ANALYTICAL REPORT

Lab Number:	L1821757
Client:	CH2M / Dow Chemical Company 299 Madison Ave. Morristown, NJ 07960
ATTN:	David Newman
Phone:	(862) 242-7061
Project Name:	FORMER HAMPSHIRE CHEMICAL CORP
Project Number:	701970.01.SA
Report Date:	06/18/18

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821757
Report Date: 06/18/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1821757-01	MW19-061118	WATER	WATERLOO, NY	06/11/18 12:00	06/11/18
L1821757-02	PZ04-061118	WATER	WATERLOO, NY	06/11/18 15:20	06/11/18
L1821757-03	TB-061118	WATER	WATERLOO, NY	06/11/18 08:00	06/11/18

Project Name:	FORMER HAMPSHIRE CHEMICAL CORP	**Lab Number:**	L1821757
Project Number:	701970.01.SA	**Report Date:**	06/18/18

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	FORMER HAMPSHIRE CHEMICAL CORP	**Lab Number:**	L1821757
Project Number:	701970.01.SA	**Report Date:**	06/18/18

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The project number was specified by the project manager.

Volatile Organics

L1821757-01, -02, -03 and the associated method blank were evaluated for the presence of the following project specific TIC and were determined to be non-detect: dimethyl disulfide.

The WG1125100-3/-4 LCS/LCSD RPDs, associated with L1821757-01, -02, and -03, are above the acceptance criteria for 1,1-dichloroethene (30%), carbon disulfide (36%), naphthalene (21%), 1,2,3-trichlorobenzene (22%), and 1,4-dioxane (35%).

The initial calibration, associated with L1821757-01, -02, and -03, did not meet the method required minimum response factor for the calibration standards for bromodichloromethane, cis-1,3-dichloropropene, bromomethane, chloroethane, trichloroethene, dibromomethane, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, bromochloromethane, and 1,4-dioxane.

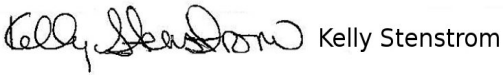
The continuing calibration, associated with L1821757-01, -02, and -03, did not meet the method required minimum response factor for bromomethane, chloroethane, trichloroethene, dibromomethane, 2-butanone, 4-methyl-2-pentanone, 2-hexanone, bromochloromethane, and 1,4-dioxane.

The WG1125100-2 continuing calibration verification standard has the percent deviation for naphthalene (28%D), 1,2,3-trichlorobenzene (23%D), and 1,4-dioxane (41%D) above the 20% CCV criteria, but within overall method allowances.

Phosphorus, Orthophosphate

L1821757-02: The Orthophosphate Phosphorus result is higher than the Total Phosphorus result. Total Phosphorus was re-analyzed from both containers and the result was confirmed. Orthophosphate cannot be re-analyzed due to the expiration of the method required holding time.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Kelly Stenstrom

Title: Technical Director/Representative Date: 06/18/18

ORGANICS

VOLATILES

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-01
Client ID: MW19-061118
Sample Location: WATERLOO, NY

Date Collected: 06/11/18 12:00
Date Received: 06/11/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/12/18 16:39
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	1.2		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	8.5		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-01 Date Collected: 06/11/18 12:00

Client ID: MW19-061118 Date Received: 06/11/18

Sample Location: WATERLOO, NY Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.2		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	8.1		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	17		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	62		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-01 Date Collected: 06/11/18 12:00

Client ID: MW19-061118 Date Received: 06/11/18

Sample Location: WATERLOO, NY Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
Tentatively Identified Compounds						
Total TIC Compounds	3.04	J	ug/l			1
Unknown	3.04	J	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	99		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-02
Client ID: PZ04-061118
Sample Location: WATERLOO, NY

Date Collected: 06/11/18 15:20
Date Received: 06/11/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/12/18 17:04
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	1.9	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-02 Date Collected: 06/11/18 15:20

Client ID: PZ04-061118 Date Received: 06/11/18

Sample Location: WATERLOO, NY Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	6.0		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-02 Date Collected: 06/11/18 15:20

Client ID: PZ04-061118 Date Received: 06/11/18

Sample Location: WATERLOO, NY Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
Tentatively Identified Compounds						
Total TIC Compounds	49.6	J	ug/l			1
Unknown	2.00	J	ug/l			1
Unknown	1.01	J	ug/l			1
Unknown	2.39	J	ug/l			1
Unknown	6.17	J	ug/l			1
Unknown	8.31	J	ug/l			1
Unknown	12.5	J	ug/l			1
Unknown	2.98	J	ug/l			1
Unknown	13.1	J	ug/l			1
Unknown	1.15	J	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	101		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-03
Client ID: TB-061118
Sample Location: WATERLOO, NY

Date Collected: 06/11/18 08:00
Date Received: 06/11/18
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/12/18 16:14
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.54	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-03 Date Collected: 06/11/18 08:00

Client ID: TB-061118 Date Received: 06/11/18

Sample Location: WATERLOO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1
n-Propylbenzene	ND		ug/l	2.5	0.70	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-03 Date Collected: 06/11/18 08:00

Client ID: TB-061118 Date Received: 06/11/18

Sample Location: WATERLOO, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
Tentatively Identified Compounds						
Total TIC Compounds	3.53	J	ug/l			1
Unknown	3.53	J	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	99		70-130

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/12/18 10:21
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1125100-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/12/18 10:21
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1125100-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70
o-Chlorotoluene	ND		ug/l	2.5	0.70

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/12/18 10:21
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1125100-5					
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1125100-3 WG1125100-4								
Methylene chloride	91		79		70-130	14		20
1,1-Dichloroethane	90		84		70-130	7		20
Chloroform	90		85		70-130	6		20
Carbon tetrachloride	92		85		63-132	8		20
1,2-Dichloropropane	92		87		70-130	6		20
Dibromochloromethane	80		76		63-130	5		20
1,1,2-Trichloroethane	95		89		70-130	7		20
Tetrachloroethene	91		84		70-130	8		20
Chlorobenzene	91		86		75-130	6		20
Trichlorofluoromethane	85		77		62-150	10		20
1,2-Dichloroethane	88		83		70-130	6		20
1,1,1-Trichloroethane	90		83		67-130	8		20
Bromodichloromethane	90		84		67-130	7		20
trans-1,3-Dichloropropene	82		77		70-130	6		20
cis-1,3-Dichloropropene	94		86		70-130	9		20
1,1-Dichloropropene	92		85		70-130	8		20
Bromoform	76		71		54-136	7		20
1,1,2,2-Tetrachloroethane	91		85		67-130	7		20
Benzene	92		86		70-130	7		20
Toluene	91		85		70-130	7		20
Ethylbenzene	90		84		70-130	7		20
Chloromethane	98		91		64-130	7		20
Bromomethane	98		94		39-139	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1125100-3 WG1125100-4								
Vinyl chloride	99		92		55-140	7		20
Chloroethane	87		80		55-138	8		20
1,1-Dichloroethene	93		69		61-145	**30**	Q	20
trans-1,2-Dichloroethene	93		86		70-130	8		20
Trichloroethene	87		83		70-130	5		20
1,2-Dichlorobenzene	95		87		70-130	9		20
1,3-Dichlorobenzene	95		87		70-130	9		20
1,4-Dichlorobenzene	94		87		70-130	8		20
Methyl tert butyl ether	93		85		63-130	9		20
p/m-Xylene	95		90		70-130	5		20
o-Xylene	95		90		70-130	5		20
cis-1,2-Dichloroethene	93		88		70-130	6		20
Dibromomethane	90		85		70-130	6		20
1,2,3-Trichloropropane	89		83		64-130	7		20
Styrene	95		90		70-130	5		20
Dichlorodifluoromethane	99		90		36-147	10		20
Acetone	79		76		58-148	4		20
Carbon disulfide	98		68		51-130	**36**	Q	20
2-Butanone	85		82		63-138	4		20
Vinyl acetate	92		85		70-130	8		20
4-Methyl-2-pentanone	83		79		59-130	5		20
2-Hexanone	84		76		57-130	10		20
Bromochloromethane	94		87		70-130	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1125100-3 WG1125100-4								
2,2-Dichloropropane	95		85		63-133	11		20
1,2-Dibromoethane	92		88		70-130	4		20
1,3-Dichloropropane	91		87		70-130	4		20
1,1,1,2-Tetrachloroethane	92		87		64-130	6		20
Bromobenzene	94		86		70-130	9		20
n-Butylbenzene	98		89		53-136	10		20
sec-Butylbenzene	96		89		70-130	8		20
tert-Butylbenzene	97		89		70-130	9		20
o-Chlorotoluene	90		87		70-130	3		20
p-Chlorotoluene	95		87		70-130	9		20
1,2-Dibromo-3-chloropropane	74		66		41-144	11		20
Hexachlorobutadiene	110		90		63-130	20		20
Isopropylbenzene	97		88		70-130	10		20
p-Isopropyltoluene	99		90		70-130	10		20
Naphthalene	86		70		70-130	**21**	Q	20
n-Propylbenzene	94		86		69-130	9		20
1,2,3-Trichlorobenzene	100		80		70-130	**22**	Q	20
1,2,4-Trichlorobenzene	98		82		70-130	18		20
1,3,5-Trimethylbenzene	97		88		64-130	10		20
1,2,4-Trimethylbenzene	97		90		70-130	7		20
1,4-Dioxane	80		56		56-162	**35**	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1125100-3 WG1125100-4								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		96		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	102		100		70-130
Dibromofluoromethane	98		98		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1125100-6 WG1125100-7 QC Sample: L1821549-01 Client ID: MS Sample												
Methylene chloride	ND	10	11	110		9.0	90		70-130	20		20
1,1-Dichloroethane	ND	10	11	110		11	110		70-130	0		20
Chloroform	ND	10	11	110		11	110		70-130	0		20
Carbon tetrachloride	ND	10	11	110		11	110		63-132	0		20
1,2-Dichloropropane	ND	10	11	110		11	110		70-130	0		20
Dibromochloromethane	ND	10	9.4	94		9.6	96		63-130	2		20
1,1,2-Trichloroethane	ND	10	11	110		12	120		70-130	9		20
Tetrachloroethene	ND	10	11	110		10	100		70-130	10		20
Chlorobenzene	ND	10	11	110		11	110		75-130	0		20
Trichlorofluoromethane	ND	10	11	110		10	100		62-150	10		20
1,2-Dichloroethane	ND	10	11	110		11	110		70-130	0		20
1,1,1-Trichloroethane	ND	10	11	110		11	110		67-130	0		20
Bromodichloromethane	ND	10	11	110		11	110		67-130	0		20
trans-1,3-Dichloropropene	ND	10	9.4	94		9.5	95		70-130	1		20
cis-1,3-Dichloropropene	ND	10	10	100		10	100		70-130	0		20
1,1-Dichloropropene	ND	10	11	110		11	110		70-130	0		20
Bromoform	ND	10	8.6	86		8.9	89		54-136	3		20
1,1,2,2-Tetrachloroethane	ND	10	11	110		11	110		67-130	0		20
Benzene	ND	10	11	110		11	110		70-130	0		20
Toluene	ND	10	11	110		10	100		70-130	10		20
Ethylbenzene	ND	10	11	110		10	100		70-130	10		20
Chloromethane	ND	10	13	130		14	**140**	Q	64-130	7		20
Bromomethane	ND	10	5.4	54		5.6	56		39-139	4		20

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1125100-6 WG1125100-7 QC Sample: L1821549-01 Client ID: MS Sample												
Vinyl chloride	ND	10	13	130		12	120		55-140	8		20
Chloroethane	ND	10	9.5	95		10	100		55-138	5		20
1,1-Dichloroethene	ND	10	11	110		8.8	88		61-145	**22**	Q	20
trans-1,2-Dichloroethene	ND	10	11	110		11	110		70-130	0		20
Trichloroethene	ND	10	10	100		10	100		70-130	0		20
1,2-Dichlorobenzene	ND	10	10	100		11	110		70-130	10		20
1,3-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
1,4-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
Methyl tert butyl ether	ND	10	11	110		12	120		63-130	9		20
p/m-Xylene	ND	20	22	110		22	110		70-130	0		20
o-Xylene	ND	20	22	110		22	110		70-130	0		20
cis-1,2-Dichloroethene	ND	10	11	110		11	110		70-130	0		20
Dibromomethane	ND	10	11	110		11	110		70-130	0		20
1,2,3-Trichloropropane	ND	10	11	110		12	120		64-130	9		20
Styrene	ND	20	22	110		21	105		70-130	5		20
Dichlorodifluoromethane	ND	10	13	130		12	120		36-147	8		20
Acetone	1.6J	10	12	120		14	140		58-148	15		20
Carbon disulfide	ND	10	12	120		9.3	93		51-130	**25**	Q	20
2-Butanone	ND	10	11	110		12	120		63-138	9		20
Vinyl acetate	ND	10	11	110		12	120		70-130	9		20
4-Methyl-2-pentanone	ND	10	12	120		13	130		59-130	8		20
2-Hexanone	ND	10	10	100		11	110		57-130	10		20
Bromochloromethane	ND	10	11	110		11	110		70-130	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1125100-6 WG1125100-7 QC Sample: L1821549-01 Client ID: MS Sample												
2,2-Dichloropropane	ND	10	11	110		11	110		63-133	0		20
1,2-Dibromoethane	ND	10	11	110		11	110		70-130	0		20
1,3-Dichloropropane	ND	10	11	110		11	110		70-130	0		20
1,1,1,2-Tetrachloroethane	ND	10	11	110		11	110		64-130	0		20
Bromobenzene	ND	10	10	100		10	100		70-130	0		20
n-Butylbenzene	ND	10	11	110		11	110		53-136	0		20
sec-Butylbenzene	ND	10	11	110		10	100		70-130	10		20
tert-Butylbenzene	ND	10	11	110		11	110		70-130	0		20
o-Chlorotoluene	ND	10	10	100		9.9	99		70-130	1		20
p-Chlorotoluene	ND	10	10	100		10	100		70-130	0		20
1,2-Dibromo-3-chloropropane	ND	10	8.6	86		9.5	95		41-144	10		20
Hexachlorobutadiene	ND	10	10	100		11	110		63-130	10		20
Isopropylbenzene	ND	10	11	110		10	100		70-130	10		20
p-Isopropyltoluene	ND	10	11	110		11	110		70-130	0		20
Naphthalene	ND	10	9.6	96		11	110		70-130	14		20
n-Propylbenzene	ND	10	10	100		10	100		69-130	0		20
1,2,3-Trichlorobenzene	ND	10	10	100		12	120		70-130	18		20
1,2,4-Trichlorobenzene	ND	10	10	100		11	110		70-130	10		20
1,3,5-Trimethylbenzene	ND	10	10	100		10	100		64-130	0		20
1,2,4-Trimethylbenzene	ND	10	11	110		10	100		70-130	10		20
1,4-Dioxane	ND	500	370	74		550	110		56-162	**39**	Q	20

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	*Native Sample*	*MS Added*	*MS Found*	*MS %Recovery*	*Qual*	*MSD Found*	*MSD %Recovery*	*Qual*	*Recovery Limits*	*RPD*	*Qual*	*RPD Limits*
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1125100-6 WG1125100-7 QC Sample: L1821549-01 Client ID: MS Sample												

Surrogate	*MS % Recovery*	*MS Qualifier*	*MSD % Recovery*	*MSD Qualifier*	*Acceptance Criteria*
1,2-Dichloroethane-d4	102		103		70-130
4-Bromofluorobenzene	98		99		70-130
Dibromofluoromethane	101		100		70-130
Toluene-d8	98		99		70-130

SEMIVOLATILES

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-01
Client ID: MW19-061118
Sample Location: WATERLOO, NY

Date Collected: 06/11/18 12:00
Date Received: 06/11/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 06/17/18 15:25
Analyst: KR

Extraction Method: EPA 3510C
Extraction Date: 06/15/18 22:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	2.9	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	1.4	J	ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-01 Date Collected: 06/11/18 12:00

Client ID: MW19-061118 Date Received: 06/11/18

Sample Location: WATERLOO, NY Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Tentatively Identified Compounds						
Total TIC Compounds	8.94	J	ug/l			1
Aldol Condensate	8.94	J	ug/l			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	53		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	82		41-149

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Lab Number: L1821757
Project Number: 701970.01.SA
Report Date: 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-01
Client ID: MW19-061118
Sample Location: WATERLOO, NY

Date Collected: 06/11/18 12:00
Date Received: 06/11/18
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 06/16/18 14:04
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 06/15/18 22:23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.06	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.28		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.21		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-01 Date Collected: 06/11/18 12:00

Client ID: MW19-061118 Date Received: 06/11/18

Sample Location: WATERLOO, NY Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	62		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	97		10-120
4-Terphenyl-d14	77		41-149

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA
Lab Number: L1821757
Report Date: 06/18/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/17/18 14:02
Analyst: KR

Extraction Method: EPA 3510C
Extraction Date: 06/15/18 22:19

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1126587-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA
Lab Number: L1821757
Report Date: 06/18/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/17/18 14:02
Analyst: KR

Extraction Method: EPA 3510C
Extraction Date: 06/15/18 22:19

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1126587-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA
Lab Number: L1821757
Report Date: 06/18/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/17/18 14:02
Analyst: KR

Extraction Method: EPA 3510C
Extraction Date: 06/15/18 22:19

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1126587-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49
Tentatively Identified Compounds					
Total TIC Compounds	17.7	J	ug/l		
Aldol Condensate	17.7	J	ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	62		15-120
2,4,6-Tribromophenol	38		10-120
4-Terphenyl-d14	67		41-149

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA
Lab Number: L1821757
Report Date: 06/18/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 06/16/18 12:45
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 06/15/18 22:23

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1126589-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA
Lab Number: L1821757
Report Date: 06/18/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 06/16/18 12:45
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 06/15/18 22:23

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1126589-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	64		15-120
2,4,6-Tribromophenol	75		10-120
4-Terphenyl-d14	66		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1126587-2 WG1126587-3								
Acenaphthene	81		72		37-111	12		30
1,2,4-Trichlorobenzene	67		62		39-98	8		30
Hexachlorobenzene	81		75		40-140	8		30
Bis(2-chloroethyl)ether	65		60		40-140	8		30
2-Chloronaphthalene	73		68		40-140	7		30
1,2-Dichlorobenzene	63		60		40-140	5		30
1,3-Dichlorobenzene	62		60		40-140	3		30
1,4-Dichlorobenzene	63		60		36-97	5		30
3,3'-Dichlorobenzidine	51		51		40-140	0		30
2,4-Dinitrotoluene	95		82		48-143	15		30
2,6-Dinitrotoluene	80		76		40-140	5		30
Fluoranthene	82		75		40-140	9		30
4-Chlorophenyl phenyl ether	82		76		40-140	8		30
4-Bromophenyl phenyl ether	84		78		40-140	7		30
Bis(2-chloroisopropyl)ether	59		56		40-140	5		30
Bis(2-chloroethoxy)methane	65		62		40-140	5		30
Hexachlorobutadiene	76		67		40-140	13		30
Hexachlorocyclopentadiene	74		69		40-140	7		30
Hexachloroethane	69		63		40-140	9		30
Isophorone	75		68		40-140	10		30
Naphthalene	70		65		40-140	7		30
Nitrobenzene	70		65		40-140	7		30
NDPA/DPA	85		78		40-140	9		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1126587-2 WG1126587-3								
n-Nitrosodi-n-propylamine	73		68		29-132	7		30
Bis(2-ethylhexyl)phthalate	78		73		40-140	7		30
Butyl benzyl phthalate	85		79		40-140	7		30
Di-n-butylphthalate	87		79		40-140	10		30
Di-n-octylphthalate	78		74		40-140	5		30
Diethyl phthalate	94		82		40-140	14		30
Dimethyl phthalate	82		77		40-140	6		30
Benzo(a)anthracene	74		72		40-140	3		30
Benzo(a)pyrene	78		73		40-140	7		30
Benzo(b)fluoranthene	74		69		40-140	7		30
Benzo(k)fluoranthene	78		75		40-140	4		30
Chrysene	75		70		40-140	7		30
Acenaphthylene	79		74		45-123	7		30
Anthracene	78		72		40-140	8		30
Benzo(ghi)perylene	68		62		40-140	9		30
Fluorene	86		75		40-140	14		30
Phenanthrene	76		69		40-140	10		30
Dibenzo(a,h)anthracene	67		62		40-140	8		30
Indeno(1,2,3-cd)pyrene	67		64		40-140	5		30
Pyrene	77		71		26-127	8		30
Biphenyl	76		69		40-140	10		30
4-Chloroaniline	44		52		40-140	17		30
2-Nitroaniline	72		70		52-143	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1126587-2 WG1126587-3								
3-Nitroaniline	72		67		25-145	7		30
4-Nitroaniline	86		79		51-143	8		30
Dibenzofuran	84		73		40-140	14		30
2-Methylnaphthalene	74		68		40-140	8		30
1,2,4,5-Tetrachlorobenzene	76		69		2-134	10		30
Acetophenone	72		68		39-129	6		30
2,4,6-Trichlorophenol	66		65		30-130	2		30
p-Chloro-m-cresol	79		77		23-97	3		30
2-Chlorophenol	66		60		27-123	10		30
2,4-Dichlorophenol	71		66		30-130	7		30
2,4-Dimethylphenol	64		65		30-130	2		30
2-Nitrophenol	64		56		30-130	13		30
4-Nitrophenol	66		55		10-80	18		30
2,4-Dinitrophenol	54		50		20-130	8		30
4,6-Dinitro-o-cresol	67		59		20-164	13		30
Pentachlorophenol	64		59		9-103	8		30
Phenol	48		45		12-110	6		30
2-Methylphenol	66		62		30-130	6		30
3-Methylphenol/4-Methylphenol	65		61		30-130	6		30
2,4,5-Trichlorophenol	71		71		30-130	0		30
Benzoic Acid	61		53		10-164	14		30
Benzyl Alcohol	65		58		26-116	11		30
Carbazole	84		75		55-144	11		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1126587-2 WG1126587-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	54		53		21-120
Phenol-d6	47		44		10-120
Nitrobenzene-d5	63		59		23-120
2-Fluorobiphenyl	63		61		15-120
2,4,6-Tribromophenol	79		73		10-120
4-Terphenyl-d14	73		69		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1126589-2 WG1126589-3								
Acenaphthene	89		93		40-140	4		40
2-Chloronaphthalene	80		84		40-140	5		40
Fluoranthene	87		91		40-140	4		40
Hexachlorobutadiene	76		81		40-140	6		40
Naphthalene	78		83		40-140	6		40
Benzo(a)anthracene	87		91		40-140	4		40
Benzo(a)pyrene	79		82		40-140	4		40
Benzo(b)fluoranthene	75		83		40-140	10		40
Benzo(k)fluoranthene	80		75		40-140	6		40
Chrysene	76		79		40-140	4		40
Acenaphthylene	90		94		40-140	4		40
Anthracene	85		89		40-140	5		40
Benzo(ghi)perylene	80		84		40-140	5		40
Fluorene	93		96		40-140	3		40
Phenanthrene	84		88		40-140	5		40
Dibenzo(a,h)anthracene	89		93		40-140	4		40
Indeno(1,2,3-cd)pyrene	99		104		40-140	5		40
Pyrene	84		88		40-140	5		40
2-Methylnaphthalene	80		83		40-140	4		40
Pentachlorophenol	92		100		40-140	8		40
Hexachlorobenzene	79		83		40-140	5		40
Hexachloroethane	74		78		40-140	5		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1126589-2 WG1126589-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	64		68		21-120
Phenol-d6	59		63		10-120
Nitrobenzene-d5	73		77		23-120
2-Fluorobiphenyl	72		75		15-120
2,4,6-Tribromophenol	89		93		10-120
4-Terphenyl-d14	73		75		41-149

METALS

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-01 Date Collected: 06/11/18 12:00

Client ID: MW19-061118 Date Received: 06/11/18

Sample Location: WATERLOO, NY Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0895		mg/l	0.0100	0.00327	1	06/15/18 13:15	06/18/18 10:41	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00544		mg/l	0.00050	0.00016	1	06/15/18 13:15	06/18/18 10:41	EPA 3005A	1,6020A	AM
Calcium, Total	153.		mg/l	0.100	0.0394	1	06/15/18 13:15	06/18/18 10:41	EPA 3005A	1,6020A	AM
Iron, Total	2.84		mg/l	0.0500	0.0191	1	06/15/18 13:15	06/18/18 10:41	EPA 3005A	1,6020A	AM
Magnesium, Total	43.2		mg/l	0.0700	0.0242	1	06/15/18 13:15	06/18/18 10:41	EPA 3005A	1,6020A	AM
Manganese, Total	0.9028		mg/l	0.00100	0.00044	1	06/15/18 13:15	06/18/18 10:41	EPA 3005A	1,6020A	AM
Potassium, Total	0.856		mg/l	0.100	0.0309	1	06/15/18 13:15	06/18/18 10:41	EPA 3005A	1,6020A	AM
Sodium, Total	109.		mg/l	0.100	0.0293	1	06/15/18 13:15	06/18/18 10:41	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/14/18 13:00	06/15/18 12:15	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00530		mg/l	0.00050	0.00016	1	06/14/18 13:00	06/15/18 12:15	EPA 3005A	1,6020A	AM
Iron, Dissolved	2.76		mg/l	0.0500	0.0191	1	06/14/18 13:00	06/15/18 12:15	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.9149		mg/l	0.00100	0.00044	1	06/14/18 13:00	06/15/18 12:15	EPA 3005A	1,6020A	AM

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-02 Date Collected: 06/11/18 15:20

Client ID: PZ04-061118 Date Received: 06/11/18

Sample Location: WATERLOO, NY Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0618		mg/l	0.0100	0.00327	1	06/15/18 13:15	06/18/18 10:58	EPA 3005A	1,6020A	AM
Arsenic, Total	0.00069		mg/l	0.00050	0.00016	1	06/15/18 13:15	06/18/18 10:58	EPA 3005A	1,6020A	AM
Calcium, Total	75.3		mg/l	0.100	0.0394	1	06/15/18 13:15	06/18/18 10:58	EPA 3005A	1,6020A	AM
Chromium, Total	0.00321		mg/l	0.00100	0.00017	1	06/15/18 13:15	06/18/18 10:58	EPA 3005A	1,6020A	AM
Iron, Total	0.141		mg/l	0.0500	0.0191	1	06/15/18 13:15	06/18/18 10:58	EPA 3005A	1,6020A	AM
Magnesium, Total	20.7		mg/l	0.0700	0.0242	1	06/15/18 13:15	06/18/18 10:58	EPA 3005A	1,6020A	AM
Manganese, Total	0.01212		mg/l	0.00100	0.00044	1	06/15/18 13:15	06/18/18 10:58	EPA 3005A	1,6020A	AM
Potassium, Total	10.2		mg/l	0.100	0.0309	1	06/15/18 13:15	06/18/18 10:58	EPA 3005A	1,6020A	AM
Silica, Total	62.1		mg/l	0.500	0.007	1	06/15/18 13:15	06/15/18 19:24	EPA 3005A	19,200.7	MC
Sodium, Total	963.		mg/l	5.00	1.46	50	06/15/18 13:15	06/18/18 12:11	EPA 3005A	1,6020A	AM
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00672	J	mg/l	0.0100	0.00327	1	06/14/18 13:00	06/15/18 13:47	EPA 3005A	1,6020A	AM
Arsenic, Dissolved	0.00049	J	mg/l	0.00050	0.00016	1	06/14/18 13:00	06/15/18 13:47	EPA 3005A	1,6020A	AM
Chromium, Dissolved	0.00347		mg/l	0.00100	0.00017	1	06/14/18 13:00	06/15/18 13:47	EPA 3005A	1,6020A	AM
Iron, Dissolved	0.0551		mg/l	0.0500	0.0191	1	06/14/18 13:00	06/15/18 13:47	EPA 3005A	1,6020A	AM
Manganese, Dissolved	0.01158		mg/l	0.00100	0.00044	1	06/14/18 13:00	06/15/18 13:47	EPA 3005A	1,6020A	AM

Project Name: FORMER HAMPSHIRE CHEMICAL CORP **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1125937-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	06/14/18 13:00	06/15/18 11:55	1,6020A	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	06/14/18 13:00	06/15/18 11:55	1,6020A	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	06/14/18 13:00	06/15/18 11:55	1,6020A	AM
Iron, Dissolved	0.0197	J	mg/l	0.0500	0.0191	1	06/14/18 13:00	06/15/18 11:55	1,6020A	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	06/14/18 13:00	06/15/18 11:55	1,6020A	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02 Batch: WG1126417-1										
Silica, Total	0.021	J	mg/l	0.500	0.007	1	06/15/18 13:15	06/15/18 18:29	19,200.7	MC

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1126419-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Iron, Total	ND		mg/l	0.0500	0.0191	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	06/15/18 13:15	06/18/18 09:18	1,6020A	AM

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA
Lab Number: L1821757
Report Date: 06/18/18

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1125937-2								
Aluminum, Dissolved	109		-		80-120	-		
Arsenic, Dissolved	106		-		80-120	-		
Chromium, Dissolved	103		-		80-120	-		
Iron, Dissolved	113		-		80-120	-		
Manganese, Dissolved	102		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1126417-2								
Silica, Total	100		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1126419-2								
Aluminum, Total	102		-		80-120	-		
Arsenic, Total	102		-		80-120	-		
Calcium, Total	101		-		80-120	-		
Chromium, Total	101		-		80-120	-		
Iron, Total	108		-		80-120	-		
Magnesium, Total	106		-		80-120	-		
Manganese, Total	98		-		80-120	-		
Potassium, Total	104		-		80-120	-		
Sodium, Total	99		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821757
Report Date: 06/18/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1125937-3 WG1125937-4 QC Sample: L1821549-01 Client ID: MS Sample												
Aluminum, Dissolved	0.00438J	2	1.96	98		1.98	99		75-125	1		20
Arsenic, Dissolved	0.00533	0.12	0.1295	103		0.1283	102		75-125	1		20
Chromium, Dissolved	0.00167	0.2	0.1944	96		0.1941	96		75-125	0		20
Iron, Dissolved	4.38	1	5.28	90		5.30	92		75-125	0		20
Manganese, Dissolved	0.1830	0.5	0.6449	92		0.6450	92		75-125	0		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1126417-3 QC Sample: L1821978-01 Client ID: MS Sample												
Silica, Total	37.4	2.14	40.3	**136**	Q	-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1126417-7 QC Sample: L1822326-01 Client ID: MS Sample												
Silica, Total	10.7	2.14	14.3	**168**	Q	-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1126419-3 QC Sample: L1821978-01 Client ID: MS Sample												
Aluminum, Total	0.00965J	2	2.01	100		-	-		75-125	-		20
Arsenic, Total	0.00070	0.12	0.1235	102		-	-		75-125	-		20
Calcium, Total	172.	10	202	**300**	Q	-	-		75-125	-		20
Chromium, Total	0.00354	0.2	0.2007	98		-	-		75-125	-		20
Iron, Total	0.204	1	1.29	109		-	-		75-125	-		20
Magnesium, Total	19.6	10	31.5	119		-	-		75-125	-		20
Manganese, Total	0.03557	0.5	0.5232	98		-	-		75-125	-		20
Potassium, Total	7.52	10	18.3	108		-	-		75-125	-		20
Sodium, Total	705.	10	709	**40**	Q	-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821757
Report Date: 06/18/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1126417-4 QC Sample: L1821978-01 Client ID: DUP Sample						
Silica, Total	37.4	36.0	mg/l	4		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1126419-4 QC Sample: L1821978-01 Client ID: DUP Sample						
Aluminum, Total	0.00965J	0.00978J	mg/l	NC		20
Arsenic, Total	0.00070	0.00068	mg/l	3		20
Calcium, Total	172.	166	mg/l	4		20
Chromium, Total	0.00354	0.00350	mg/l	1		20
Iron, Total	0.204	0.209	mg/l	2		20
Magnesium, Total	19.6	18.8	mg/l	4		20
Manganese, Total	0.03557	0.03423	mg/l	4		20
Potassium, Total	7.52	7.25	mg/l	4		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1126419-4 QC Sample: L1821978-01 Client ID: DUP Sample						
Sodium, Total	705.	681	mg/l	3		20

INORGANICS
&
MISCELLANEOUS

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA
Lab Number: L1821757
Report Date: 06/18/18

SAMPLE RESULTS

Lab ID: L1821757-02
Client ID: PZ04-061118
Sample Location: WATERLOO, NY
Sample Depth:
Matrix: Water

Date Collected: 06/11/18 15:20
Date Received: 06/11/18
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	1070		mg CaCO3/L	10.0	NA	5	-	06/13/18 08:56	121,2320B	BR
Solids, Total Dissolved	3200		mg/l	10	3.1	1	-	06/13/18 11:15	121,2540C	SD
Nitrogen, Ammonia	5.54		mg/l	0.075	0.024	1	06/12/18 18:45	06/13/18 21:53	44,350.1	AT
Nitrogen, Nitrate	ND		mg/l	0.10	0.033	1	-	06/12/18 22:33	44,353.2	MR
Nitrogen, Total Kjeldahl	6.45		mg/l	0.300	0.066	1	06/13/18 16:30	06/15/18 22:59	4,351.3/.1 (M)	AT
Phosphorus, Total	0.295		mg/l	0.020	0.006	2	06/12/18 10:00	06/13/18 12:14	121,4500P-E	SD
Phosphorus, Orthophosphate	0.461		mg/l	0.250	0.050	50	-	06/12/18 07:22	121,4500P-E	UN
Sulfide	64.		mg/l	10	10.	100	06/14/18 19:30	06/15/18 03:21	121,4500S2-AD	CW
Total Organic Carbon	12.0		mg/l	5.00	1.14	10	-	06/13/18 10:43	121,5310C	AG
Anions by Ion Chromatography - Westborough Lab										
Chloride	408.		mg/l	50.0	8.39	100	-	06/13/18 19:55	44,300.0	AU
Sulfate	1030		mg/l	100	16.0	100	-	06/13/18 19:55	44,300.0	AU

Project Name: FORMER HAMPSHIRE CHEMICAL CO **Lab Number:** L1821757

Project Number: 701970.01.SA **Report Date:** 06/18/18

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1124881-1										
Phosphorus, Orthophosphate	0.001	J	mg/l	0.005	0.001	1	-	06/12/18 07:18	121,4500P-E	UN
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1124938-1										
Phosphorus, Total	ND		mg/l	0.010	0.003	1	06/12/18 10:00	06/13/18 11:57	121,4500P-E	SD
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1125080-1										
Nitrogen, Ammonia	ND		mg/l	0.075	0.024	1	06/12/18 18:45	06/13/18 21:21	44,350.1	AT
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1125207-1										
Nitrogen, Nitrate	ND		mg/l	0.10	0.033	1	-	06/12/18 21:48	44,353.2	MR
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1125393-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	06/13/18 08:56	121,2320B	BR
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1125405-1										
Solids, Total Dissolved	ND		mg/l	10	3.1	1	-	06/13/18 11:15	121,2540C	SD
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1125494-1										
Total Organic Carbon	0.150	J	mg/l	0.500	0.114	1	-	06/13/18 10:43	121,5310C	AG
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1125536-1										
Nitrogen, Total Kjeldahl	0.158	J	mg/l	0.300	0.022	1	06/13/18 16:30	06/15/18 22:22	4,351.3/.1 (M)	AT
General Chemistry - Westborough Lab for sample(s): 02 Batch: WG1126118-1										
Sulfide	ND		mg/l	0.10	0.10	1	06/14/18 19:30	06/15/18 03:18	121,4500S2-AD	CW
Anions by Ion Chromatography - Westborough Lab for sample(s): 02 Batch: WG1126174-1										
Chloride	ND		mg/l	0.500	0.083	1	-	06/13/18 18:55	44,300.0	AU
Sulfate	ND		mg/l	1.00	0.160	1	-	06/13/18 18:55	44,300.0	AU

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1124881-2								
Phosphorus, Orthophosphate	95		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1124938-2								
Phosphorus, Total	99		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1125080-2								
Nitrogen, Ammonia	92		-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1125207-2								
Nitrogen, Nitrate	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1125393-2								
Alkalinity, Total	101		-		90-110	-		10
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1125405-2								
Solids, Total Dissolved	94		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1125494-2								
Total Organic Carbon	92		-		90-110	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1125536-2					
Nitrogen, Total Kjeldahl	90	-	78-122	-	
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1126118-2					
Sulfide	104	-	75-125	-	
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02 Batch: WG1126174-2					
Chloride	103	-	90-110	-	
Sulfate	100	-	90-110	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821757
Report Date: 06/18/18

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1124881-4 QC Sample: L1821625-02 Client ID: MS Sample												
Phosphorus, Orthophosphate	0.002J	0.5	0.489	98		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1124938-3 QC Sample: L1821549-01 Client ID: MS Sample												
Phosphorus, Total	0.597	0.5	1.06	93		-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125080-4 QC Sample: L1821605-01 Client ID: MS Sample												
Nitrogen, Ammonia	0.081	4	3.92	96		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125207-4 QC Sample: L1821757-02 Client ID: PZ04-061118												
Nitrogen, Nitrate	ND	4	4.1	102		-	-		83-113	-		6
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125393-4 QC Sample: L1821470-01 Client ID: MS Sample												
Alkalinity, Total	358.	100	450	92		-	-		86-116	-		10
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125494-4 QC Sample: L1821847-01 Client ID: MS Sample												
Total Organic Carbon	6.69	20	24.6	89		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125536-4 QC Sample: L1821948-05 Client ID: MS Sample												
Nitrogen, Total Kjeldahl	9.16	8	13.5	**54**	Q	-	-		77-111	-		24
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1126118-4 QC Sample: L1800006-100 Client ID: MS Sample												
Sulfide	ND	0.55	ND	**0**	Q	-	-		70-130	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1126174-3 QC Sample: L1821374-01 Client ID: MS Sample												
Chloride	53.2	20	74.0	104		-	-		90-110	-		18
Sulfate	155.	40	195	100		-	-		90-110	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821757
Report Date: 06/18/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1124881-3 QC Sample: L1821625-01 Client ID: DUP Sample						
Phosphorus, Orthophosphate	0.236	0.235	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1124938-4 QC Sample: L1821549-01 Client ID: DUP Sample						
Phosphorus, Total	0.597	0.616	mg/l	3		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125080-3 QC Sample: L1821605-01 Client ID: DUP Sample						
Nitrogen, Ammonia	0.081	0.083	mg/l	3		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125207-3 QC Sample: L1821757-02 Client ID: PZ04-061118						
Nitrogen, Nitrate	ND	0.067J	mg/l	NC		6
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125393-3 QC Sample: L1821470-01 Client ID: DUP Sample						
Alkalinity, Total	358.	360	mg CaCO3/L	1		10
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125405-3 QC Sample: L1821339-01 Client ID: DUP Sample						
Solids, Total Dissolved	320	320	mg/l	0		10
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125494-3 QC Sample: L1821847-01 Client ID: DUP Sample						
Total Organic Carbon	6.69	6.42	mg/l	4		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1125536-3 QC Sample: L1821948-05 Client ID: DUP Sample						
Nitrogen, Total Kjeldahl	9.16	6.00	mg/l	**42**	Q	24
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1126118-3 QC Sample: L1800006-100 Client ID: DUP Sample						
Sulfide	ND	ND	mg/l	NC		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER HAMPSHIRE CHEMICAL CORP

Project Number: 701970.01.SA

Lab Number: L1821757

Report Date: 06/18/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1126174-4 QC Sample: L1821374-01 Client ID: DUP Sample					
Chloride	53.2	53.8	mg/l	1	18
Sulfate	155.	155	mg/l	0	20

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821757
Report Date: 06/18/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1821757-01A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1821757-01B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1821757-01C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1821757-01D	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		MN-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)
L1821757-01E	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		FE-6020T(180),CA-6020T(180),K-6020T(180),NA-6020T(180),MN-6020T(180),AS-6020T(180),AL-6020T(180),MG-6020T(180)
L1821757-01F	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1821757-01G	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1821757-01H	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1821757-01I	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1821757-02A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1821757-02B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1821757-02C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1821757-02D	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-5310(28)
L1821757-02E	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-5310(28)
L1821757-02F	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-5310(28)
L1821757-02G	Plastic 250ml unpreserved/No Headspace	A	NA		2.6	Y	Absent		ALK-T-2320(14)
L1821757-02H	Plastic 500ml unpreserved	A	7	7	2.6	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821757-02I	Amber 500ml unpreserved	A	7	7	2.6	Y	Absent		OPHOS-4500(2),SO4-300(28),CL-300(28),NO3-353(2),TDS-2540(7)
L1821757-02J	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		MN-6020S(180),CR-6020S(180),FE-6020S(180),AS-6020S(180),AL-6020S(180)

*Values in parentheses indicate holding time in days

Project Name: FORMER HAMPSHIRE CHEMICAL CORP
Project Number: 701970.01.SA

Lab Number: L1821757
Report Date: 06/18/18

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1821757-02K	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		FE-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NA-6020T(180),MN-6020T(180),AS-6020T(180),SO-UI(180),AL-6020T(180),MG-6020T(180)
L1821757-02L	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SULFIDE-4500(7)
L1821757-02M	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SULFIDE-4500(7)
L1821757-02N	Plastic 500ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821757-02O	Plastic 500ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		TKN-351(28),TPHOS-4500(28),NH3-350(28)
L1821757-03A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1821757-03B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	FORMER HAMPSHIRE CHEMICAL CORP	**Lab Number:**	L1821757
Project Number:	701970.01.SA	**Report Date:**	06/18/18

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER HAMPSHIRE CHEMICAL CORP	**Lab Number:**	L1821757
Project Number:	701970.01.SA	**Report Date:**	06/18/18

Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORMER HAMPSHIRE CHEMICAL CORP	**Lab Number:**	L1821757
Project Number:	701970.01.SA	**Report Date:**	06/18/18

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

JACOBS

Chain of Custody Record

CH2M COC (YYYYMMDD-##): 20180611-01

LABORATORY: Alpha Analytical, 8 Walkup Dr, Westborough, MA 01581
(800) 624-9220
LABORATORY CONTACT: Ashaley Kane

L1821757

PROJECT: Former Hampshire Chemical Corp., Waterloo, NY
PROJECT NUMBER: 703077.01.SA
EVENT: 2018 Annual Groundwater Sampling

PROJECT MANAGER & REPORT TO #1:
David Newman
299 Madison Ave., Morristown, NJ 07960
862.242.7061, david.newman@jacobs.com

PROJECT CONTACT & REPORT TO #2:
Shane Lowe
501 N Broadway, St. Louis, MO 63102
314.335.5075, shane.lowe@jacobs.com

PURCHASE ORDER # 703077
TURNAROUND TIME: Standard
DATA PACKAGE: Level IV
PROGRAM: RCRA
SAMPLER(s): C. Lettich
SIGNATURE:

ANALYSES REQUESTED

PRESERVATIVE CODES (H=HCl, N=HNO_3, S=H_2SO_4, Zn=zinc acetate, B=NaOH, --=none)

SAMPLE IDENTIFICATION	GRAB/COMPOSITE	DATE	TIME	MATRIX	# CONTAINERS	VOCs + TICs (8260C)	Total Metals (6010C)(Al, As, Ca, Cr, Fe, K, Mg, Mn, Na)	Dissolved Metals (6010C)(Al, As, Cr, Fe, Mn) Field Filtered	Total Metals (6010C)(Al, As, Ca, Fe, K, Mg, Mn, Na)	Dissolved Metalsb (6010C) (Al, As, Fe, Mn) Field Filtered	Anions (300.0) (Cl^-, $SO4^{2-}$)	Nitrate (353.2)	Alkalinity (310.2)	Total Phosphorous (365.4)	TOC (SM5310)	Ammonia (350.1)	TKN (351.2)	Orthophosphate(SM4500PE) Field Filtered	TDS (SM2540)	Total Sulfide (SM 4500)	Silica (200.7)	SVOCs + TICs (8270C)	PAHs (8270D SIM)	Additional Requirements
						H	N	N	N	N	--	--	S					--	--	Z,B	N	--	--	
MW19-061118	G	6/11/2018	12:00	GW	9	x			x	x												x	x	See note #1
PZ04-061118	G	6/11/2018	15:20	GW	15	x	x	x			x	x	x	x	x	x	x	x	x	x	x			CAUTION! See note #2
TB-061118	--	6/11/2018	8:00	W	2	x																		
						Use caution when opening sample PZ04-061118. See Note 2																		

1. RELINQUISHED BY (Signature)	DATE	TIME	1. RECEIVED BY (Signature)	DATE	TIME
	6/11/2018	~~17:00~~ 1750	S. [illegible] AAL	6/11/18	17:50
2. RELINQUISHED BY (Signature)	DATE	TIME	2. RECEIVED BY (Signature)	DATE	TIME
S. [illegible] AAL	6/11/18	17:50		6/12/18	0125
3. RELINQUISHED BY (Signature)	DATE	TIME	3. RECEIVED BY (Signature)	DATE	TIME

ADDITIONAL REMARKS/INSTRUCTIONS:
1) Well headspace contained high concentration of methane
2) Noted slight bulge to preserved sample containers. While filling containers measured **hydrogen sulfide** within the sample container headspace **above 100ppm.**

PAGE 1 of 1