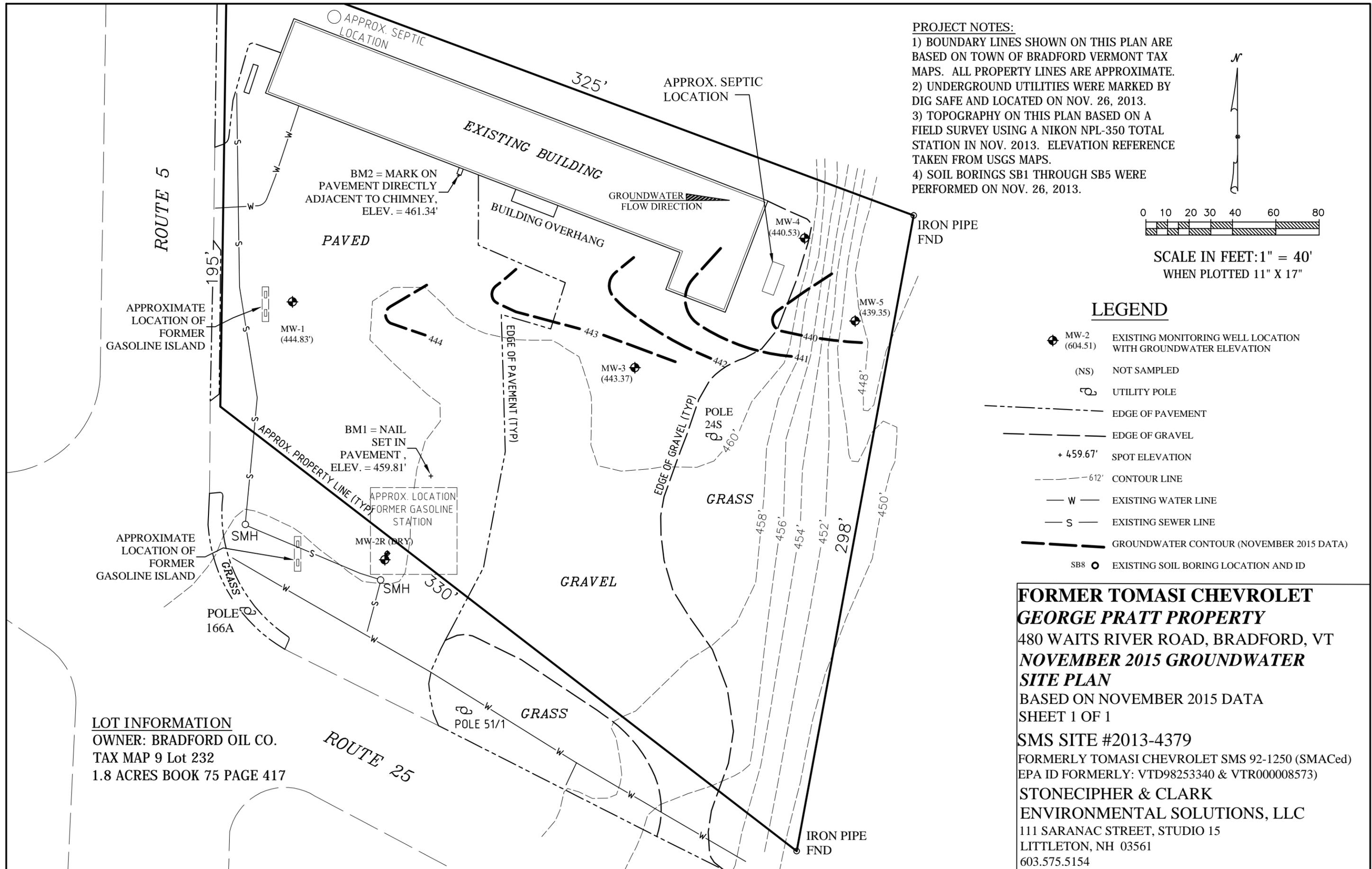
Using depth to groundwater measurements from MW-1, MW-3, MW-4, and MW-5, groundwater was calculated to flow across the Site to the east.

Please contact the undersigned with any questions or concerns.

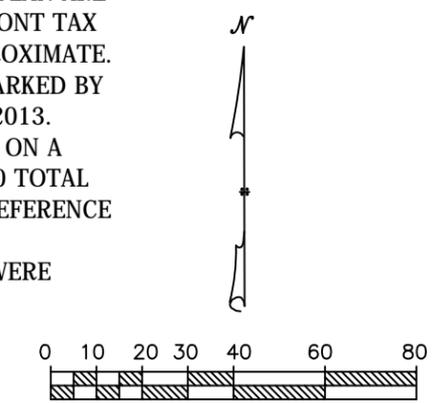
Sincerely,

A handwritten signature in black ink, appearing to read "Jm Stone", written in a cursive style.

Jennifer Stonecipher
Environmental Project Manager
Stonecipher & Clark Environmental Solutions, LLC



PROJECT NOTES:
 1) BOUNDARY LINES SHOWN ON THIS PLAN ARE BASED ON TOWN OF BRADFORD VERMONT TAX MAPS. ALL PROPERTY LINES ARE APPROXIMATE.
 2) UNDERGROUND UTILITIES WERE MARKED BY DIG SAFE AND LOCATED ON NOV. 26, 2013.
 3) TOPOGRAPHY ON THIS PLAN BASED ON A FIELD SURVEY USING A NIKON NPL-350 TOTAL STATION IN NOV. 2013. ELEVATION REFERENCE TAKEN FROM USGS MAPS.
 4) SOIL BORINGS SB1 THROUGH SB5 WERE PERFORMED ON NOV. 26, 2013.



SCALE IN FEET: 1" = 40'
 WHEN PLOTTED 11" X 17"

LEGEND

- MW-2 (604.51) EXISTING MONITORING WELL LOCATION WITH GROUNDWATER ELEVATION
- (NS) NOT SAMPLED
- UTILITY POLE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- + 459.67' SPOT ELEVATION
- 612' CONTOUR LINE
- W EXISTING WATER LINE
- S EXISTING SEWER LINE
- GROUNDWATER CONTOUR (NOVEMBER 2015 DATA)
- SB8 EXISTING SOIL BORING LOCATION AND ID

**FORMER TOMASI CHEVROLET
 GEORGE PRATT PROPERTY**
 480 WAITS RIVER ROAD, BRADFORD, VT
**NOVEMBER 2015 GROUNDWATER
 SITE PLAN**
 BASED ON NOVEMBER 2015 DATA
 SHEET 1 OF 1
 SMS SITE #2013-4379
 FORMERLY TOMASI CHEVROLET SMS 92-1250 (SMACed)
 EPA ID FORMERLY: VTD98253340 & VTR000008573)
STONECIPHER & CLARK
 ENVIRONMENTAL SOLUTIONS, LLC
 111 SARANAC STREET, STUDIO 15
 LITTLETON, NH 03561
 603.575.5154

LOT INFORMATION
 OWNER: BRADFORD OIL CO.
 TAX MAP 9 Lot 232
 1.8 ACRES BOOK 75 PAGE 417

Groundwater Quality Analytical Results
 2014-051 Bradford Site Investigation

Analytes	Groundwater Enforcement	Preventive Action Level	MW-1				
			12/16/13	8/11/14	10/27/14	6/11/15	11/19/15
Top of Casing			460.03	460.03	460.03	460.03	460.03
Depth to Water			15.55	15.4	14.23	15.6	15.2
Water Table Elevation (ft)			444.48	444.63	445.8	444.43	444.83
RCRA Metals	Concentration (ug/l)		Concentration (ug/l)				
Arsenic	10	1.0	>0.001				
Barium	2,000	1,000					
Cadmium	5	2.5					
Chromium	100	50					
Lead	15	1.5					
Mercury	2	0.5					
Selenium	50	25					
Silver	NS	NS					
Hydrocarbons							
Benzene	5	0.5	3	<1	1	<1	<1
Toluene	1,000	500	<1	<1	<1	<1	<1
Ethylbenzene	700	350	27	50	10	<1	<1
Tota Xylenes	10,000	5,000	45	22	4	<3	<1
Trichloroethylene	5	0.5	<2	<1			
Naphthalene	20	10	74	32	26	<5	<5
n-Propylbenzene	NS	NS	54				
1,2,4 Trimethylbenzene	5	2.5	5		2	<1	<1
1,3,5 Trimethylbenzene	4	2	140		55	2	<1
sec-Butylbenzene	NS	NS	7				
Bromochloromethane	90	9	<2				
n Butylbenzene	NS	NS	<1				
p-Isopropyltoluene	NS	NS	5				
Isopropylbenzene	NS	NS	55				
MtBE	40	20	<5	<5	<5	<5	<5

NS-No Standard
 < Laboratory result below detectable limit
 Concentrations listed in **bold** equal to or greater than VTDEC Standards.

Groundwater Quality Analytical Results
 2014-051 Bradford Site Investigation

Analytes	Groundwater Enforcement Standard	Preventive Action Level	MW-2R				
			12/16/13	8/11/14	10/27/14	6/11/15	11/19/15
Top of Casing			460.15	460.15	460.15	460.15	460.15
Depth to Water							
Water Table Elevation (ft)							
RCRA Metals	Concentration (ug/l)						
Arsenic	10	1.0	DRY	DRY	DRY	DRY	DRY
Barium	2,000	1,000					
Cadmium	5	2.5					
Chromium	100	50					
Lead	15	1.5					
Mercury	2	0.5					
Selenium	50	25					
Silver	NS	NS					
Hydrocarbons							
Benzene	5	0.5					
Toluene	1,000	500					
Ethylbenzene	700	350					
Tota Xylenes	10,000	5,000					
Trichloroethylene	5	0.5					
Naphthalene	20	10					
n-Propylbenzene	NS	NS					
1,2,4 Trimethylbenzene	5	2.5					
1,3,5 Trimethylbenzene	4	2					
sec-Butylbenzene	NS	NS					
Bromochloromethane	90	9					
n Butylbenzene	NS	NS					
p-Isopropyltoluene	NS	NS					
Isopropylbenzene	NS	NS					
MtBE	40	20					

NS-No Standard

< Laboratory result below detectable limit

Concentrations listed in **bold** equal to or greater than VTDEC Standards.

Groundwater Quality Analytical Results
 2014-051 Bradford Site Investigation

Analytes	Groundwater Enforcement	Preventive Action Level	MW-3			
			12/16/13	10/27/14	6/11/15	11/19/15
Top of Casing			460.27	460.27	460.27	460.27
Depth to Water			17.25	16.36	16.95	16.9
Water Table Elevation (ft)			443.02	443.91	443.32	443.37
RCRA Metals	Concentration (ug/l)					
Arsenic	10	1.0	<0.001	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
Barium	2,000	1,000	0.034			
Cadmium	5	2.5	<0.001			
Chromium	100	50	<0.001			
Lead	15	1.5	<0.001			
Mercury	2	0.5	<0.001			
Selenium	50	25	<0.001			
Silver	NS	NS	<0.001			
Hydrocarbons						
Benzene	5	0.5	<1			
Toluene	1,000	500	<1			
Ethylbenzene	700	350	<1			
Tota Xylenes	10,000	5,000	<2			
Trichloroethylene	5	0.5	<2			
Naphthalene	20	10	<5			
n-Propylbenzene	NS	NS	<1			
1,2,4 Trimethylbenzene	5	2.5	<1			
1,3,5 Trimethylbenzene	4	2	<1			
sec-Butylbenzene	NS	NS	<1			
Bromochloromethane	90	9	<2			
n Butylbenzene	NS	NS	<1			
p-Isopropyltoluene	NS	NS	<1			
Isopropylbenzene	NS	NS	<1			
MtBE	40	20	<5			

NS-No Standard

< Laboratory result below detectable limit

Concentrations listed in **bold** equal to or greater than VTDEC Standards.

Groundwater Quality Analytical Results
 2014-051 Bradford Site Investigation

Analytes	Groundwater Enforcement	Preventive Action Level	MW-4				
			12/16/13	1/10/14	10/27/14	6/11/15	11/19/15
Top of Casing			460.33	460.33	460.33	460.33	460.33
Depth to Water			19.5	17.55	18.5	17.45	19.8
Water Table Elevation (ft)			440.83	442.78	441.83	442.88	440.53
RCRA Metals	Concentration (ug/l)						
Arsenic	10	1.0	<0.001	SAMPLED-12.16.13	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
Barium	2,000	1,000	0.019				
Cadmium	5	2.5	<0.001				
Chromium	100	50	<0.001				
Lead	15	1.5	<0.001				
Mercury	2	0.5	<0.001				
Selenium	50	25	<0.001				
Silver	NS	NS	<0.001				
Hydrocarbons				NOT ENOUGH SAMPLE FOR VOC ANALYSIS	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
Benzene	5	0.5	<1				
Toluene	1,000	500	<1				
Ethylbenzene	700	350	<1				
Tota Xylenes	10,000	5,000	<2				
Trichloroethylene	5	0.5	<2				
Naphthalene	20	10	<5				
n-Propylbenzene	NS	NS	<1				
1,2,4 Trimethylbenzene	5	2.5	<1				
1,3,5 Trimethylbenzene	4	2	<1				
sec-Butylbenzene	NS	NS	<1				
Bromochloromethane	90	9	<2				
n Butylbenzene	NS	NS	<1				
p-Isopropyltoluene	NS	NS	<1				
Isopropylbenzene	NS	NS	<1				
MtBE	40	20	<5				

NS-No Standard
 < Laboratory result below detectable limit
 Concentrations listed in **bold** equal to or greater than VTDEC Standards.

Groundwater Quality Analytical Results
 2014-051 Bradford Site Investigation

Analytes	Groundwater Enforcement	Preventive Action Level	MW-5			
			12/16/13	10/27/14	6/11/15	11/19/15
Top of Casing			449.55	449.55	449.55	449.55
Depth to Water			9.78	8.74	7.95	10.2
Water Table Elevation (ft)			439.77	440.81	441.6	439.35
RCRA Metals	Concentration (ug/l)					
Arsenic	10	1.0	<0.001	NOT SAMPLED	NOT SAMPLED	NOT SAMPLED
Barium	2,000	1,000	0.006			
Cadmium	5	2.5	<0.001			
Chromium	100	50	<0.001			
Lead	15	1.5	<0.001			
Mercury	2	0.5	<0.001			
Selenium	50	25	<0.001			
Silver	NS	NS	<0.001			
Hydrocarbons						
Benzene	5	0.5	<1			
Toluene	1,000	500	<1			
Ethylbenzene	700	350	<1			
Tota Xylenes	10,000	5,000	<2			
Trichloroethylene	5	0.5	<2			
Naphthalene	20	10	<5			
n-Propylbenzene	NS	NS	<1			
1,2,4 Trimethylbenzene	5	2.5	<1			
1,3,5 Trimethylbenzene	4	2	<1			
sec-Butylbenzene	NS	NS	<1			
Bromochloromethane	90	9	<2			
n Butylbenzene	NS	NS	<1			
p-Isopropyltoluene	NS	NS	<1			
Isopropylbenzene	NS	NS	<1			
MtBE	40	20	<5			

NS-No Standard

< Laboratory result below detectable limit

Concentrations listed in **bold** equal to or greater than VTDEC Standards.

Sylvia Clark
Stonecipher & Clark Environmental Solutions
Tannery Marketplace, 111 Saranac Street
Littleton, NH 03561



Subject: Laboratory Report

Eastern Analytical, Inc. ID: 150616
Client Identification: Bradford Auction House | 2014-051
Date Received: 11/20/2015

Dear Ms. Clark :

Enclosed please find the laboratory report for the above identified project. All analyses were performed in accordance with our QA/QC Program. Unless otherwise stated, holding times, preservation techniques, container types, and sample conditions adhered to EPA Protocol. Samples which were collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures. Eastern Analytical, Inc. certifies that the enclosed test results meet all requirements of NELAP and other applicable state certifications. Please refer to our website at www.eailabs.com for a copy of our NELAP certificate and accredited parameters.

The following standard abbreviations and conventions apply to all EAI reports:

- Solid samples are reported on a dry weight basis, unless otherwise noted
- < : "less than" followed by the reporting limit
- > : "greater than" followed by the reporting limit
- %R : % Recovery

Eastern Analytical Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269) and Vermont (VT1012).

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the the written approval of the laboratory.

If you have any questions regarding the results contained within, please feel free to directly contact me or the chemist(s) who performed the testing in question. Unless otherwise requested, we will dispose of the sample(s) 30 days from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,


Lorraine Olashaw, Lab Director

12.1.15
Date

3
of pages (excluding cover letter)



SAMPLE CONDITIONS PAGE

EAI ID#: 150616

Client: **Stonecipher & Clark Environmental Solutions**

Client Designation: **Bradford Auction House | 2014-051**

Temperature upon receipt (°C): 5.9

Received on ice or cold packs (Yes/No): Y

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
150616.01	MW-1	11/20/15	11/19/15	aqueous		Adheres to Sample Acceptance Policy

Samples were properly preserved and the pH measured when applicable unless otherwise noted. Analysis of solids for pH, Flashpoint, Ignitibility, Paint Filter, Corrosivity, Conductivity and Specific Gravity are reported on an "as received" basis. Immediate analyses, pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite, performed at the laboratory were run outside of the recommended 15 minute hold time.

All results contained in this report relate only to the above listed samples.

References include:

- 1) EPA 600/4-79-020, 1983
- 2) Standard Methods for Examination of Water and Wastewater, 20th Edition, 1998 and 22nd Edition, 2012
- 3) Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- 4) Hach Water Analysis Handbook, 2nd edition, 1992



LABORATORY REPORT

EAI ID#: 150616

Client: **Stonecipher & Clark Environmental Solutions**

Client Designation: **Bradford Auction House | 2014-051**

Sample ID: MW-1

Lab Sample ID: 150616.01

Matrix: aqueous

Date Sampled: 11/19/15

Date Received: 11/20/15

Units: ug/l

Date of Analysis: 11/23/15

Analyst: BAM

Method: 8260B

Dilution Factor: 1

Methyl-t-butyl ether(MTBE)	< 5
Benzene	< 1
1,2-Dichloroethane	< 2
Toluene	< 1
1,2-Dibromoethane(EDB)	< 1
Ethylbenzene	< 1
mp-Xylene	< 1
o-Xylene	< 1
1,3,5-Trimethylbenzene	< 1
1,2,4-Trimethylbenzene	< 1
Naphthalene	< 5
4-Bromofluorobenzene (surr)	101 %R
1,2-Dichlorobenzene-d4 (surr)	108 %R
Toluene-d8 (surr)	98 %R

GC/MS analysis was employed for the determination of the 8021B compound list.

