



April 15, 2014

Mr. Maurice Moore
Division of Hazardous Waste Management
New York State Department of Environmental Protection
270 Michigan Avenue
Buffalo, NY 14203-2999

**Subject: 2013 Annual Periodic Review Report
Essex/Hope Site
Jamestown, New York
URS Project No. 41569831**

Dear Mr. Moore:

Enclosed please find the 2013 Annual Periodic Review Report for the above referenced project. Should you have any questions or desire additional information, please contact me at (412) 503-4672 or Valerie Sibeto at (412) 503-4670.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Dowiak".

URS

Mark Dowiak, P.E.
Project Manager
URS Dow Business Unit
(412) 503-4672

Enclosure

cc: Tim King – Dow Chemical Corporation
Matt Forcucci – NY State Dept. of Health
Patrick Foster – Div. of Environmental Enforcement
Carlo J. Montisano – Custom Production MFG., Inc.
Valerie Sibeto – URS Corporation

URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220
Tel: 412.503.4700
Fax: 412.503.4701
www.urscorp.com

**2013 Annual Periodic
Review Report**

**Essex/Hope Site
Jamestown, New York**

April 2014 - Final

***Prepared for:
Essex Specialty Products, Inc.
Auburn Hills, Michigan***

URS Project No. 41569831

2013 ANNUAL PERIODIC REVIEW REPORT

**Essex/Hope Site
Jamestown, New York**

Prepared for:
Essex Specialty Products, Inc.
Auburn Hills, Michigan

Prepared by:

Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

URS Project No. 41569831

April 2014



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details		Box 1
Site No.	907015	
Site Name Essex; Hope Site		
Site Address: 125 Blackstone Avenue		Zip Code: 14701
City/Town: Jamestown		
County: Chautauqua		
Site Acreage: 4.7		
Reporting Period: May 07, 2012 to October 16, 2013 JANUARY 1, 2013 to DECEMBER 31, 2013		
		YES NO
1. Is the information above correct?		☒ ☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		☐ ☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		☐ ☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		☐ ☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		☐ ☒

Box 2	
	YES NO
6. Is the current site use consistent with the use(s) listed below? Industrial	☒ ☐
7. Are all ICs/ECs in place and functioning as designed?	☒ ☐
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.	
A Corrective Measures Work Plan must be submitted along with this form to address these issues.	
Signature of Owner, Remedial Party or Designated Representative	Date

SITE NO. 907015

Box 3

Description of Institutional Controls

Parcel

Owner

Institutional Control

303-8-2

~~LILLY JAMESTOWN, INC~~

CUSTOM PRODUCTION
MANUFACTURING, INC (CPM)

O&M Plan

Site in in operation and maintenance (O&M) phase of remediation. O&M activities are described in the report entitled "2013 ANNUAL PERIODIC REVIEW REPORT, AND.

REMEDIAL SYSTEMS O&M MANUAL, MARCH, 1998

Box 4

Description of Engineering Controls

Parcel

Engineering Control

303-8-2

Groundwater Treatment System
Vapor Mitigation
Groundwater Containment

Groundwater containment is accomplished by a number of recovery wells in both the shallow and deep groundwater. Collected groundwater is then treated by activated carbon before discharge to the POTW. One residence downgradient of the site requires a sub-slab mitigation system.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

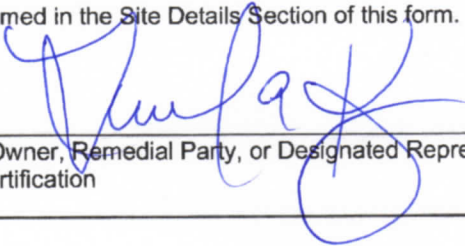
SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Timothy A. King at c/o The Dow Chemical Co.
print name print business address PO Box 8361 South Charleston, WV
25303

am certifying as Remedial Party (Essex Specialty) (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.


Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

4/21/14
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

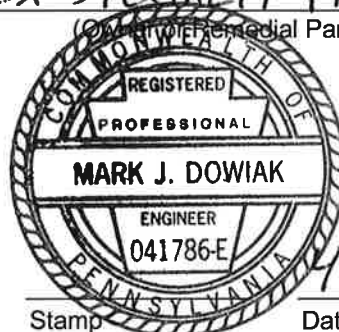
I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I MARK J. DOWIAK at URS CORP., FOSTER PLAZA 6 - SUITE 400
print name print business address 681 ANDERSEN DRIVE, PITTSBURGH, PA
15220

am certifying as a Professional Engineer for the ESSEX SPECIALTY PRODUCTS INC
(Owner/Remedial Party)

Mark J. Dowiak

Signature of Professional Engineer, for the Owner or
Remedial Party, Rendering Certification



Stamp
(Required for PE)

4/15/14
Date

TABLE OF CONTENTS

IC/EC Certification Form- NYSDEC Enclosure 2

I.	SITE OVERVIEW.....	1
	<i>SUPPLEMENTAL REMEDIAL ACTIVITIES.....</i>	<i>2</i>
	<i>MAJOR SYSTEM MODIFICATIONS</i>	<i>6</i>
	<i>PERFORMANCE CRITERIA.....</i>	<i>8</i>
II.	REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS.....	9
	<i>GROUNDWATER POTENTIOMETRIC SURFACE ELEVATIONS AND FLOW CONDITIONS.....</i>	<i>9</i>
	<i>AST/UST AREA</i>	<i>10</i>
	<i>NORTH PARKING LOT (NPL) AREA</i>	<i>11</i>
	<i>NORTH SITE AREA</i>	<i>13</i>
	<i>ACETONE IN NORTH AREA DEEP GROUNDWATER.....</i>	<i>18</i>
	<i>UST AREA</i>	<i>19</i>
III.	IC/EC PLAN COMPLIANCE REPORT.....	22
IV.	MONITORING YEAR 2013	24
	<i>GROUNDWATER FLOW CONDITIONS.....</i>	<i>25</i>
	<i>RECOVERY WELL EXTRACTIONS.....</i>	<i>25</i>
	<i>RECOVERY WELL AND MONITORING WELL SAMPLING.....</i>	<i>25</i>
	<i>GROUNDWATER TREATMENT SYSTEM.....</i>	<i>26</i>
	<i>ACETONE PRE-TREATMENT.....</i>	<i>26</i>
	<i>CONCLUSIONS AND RECOMMENDATIONS</i>	<i>30</i>
V.	OPERATIONS AND MAINTENANCE	31
	<i>GROUNDWATER TREATMENT SYSTEM.....</i>	<i>31</i>
	<i>RECOVERY WELLS AND TREATMENT SYSTEM MAINTENANCE</i>	<i>32</i>
VI.	OVERALL CONCLUSIONS AND RECOMMENDATIONS.....	34
	<i>COMPLIANCE WITH THE SITE MANAGEMENT PLAN</i>	<i>34</i>
	<i>PERFORMANCE AND EFFECTIVENESS OF THE REMEDY</i>	<i>35</i>
	<i>FUTURE PRR SUBMITTALS.....</i>	<i>39</i>

List of Appendices

- A DEED RESTRICTIONS FILING, MARCH, 2014
- B *Appendix B not used in this report*
- C GROUNDWATER EXTRACTION MONITORING DATA
 - C-1 2013 WATER LEVEL DATA
 - C-2 2013 GROUNDWATER EXTRACTION SYSTEM MONITORING DATA
 - C-3 GROUNDWATER EXTRACTION PERFORMANCE DATA

- D LABORATORY ANALYTICAL DATA
 - D-1 2013 SEMI-ANNUAL RECOVERY WELL DATA
 - D-2 2013 ANNUAL PMP MONITORING WELL DATA
 - D-3 2013 MONTHLY POTW INFLUENT/EFFLUENT SAMPLE DATA
- E SEMI-ANNUAL BPU REPORTS

List of Tables

- 1 ESSEX/HOPE SOIL AND GROUNDWATER REMEDIAL ACTION OBJECTIVES (RAOs)
- 2 SCHEDULE OF ROUTINE MAINTENANCE AND MONITORING ACTIVITIES
- 3 2013 GROUNDWATER EXTRACTION SUMMARY
- 4 RECOVERY WELL ANALYTICAL RESULTS-2013
- 5 MONITORING WELL ANALYTICAL RESULTS, SEPTEMBER 2013
- 6 PRE-CARBON INFLUENT ANALYTICAL RESULTS, POTW MONTHLY MONITORING SUMMARY
- 7 PRIMARY CARBON EFFLUENT ANALYTICAL RESULTS, POTW MONTHLY MONITORING SUMMARY
- 8 POST CARBON EFFLUENT ANALYTICAL RESULTS, POTW MONTHLY MONITORING SUMMARY

List of Figures

- 1 SITE LOCATION MAP
- 2 EXISTING SITE PLAN
- 3 SHALLOW GROUNDWATER POTENTIOMETRIC SURFACE MAP, JUNE 27, 2013
- 4 SHALLOW GROUNDWATER POTENTIOMETRIC SURFACE MAP, SEPTEMBER 23, 2013
- 5 DEEP GROUNDWATER POTENTIOMETRIC SURFACE MAP, JUNE 27, 2013
- 6 DEEP GROUNDWATER POTENTIOMETRIC SURFACE MAP, SEPTEMBER 23, 2013
- 7 SHALLOW GROUNDWATER ANALYTICAL DATA, 2013
- 8 DEEP GROUNDWATER ANALYTICAL DATA, 2013
- 9 SITE-WIDE AREA SHALLOW GROUNDWATER TRICHLOROETHYLENE- 2013
- 10 SITE-WIDE AREA SHALLOW GROUNDWATER CIS 1,2- DICHLOROETHYLENE- 2013
- 11 SITE-WIDE AREA SHALLOW GROUNDWATER VINYL CHLORIDE- 2013
- 12 SITE-WIDE AREA SHALLOW GROUNDWATER TCE/VINYL CHLORIDE RATIO- 2013
- 13 SITE-WIDE AREA DEEP GROUNDWATER TRICHLOROETHYLENE- 2013
- 14 SITE-WIDE AREA DEEP GROUNDWATER CIS 1,2- DICHLOROETHYLENE- 2013
- 15 SITE-WIDE AREA DEEP GROUNDWATER VINYL CHLORIDE- 2013
- 16 SITE-WIDE AREA DEEP GROUNDWATER TCE/VINYL CHLORIDE RATIO- 2013
- 17 RW-6D AREA DEEP GROUNDWATER ACETONE-2013
- 18 UST AREA SHALLOW GROUNDWATER ETHYLBENZENE- 2013
- 19 UST AREA SHALLOW GROUNDWATER XYLENES- 2013

I. Site Overview

On behalf of Essex Specialty Products, Inc. (ESP), URS has prepared this Annual Periodic Review Report (PRR), formerly the Annual Performance Monitoring Report for the ongoing remedial actions at the Essex/Hope Site in Jamestown, New York (Site NO.9-07-015) for the period January 1 through December 31, 2013.

An annual report has originally been required by the 1995 New York State Department of Environmental Conservation (NYSDEC) Order on Consent, and has been submitted annually starting with Year 1997. The report format has been revised for 2013 in accordance with the new NYSDEC guidance outlined in the August 27, 2013 correspondence to Mr. Timothy King, Dow Chemical Company (ESP). The new report format follows the general guidance for the PRR as outlined in the Enclosure 3 which was included with the NYSDEC letter. An Institutional and Engineering Controls (IC/EC) Certification Form Enclosure 2 is also included in this submittal. The Year 2013 PRR submittal date follows the previous annual report submittal dates of end of first quarter of following year as approved by NYDEC.

The Essex/Hope Site is located on a 4.7 acre parcel of land that is currently owned and occupied by Custom Production Manufacturing, Inc. (CPM) at 125 Blackstone Avenue in the City of Jamestown, NY. The site is located in a highly industrialized area of the city that has seen various degrees of industrial use for the past 75 years. Contamination onsite is the result of historical practices conducted at the facility as discussed in the Remedial Investigation (RI) Report dated October 1992. A site location map is provided as Figure 1.

There are three separate areas that are the focus of remedial action and include the North Parking Lot (NPL) Area, the former Underground Storage Tanks (UST) Area, and the former Aboveground Storage Tank/Underground Storage Tank (AST/UST) Area. These areas and the site monitoring points are illustrated on Figure 2.

The remedial systems at the Essex/Hope Site were designed and constructed to address impacted groundwater and soils by a combination of soil vapor extraction, air sparging, and a groundwater extraction and treatment. The original remedial action design and implementation was based upon the March 1994 Record of Decision (ROD) issued by the NYSDEC and included:

- A groundwater remediation system consisting of an extraction well network of five (5) shallow and two (2) deep recovery wells and activated carbon groundwater treatment with onsite discharge to the local POTW;
- Soil remediation in the AST/UST and UST Areas by soil vapor extraction (SVE) for volatile organic constituents occurring above the shallow water table.
- Soil excavation in the NPL Area, conducted in September and October of 1996, to remove impacted soils in the former sump and surrounding areas.
- Air sparging in the shallow water-bearing zone of the NPL, UST and AST/UST Areas to supplement the treatment of impacted groundwater via enhanced biodegradation and volatilization of organic constituents. A soil vapor extraction system was added to the NPL Area to collect volatile organic constituents (VOCs) volatilized from the shallow groundwater in this area.
- The remedial areas were capped with either asphalt or concrete to enhance surface water runoff and minimize infiltration.
- A network of monitoring wells across the site (as designated in the Performance Monitoring Plan) is used to measure the effectiveness of the groundwater remedial activities.

Supplemental Remedial Activities

Voluntary supplemental remedial activities were initiated in 2000, with the approval of the NYSDEC, to refine the delineation of subsurface constituents and to evaluate potential remedial alternatives to enhance remedial effectiveness. A summary of the additional activities performed at the Site after the initial remedial actions is as follows:

- In July, 2000 a pilot scale zero-valent iron (ZVI) permeable reactive barrier (PRB) was injected around recovery well RW-2D within the lower semi-confined water-bearing zone beneath Building 5. The pilot PRB was designed to evaluate the effectiveness of ZVI technology to reduce and control the migration of dissolved VOC constituents from the site. As part of this evaluation, additional groundwater piezometers were installed for performance monitoring of the pilot PRB. A report entitled Interim Results, PRB Pilot

Results for First Four Sample Rounds (URS, February 2001) and a final pilot test report detailing results through December 2002 were submitted to NYSDEC in July 2003.

- The former underground storage tanks (USTs) in the UST Area were uncovered in August 2000 and evaluated as a potential ongoing source of VOCs in this area. Additional test borings and groundwater piezometers were installed within the upper shallow water-bearing zone in this area to evaluate groundwater and soil chemical conditions, and to refine groundwater flow direction and constituent migration. Results of these activities were reported in the Plant #5 East Area and UST Area Investigations Report (URS, March 2001).
- As part of the UST Area investigation, the area east of Building 5 was evaluated at the request of the NYSDEC to determine the source of vinyl chloride within the lower water-bearing zone at Monitoring Well MW-19D, located on the Site's eastern property line. A network of test borings and deep piezometers were installed within the UST Area and on the offsite property to the east for evaluation of chemical conditions within the soil and groundwater. Results of these activities were reported in the Plant #5 East Area and UST Area Investigations Report (URS, March 2001).
- The former USTs (Tanks 1 through 4) in the UST Area were uncovered during 2001 and cleaned-out to remove residual liquids from the tanks. Openings were cut in each tank and the fluid contents removed, and each tank was rinsed with potable water. Following rinsing, the tanks were treated using the Biox[®] chemical oxidation process to remove residual organic constituents in the tanks. Results of the tank cleaning were submitted to the NYSDEC in the Tank Closure Work Plan (URS, September 2001).
- Based upon the results of the Biox solution treatment of the USTs VOCs were not reduced below the "clean closure" standard of 5 µg/L within Tanks T-1, T-3 and T-4 as required by the NYSDEC. A UST removal program was initiated by Essex Specialty Products where all five (5) of the former USTs in the UST Area, and over 1000 tons of soil were removed between the period of November 2002 and January 2003. Results of this activity have been submitted to the NYSDEC in the UST Removal Interim Report (URS, February 2003).
- A site investigation was completed in October 2003 to further define conditions in the UST Area and the vinyl chloride groundwater plume on the east side of the former Plant

No. 5 building. This investigation was completed to provide data to address potential additional measures for the site cleanup. These potential measures focus on insitu methods especially those that are able to treat both the UST Area contaminants (toluene, ethylbenzene, xylenes) and the vinyl chloride plume. Results of the investigation are reported under separate cover. The new monitoring wells installed as part of these investigations, MW's: 21D, 22D, 23S, 23D and 24S, are shown on Figure 2. Of these wells, MW-21D and MW-22D were added to the Performance Monitoring Plan (PMP) as directed by the NYSDEC. The results of this investigation have been submitted to the NYSDEC in the UST Area and Groundwater Vinyl Chloride Investigations Report (URS, June 2004).

- Supplemental site investigations were performed from November, 2005 through June, 2006 for the UST Area and the offsite groundwater zones. The objectives of the investigations were as follows:
 - *Determine the extent of the residual VOC contamination in the UST Area shallow soils and groundwater.* The most recent investigations (2003) found VOCs in shallow groundwater approximately 30 feet south of the former USTs. Additional investigations were necessary to further delineate the extent of the VOCs to the south and east, and offsite, if necessary.
 - *Determine the extent of the VOC contamination in shallow groundwater in the vicinity of Monitoring Well 14S.* Performance monitoring has indicated that shallow groundwater VOCs have persisted at elevated levels (> 1ppm) in monitoring well 14S, north of the NPL Area and offsite, north of Hopkins Avenue. Previous investigations (June, 2004 report) indicated that MW-14S had a TCE level of 2700 ppb, which was the highest TCE detected in the shallow water-bearing zone.
 - *Determine the extent of the VOCs in deep groundwater in the offsite area northeast and east of CPM Plant No. 5.* The latest offsite groundwater investigations (2003) found VOCs in deep groundwater to the northeast (MW-22D) of the site, approximately 50 ft beyond the property boundary. This area is in the downgradient groundwater direction (under non-pumping conditions), and

the VOCs are expected to be residual contamination from migration of the historic plume. Additional investigations were necessary to determine the extent of the offsite deep groundwater VOC plume. The results of these investigations were summarized in a separate report submitted to NYDEC in December 2006.

- *Phase I of the Supplemental Remedial Actions* was initiated in November of 2007. These included a new recovery well in the area northeast of the site, RW-6D and monitoring wells, MW-25S and MW-25D along Hopkins Avenue. Residential vapor sampling was also performed at 159 Hopkins Avenue.
- Recovery Well RW-6D installation was completed in the second half of 2008 and placed on-line in September 2008. Phase II Supplemental Remedial Activities commenced in November 2008 with the installation of a residential vapor mitigation system at 159 Hopkins Avenue.
- URS Corporation (URS) and subcontractor Mitigation Tech installed a residential vapor venting system on November 18, 2008 at 159 Hopkins Avenue.
- VOCs in the UST Area were evaluated for insitu treatment technologies and a chemical oxidation treatability study was completed in 2010. A Remedial Action Work Plan for insitu chemical oxidation (ISCO) of the UST Area was submitted in August 2011 and continued Phase II remedial actions commenced in the fourth quarter of 2011. Four (4) shallow monitoring wells (MW-26S, MW-27S, MW-28S, and MW-29S) were installed in the UST Area to better evaluate the extent of VOCs in the area and for monitoring of the subsequent ISCO results.
- ISCO was conducted in November 2011 to treat the shallow groundwater in the UST Area. The area surrounding RW-6D was also treated at this time to address the acetone plume in the deep groundwater zone. Performance monitoring of groundwater and soils was initiated in December 2011 and continued through 2012. Results of these activities were summarized in a separate report submitted to NYSDEC in the fourth quarter of 2012.
- From October – December 2013, shallow soil and groundwater investigations were conducted in the UST Area West Building to determine the extent of residual VOCs remaining in the UST Area following the completion of the chemical oxidation. Results

of these activities were summarized in a separate report to be submitted to NYDEC in April, 2014.

Major System Modifications

Major modifications to the original remedial systems configuration since startup in 1997 have included the following:

- Groundwater extraction from Recovery Well RW-1D, screened across the deep water-bearing zone in the NPL Area, was discontinued in June 1999 with the approval of the NYSDEC. As reported in the 1999 Annual Performance Monitoring Report (Radian International, April 1999), a pumping evaluation completed in the first half of 1999 revealed that vertical leakage was occurring from the shallow water-bearing zone to the deep water-bearing zone due to pumping from the deep zone. Based upon this information, and the fact that the majority of the groundwater constituents are recovered from RW-2D, NYSDEC recommended that RW-1D be shut down as documented in the June 17, 1999 correspondence from the NYSDEC to Radian International.
- The air sparging system in the NPL Area was shut down in July 2000, with the approval of the NYSDEC, to prevent the oxidation of the newly installed Pilot Permeable Reactive Barrier (PRB) and zero-valent iron injections in that area. The soil vapor extraction system continued to be operated in this area through 2001 to collect potential gases produced by subsurface reactions associated with the Pilot PRB and zero-valent iron injections in that area.
- Air sparging in the UST Area was discontinued in October 2000 after mechanical failure of the air sparge pump. Since the combined soil vapor extraction/air sparging system had reached its practical remedial effectiveness, Dow initiated activities to implement supplemental remedial activities to replace the original system, with the approval of the NYSDEC. These supplemental remedial activities include the *insitu* cleaning of the former USTs completed in December 2001 and February 2003, and the UST removals completed between November 2002 and January 2003.
- The soil vapor extraction system and groundwater recovery system (Recovery Wells RW-4S and RW-5S) in the UST Area were shut down in November 2002 prior to removal of the USTs. Excavation work resulted in complete removal of the electrical

system for the UST Area, Recovery Well RW-4S, and underground piping to the soil vapor extraction/air sparging wells and existing Recovery Well RW-5S. These systems were demolished. There are no plans at this time to redesign or reconstruct the UST Area remediation system.

- The AST/UST Area system was shut down since August of 2006 and remains offline pending supplemental remedial action in the AST/UST and UST areas and eventual permanent disconnection. The SVE System in the NPL Area was operated on a voluntary basis as an additional safeguard against potential vapor release. However, the system was shut down in November 2007 following review of air stream sample analyses that indicated vapor phase VOCs are negligible and this area poses no potential hazard associated with vapor release.
- System modifications were implemented as a result of the findings of the 2005-2006 UST Area and Offsite Groundwater Investigations. One new recovery well (RW-6D) was installed in November 2007 in the deep groundwater zone VOC plume offsite to the north. RW-6D was placed on-line in September, 2008. RW-6D was temporarily shut down in August 2011 due to elevated levels of acetone in excess of permit limits in the treatment system effluent. RW-6D remained offline for most of the 1st half of 2012 while continued efforts were made to address the acetone hotspot. URS' research determined that acetone is not included on the USEPA list of Total Toxic Organics (TTOs) and therefore, not considered a compound of interest. On June 6, 2012, a letter of notification was sent to the City of Jamestown Board of Public Utilities (BPU) advising that acetone would no longer be reported as a TTO. RW-6D was subsequently restarted on June 11, 2012. Acetone levels in the RW-6D area were monitored and the extent of the acetone in the deep groundwater zone was delineated. Groundwater monitoring is ongoing.
- URS Corporation (URS) and subcontractor Mitigation Tech installed a residential vapor venting system on November 18, 2008 at 159 Hopkins Avenue. URS performs annual inspections of the system.

Performance Criteria

The criteria to evaluate remediation effectiveness are the Remedial Action Objectives (RAOs) included as Appendix A in the March 1994 Record of Decision (ROD) for the site. Table 1 summarizes the RAOs for the site.

The groundwater treatment system operates under a Jamestown Board of Public Utilities (BPU) Pre-Treatment permit for discharge to the city sewer and POTW. Pre-treatment effluent limitations are contained in the permit and they are described in Section V.

Performance monitoring completed during the 2013 calendar year is discussed in Section V of this report.

II. Remedy Performance, Effectiveness and Protectiveness

Remedy performance, effectiveness and protectiveness were assessed by evaluation of historic monitoring data, including Year 2013 data, in comparison to the project remedial objectives. Year 2013 monitoring is described in Section V.

The remedial action has historically been broken down by three (3) major site areas: North Parking Lot Area (NPL), AST/UST Area and the UST Area. Since the supplemental investigations conducted in 2003-2008 the offsite area to the north and northeast, described as the “North Area”, has been included in the site remedial action and performance evaluations. The remedial action performance is summarized in the following tables and figures:

Figures 3 through 6 present the potentiometric surface mapping for the shallow and deep groundwater zones for June, 27 and September 23, 2013.

Figure 7 summarizes the shallow groundwater zone annual monitoring results for 2013.

Figure 8 summarizes the deep groundwater zone annual monitoring results for 2013.

Figures 9 through 16 present the site-wide shallow groundwater trichloroethylene (TCE), cis-1,2-Dichloroethylene (cDCE) and vinyl chloride (VC) distributions in shallow and deep groundwater zones, and the ratio of TCE/VC in both zones. The TCE/VC ratio provides a general assessment of the degree of TCE degradation in groundwater to by-product VC. The higher value areas represent lesser natural degradation of the TCE.

Figure 17 presents the distribution of acetone in deep groundwater.

Figures 18 and 19 present the distribution of ethylbenzene and total xylenes in shallow groundwater in the UST Area.

Groundwater Potentiometric Surface Elevations and Flow Conditions

Shallow groundwater regional flow direction under non-pumping conditions is to the northeast to the Chadakoin River. See Figure 1. Groundwater flow is influenced by pumping at recovery wells in the NPL and AST/UST Areas. See Figures 3 and 4. No groundwater recovery wells operate in the UST Area since they were removed with the UST excavation action.

Shallow groundwater is captured in the AST/UST Area and the NPL Areas by recovery wells RW-1S, RW-2S and RW-3S. A local groundwater mound is evident in the UST Area, and varies in size depending on the time of the well measurements. This mound is suspected to be an effect of variable surface infiltration in area which is enhanced by the drywell drainage systems on the south end of CPM Building No.5. The offsite areas to the north and northeast of the site are under non-pumping flow regimes since recovery wells are not present in these areas.

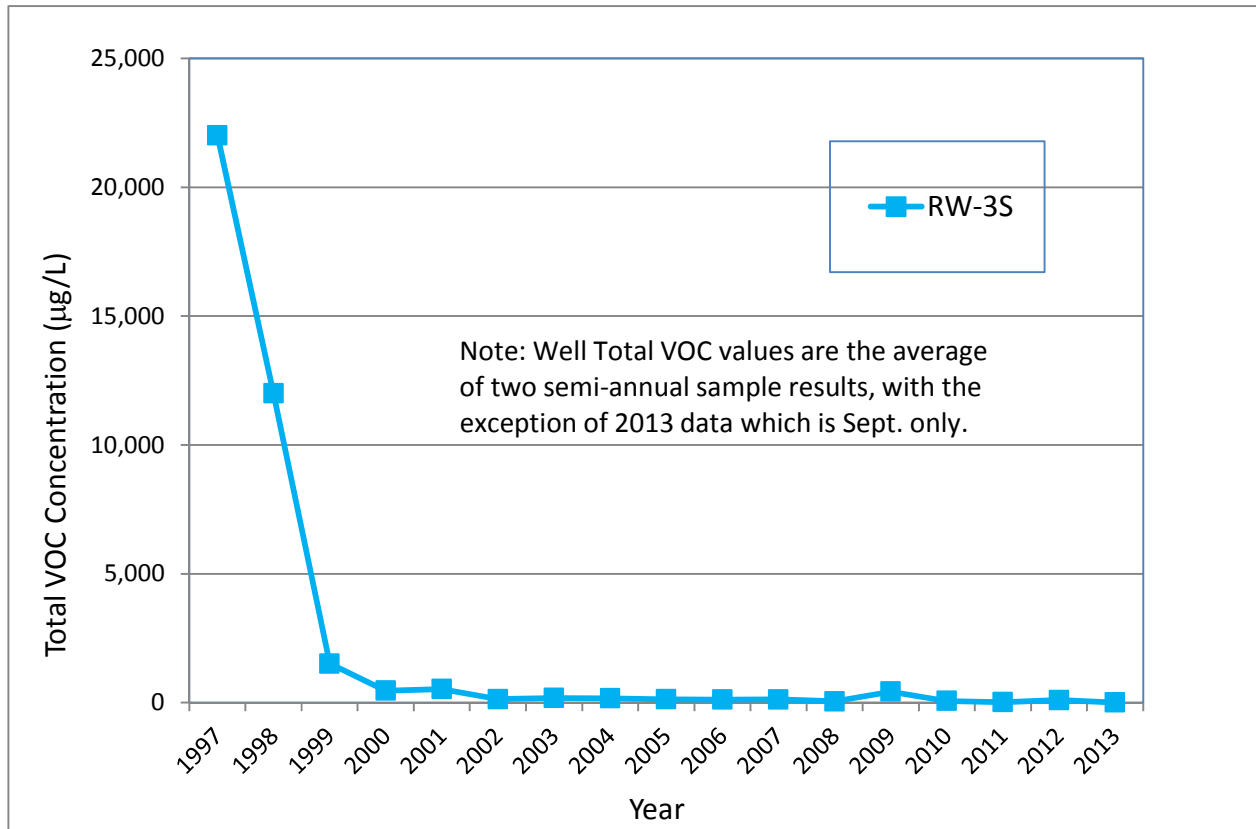
Deep groundwater regional flow direction under non-pumping conditions is to the northeast and it is influenced by pumping at recovery wells RW-2D and RW-6D in the NPL Area and the North Area northeast of the site near Hopkins Avenue. See Figures 5 and 6. Deep zone groundwater plume capture is evident by the flow gradients to recovery wells RW-2D and RW-6D. A low gradient area is evident in the vicinity monitoring well MW-15D and groundwater recovery may be reduced in this area. Vertical hydraulic gradients under pumping conditions are downward, as expected. Vertical gradients beyond the recovery well areas of influence (non-pumping conditions) are also slightly downward.

AST/UST Area

The AST/UST Area shallow groundwater is monitored by Recovery Well RW-3S and Monitoring Well MW-2. Deep groundwater VOCs were not present in this area. TCE and by-products 1, 2-DCE and vinyl chloride are at or near 1 ug/l in the AST/UST Area. See Figures 7 and 9 through 12. Since some of the VOCs are non-detect, the TCE/VC ratios were not calculated. The RW-3S March, 2013 data is considered an outlier result from sampling or laboratory error, not consistent with historical results. The September, 2013 sample result of non-detect for TCE confirmed the historical data trend.

Recovery Well RW-3S removed 0.32 pounds of VOCs in 2013. See Section V. Only VOC isopropylbenzene was detected in MW-2 at 6.1 ug/l, a decrease from 2012. Recovery well RW-3S total VOCs over time indicate that since Year 2002 the VOC levels have been at or near non-detect level (5 ug/l).

Recovery Well RW-3S – AST/UST Area



North Parking Lot (NPL) Area

The NPL Area remedial actions address both the shallow and deep groundwater zones.

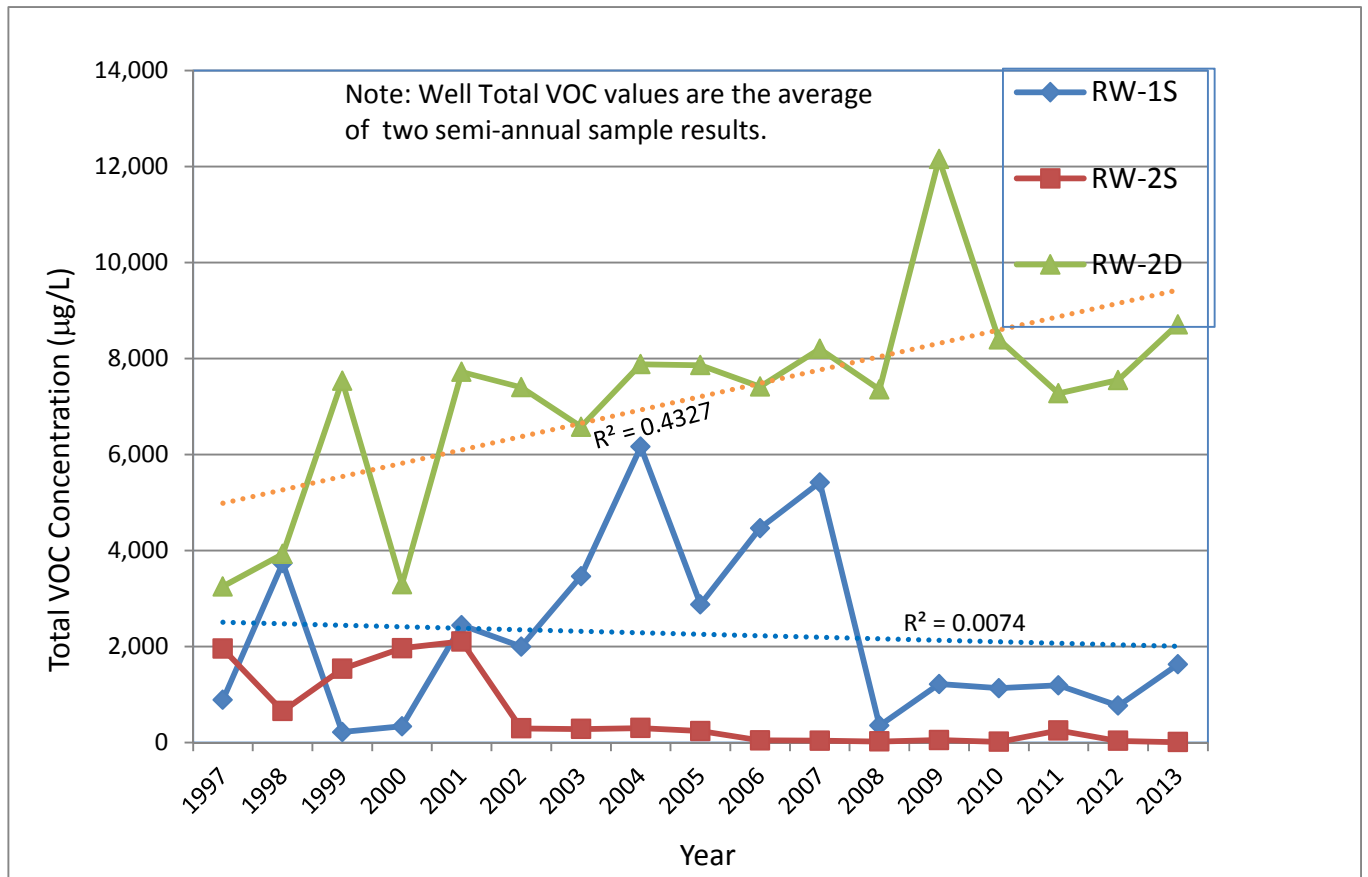
Shallow Groundwater Zone

Maximum shallow groundwater TCE concentration in the area is 937 ug/l (RW-1S). See Figures 7 and 9 through 12. The TCE/VC ratio ranges from 10-30 in the center of the VOC plume, indicative of limited TCE degradation. The ratios are less than 1.0 on the fringes of the plume. The TCE, cDCE and VC plumes are generally overlain indicating recovery well capture and limited migration.

Recovery Wells RW-1S and RW-2S removed 0.90 pounds of VOCs in 2013. See Section V. Total VOCs have been declining over time, primarily in RW-2S which is located on the northern end of the NPL Area. Since Year 2006 the VOC levels in this well have been at or

near non-detect level (5 ug/l). Total VOCs in RW-1S, near the center of the plume, have varied over time, with the values being consistently around the 1,000 ug/l level since Year 2008. This is a decline of 75% from the average TCE levels of approximately 4,000 ug/l during the period of Years 2004-2007.

NPL Area Recovery Wells



Deep Groundwater Zone

Deep groundwater VOCs have been higher than the shallow zone VOCs in the NPL Area since year 1999, and since Year 2010 they have been consistently approximately 8 times higher as demonstrated by comparison of recovery wells RW-1S and RW-2D. Maximum TCE in the deep groundwater zone in 2013 is 2660 ug/l (RW-2D). See Figures 8 and 13 through 16. The TCE/VC ratio ranges from 0.5 -5.0 in the center of the VOC plume, indicative of variable TCE degradation. The deep zone TCE, cDCE and VC plumes in the NPL Area are at relatively low concentrations and represent the upgradient fringe of the primary deep VOC plume to the northeast.

Recovery Well RW-2D removed 52.9 pounds of VOCs in 2013. See Section V. Total VOCs are generally increasing and have varied since 1997, with the values being around the 8000 ug/l level since Year 2009.

Capture of the NPL Area deep VOC plume is demonstrated by the potentiometric surface induced by recovery well RW-2D. Delineation of the NPL Area capture versus the North Area is not well-defined since the respective capture zones overlap, however it is evident that the VOC plume has not migrated in a western or southern direction in the NPL Area.

North Site Area

The North Site Area remedial actions address both the shallow and deep groundwater zones.

Shallow Groundwater Zone

Maximum shallow groundwater TCE in the downgradient northeast area in 2013 is 191 ug/l (MW-25S). See Figures 7 and 9 through 12. This is the furthest downgradient monitoring well to the northeast. The TCE/VC ratio at this well was not calculated since vinyl chloride was non-detect, indicative of limited TCE degradation. The ratios are less than 1.0 on the fringes of the plume.

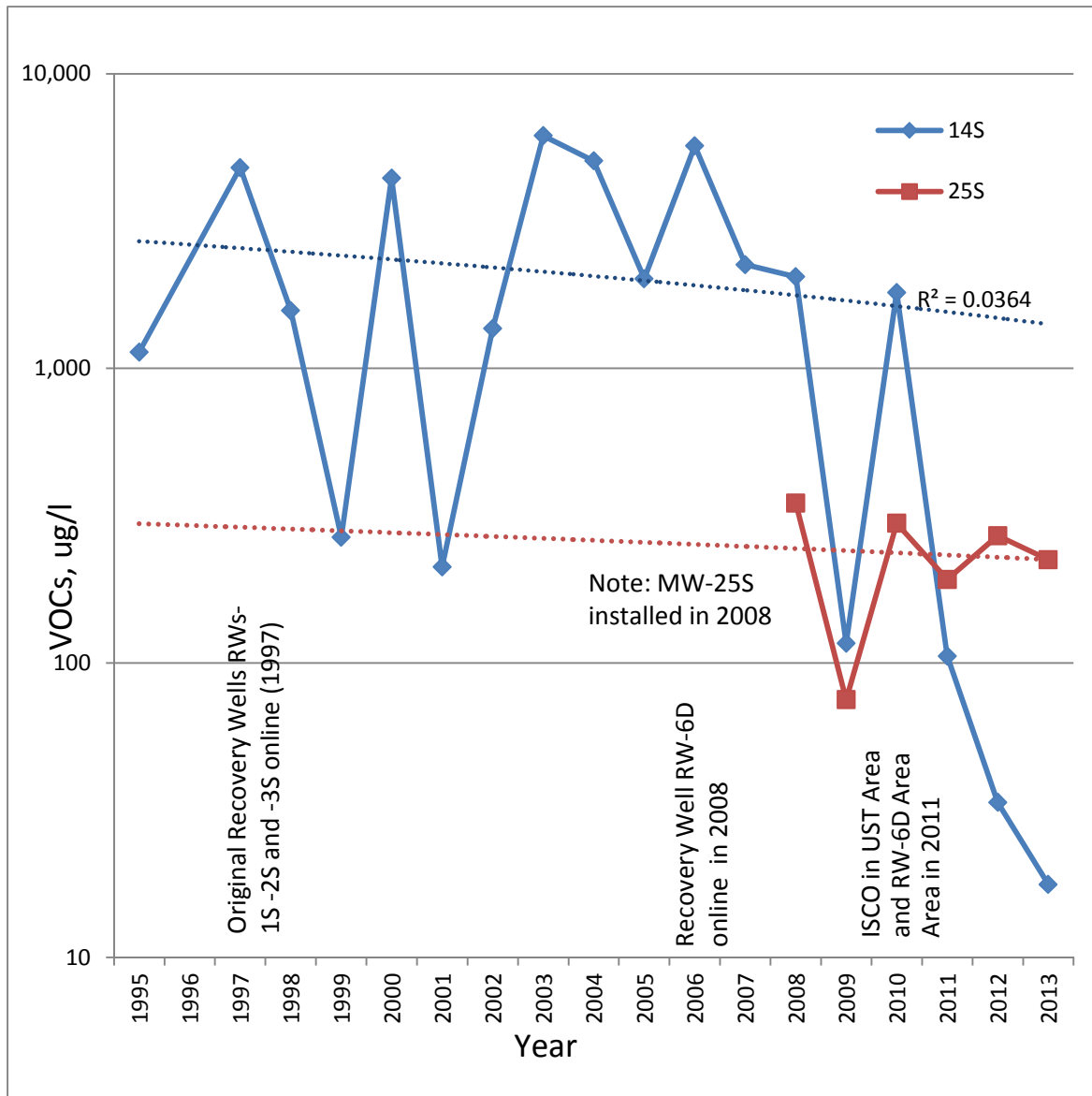
The 2006 offsite investigations assessed the shallow groundwater VOCs in the northeast area between the site and the Chadakoin River. Groundwater samples were taken from direct-push test borings and existing monitoring wells along Hopkins Avenue north of the site property. TCE and cDCE were the dominant compounds detected in the shallow groundwater. Vinyl chloride was not detected in any of the samples. Maximum concentrations detected were TCE at 210 ug/l and cDCE at 81 ug/l at TBN-17, adjacent to a residential building on Hopkins Avenue. The shallow groundwater TCE/cDCE plume was found to be entirely offsite, and extend approximately 500 feet east of the northeast corner of the site property. The plume is a narrow band of low concentration TCE/cDCE that extends to the east along the north side of Hopkins Avenue, to near the river. The northern extent of the plume was approximately 170 feet north of Hopkins Avenue. The surface conditions in the plume area are light industrial with the exception of one residential building located at 159 Hopkins Avenue.

The eastern limit of the TCE plume was not beyond TBN-20, the furthest east test boring drilled in the 2006 investigations. Groundwater from this test boring was below detection limits for all VOCs. The potential for future shallow groundwater discharge to the river has not been evaluated in the investigations. The shallow offsite VOC plume was determined to be a historical remnant of site operations and no further remedial actions were evaluated at the time, other than ongoing monitoring.

The residence on 159 Hopkins Avenue was investigated for potential vapor intrusion. Three (3) vapor probes were installed at the north, west and south sides of the residential structure. Generally, all of the vapor probes had detectable levels of VOCs in both rounds of sampling, except for the North-VP sample on the north side of the residence. The samples were also generally consistent by VOC compound with the groundwater VOCs. TCE, cDCE, toluene ethylbenzene and xylenes were found in the vapor samples at all three locations. As a result of the findings URS Corporation (URS) and subcontractor Mitigation Tech installed a residential vapor venting system on November 18, 2008.

The offsite TCE, cDCE and VC plumes in the shallow groundwater zone continue to migrate to the north and northeast under natural attenuation conditions. Monitoring is performed by MWs-14S and -25S to the north and MW-25S to the northeast. Monitoring well total VOCs over time have been declining, primarily in MW-14S over the period 2010 to 2013. Year 2013 TCE level was 17.7 ug/l, the lowest concentration detected since the beginning of monitoring in 1996. MW-25S total VOCs have varied over time, with the values consistently around the 200 ug/l level since Year 2008.

Monitoring Wells MW-14S and MW-25S – North Site Area



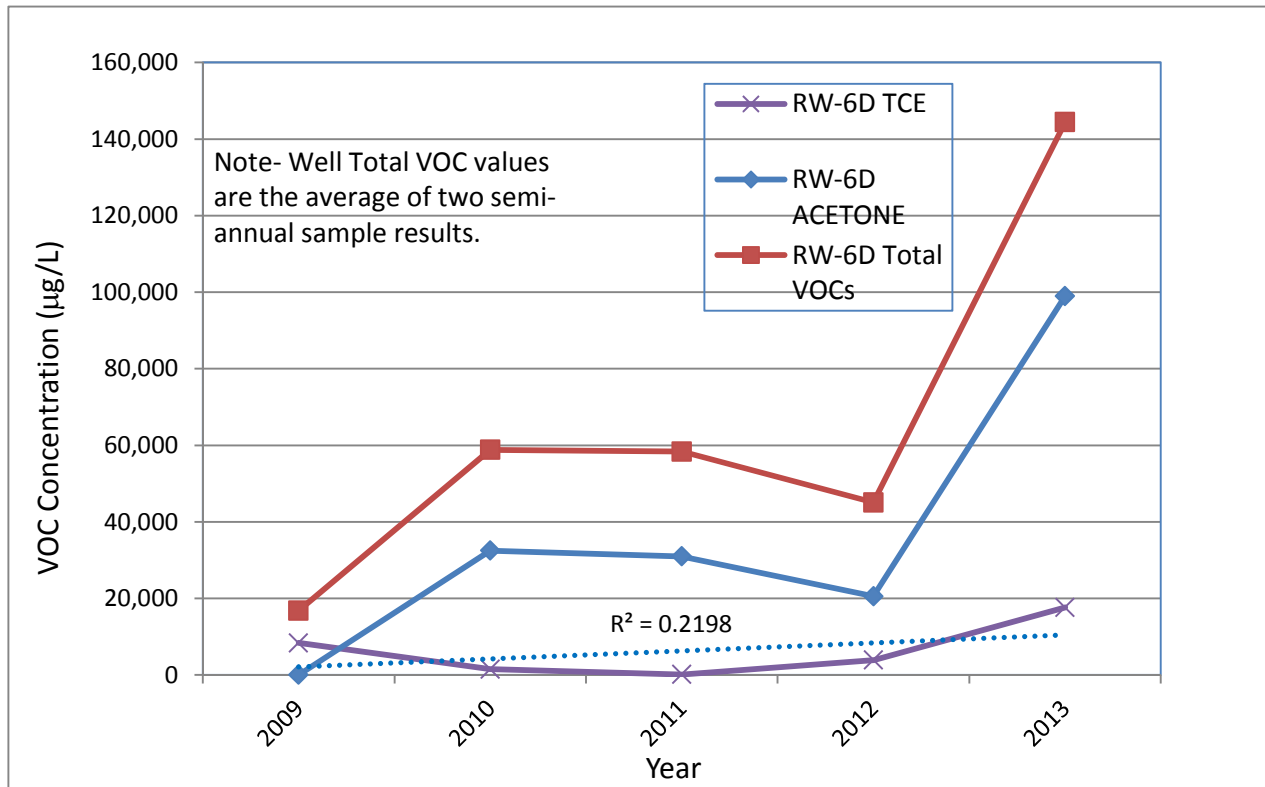
Deep Groundwater Zone

Deep groundwater VOCs in the offsite North Area have been two (2) orders of magnitude higher than the shallow zone VOCs since Year 2006 when new monitoring wells were constructed in the area. No prior data was available in this area. Maximum TCE in the deep groundwater was 24,000 ug/l at MW-15D, on the north side of Hopkins Avenue directly across from CPM Building No. 5. See Figures 8 and 13 through 16. The area around MW-15D is the hotspot for the deep groundwater VOC plume. The TCE/VC ratio varies in the VOC plume and ranges from less than 1.0 on the west to greater than 400 to the northeast. Generally, this

data suggests that the TCE plume has degraded closer to the original source area compared to the downgradient northeast area. This effect may be a result of ZVI injections in the NPL Area which have not affected the plume that has migrated offsite.

Recovery Well RW-6D has removed 225 pounds of VOCs in 2013. See Section V. Total VOCs have been increasing since the well went on-line in 2008, with a 3x increase from 2012 to 2013. This recent increase correlated with a similar increase in TCE and acetone levels. It is noted that about 68% of the total VOCs in RW-6D in 2013 are comprised of acetone. TCE was initially at 8,360 ug/l in 2009, and was variable with a slight increasing trend until 2013 when it increased about 5x to 23,600 ug/l in 2013 (Sept 2013).

Recovery Well RW-6D – North Site Area

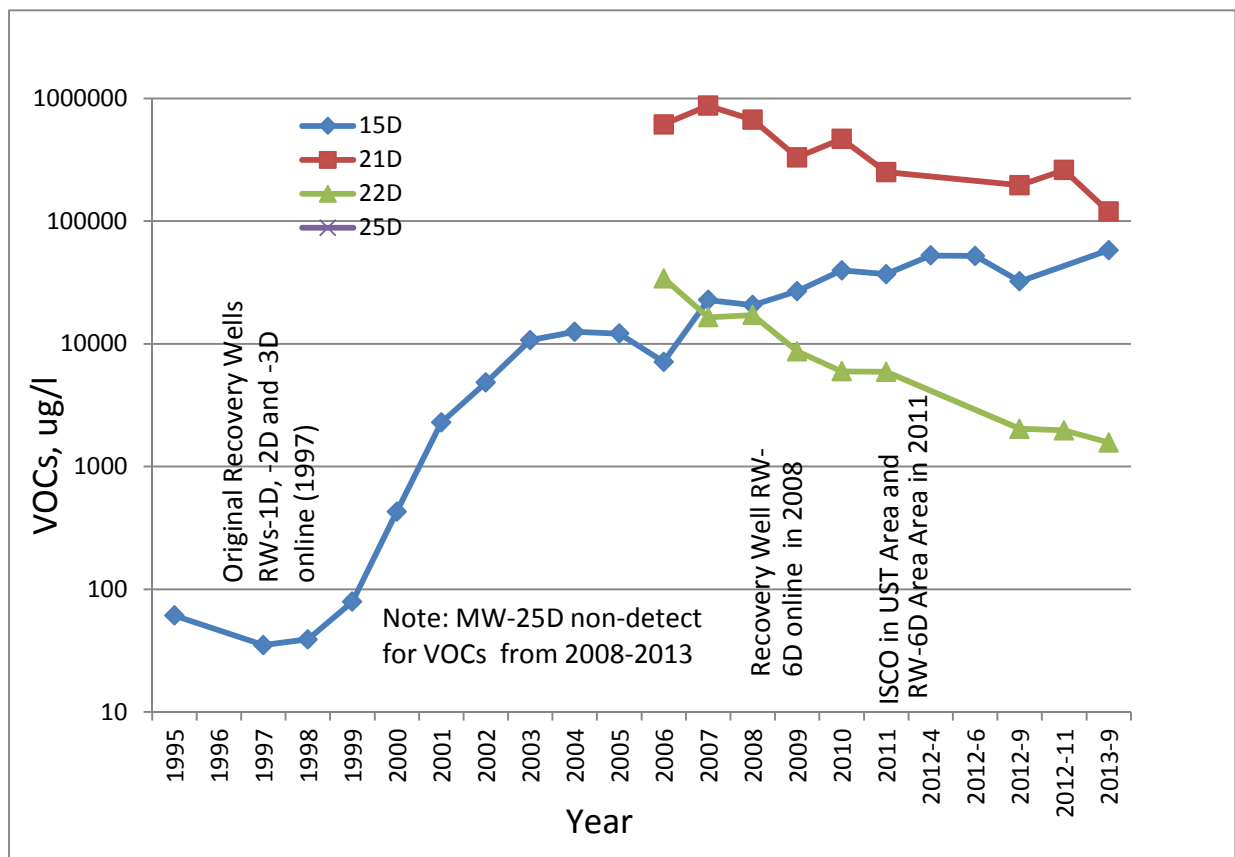


The deep groundwater TCE plume in the North Area has remained relatively stable since the start of monitoring. MW-16D, approximately 100 feet north of Hopkins Avenue and furthest to the north of the site was non-detect for VOCs in 2013. MW-15D, on the north side of Hopkins Avenue and directly south of MW-16D has had the highest TCE levels detected onsite and is in the center of the VOC north plume. Monitoring well MW-22D, the furthest well to the northeast, near recovery well RW-6D, has had continuously declining VOC levels from 20,643

ug/l in Year 2006 when it was constructed to 1,360 ug/l in Year 2013. Likewise, TCE levels in MW-21D have declined from 530,000 ug/l in year 2008 to 117 ug/l in year 2013. This is a result of groundwater recovery at RW-6D.

Monitoring well MW-25D, furthest to the east in the vicinity of Hopkins Avenue, has been non-detect for VOCs since it was installed in Year 2008. The northeast limit of the deep VOC plume has been contained by groundwater pumping and it does not extend as far to the northeast as the shallow groundwater VOC plume as previously described.

Monitoring Wells MW-15D, -21D, -22D and 25D – North Site Area



Capture of the North Area deep VOC plume is demonstrated by the potentiometric surface induced by recovery wells RW-2D and RW-6D. Delineation of the North Area capture versus the NPL Area in the vicinity of MW-15D is not well-defined since the respective capture zones overlap, however it is evident that the VOC plume has not migrated in a northern or northeast direction offsite. A low gradient area is evident in the vicinity monitoring well MW-15D and groundwater recovery may be reduced in this area. This is likely a reason that VOC levels have not declined in the area as represented by MW-15D.

Acetone in North Area Deep Groundwater

It has been noted that an average 70% of the total VOCs detected in MW-21D and RW-6D in year 2013 is comprised of acetone. Acetone has been found as high as 321,000 ug/l in this area (MW-21D, September, 2013). Acetone was originally reported in 2001 to be present in deep soil samples taken in the area southeast of CPM Building #5. Groundwater analyses in this area indicated that acetone was found in the deep zone at PZ-5D and PZ-6D, on the east side of the building. Concentrations ranged from 1,600 at PZ-6D to 14,000 µg/l at PZ-5D. PZ-9D in the UST Area had an acetone level of 240 µg/l. These groundwater values generally correlated with the soil acetone values found in this area, with the exception of PZ-9D, which had the highest soil acetone concentration at 240 mg/kg.

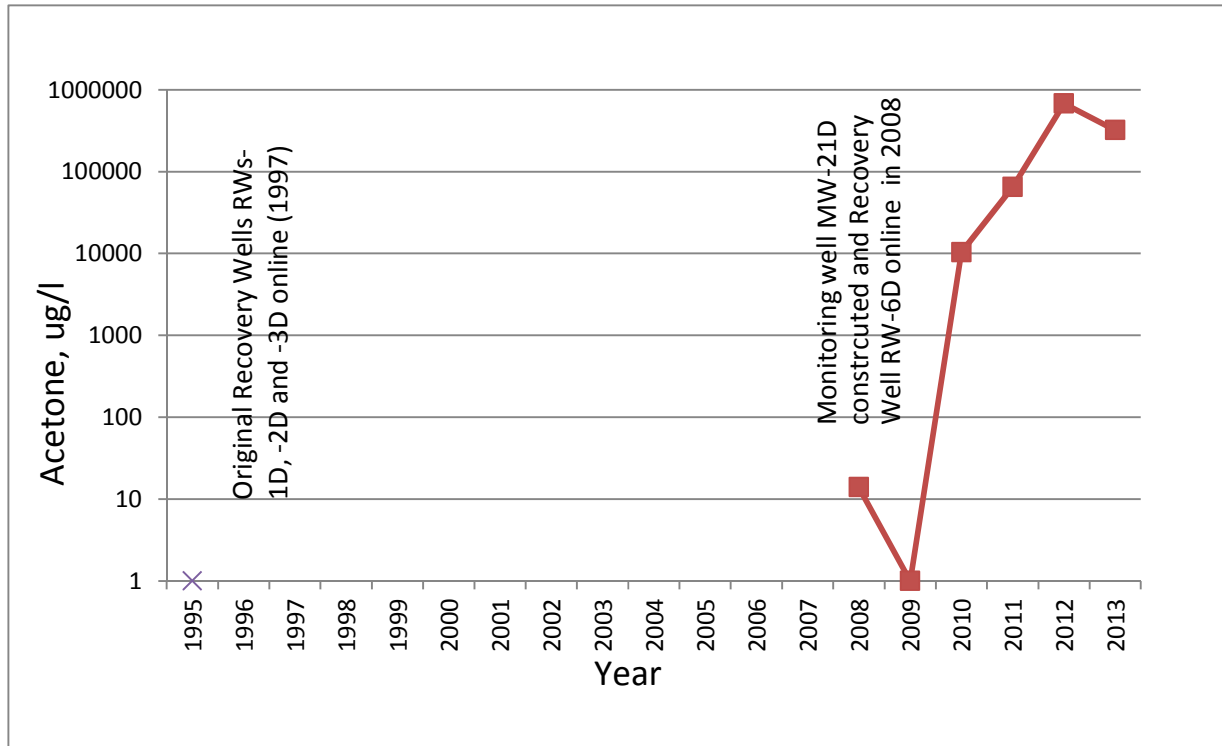
In the 2004 offsite groundwater investigations, it was reported that acetone was found at the highest levels in site groundwater in monitoring points PZ-5D and PZ-6D, at concentrations of 960 mg/l and 190 mg/l, respectively. These points were also directly east of CPM Building #5 and represented the highest acetone concentrations found onsite to-date. In addition, these levels represent increases of more than one order of magnitude compared to levels found in the same monitoring points from previous (2001) investigations.

In 2004 the deep zone acetone was found to be concentrated near the southeast corner of CPM Building #5, at the east side of the UST Area. The acetone source appeared to originate in the deep zone at the east end of UST Area near PZ-9D, since acetone was not present in the shallow zone in the UST Area, nor was it detected in any other site area at significant levels. Acetone in deep groundwater was limited to the area southeast of CPM Building #5 as evidenced by the non-detect levels in MW-19D and VP-6D. The acetone presence, only in the deep groundwater zone, suggests either a historic upgradient source, or a historic onsite release that has migrated to the deep zone, and is not currently present in its original shallow source area (UST Area). The migration of acetone was expected to be limited by both the current deep zone pumping in the NPL Area and the bioattenuation of acetone in groundwater.

Acetone level in MW-21D in year 2013 was 321,000 ug/l. MW-21D acetone level in Year 2008 was 14 ug/l. Acetone in PZ-6D in year 2012 was approximately 400 mg/l. MW-21D is on the north side of CPM Building #5 and indicates a four (4) orders of magnitude increase in the previous acetone plume delineation and suggests a recent northern migration, possibly induced

by the pumping at RW-6D since 2008. It is also noted that no other deep zone monitoring point had an acetone detection in Year 2013. (PZ-6D was not sampled in Year 2013).

Monitoring Well 21-D Acetone



UST Area

The UST Area shallow groundwater has been investigated since 2004 as part of the ongoing UST Area remedial actions. Deep groundwater VOCs were not present in this area. The UST Area is currently being monitored for post-ISCO performance conditions as a result of the 2011 ISCO actions. The results of this monitoring were presented to NYDEC in a report following completion of the first six months of monitoring activities. The UST Area has been added to the site Performance Monitoring Plan commencing in Year 2014.

A low-VOC plume remains in the main UST Area following the 2011 ISCO treatment. The plume consists primarily of ethylbenzene and xylenes at concentrations of 100 ug/ and less. The plume continues to migrate under natural attenuation conditions. The MW-29S area adjacent to the West Building has shown persistently high VOCs post-ISCO. This area was discovered to be a part of the VOC plume present under the West Building as described below.

Recent supplemental site investigations were performed in the West Building Area in 2013. Groundwater samples were collected from 13 test borings and one (1) existing monitoring well (HW-6) in the West Building area. In addition, other local monitoring wells were sampled as part of the site performance monitoring plan. Sample intervals were approximately 12-14 feet BGS.

Chemical analyses indicates that the VOC's detected were primarily cumene (isopropylbenzene), toluene, ethylbenzene and xylenes (CTEX). Chlorinated VOCs were not found in the underlying groundwater; however, cis-1, 2-dichloroethylene and vinyl chloride were detected in monitoring well HW-6, and test boring TBUST-203. Both of these locations are at the north end of the West Building, near the existing trichloroethylene plume in the NPL Area. Two (2) active recovery wells (RW-1S and RW-2S) are extracting shallow groundwater in this area as part of the ongoing site remedial actions.

Ethylbenzene and xylenes were found at the highest concentrations, up to 30,100 and 142,700 ug/l respectively. By comparison, VOCs ethylbenzene and xylenes were also the predominant compounds detected in the ISCO baseline groundwater sampling in the UST Area. Cumene was found at lower concentrations and toluene was not detected in any of the samples. In all of the baseline samples the total CTEX concentration comprised 100% of the detected VOCs with the exception of MW-20 and MW-29S. Other VOCs were found at lower concentrations and are considered not related to the UST Area.

The Year 2013 shallow groundwater investigation in the West Building Area indicates the following:

- The ethylbenzene and xylenes detections in shallow groundwater are the same VOC compounds and at similar concentration ranges as found in the UST Area VOC plume outside of the West Building, concentrated at MW-29S. This indicates that the West Building VOC plume is a westward extension of the UST Area plume.
- The West Building VOC plume has been delineated and is concentrated in the eastern end of the building, and outside of the building around MW-29S. The entire VOC plume in the UST Area is approximately 15,000 square feet in area.
- The source of the ethylbenzene/xylenes in groundwater beneath the West Building is not likely from inside of the West Building or the underlying soils. This is based on the low levels of ethylbenzene/xylenes in the subsoils (<1 ppm), as compared to the historically elevated ethylbenzene/xylenes in soils outside of the building in the UST Area. The UST Area plume source is expected to be in the area of the five (5)

former USTs, directly south of CPM Building No.5. The VOCs present beneath the West Building are expected to be a result of historic contaminant migration from the UST Area VOC source area.

III. IC/EC Plan Compliance Report

Institutional controls and engineering controls (IC/EC) are built into the project remedial action as part of the operations and maintenance manual (O&M), performance monitoring plan (PMP) and recent deed restrictions filed by CPM Inc. to establish permanent notifications in the Chautauqua County office of Recorder of Deeds, Mayville, NY. The Declaration of Covenants and Restrictions and the latest deed filing are contained in Appendix A.

Engineering controls have been implemented at the site as part of the NYSDEC Order on Consent which outlined the remedial actions pursuant to the March 1994 Record of Decision issued by the NYSDEC. The site IC/EC Certification Form is included in the front of this PRR.

The remedial systems at the Essex/Hope Site were designed and constructed to address impacted groundwater and soils by a combination of soil vapor extraction, air sparging, and a groundwater extraction and treatment. The original remedial action design and implementation included:

- A groundwater remediation system consisting of an extraction well network of five (5) shallow and two (2) deep recovery wells and activated carbon groundwater treatment with onsite discharge to the local POTW;
- Soil remediation in the AST/UST and UST Areas by soil vapor extraction (SVE) for volatile organic constituents occurring above the shallow water table.
- Soil excavation in the NPL Area, conducted in September and October of 1996, to remove impacted soils in the former sump and surrounding areas.
- Air sparging in the shallow water-bearing zone of the NPL, UST and AST/UST Areas to supplement the treatment of impacted groundwater via enhanced biodegradation and volatilization of organic constituents. A soil vapor extraction system was added to the NPL Area to collect volatile organic constituents (VOCs) volatilized from the shallow groundwater in this area.
- The remedial areas were capped with either asphalt or concrete to enhance surface water runoff and minimize infiltration.

- A network of monitoring wells across the site (as designated in the Performance Monitoring Plan) is used to measure the effectiveness of the groundwater remedial activities.

Voluntary supplemental remedial activities were initiated in 2000, with the approval of the NYSDEC, to refine the delineation of subsurface constituents and to evaluate potential remedial alternatives to enhance remedial effectiveness. A summary of the additional activities performed at the Site after the initial remedial actions is contained in Section II.

The Routine Maintenance and Monitoring Activities Schedule for the remedial treatment system is contained in Table 2. The facility *Operations and Maintenance Plan, revision 1, September, 2005, URS Corporation* is under separate cover and is not attached to this PRR document.

IV. Monitoring Year 2013

The Year 2013 monitoring plan includes remedial performance monitoring and groundwater treatment system discharge monitoring required by the City of Jamestown. Monitoring consists of both chemical and physical measurements. Physical measurements involved water level recordings at site monitoring and recovery wells. Chemical measurements consist of laboratory analyses of recovery wells, selected monitoring wells, and the influent/effluent streams of the groundwater treatment system. Specific details of the performance monitoring methods can be found in the *Performance Monitoring Plan for the Essex/Hope Site, February, 2011, URS Corporation (PMP)*. A revised PMP has been submitted to NYDEC in March, 2014. Treatment system monitoring is outlined in the City of Jamestown Bureau of Public Utilities (BPU) Pre-treatment Discharge Permit for effluent discharge to the city sewer system and publicly-owned treatment works (POTW).

An evaluation of the remedial system performance is contained in Section III.

Performance monitoring completed during the 2013 calendar year consisted of monthly groundwater pre-treatment system influent and effluent analyses, semi-annual recovery well groundwater analyses, and annual groundwater sampling of the monitoring wells selected as performance monitoring points. No performance monitoring soil sampling was completed during 2013. Soil sampling and additional groundwater monitoring have been conducted as part of the supplemental remedial investigations performed in the UST Area. The results of the investigations are described in the *UST Area West Building Soil and Groundwater Investigations Report, March, 2014, URS Corporation*.

The groundwater treatment system monitoring consists of monthly influent, effluent and intra carbon vessel effluent sampling. Monitoring reports are submitted to the BPU on a semi-annual frequency.

The monitoring for 2013 is summarized in the following tables and figures:

Table 3 summarizes the recovery well extraction volumes for 2013.

Table 4 summarizes the semi-annual recovery well analytical data for 2013.

Table 5 contains the annual performance monitoring well data.

Recovery Well groundwater extraction performance data is illustrated in Appendix C. Laboratory Certificates of Analysis are included in Appendix D.

Groundwater Flow Conditions

Groundwater level measurements were collected in June and September of 2013. Both sets of data are during recovery well pumping periods. Data is summarized in Appendix C-1. First and fourth quarter water level measurements were not collected due to inclement weather and system shutdown. Due to the extent of site historic data and knowledge, this was not deemed an issue since water levels under static and pumping conditions have been demonstrated to be fairly consistent across an annual period.

Recovery Well Extractions

Recovery well flow rates and total water volumes are recorded continuously for each well and are manually logged on a minimum semi-monthly basis. Total annual groundwater volumes removed in Year 2013 for each recovery well and each site area are summarized in Section VI.

Recovery Well and Monitoring Well Sampling

Recovery Wells RW-1S, -2S, -2D, -3S, and -6D were sampled on March 27, 2013 and September 24, 2013.

Monitoring Wells were sampled in September, 2013. The monitoring well network consisted of the following:

- NPL Area and Offsite North/East – MW-6, MW-7S, MW-7D, MW-8, MW-14S, MW-14D, MW-15S, MW-15D, MW-16D, MW-19D, MW-21D, MW-22D, MW-25S, MW-25D, PZ-7D, and VP-6D;
- AST/UST Area – MW-2;
- UST Area – MW-20, MW-23S, MW-24S, MW-26S, MW-27S, MW-28S, and MW-29S.

Appendix D contains a summary of 2013 analytical data.

Groundwater Treatment System

Pursuant to the City of Jamestown Board of Public Utilities (BPU) Industrial Wastewater Discharge Permit Number 26 (Permit), the pre-treatment system is monitored for pH and Total Toxic Organic (TTO) VOCs to ensure compliance with the discharge requirements. Sampling points include the influent, primary carbon effluent and secondary carbon effluent (discharge to POTW). These points are sampled on a monthly basis and reported to the Jamestown BPU on a semi-annual basis. Semi-annual BPU Reports are contained in Appendix E.

A summary of the treatment system monitoring data is contained in Section VI.

Acetone Pre-Treatment

Around Year 2010, groundwater acetone levels have increased significantly in the site North Area which includes recovery well RW-6D. See Section III. These acetone levels resulted in increases in acetone concentrations in treatment system influent. The primary VOC removal process involves activated carbon which has been documented to be inefficient for acetone removal.

On September 14, 2011 URS reported a discharge exceedance to the BPU. The Notice of Non-Compliance for an exceedance of the discharge limitation in August, 2011 was reported as follows:

Parameter	Effluent , mg/l	Permit Limitation, mg/l
	August 31, 2011	
Acetone	2.42	-
Cis-1, 2 Dichloroethene	0.017	-
Vinyl Chloride	0.016	-
Total Volatile Organics	2.45 mg/l	2.13 mg/l

All other VOCs analyzed by EPA Method 8260 were below detection limits. Verbal notification was provided to the BPU on September 15, 2011.

The groundwater treatment system carbon was changed out in July, 2011 and the first set of monitoring samples with the new carbon was taken on July 29, 2011. On August 10, URS reported a non-compliance of 3.818 mg/l total VOCs for the July, 2011 reporting period, primarily for acetone. The treatment system and the groundwater recovery wells were temporarily shut down from August 10 through August 18, 2011 to stop the acetone discharge and allow evaluation of the treatment system.

Source of Acetone

Since 2009, Recovery Well 6D had shown acetone detections at increasing concentrations up to the March, 2011 sample. All of the other recovery wells have shown non-detect acetone levels over this time period. The monitoring well network has confirmed the presence of an isolated acetone hot spot directly east of CPM Building No. 5, near RW-6D.

The RW-6D acetone data over the 2 1/2 year period up to March, 2011 was reported as follows:

Acetone at Recovery Well RW 6D 2009 -2011

Date	Acetone, ug/l
March, 2009	60.8
September, 2009	16,000
June, 2010	21,100
December, 2010	32,500
March, 2011	31,000

The original source of the groundwater acetone is expected to be related to the historical industrial activities at the Essex/Hope Site, although specific releases of acetone have not been

documented in the site remedial investigations. Acetone is also suspected to be present, in part, as a result of degradation of other organic compounds present in the groundwater VOC plume.

The treatment system influent has also presented an increasing acetone concentration over this same time period, although at a lower level than RW-6D because of dilution with the other recovery well waters. During this period, the treatment system has been removing the VOCs to below discharge limits, including acetone, up until the recently reported exceedance in July, 2011.

Corrective Actions

URS had temporarily shut down the treatment system and recovery wells for 8 days in August, 2011 during which the source and treatability of the acetone groundwater was assessed, with the assistance of carbon supplier, Siemens Industry Inc. The preliminary conclusion was that the acetone breakthrough in July, 2011 was a result of both increased acetone influent concentrations and hydraulic short-circuiting of the recently added fresh carbon.

Based on these conclusions, RW-6D was been temporarily take off-line, the carbon vessels were flushed, and the recovery wells and carbon treatment system were re-started on August 18, 2011. The August discharge sample was taken on August 31 as reported above.

Cause of August, 2011 Effluent Exceedance

The August monitoring data showed that the treatment system influent acetone was non-detect, however, the primary carbon effluent and the final effluent had acetone levels of 537 ug/l and 2,420 ug/l, respectively. This data indicates that the source of acetone in the treatment system influent has been eliminated by shutdown of RW-6D however residual acetone present in the carbon vessels had been discharged. These mechanisms are expected to be a combination of sorption zone VOC replacement, also referred to as rollover, and hydraulic inefficiencies. This residual acetone was expected to be flushed from the carbon vessels in the

short-term and the treatment system could continue to remove all VOCs to below discharge limitations.

Although the carbon rollover effect was evident in the release of acetone to the system effluent, the long-term monitoring of the North Area indicated that high acetone levels persisted and were increasing. As a result of this issue, URS examined options for acetone management using the existing remedial systems and possible supplemental actions.

As a result of the assessments, in June 7, 2012 a letter was submitted to the City of Jamestown BPU regarding reclassification of acetone for discharge compliance. Essex Specialty Products, Inc. is classified as a Significant Industrial User subject to Categorical Pretreatment Standards. As such, reporting was developed in accordance with the requirements of 40 CFR 403.12(e). Specific requirements of reporting include, but are not limited to, monthly measuring of Total Toxic Organics (TTOs) in the discharge. Based on initial monitoring in 1996-1997 identifying 98% of the influent TTO component as volatile organic compounds (VOCs) and historic site knowledge, the permit required sampling of VOCs to measure the TTO concentration.

As part of URS' ongoing efforts to address the issues of the groundwater acetone hotspot at the site, research of the current United States Environmental Protection Agency (USEPA) guidance was conducted. The USEPA list of TTOs is contained in 40 CFR 401, part 15, Toxic Pollutants. It was found that acetone is not included in the list; therefore, it is not considered to be a compound of interest. In addition, acetone has been documented to not be a toxic compound for biological treatment processes as are present in the Jamestown POTW. In the past, URS has mistakenly reported acetone as a TTO and as a result have temporarily shut down Recovery Well, RW-6D, which operates in the area of the isolated plume of acetone. URS also performed insitu chemical oxidation injections in the hotspot area around RW-6D in December, 2011 to treat the acetone in place to reduce the loading on the treatment system. Based on this new information, URS no longer reported acetone as a TTO in the BPU Semi-Annual Reports starting in 2012; however acetone levels in the effluent are reported for reference.

Conclusions and Recommendations

It has been concluded that the current monitoring schedule is efficient and will continue as is. Selected monitoring locations were added to the annual sampling plan (2014 PMP) based on gained site information and supplemental remedial investigations in the UST Area. No additional or significant changes are recommended to the monitoring plans at this time.



V. Operations and Maintenance

Groundwater Treatment System

The site groundwater treatment system consists of a 2,200 gallon equalization tank, transfer pump, sediment filters, and two (2) 900 lb. granular carbon treatment vessels arranged in series. A third carbon treatment vessel is retained as a spare for carbon change-outs. The groundwater pumped from the recovery wells is discharged to the equalization tank, and pumped through the carbon vessels for pre-treatment prior to discharge to the City of Jamestown sanitary sewer on Hopkins Avenue for final treatment at the City of Jamestown Publicly Owned Treatment Works (POTW). Evaluation of the monthly system analytical data determines when the carbon is spent and it is necessary to change out, therefore, avoiding any POTW discharge violation limits. No violations occurred during this reporting period. See Appendix D for the Semi-Annual BPU Reports. System carbon was changed out in June and December, 2013.

The groundwater extraction system was operated continuously throughout the reporting period with the exception of system shutdowns and routine maintenance as summarized below:

- All recovery wells were offline between March 27, 2013 and June 5, 2013 pending change out of the system carbon.
- All recovery wells were offline between August 19, 2013 and August 21, 2013 for RW-2D acid treatment activities. RW-6D remained offline for subsequent repairs including pump replacement. All recovery wells were offline between September 9, 2013 and September 11, 2013 for RW-6D acid treatment activities. RW-6D was turned back online on September 10, 2013.
- RWs-1S, 2S, 2D, and 3S were offline periodically between October 1, 2013 and October 2, 2013 for well development activities.
- All recovery wells experienced insignificant periodic shutdowns for minor mechanical and electrical repairs, equipment replacement, or maintenance.
- RW-6D was offline from November 2013. It was determined that the outside line running over the roof of CPM was frozen and that the heat trace and insulation will need replaced. This is scheduled to be completed when weather permits.

- All recovery wells were offline on December 2, 2013 for the remainder of the year for system transfer pump repair.

Total annual groundwater volumes removed in Year 2013 for each recovery well and each site area are summarized in Table 3.

Recovery Wells and Treatment System Maintenance

Routine maintenance consists of bi-weekly inspection/check of the system piping, pressure gauges, equalization tank including level probes, carbon vessels, and overall operations. Recovery well and totalizer flow meter readings are collected during bi-weekly inspections. Average flow rates are calculated from this data. Groundwater extraction performance data can be found in Appendix C-3.

Recovery well maintenance consists of well development on an as-needed basis, typically annually, pump/meter disassembly inspection and cleaning and level probe inspection/cleaning. RWs were developed in October 2013. As a result of the geology in the area of RW-6D, fine silts will cause a heavy build up in this well requiring development by specialized methods from an outside drilling contractor. RW-2D and RW-6D are also cleaned out via acid treatment on an annual basis to remove the heavy amounts of iron oxide accumulation in the well that impact pumping efficiency.

System transfer pump required repair due to leaks in the motor seals. Through research and discussion with pump distributor, it was determined that the proper pump is being utilized for the site operations. It was further determined that the leaks are potentially being caused by the excess silt generated from RW-6D which cannot be avoided due to the water-bearing zone lithology. It is recommended that a new pump be procured for back up, thus eliminating future extended down time when pump repairs are required.

In 2012, the Jamestown BPU Water Division conducted a state required analysis of commercial and industrial water connections to the BPU water system and backflow prevention devices. As part of the analysis, a *Backflow Prevention Device Inventory Form* was submitted in September, 2012. By the end of 2013, the BPU required that the building be inspected by a Licensed Master Plumber to determine if a backflow prevention device should be installed and if so, installed by the end of the calendar year or if classified as non-hazardous and therefore exempt from requiring the device. In September, 2013, an inspection of site operations was performed by a Licensed Plumber and the building was deemed non-hazardous to the public

water supply and exempt from installation. A *Form for Backflow Prevention Device Exemption* was submitted to and approved by the BPU Water Division, also in September of 2013. In the future, URS (on behalf of the property owner) will be required to submit a *Backflow Prevention Device Exemption Renewal Form* in October of each calendar year. The renewal form serves as assurance that none of the conditions of the building have changed since initial inspection and subsequent approval by the BPU. An updated Approval Number will be assigned to the facility each year.

VI. Overall Conclusions and Recommendations

Operation, maintenance and monitoring of the remedial systems will continue in Year 2014. In 2014, Dow will assess options for further supplemental remedial actions for the shallow and deep groundwater zones at the site. These include the UST Area shallow groundwater VOCs in the West Building Area and the deep groundwater zone VOC hotspot near Hopkins Avenue.

This section is broken down by three subparts per the NYSDEC PRR guidance. A single Site Management Plan (SMP) has not been compiled for the site, although the separate components of the plan, i.e., O&M Plan, PMP and IC/EC are addressed in the individual site plans that have been prepared for the implementation of the remedial actions. Included in these plans are the Remedial Design drawings and specifications and later revisions which are incorporated into the O&M Plan.

Compliance with the Site Management Plan

- The remedial systems for groundwater extraction and treatment have continued to operate throughout 2013 with some intermittent shutdowns for maintenance/repairs as previously described.
- Air sparge and SVE systems in the AST/UST Area, NPL Area and UST Area have been shutdown since Year 2000.
- No new remedial components have been added in 2013.
- The groundwater treatment system has met monthly effluent limitations without any non-compliance discharges in 2013. Monthly monitoring has been performed in Year 2013.
- Annual performance monitoring per the PMP was performed in September, 2013. Data is included in this report.
- Supplemental site investigations have been performed in 2013, and are proposed in 2014 to delineate the extent of VOCs in the UST Area West Building.
 - In October, 2013 soil and groundwater samples were collected in the West Building and the extent of the residual VOCs in the UST Area was determined. A report submittal to NYSDEC is pending. Additional

remedial actions for the shallow groundwater VOCs will be evaluated in 2014.

- Subslab vapor samples will be collected in April, 2014 from the CPM Building #5 and West Building to assess potential vapor intrusion. Vapor management measures will be evaluated after review of the investigation data.

Performance and Effectiveness of the Remedy

AST/UST Area-

- Shallow groundwater- TCE and by-products 1, 2-DCE and vinyl chloride are at or near 1 ug/l. Recovery Well RW-3S removed 0.32 pounds of VOCs in 2013. See Section V. The only VOC detected above RAOs was isopropylbenzene in MW-2 at 6.1 ug/l, a decrease from 2012. Recovery well RW-3S total VOCs over time indicate that since Year 2002 the VOC levels have been at or near non-detect level (5 ug/l).
- Compliance soil sampling was not performed. The AST/UST Area soils will be sampled concurrent with the UST Area upon completion of additional remedial actions in the UST Area West Building Area.

UST Area-

- Shallow groundwater- A low-VOC plume remains in the main UST Area following the 2011 ISCO treatment. The plume consists primarily of ethylbenzene and xylenes at concentrations of 100 ug/ and less. The plume continues to migrate under natural attenuation conditions.
- In 2013, the West Building VOC plume was delineated and is concentrated in the eastern end of the building, and outside of the building around MW-29S. The entire VOC plume in the UST Area is approximately 15,000 square feet in area. The ethylbenzene and xylenes detections in shallow groundwater are the same VOC compounds and at similar concentration ranges as found in the UST Area VOC plume outside of the West Building, concentrated at MW-29S. This indicates that the West Building VOC plume is a westward extension of the UST Area plume and was not treated as part of the 2011 ISCO actions.

- Additional remedial actions for the West Building VOC plume will be evaluated in 2014.
- Compliance soil sampling was not performed. The UST Area soils will be sampled upon completion of additional remedial actions in the UST Area West Building Area.

NPL Area-

- Shallow groundwater - Maximum shallow groundwater TCE concentration in the area is 937 ug/l (RW-1S). The TCE, cDCE and VC plumes are generally overlain indicating recovery well capture and limited migration. Recovery Wells RW-1S and RW-2S removed 0.90 pounds of VOCs in 2013. Total VOCs have been declining over time, primarily in RW-2S which is located on the northern end of the NPL Area. Since Year 2006 the VOC levels in this well have been at or near non-detect level (5 ug/l). Total VOCs in RW-1S, near the center of the plume, have varied over time, with the values being consistently around the 1000 ug/l level since Year 2008. This is a decline of 75% from the average TCE levels of approximately 4000 ug/l during the period of Years 2004-2007.
- Deep groundwater- VOCs have been higher than the shallow zone VOCs in the NPL Area since year 1999, and since Year 2010 they have been consistently approximately 8 times higher as demonstrated by comparison of recovery wells RW-1S and RW-2D. Maximum TCE in the deep groundwater zone in 2013 is 2,660 ug/l (RW-2D). The deep zone TCE, cDCE and VC plumes in the NPL Area are at relatively low concentrations and represent the upgradient fringe of the primary deep VOC plume to the northeast. Recovery Well RW-2D removed 52.9 pounds of VOCs in 2013. Total VOCs are generally increasing and have varied since 1997, with the values being around the 8000 ug/l level since Year 2009.
- Capture of the NPL Area deep VOC plume is demonstrated by the potentiometric surface induced by recovery well RW-2D. Delineation of the NPL Area capture versus the North Area is not well-defined since the respective capture zones

overlap, however it is evident that the VOC plume has not migrated in a western or southern direction in the NPL Area.

- Groundwater recovery operations will continue in 2013 for both the shallow and deep groundwater zones in the NPL Area

North Area-

- Shallow groundwater- Maximum shallow groundwater TCE in the downgradient northeast area in 2013 is 191 ug/l (MW-25S). This is the furthest downgradient monitoring well to the northeast. The offsite TCE, cDCE and VC plumes in the shallow groundwater zone continue to migrate to the north and northeast under natural attenuation conditions. Monitoring is performed by MWs-14S and -25S to the north and MW-25S to the northeast. Monitoring well total VOCs over time have been declining, primarily in MW-14S over the period 2010 to 2013. Year 2013 TCE level was 17.7 ug/l, the lowest concentration detected since the beginning of monitoring in 1996. MW-25S total VOCs have varied over time, with the values consistently around the 200 ug/l level since Year 2008.
- The 2006 offsite investigations determined that the eastern limit of the TCE plume was not beyond TBN-20, the furthest east test boring drilled in the 2006 investigations. Groundwater from this test boring was below detection limits for all VOCs. The shallow offsite VOC plume was determined to be a historical remnant of site operations and no further remedial actions were evaluated at the time, other than ongoing monitoring.
- The residence on 159 Hopkins Avenue was investigated for potential vapor intrusion and as a result of the findings URS Corporation (URS) and subcontractor Mitigation Tech installed a residential vapor venting system on November 18, 2008.
- Deep groundwater- VOCs in the offsite North Area have been two (2) orders of magnitude higher than the shallow zone VOCs since Year 2006 when new monitoring wells were constructed in the area. No prior data was available in this area. Maximum TCE in the deep groundwater was 24,000 ug/l at MW-15D, on

the north side of Hopkins Avenue directly across from CPM Building No. 5. The area around MW-15D is the hotspot for the deep groundwater VOC plume.

- Recovery Well RW-6D has removed 225 pounds of VOCs in 2013. Total VOCs have been increasing since the well went on-line in 2008, with a 3x increase from 2012 to 2013. This recent increase correlated with a similar increase in TCE and acetone levels. TCE was initially at 8,360 ug/l in 2009, and was variable with a slight increasing trend until 2013 when it increased about 5x to 23,600 ug/l in 2013 (Sept 2013).
- The deep groundwater TCE plume in the North Area has remained relatively stable since the start of monitoring. MW-16D, approximately 100 feet north of Hopkins Avenue and furthest to the north of the site was non-detect for VOCs in 2013. MW-15D, on the north side of Hopkins Avenue and directly south of MW-16D has had the highest TCE levels detected onsite and is in the center of the VOC north plume. Monitoring well MW-22D, the furthest well to the northeast, near recovery well RW-6D, has had continuously declining VOC levels from 20,643 ug/l in Year 2006 when it was constructed to 1,360 ug/l in Year 2013. Likewise TCE levels in MW-21D have declined from 530,000 ug/l in year 2008 to 117 ug/l in year 2013. This is a result of groundwater recovery at RW-6D.
- Monitoring well MW-25D, furthest to the east in the vicinity of Hopkins Avenue, has been non-detect for VOCs since it was installed in Year 2008. The northeast limit of the deep VOC plume has been contained by groundwater pumping and it does not extend as far to the northeast as the shallow groundwater VOC plume as previously described.
- Capture of the North Area deep groundwater VOC plume is demonstrated by the potentiometric surface induced by recovery wells RW-2D and RW-6D. Delineation of the North Area capture versus the NPL Area in the vicinity of MW-15D is not well-defined since the respective capture zones overlap, however it is evident that the VOC plume has not migrated in a northern or northeast direction offsite. A low gradient area is evident in the vicinity monitoring well MW-15D and

groundwater recovery may be reduced in this area. This is likely a reason that VOC levels have not declined in the area as represented by MW-15D.

Future PRR Submittals

At this time the future submittals for site PRRs are recommended to be on an annual basis consistent with the previous project submittals. The 2014 PRR will be submitted at the end of the first quarter of Year 2015.

TABLES

Table 1
Soil and Groundwater Remedial Action Objectives (RAOs)
Essex/Hope Site
Jamestown, New York

MEDIA	PARAMETER	RAO
Soil	Total Volatile Organics Compounds (VOCs)	10 ppm
	Each individual VOC	1 ppm
	Total Semi-Volatile Organic Compounds (SVOCs)	500 ppm
	Each Individual SVOC	50 ppm
	Polychlorinated Biphenyls (PCBs)	10 ppm
Groundwater⁽¹⁾	Trans-1,2-Dichloroethylene	5 ppb
	Trichloroethene (trichloroethylene)	5 ppb
	Vinyl Chloride	5 ppb
	Ethylbenzene	5 ppb
	Toluene	5 ppb
	Xylene	5 ppb
	PCBs	0.1 ppb

⁽¹⁾ = Other compounds, not listed, would have RAOs in compliance with NYSDEC Ambient Groundwater Quality Standards.

ppm = part per million

ppb = part per billion

Table 2
Schedule of Routine Maintenance and Monitoring Activities
Essex Jamestown Remedial Treatment System
Re: Operations and Maintenance Manual, rev.1, URS, September, 2005

SYSTEM	WEEKLY/ BI-WEEKLY		MONTHLY	BI-MONTHLY	QUARTERLY	SEMI-ANNUAL	ANNUAL	AS-REQUIRED
Water Treatment System- Treatment Plant Building	Cartridge filter inspection/replacement (Sec. 5.3)		Obtain monthly samples per Wastewater Discharge Permits (Sec. 6.3, Appx. A)					Backflush carbon vessels (Sec. 5.3)
	Check transfer pump flow-rate (Sec. 5.3)							Replace carbon vessels (Sec. 5.3, Table 5.0)
	Inspect piping/valves (Sec. 5.3)							Clean out storage tank (Sec. 5.3)
	Inspect 1500 GAL storage tank (Sec. 5.3)							
	Record recovery well/system flow-rates (Sec 6.3, 6.4)							
	Record System pressure readings (Sec 6.3)							
Soil Vapor Extraction System		Check blower oil (Sec. 5.1, Appx. B)	Grease drive-end bearings (Appx. B)- every 500 hrs of service	Take analytical air samples (Sec. 6.1)	Change reservoir oil (Appx. B)- every 1500 hrs service			Draeger tube samples (Sec. 6.1)
		Inspect blower V belt (Sec. 5.1, Appx. B)						Carbon inspection (Sec. 5.1)
		Check condensate separator (Sec. 5.1)						Carbon replacement (Sec. 5.1, Table 5.0)
		Inspect piping (Sec. 5.1)						
	Measure system/well air velocity (Sec 6.1)							
	Record system/well vacuum readings (Sec. 6.1)							
	Record system/well inlet/outlet temperature (Sec. 6.1)							
	Measure pre-carb and post-carb total VOCs with PID (Sec. 6.1)							
Air Sparge System		Check blower oil, if applicable (Sec. 5.2, Appx. ?)			Change oil (Sec 5.2, Appx. B)- every 1500 hrs service			Replace defective pressure gauges (Sec. 6.2)
		Inspect blower V belt, if applicable (Sec. 5.2)						Clean dirt from sparge motor

SYSTEM	WEEKLY/ BI-WEEKLY		MONTHLY	BI-MONTHLY	QUARTERLY	SEMI-ANNUAL	ANNUAL	AS-REQUIRED
		Inspect piping (Sec. 5.2)						
	Measure system/well air velocity (Sec. 6.2)							
	Measure system/well air pressure (Sec. 6.2)							
Groundwater Extraction System –Recovery Wells					Obtain analytical samples per PMP (Sec. 6.4)	Recovery well inspection/maintenance (Sec. 5.5)		Flush piping system (Sec. 5.5)
								Clean pumps/level controls (Sec. 5.5)
								Well development (Sec. 5.5)
Monitoring Well System					Measure water levels (Sec. 6.		Obtain analytical samples in accordance with PMP	
					Inspect well integrity (Sec. 5.6)			
Asphalt/Concrete Caps						Cap inspection (Sec.5.4)		Cap maintenance (Sec. 5.4)

Table 3

**2013 Groundwater Extraction Summary
Essex/Hope Site
Jamestown, NY**

Period	Recovery Well				
	RW-1S Gallons Pumped	RW-2S Gallons Pumped	RW-3S Gallons Pumped	RW-2D Gallons Pumped	RW-6D Gallons Pumped
1st Quarter	26,191	60,147	6,739	314,183	103,324
2nd Quarter	6,641	51,680	1,856	52,042	11,177
3rd Quarter	21,873	186,321	3,172	307,119	38,441
4th Quarter	28,429	170,601	5,331	48,163	53,541
Total	83,134	468,749	17,098	721,506	206,483

Period	Site Area		
	NPLS Shallow Area Gallons Pumped	AST Area Gallons Pumped	Lower Fine Sand Water Bearing Zone Gallons Pumped
1st Quarter	86,338	6,739	417,507
2nd Quarter	58,322	1,856	63,218
3rd Quarter	208,193	3,172	345,560
4th Quarter	199,030	5,331	101,704
Total	551,883	17,098	927,989

Period	Total Estimated Gallons Pumped - All Areas
1st Quarter	510,583
2nd Quarter	123,396
3rd Quarter	556,926
4th Quarter	306,065
Total	1,496,970

Table 4

2013 Semi-Annual Recovery Well Analytical Results (µg/L)
Essex/Hope Site
Jamestown, NY

March 27, 2013

Volatile Organic Compounds	Site GW RAOs	RW-1S	RW-2S	RW-2D	RW-6D	RW-3S*
Acetone		ND	ND	ND	96,300	ND
Benzene		5.8	ND	12.2	75.3	10.7
2-Butanone		ND	ND	ND	376	ND
Carbon Disulfide		ND	ND	ND	ND	ND
Chloromethane		ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)		ND	ND	ND	ND	ND
1,1-Dichloroethane		ND	ND	ND	ND	ND
1,1-Dichloroethene		7.5	ND	22.7	53.7	15.9
cis-1,2-Dichloroethene		1,800	5.7	6,300	24,200	2,720
trans-1,2-Dichloroethene	5	18.4	ND	62.4	195	43.7
Ethylbenzene	5	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		ND	ND	ND	ND	ND
Methylene Chloride		ND	ND	ND	ND	ND
Tetrachloroethene		ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND
Trichloroethene	5	937	5.0	2,550	11,700	1,700
Vinyl Chloride	5	325	ND	832	2,350	520
Xylenes (total)	5	ND	ND	ND	ND	ND

September 24, 2013

Volatile Organic Compounds	Site GW RAOs	RW-1S	RW-2S	RW-2D	RW-6D	RW-3S
Acetone		ND	ND	16.9	102,000	ND
Benzene		ND	ND	9.8	90.7	1.7
2-Butanone		ND	ND	ND	348	ND
Carbon Disulfide		ND	ND	ND	ND	ND
Chloroform		ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)		ND	ND	ND	ND	3.2
1,1-Dichloroethane		ND	ND	ND	ND	ND
1,1-Dichloroethene		ND	ND	20.8	57.1	ND
cis-1,2-Dichloroethene		116	ND	4,340	23,100	ND
trans-1,2-Dichloroethene	5	ND	ND	109	235	ND
Ethylbenzene	5	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		ND	ND	ND	ND	ND
Methylene Chloride		ND	ND	ND	ND	ND
Tetrachloroethene		ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND
Trichloroethene	5	41.9	6.0	2,660	23,600	ND
Vinyl Chloride	5	6.9	ND	490	4,190	ND
Xylenes (total)	5	ND	ND	ND	ND	ND

Notes:

Site GW RAOs = Site Groundwater Remedial Action Objectives

µg/l = Micrograms per liter

ND = Not Detected/Below minimum laboratory reporting limit

March, 2013 data is considered an outlier result from potential sampling or laboratory error, not consistent with historical results. The Sept, 2013 sample result of non-detect for TCE confirmed the historical data trend.

Table 5

2013 Annual PMP Wells Analytical Results (µg/L)
Essex/Hope Site
Jamestown, NY

Volatile Organic Compounds	MW-2	MW-6	MW-7D	MW-7S	MW-8	MW-14D	MW-14S	MW-15D	MW-15S	MW-16D	MW-19D	MW-20
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	10.8	ND	ND	ND	ND	3.3	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	6.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.9
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	23.1	ND	ND	ND	ND	196	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	6,700	ND	76.5	ND	ND	32,600	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	43.1	ND	ND	ND	ND	195	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	21.0
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	654	ND	ND	ND	17.7	24,500	ND	ND	ND	ND
Vinyl Chloride	ND	ND	760	ND	7.4	8.5	ND	869	ND	ND	20.6	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	116

ND = Not detected

µg/L = Micrograms per liter

*Duplicate sample collected,
greater concentration shown.

Table 5

2013 Annual PMP Wells Analytical Results (µg/L)
Essex/Hope Site
Jamestown, NY

Volatile Organic Compounds	MW-21D*	MW-22D	MW-25D	MW-25S	PZ-7D	VP-6D	MW-23S	MW-24S	MW-26S	MW-27S	MW-28S	MW-29S
Acetone	321,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	46.5
Benzene	66.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	29.6
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	2,190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ND	ND	ND	ND	ND	ND	2.9	129	200	49.4	4.6	288
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	74.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	83,800	212	ND	33.2	261	ND	5.7	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	435	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	590	208	22.0	6.8	13,300
4-Methyl-2-pentanone (MIBK)	18.0	ND	ND	ND	ND	ND	ND	ND	12.0	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	5.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	512
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	117	1,360	ND	191	1,060	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	36,100	3.2	ND	ND	32.1	ND	1.4	ND	ND	ND	ND	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	718	365	ND	ND	41,150

ND = Not detected

µg/L = Micrograms per liter

*Duplicate sample collected,
greater concentration shown.

Table 6
POTW Monthly Monitoring Summary
2013 System Pre-Carbon
Volatile Organic Compounds (µg/L)

Sample Date	30-Jan-13	27-Feb-13	27-Mar-13			27-Jun-13	30-Jul-13	9-Sep-13	30-Sep-13	31-Oct-13	25-Nov-13	
Acetone	10,700	70,700	19,800			6,710	3,820	47.3	7,650	24,000	4,080	
Benzene	17.9	50.9	21.8			11.5	6.8	3.9	12.1	36.3	6.8	
Bromomethane	ND	ND	ND			ND	8.5	ND	ND	ND	ND	
2-Butanone	46.1	258	86.9			31.8	11.5	ND	34.7	132	10.7	
Chloroform	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Chloromethane	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Isopropylbenzene (Cumene)	ND	ND	ND			ND	ND	ND	ND	ND	ND	
1,1-Dichloroethane	ND	ND	ND			ND	ND	ND	ND	ND	ND	
1,1-Dichloroethene	18.5	36.0	30.6			16.7	12.6	9.1	14.7	21.2	10.3	
cis-1,2-Dichloroethene	4,210	16,800	7,720			4,970	3,580	4,230	3,880	6,720	2,580	
trans-1,2-Dichloroethene	60.4	ND	92.4			123	133	50.8	30.1	101	20.4	
Ethylbenzene	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Methylene Chloride	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Toluene	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Trichloroethene	3,160	4,060	4,210			2,300	1,090	159	1,760	4,130	824	
Vinyl Chloride	524	1,380	1,100			645	433	414	477	698	340	
Total Xylenes	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Pre-Carbon TOTAL VOCs	18,737	93,285	33,062	0	0	14,808	9,095	4,914	13,859	35,839	7,872	0

Notes:

ND = Not detected/Below minimum laboratory reporting limit

µg/L = micrograms per liter

Pre-Carbon sample results represent system influent.

The system was shut down from March 28, 2013 to June 5, 2013 due to elevated effluent levels pending carbon changeout.

System Carbon was changed out on June 4, 2013.

Note: August samples were collected during first week of September 2013.

System down December 2, 2013 for transfer pump repair.

Table 7
POTW Monthly Monitoring Summary
2013 System Primary Carbon Effluent
Volatile Organic Compounds (µg/L)

Sample Date	30-Jan-13	27-Feb-13	27-Mar-13			27-Jun-13	30-Jul-13	9-Sep-13	30-Sep-13	31-Oct-13	25-Nov-13	
Acetone	11,400	48,400	8,800			7,260	57.7	4,420	7,100	21,500	11,100	
Benzene	ND	ND	4.1			ND	ND	ND	ND	3.8	1.3	
2-Butanone	81.9	162	44.6			ND	ND	ND	21.2	69.0	52.1	
Chloroform	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Chloromethane	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Isopropylbenzene (Cumene)	ND	ND	ND			ND	ND	ND	ND	ND	ND	
1,1-Dichloroethane	ND	ND	ND			ND	ND	ND	ND	ND	ND	
1,1-Dichloroethene	ND	11.2	13.8			ND	ND	ND	ND	8.0	8.6	
cis-1,2-Dichloroethene	2,260	7,970	9,760			24.9	34.9	92.1	1,490	4,080	3,740	
trans-1,2-Dichloroethene	8.1	18.6	33.5			ND	ND	ND	6.8	28.2	34.7	
Ethylbenzene	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Methylene Chloride	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Toluene	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Trichloroethene	ND	7.6	116			ND	ND	ND	ND	378	69.5	
Vinyl Chloride	862	1,010	816			89.0	434	841	587	601	584	
Total Xylenes	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Primary-Carbon TOTAL VOCs	14,612	57,579	19,588	0	0	7,374	527	5,353	9,205	26,668	15,590	0

Notes:

ND = Not detected/Below minimum laboratory reporting limit

µg/L = micrograms per liter

Primary Carbon sample results represent effluent from the first carbon vessel in the two (2) carbon vessel system.

The system was shut down from March 28, 2013 to June 5, 2013 due to elevated effluent levels pending carbon changeout.
System Carbon was changed out on June 4, 2013.

Note: August samples were collected during first week of September 2013.

System down December 2, 2013 for transfer pump repair.

Table 8
POTW Monthly Monitoring Summary
2013 System Post Carbon Effluent
Volatile Organic Compounds (µg/L)

Sample Date	30-Jan-13	27-Feb-13	27-Mar-13			27-Jun-13	30-Jul-13	9-Sep-13	30-Sep-13	31-Oct-13	25-Nov-13	
Acetone	18,200	27,900	7,610			7,190	ND	321	5,740	21,900	16,300	
Benzene	ND	ND	ND			ND	ND	ND	ND	ND	ND	
2-Butanone	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Chloroform	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Chloromethane	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Isopropylbenzene (Cumene)	ND	ND	ND			ND	ND	ND	ND	ND	ND	
1,1-Dichloroethane	ND	ND	ND			ND	ND	ND	ND	ND	ND	
1,1-Dichloroethene	ND	ND	ND			ND	ND	ND	ND	ND	ND	
cis-1,2-Dichloroethene	32.2	36.9	22.2			ND	ND	ND	ND	6.9	6.3	
trans-1,2-Dichloroethene	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Ethylbenzene	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Methylene Chloride	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Toluene	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Trichloroethene	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Vinyl Chloride	850	1,200	784			6.7	2.3	7.9	294	764	639	
Total Xylenes	ND	ND	ND			ND	ND	ND	ND	ND	ND	
Post-Carbon TOTAL VOCs	19,082	29,137	8,416	0	0	7,197	2	329	6,034	22,671	16,945	0
Post-Carbon TOTAL TTOs	882	1,237	806	0	0	7	2	8	294	771	645	0

Notes:

ND = Not detected/Below minimum laboratory reporting limit
µg/L = micrograms per liter

POTW Discharge Limit = 2,130 ug/L Total Toxic Organics (TTOs)

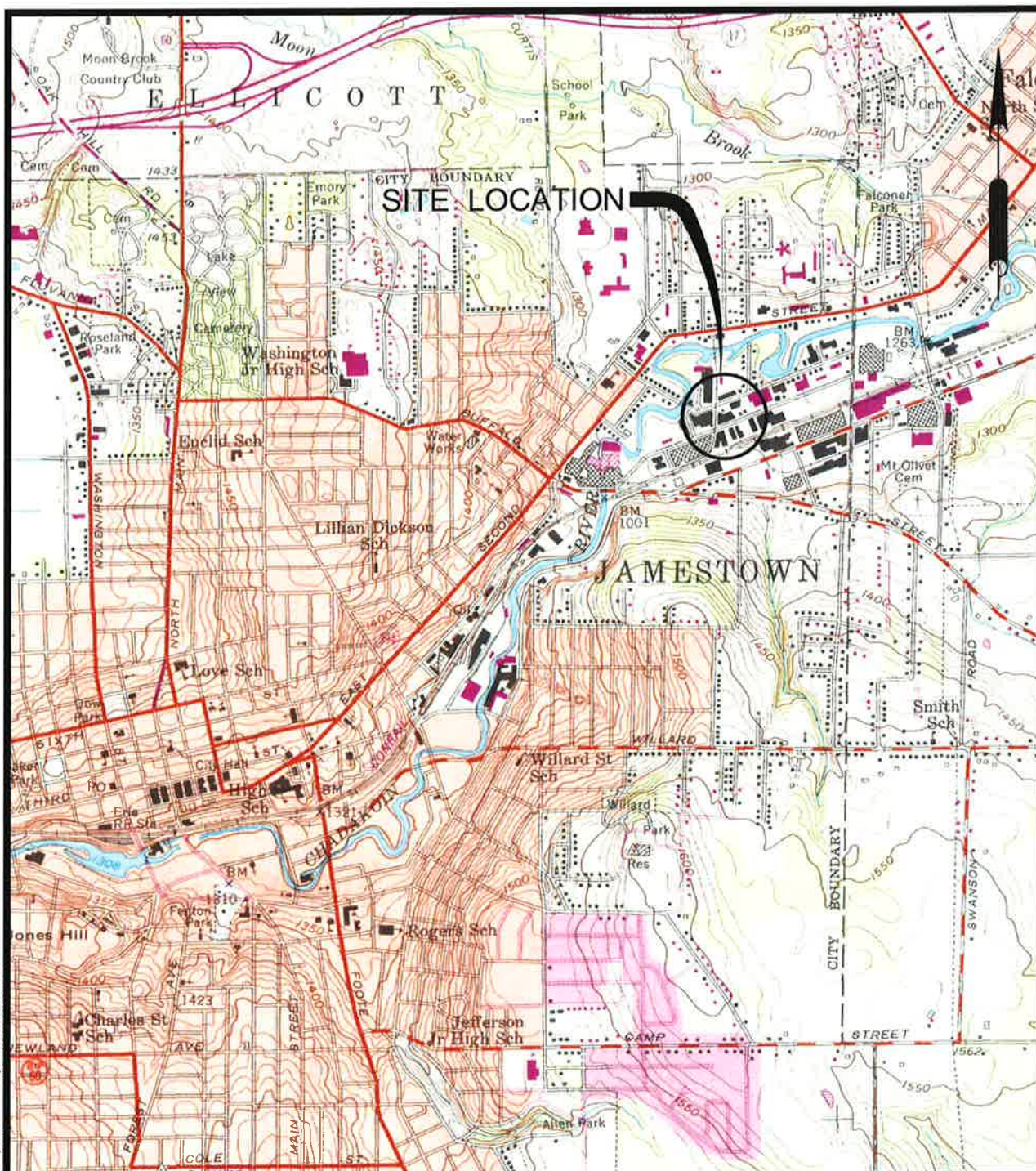
Post-Carbon sample results represent system effluent from the secondary carbon vessel (or the third carbon vessel if used) to the POTW.
Post-Carbon sample is a laboratory prepared composite of four (4) grab samples taken at 30-minute intervals.

The system was shut down from March 28, 2013 to June 5, 2013 due to elevated effluent levels pending carbon changeout.
System Carbon was changed out on June 4, 2013.

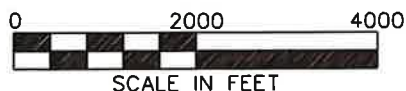
Note: August samples were collected during first week of September 2013.

System down December 2, 2013 for transfer pump repair.

FIGURES



QUADRANGLE LOCATION



SCALE IN FEET

REFERENCE:

BASE MAP IS A PORTION OF THE U.S.G.S. 7.5 MINUTE TOPOGRAPHIC SERIES JAMESTOWN, NY QUADRANGLE. DATED: 1954, PHOTOREVISED: 1979. SCALE: 1" = 2000', CONTOUR INTERVAL IS 10 FEET.



2013 PERIODIC REVIEW REPORT SITE LOCATION MAP

ESSEX/HOPE SITE

JAMESTOWN, NY

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 41569831

SCALE: AS SHOWN

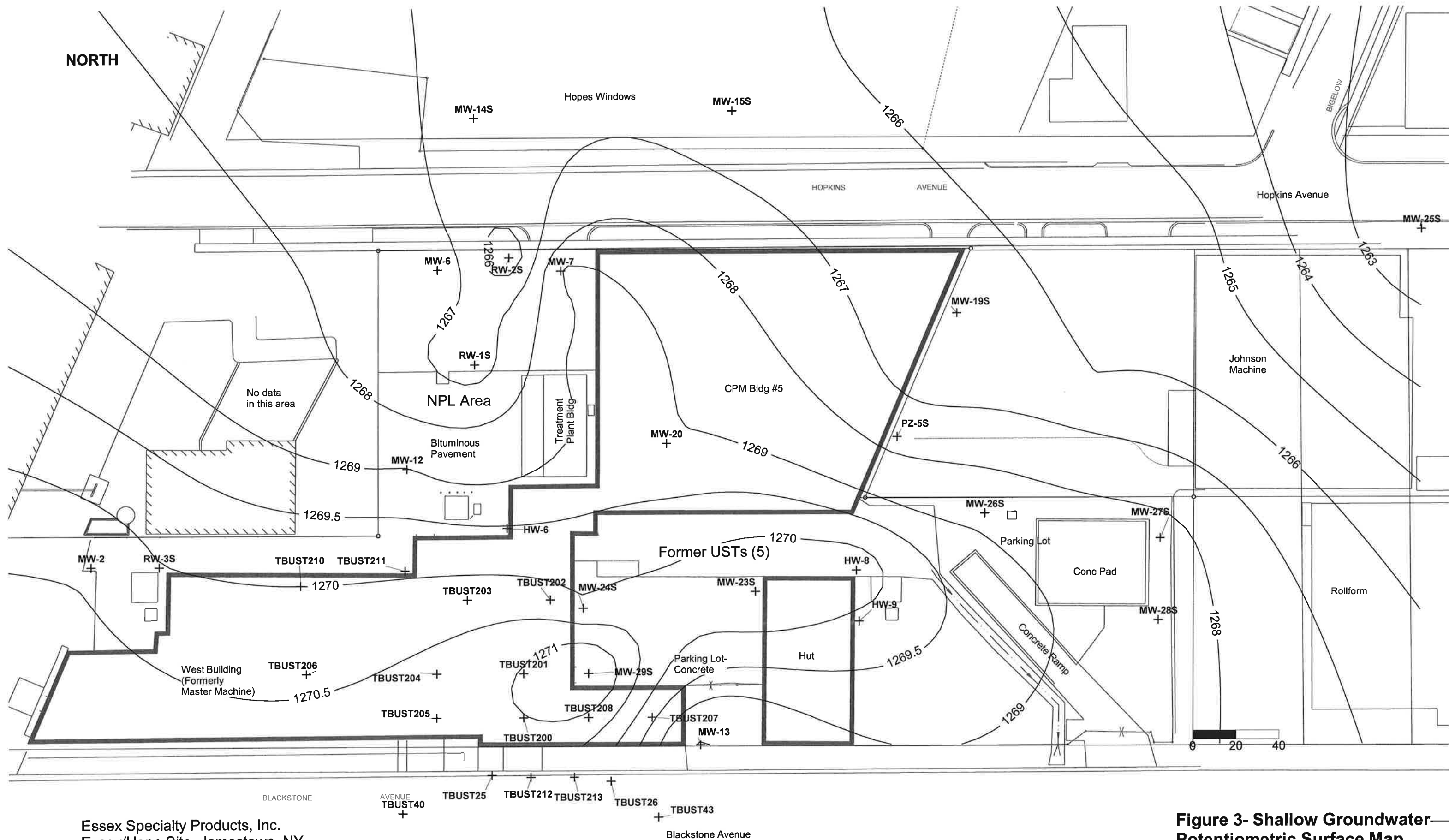
FIGURE
NUMBER

1

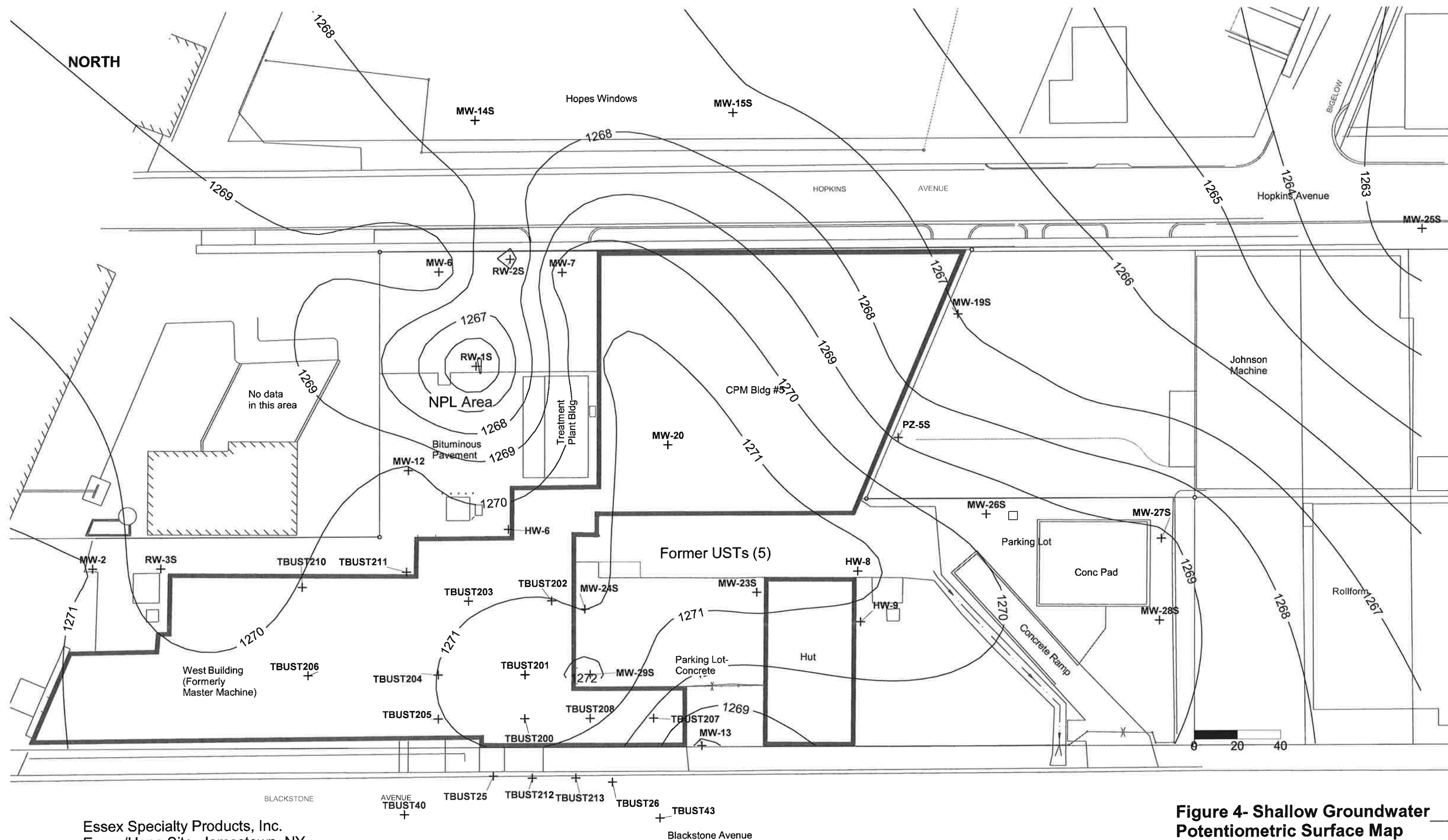
REV
0

FILE: \ESSEX\HOP\2006-MAP\PM-P-2013\2000USGS.DWG

00
03
01
00
01
04
K
G

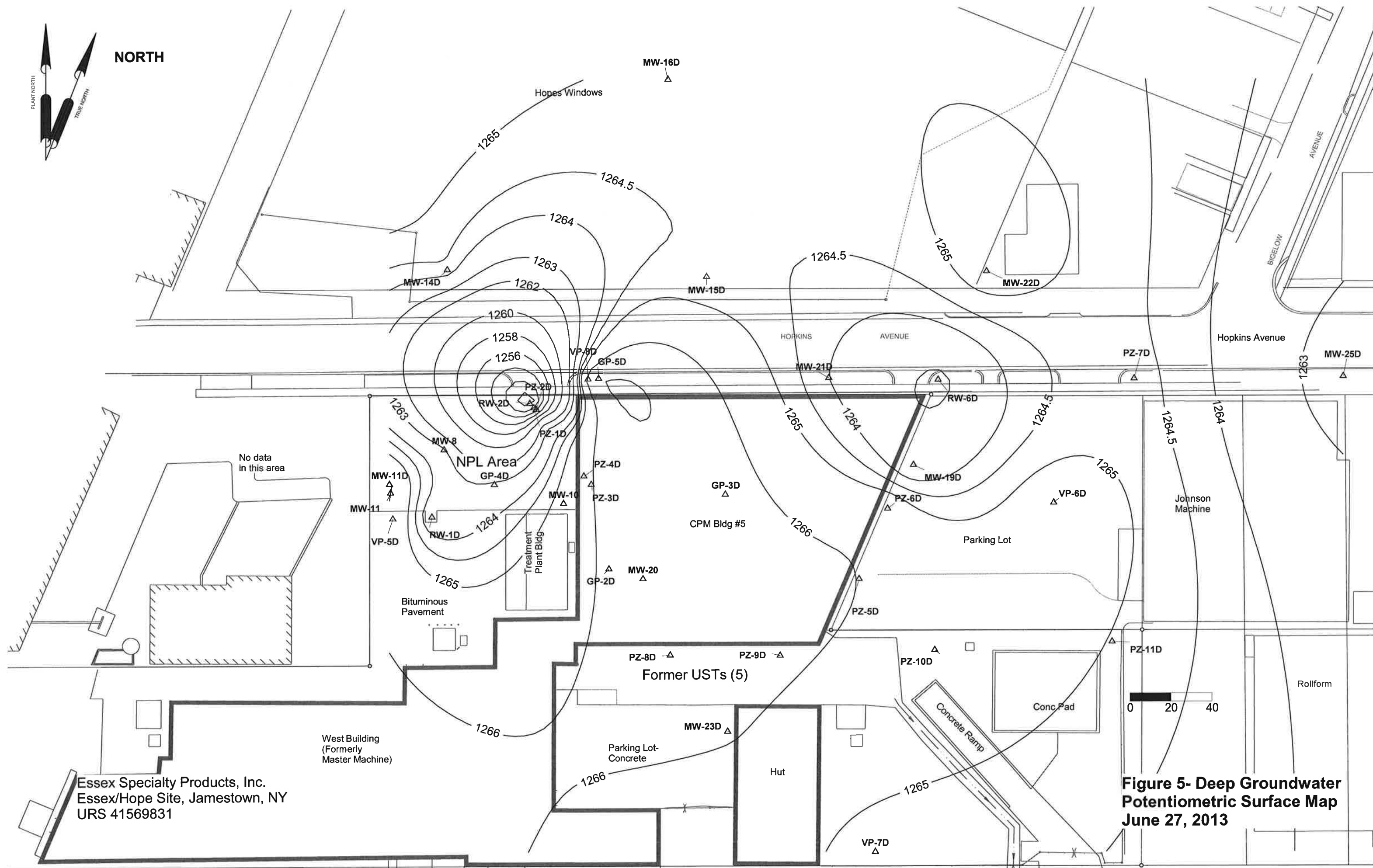


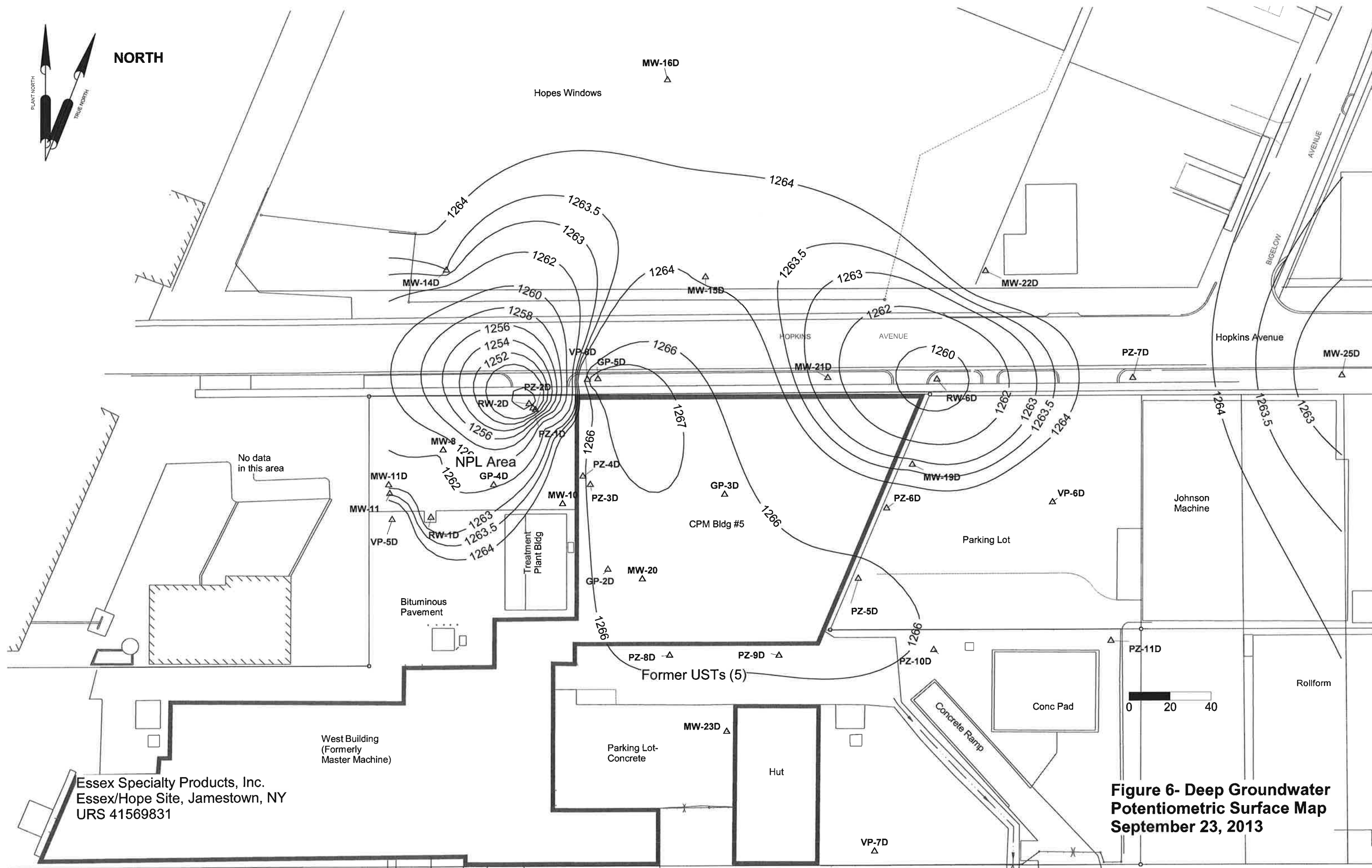
Essex Specialty Products, Inc.
Essex/Hope Site, Jamestown, NY
URS 41569831



Essex Specialty Products, Inc.
 Essex/Hope Site, Jamestown, NY
 URS 41569831

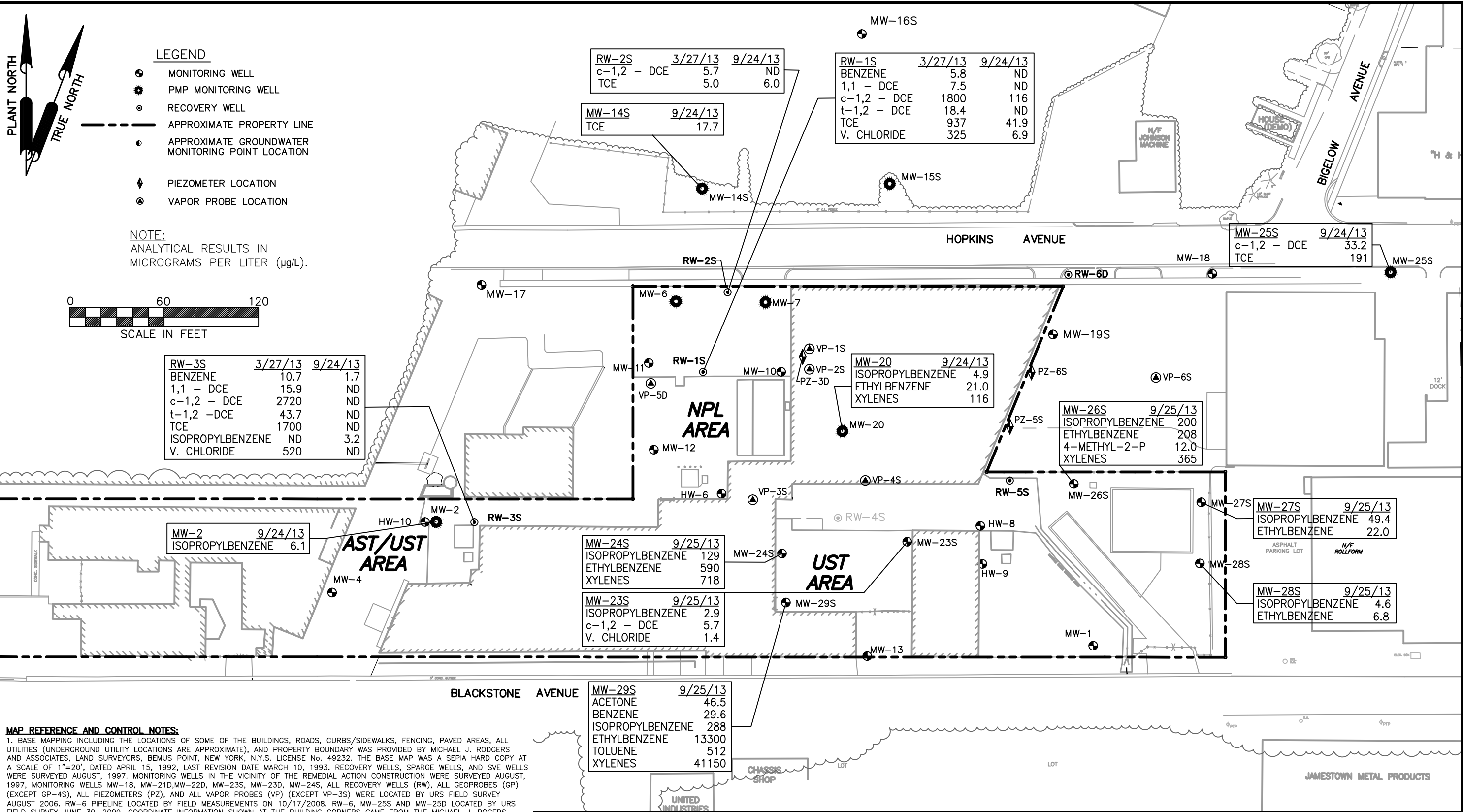
**Figure 4- Shallow Groundwater
 Potentiometric Surface Map
 September 23, 2013**





Essex Specialty Products, Inc.
Essex/Hope Site, Jamestown, NY
URS 41569831

00332181144KKGG
FILE: \ESSEX\HOP\2006-MAP\PMW-2013-A-JUL-2012-PMW-BASE-MAP



CONFIDENTIAL - ALL RIGHTS RESERVED - PROPERTY OF

URS

PITTSBURGH, PENNSYLVANIA

**2013 PERIODIC REVIEW REPORT
SHALLOW GROUNDWATER ANALYTICAL DATA, 2013**

ESSEX/HOPE SITE

JAMESTOWN, NY

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 41569831

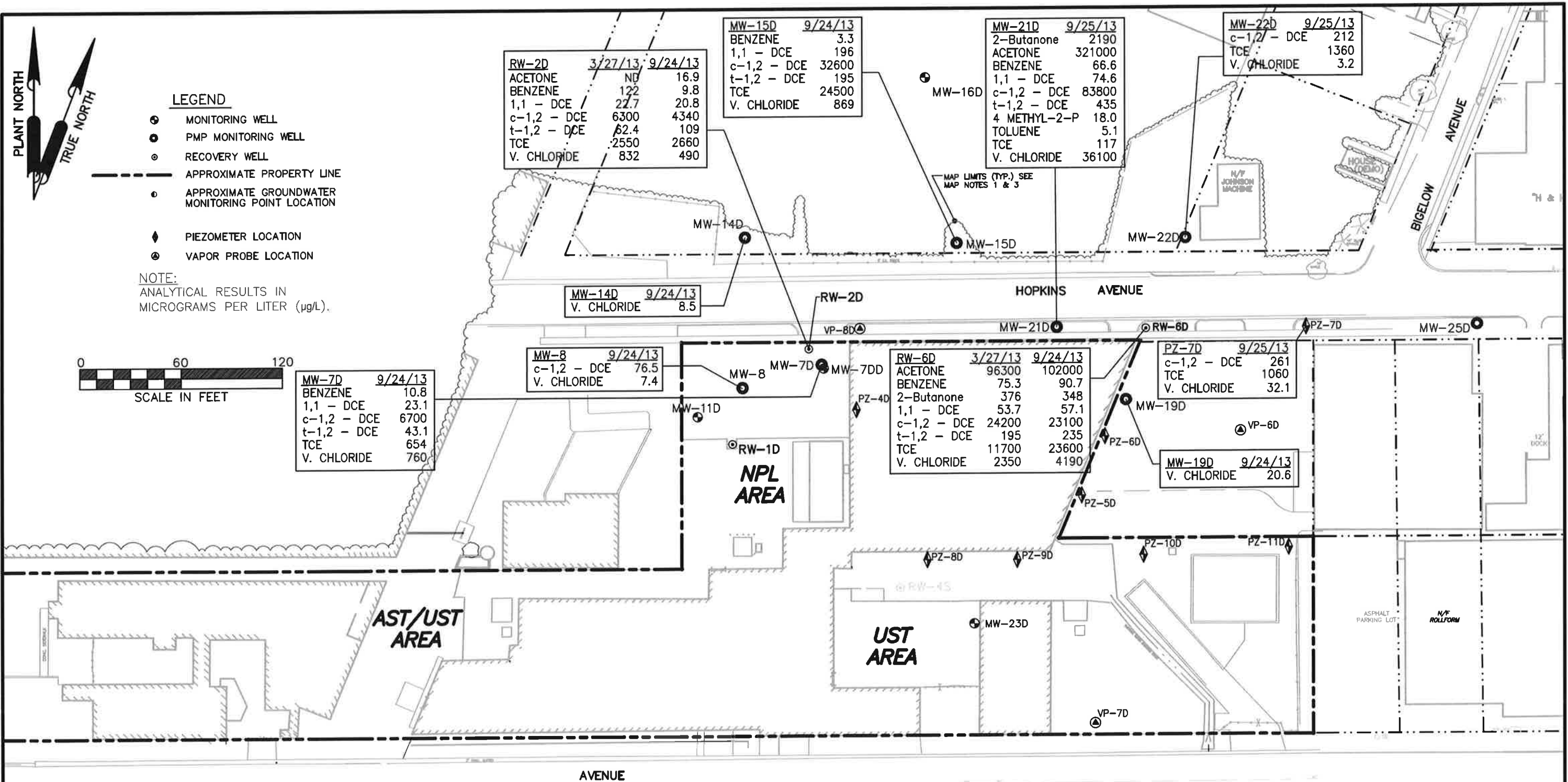
SCALE: AS SHOWN

FIGURE
NUMBER

7

REV
0

00
33
21
61
11
44
GG
FILE: \\ESSEX\HOP\2006-MAP\PM-2013\2013-A-JUL-2012-PM-PM-BASE-MAP



MAP REFERENCE AND CONTROL NOTES:

1. BASE MAPPING INCLUDING THE LOCATIONS OF SOME OF THE BUILDINGS, ROADS, CURBS/SIDEWALKS, FENCING, PAVED AREAS, ALL UTILITIES (UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE), AND PROPERTY BOUNDARY WAS PROVIDED BY MICHAEL J. RODGERS AND ASSOCIATES, LAND SURVEYORS, BEMUS POINT, NEW YORK, N.Y.S. LICENSE No. 49232. THE BASE MAP WAS A SEPIA HARD COPY AT A SCALE OF 1"=20', DATED APRIL 15, 1992, LAST REVISION DATE MARCH 10, 1993. RECOVERY WELLS, SPARGE WELLS, AND SVE WELLS WERE SURVEYED AUGUST, 1997. MONITORING WELLS IN THE VICINITY OF THE REMEDIAL ACTION CONSTRUCTION WERE SURVEYED AUGUST, 1997. MONITORING WELLS MW-18, MW-21D, MW-22D, MW-23S, MW-23D, MW-24S, ALL RECOVERY WELLS (RW), ALL GEOPROBES (GP) (EXCEPT GP-4S), ALL PIEZOMETERS (PZ), AND ALL VAPOR PROBES (VP) (EXCEPT VP-3S) WERE LOCATED BY URS FIELD SURVEY AUGUST 2006. RW-6 PIPELINE LOCATED BY FIELD MEASUREMENTS ON 10/17/2008. RW-6, MW-25S AND MW-25D LOCATED BY URS FIELD SURVEY JUNE 30, 2009. COORDINATE INFORMATION SHOWN AT THE BUILDING CORNERS CAME FROM THE MICHAEL J. RODGERS SURVEY DONE ON JANUARY 9, 1998. ALL OTHER BUILDING CORNERS ARE APPROXIMATE. THE SITE AREA BEYOND THE 1998 SURVEY WAS MAPPED BY URS CORPORATION IN AUGUST 2006. THIS MAPPING USED THE SAME VERTICAL AND HORIZONTAL REFERENCE DATA AS THE PREVIOUS SURVEY. THE MAPPING WAS MERGED WITH THE 1998 DATA TO PRODUCE A COMPOSITE SITE BASE MAP. THE LIMITS OF THE COMPOSITE SURVEY MAP ARE SHOWN ON THE DRAWING. SEE MAP REFERENCE 3.

2. VERTICAL BENCH MARK INFORMATION CAME FROM U.S.G.S. PLAQUE U-88-S.E. ABUTT. ERIE R.R. BRIDGE OVER BUFFALO ST., ELEV.=1296.034 (NATIONAL GEODETIC VERTICAL DATUM, 1929). HORIZONTAL COORDINATES PROVIDED FOR THE MONITORING WELLS AND THE PROPERTY CORNERS ARE BASED ON A LOCAL GRID ESTABLISHED BY THE SURVEYOR. N10000, E10000 IS A PK NAIL SET IN THE CONCRETE CURB/GUTTER AND IS PART OF THE ORIGINAL TRAVERSE. IRON STAKES WERE SET AT THE PROPERTY CORNERS.

3. AREAS OUTSIDE OF CLOUD LINE: PROPERTY LINES AND MAPPING ADJACENT TO BIGELOW AVENUE, NORTH & SOUTH OF HOPKINS AVENUE & EAST OF BIGELOW AVENUE, AND SOUTH OF BLACKSTONE AVENUE WERE TAKEN FROM A VARIETY OF SOURCES INCLUDING SEPIA MYLAR SITE MAP (SEE REFERENCE 1), USGS 7.5 MINUTE TOPOGRAPHIC MAP - JAMESTOWN, NY, CITY OF JAMESTOWN TAX MAP RECORDS, AND URS FIELD RECONNAISSANCE. LOCATIONS AND DIMENSIONS IN THESE AREAS ARE APPROXIMATE.

CONFIDENTIAL - ALL RIGHTS RESERVED - PROPERTY OF



PITTSBURGH, PENNSYLVANIA

**2013 PERIODIC REVIEW REPORT
DEEP GROUNDWATER ANALYTICAL DATA, 2013**

ESSEX/HOPE SITE

JAMESTOWN, NY

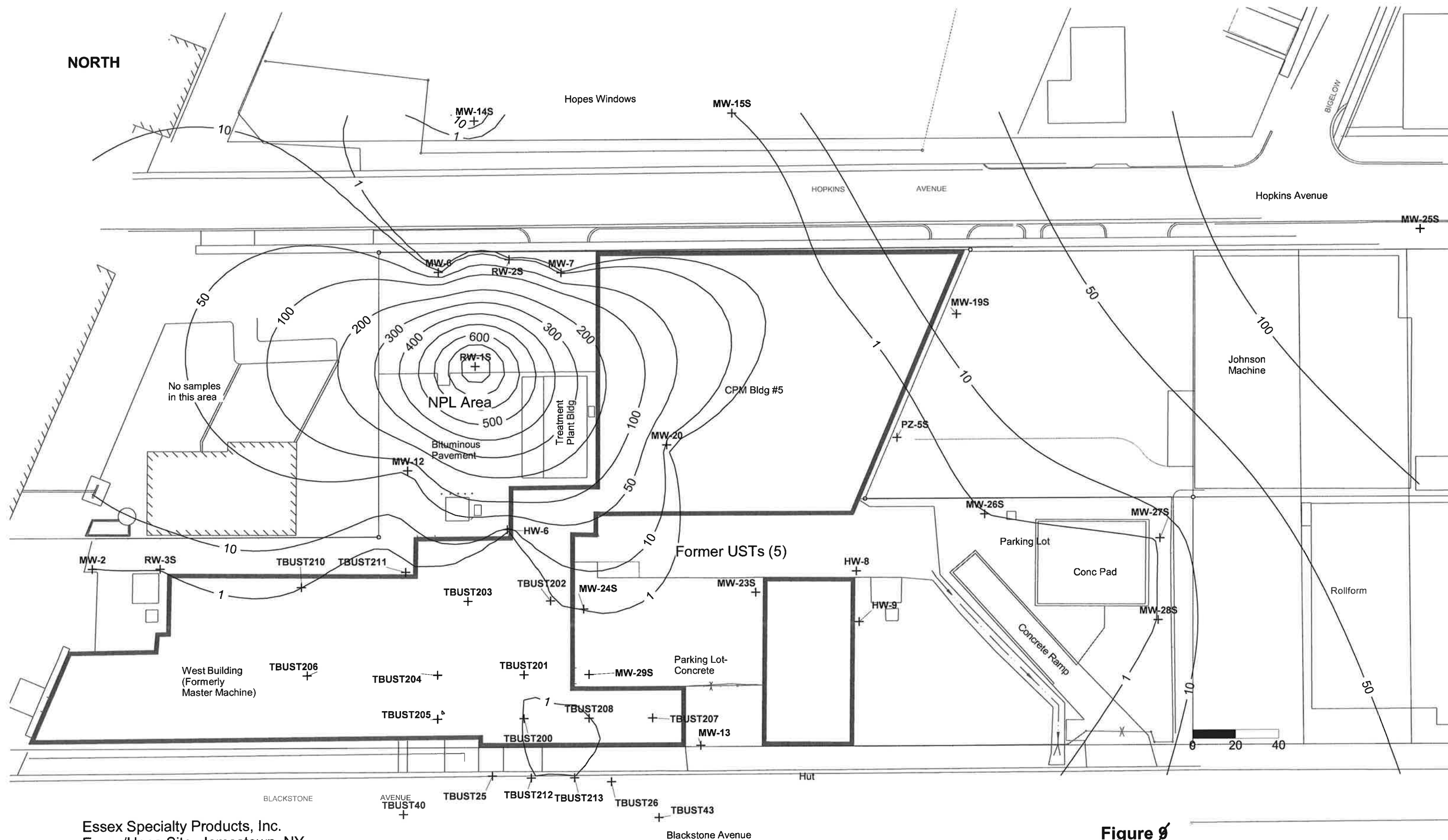
CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 41569831

SCALE: AS SHOWN

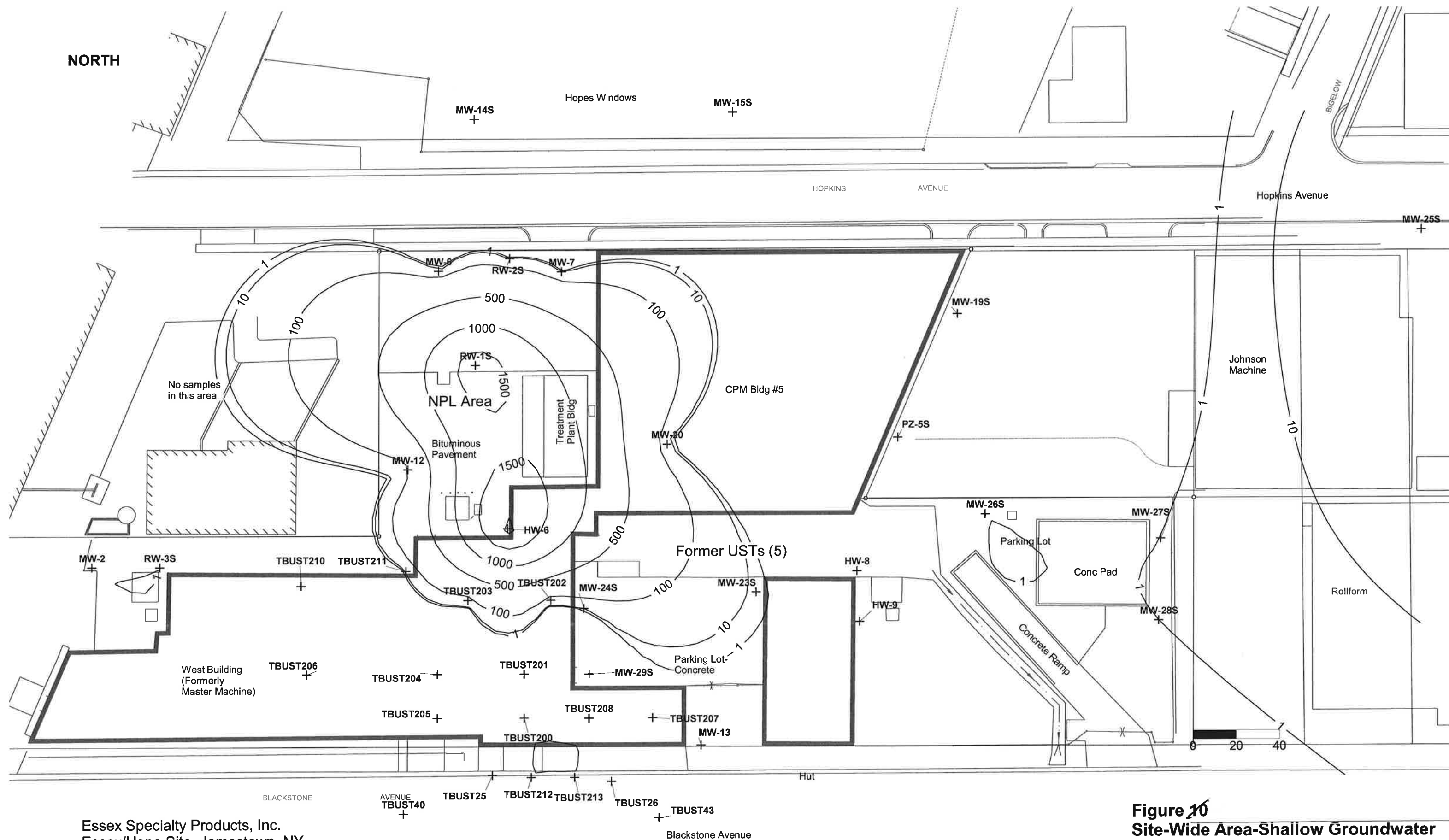
FIGURE NUMBER 8

REV 0



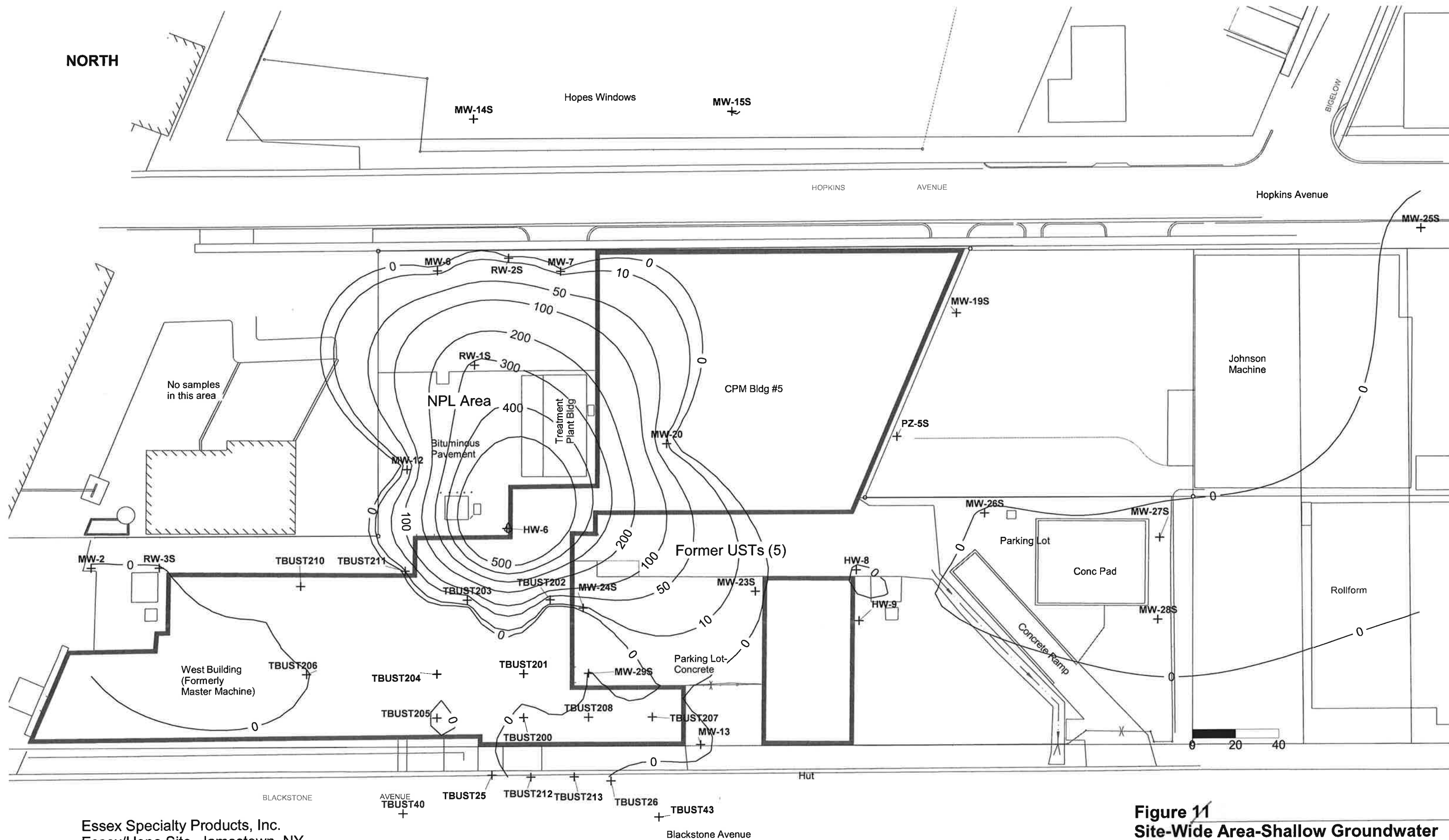
Essex Specialty Products, Inc.
Essex/Hope Site, Jamestown, NY
URS 41569831

Figure 9
Site-Wide Area-Shallow Groundwater
Trichloroethylene, ug/l
2013 Data

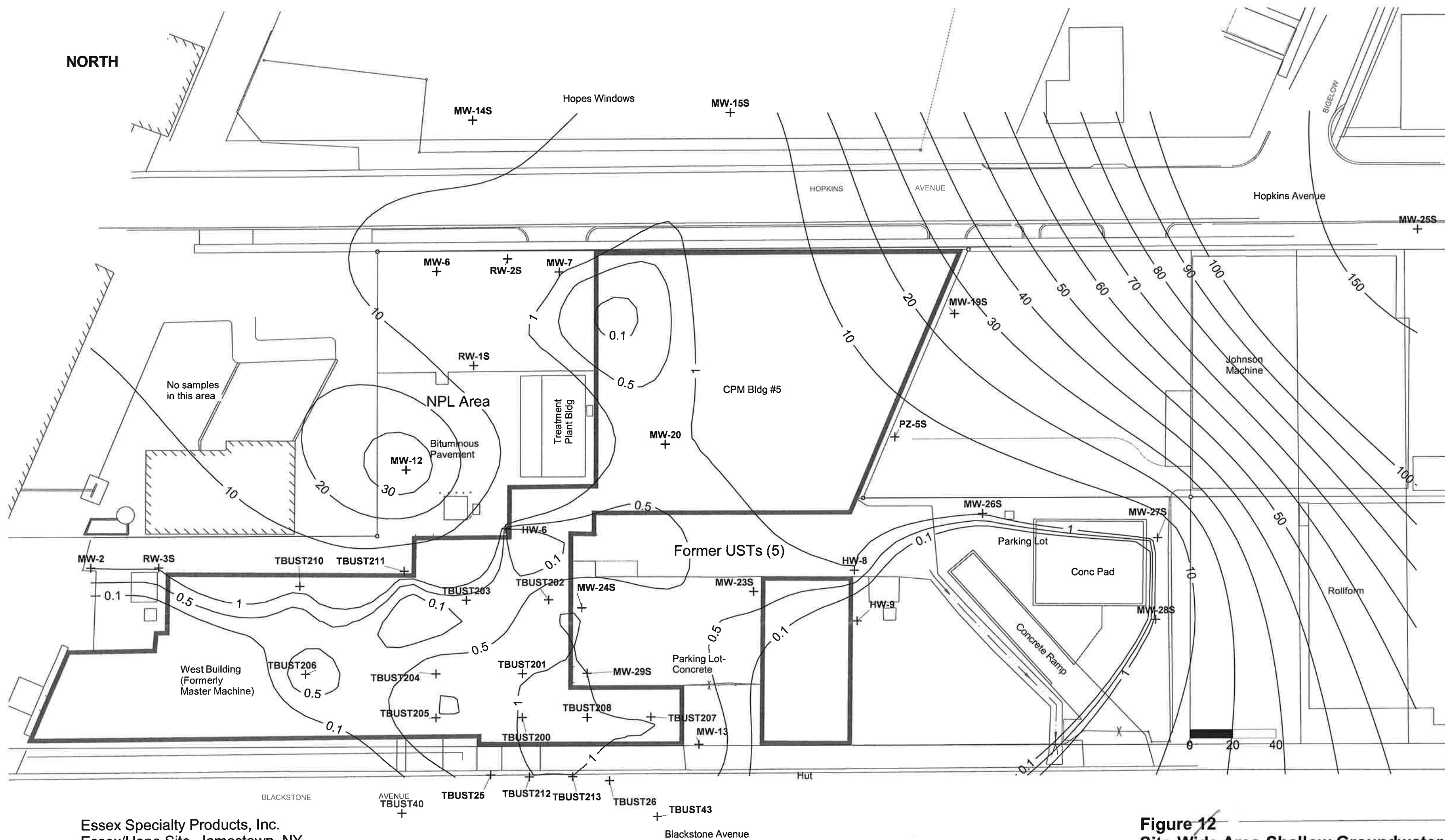


Essex Specialty Products, Inc.
 Essex/Hope Site, Jamestown, NY
 URS 41569831

Figure 10
Site-Wide Area-Shallow Groundwater
cis-DCE, ug/l
2013 Data



Essex Specialty Products, Inc.
 Essex/Hope Site, Jamestown, NY
 URS 41569831



Essex Specialty Products, Inc.
 Essex/Hope Site, Jamestown, NY
 URS 41569831

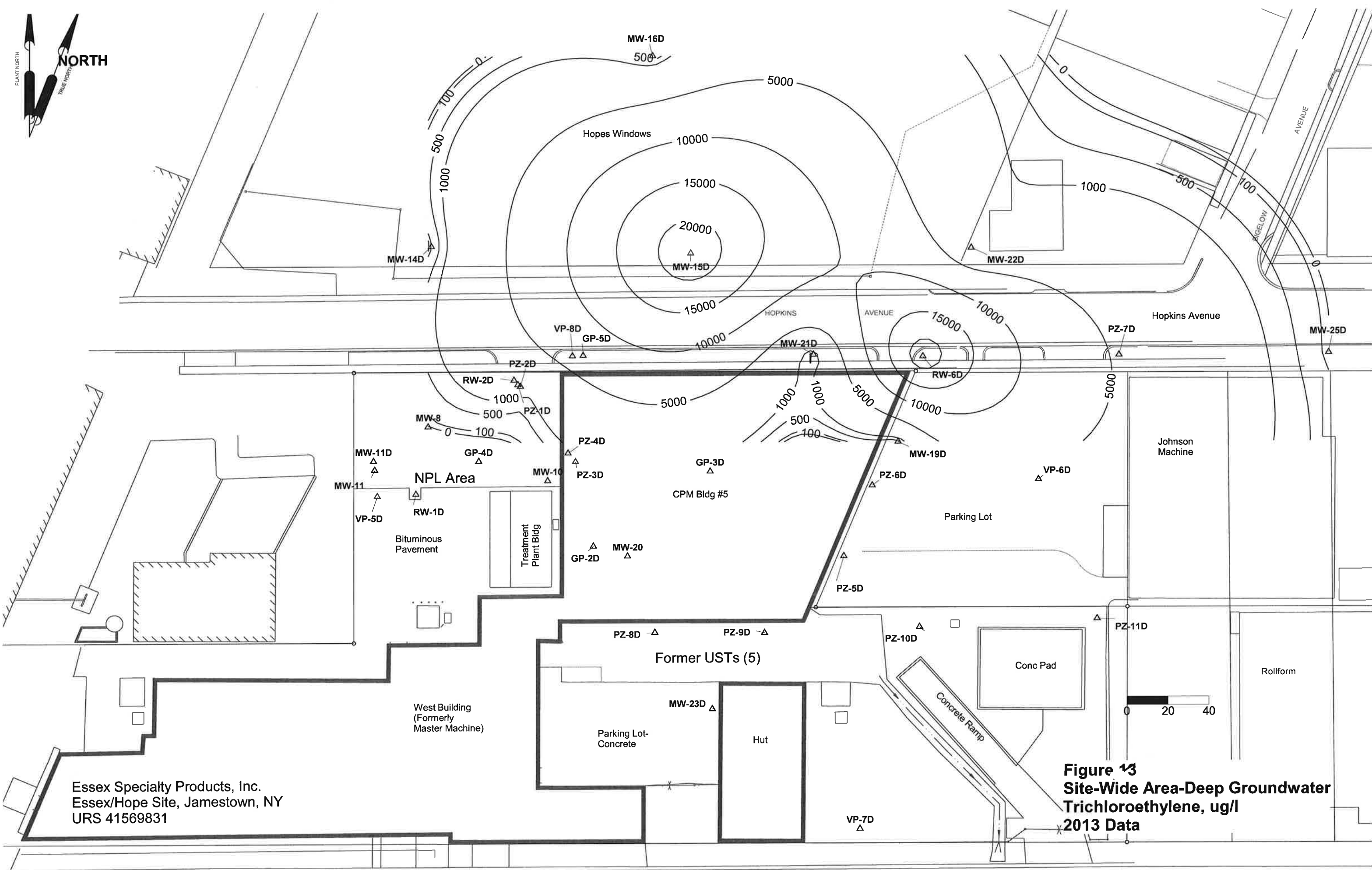
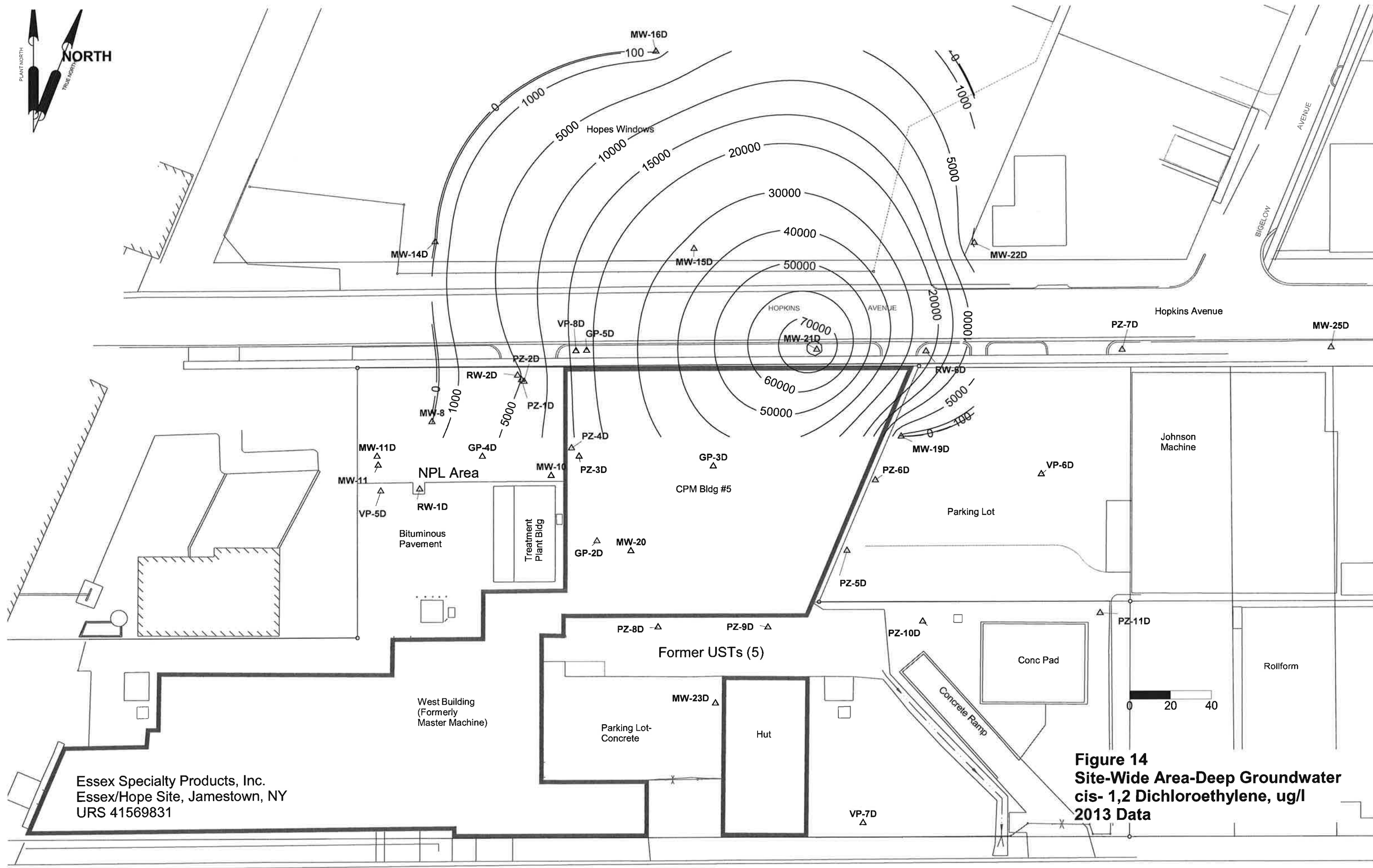
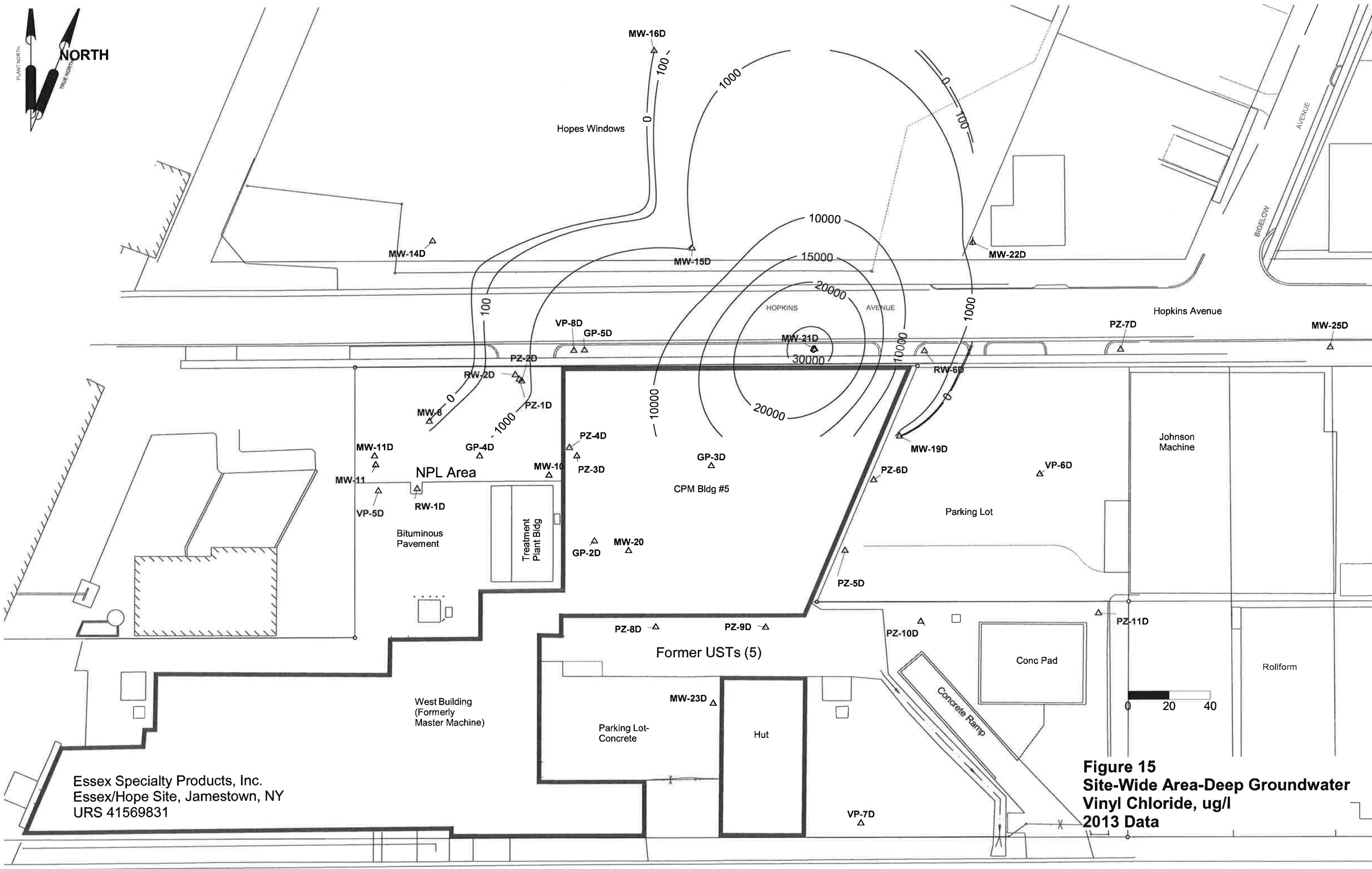


Figure 13
Site-Wide Area-Deep Groundwater
Trichloroethylene, ug/l
2013 Data





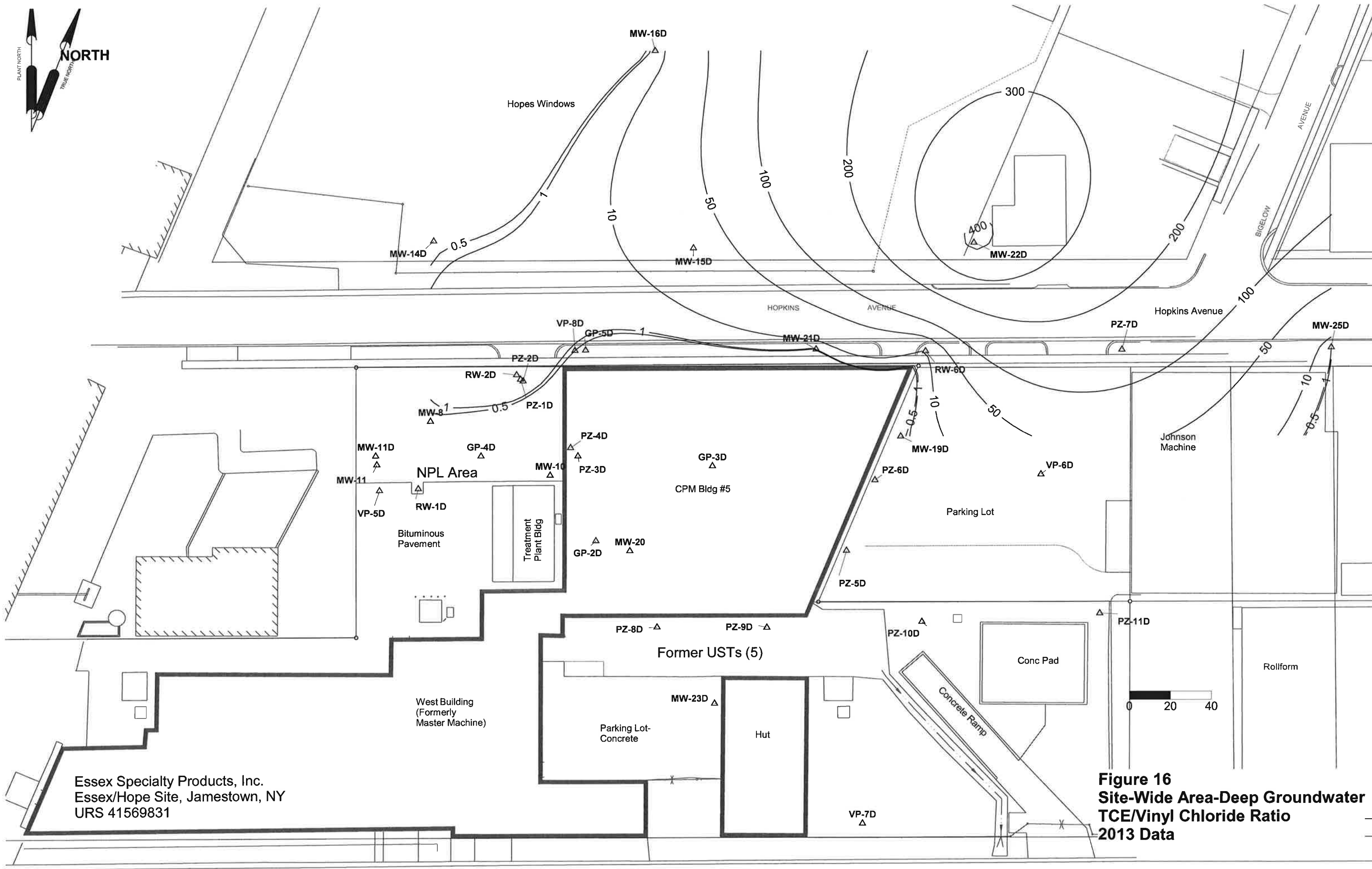


Figure 16
Site-Wide Area-Deep Groundwater
TCE/Vinyl Chloride Ratio
2013 Data

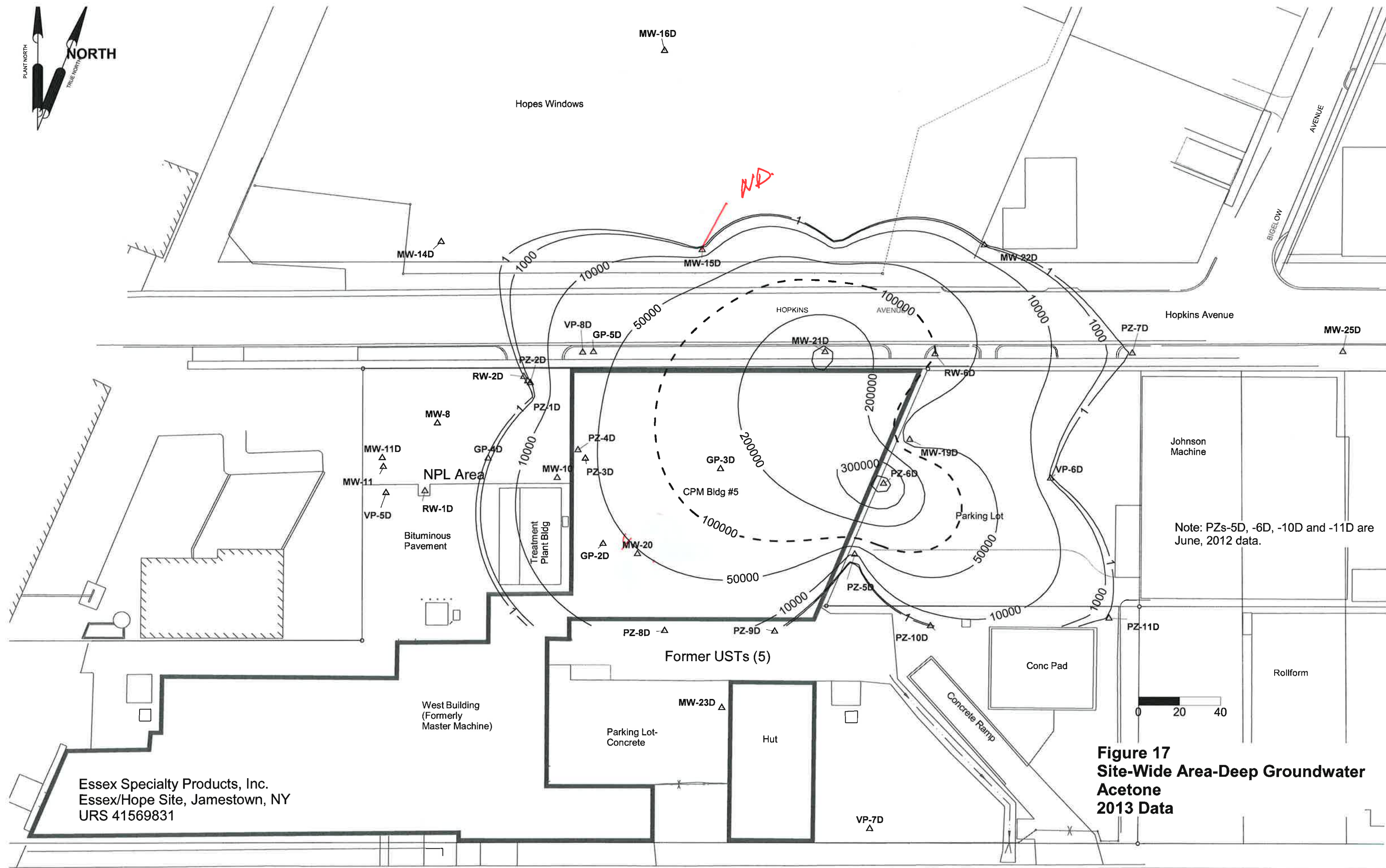
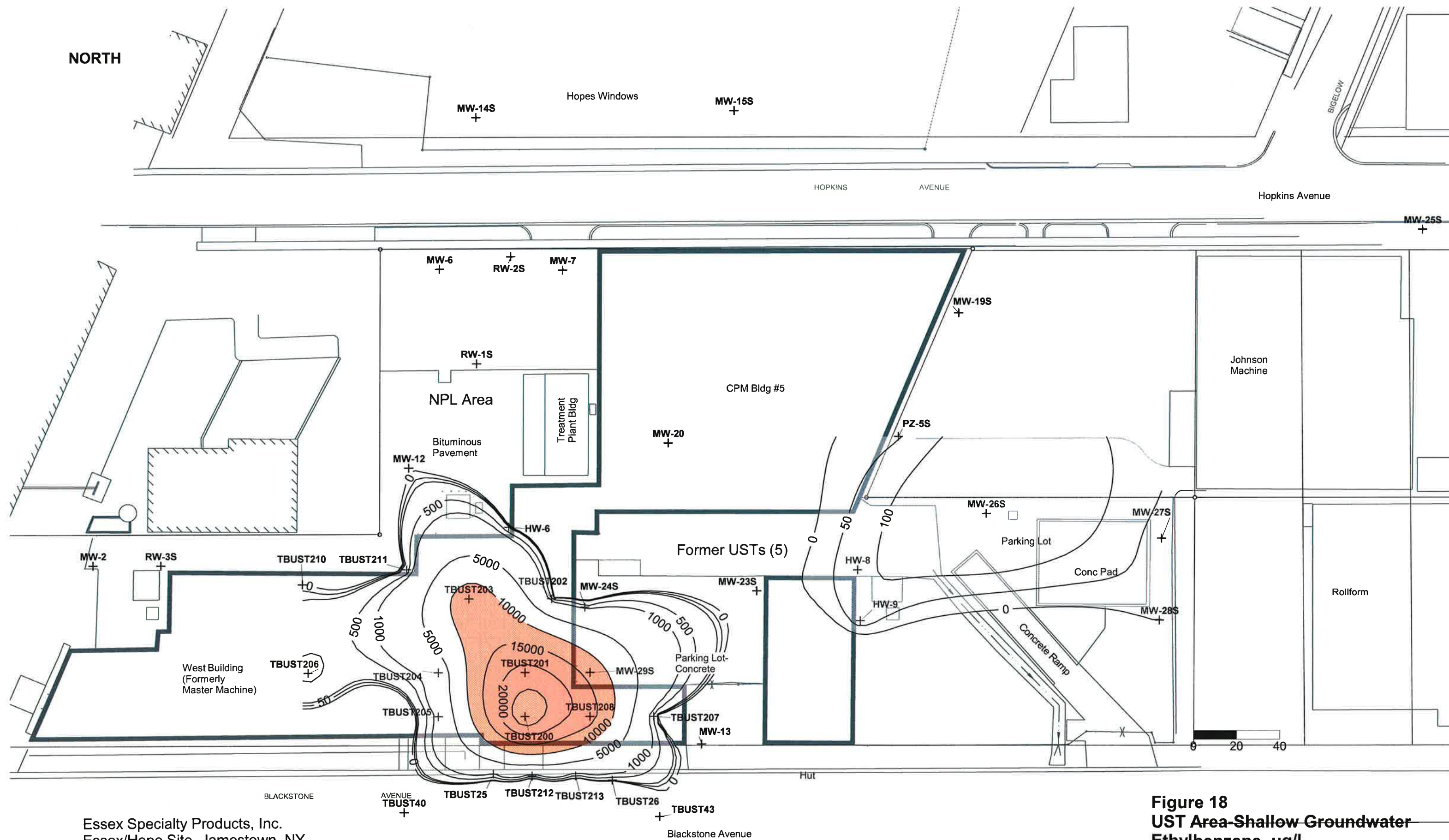
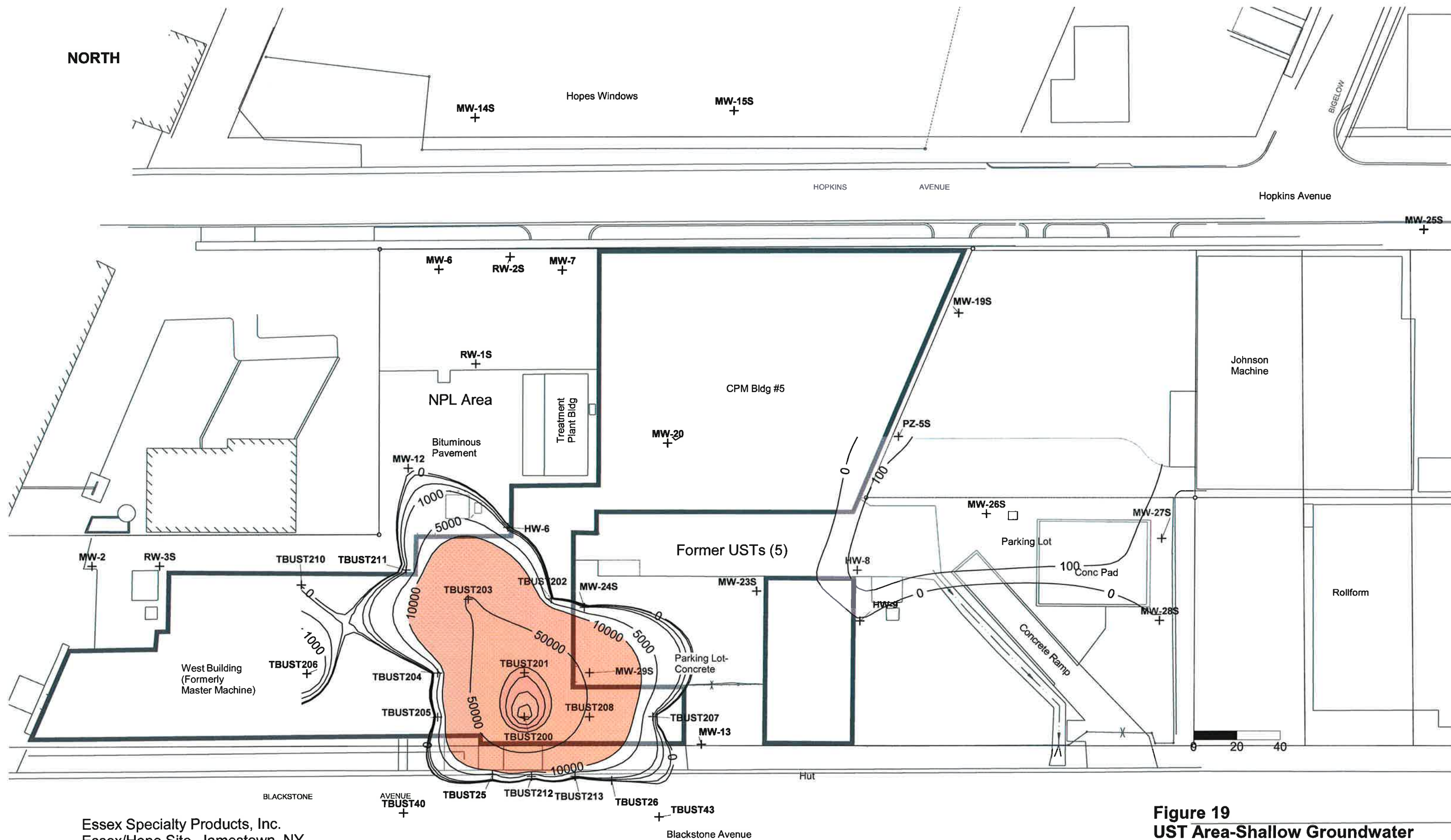


Figure 17
Site-Wide Area-Deep Groundwater
Acetone
2013 Data



Essex Specialty Products, Inc.
 Essex/Hope Site, Jamestown, NY
 URS 41569831



APPENDIX A

DEED RESTRICTION FILING, MARCH, 2014

DECLARATION of COVENANTS and RESTRICTIONS

THIS COVENANT is made the ¹⁴24 day of FEBRUARY 201~~4~~¹⁴ by Essex Specialty Products LLC (formerly Essex Specialty Products Inc.), a wholly-owned subsidiary of The Dow Chemical Company, a corporation organized and existing under the laws of the State of New Jersey and having an office for the transaction of business at 1250 Harmon Road, Auburn Hills, Michigan 48326.

WHEREAS, Essex/Hope Site (Site #907015) is the subject of an Order on Consent executed by Essex Specialty Products Inc, now Essex Specialty Products LLC, a wholly-owned subsidiary of The Dow Chemical Company as part of the New York State Department of Environmental Conservation's (the "Department's) State Superfund Program, namely that parcel of real property located at the address of 117-147 Blackstone Avenue in the City of Jamestown, County of Chautauqua, State of New York, being the same as (or part of) that property conveyed to Custom Production Manufacturing Inc. by Lilly Industries USA Inc. by deed(s) dated July 16, 1999 and recorded on August 2, 1999 in the Chautauqua County County Clerk's Office in Liber and Page Book 2419 page 347, and being more particularly described in Schedule "A," attached to this declaration and made a part hereof, and hereinafter referred to as "the Property"; and

WHEREAS, the Department approved a remedy to eliminate or mitigate all significant threats to the environment presented by the contamination disposed at the Property and such remedy requires that the Property be subject to restrictive covenants.

NOW, THEREFORE, Custom Production Manufacturing Inc., for itself and its successors and/or assigns, covenants that:

First, the Property subject to this Declaration of Covenants and Restrictions is as shown on a map attached to this declaration as Schedule "B" and made a part hereof.

Second, unless prior written approval by the Department or, if the Department shall no longer exist, any New York State agency or agencies subsequently created to protect the environment of the State and the health of the State's citizens, hereinafter referred to as "the Relevant Agency," is first obtained, where contamination remains at the Property subject to the provisions of the Site Management Plan ("SMP"), there shall be no construction, use or occupancy of the Property that results in the disturbance or excavation of the Property which threatens the integrity of the engineering controls or which results in unacceptable human exposure to contaminated soils. The SMP may be obtained from the New York State Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233.

Third, the owner of the Property shall not disturb, remove, or otherwise interfere with the installation, use, operation, and maintenance of engineering controls required for the Remedy, which are described in the SMP, unless in each instance the owner first obtains a written waiver of such prohibition from the Department or Relevant Agency.

Fourth, the owner of the Property shall prohibit the Property from ever being used for purposes other than for **its current use as industrial** without the express written waiver of such prohibition by the Department or Relevant Agency.

Fifth, the use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Chautauqua County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.

Sixth, the owner of the Property shall provide a periodic certification, prepared and submitted by a professional engineer or environmental professional acceptable to the Department or Relevant Agency, which will certify that the institutional and engineering controls put in place are unchanged from the previous certification, comply with the SMP, and have not been impaired.

Seventh, the owner of the Property shall continue in full force and effect any institutional and engineering controls required for the Remedy and maintain such controls, unless the owner first obtains permission to discontinue such controls from the Department or Relevant Agency, in compliance with the approved SMP, which is incorporated and made enforceable hereto, subject to modifications as approved by the Department or Relevant Agency.

Eighth, this Declaration is and shall be deemed a covenant that shall run with the land and shall be binding upon all future owners of the Property, and shall provide that the owner and its successors and assigns consent to enforcement by the Department or Relevant Agency of the prohibitions and restrictions that the Order on Consent requires to be recorded, and hereby covenant not to contest the authority of the Department or Relevant Agency to seek enforcement.

Ninth, any deed of conveyance of the Property, or any portion thereof, shall recite, unless the Department or Relevant Agency has consented to the termination of such covenants and restrictions, that said conveyance is subject to this Declaration of Covenants and Restrictions.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below.

By: Carlo J. Montisano

Print Name: CARLO J. MONTISANO

Title: PRESIDENT Date: 24 FEB. 2014

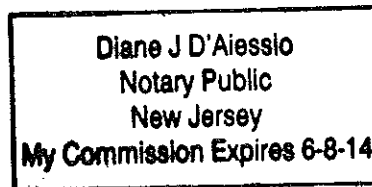
Grantor's Acknowledgment

JERSEY
STATE OF NEW ~~YORK~~ CH)

) s.s.:
COUNTY OF Montgomery

On the 24 day of Feb., in the year 2014, before me, the undersigned, personally appeared CARLO J. MONTISANO personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Diane J. D'Alessio
Notary Public State of New ~~York~~ JERSEY *ofc*



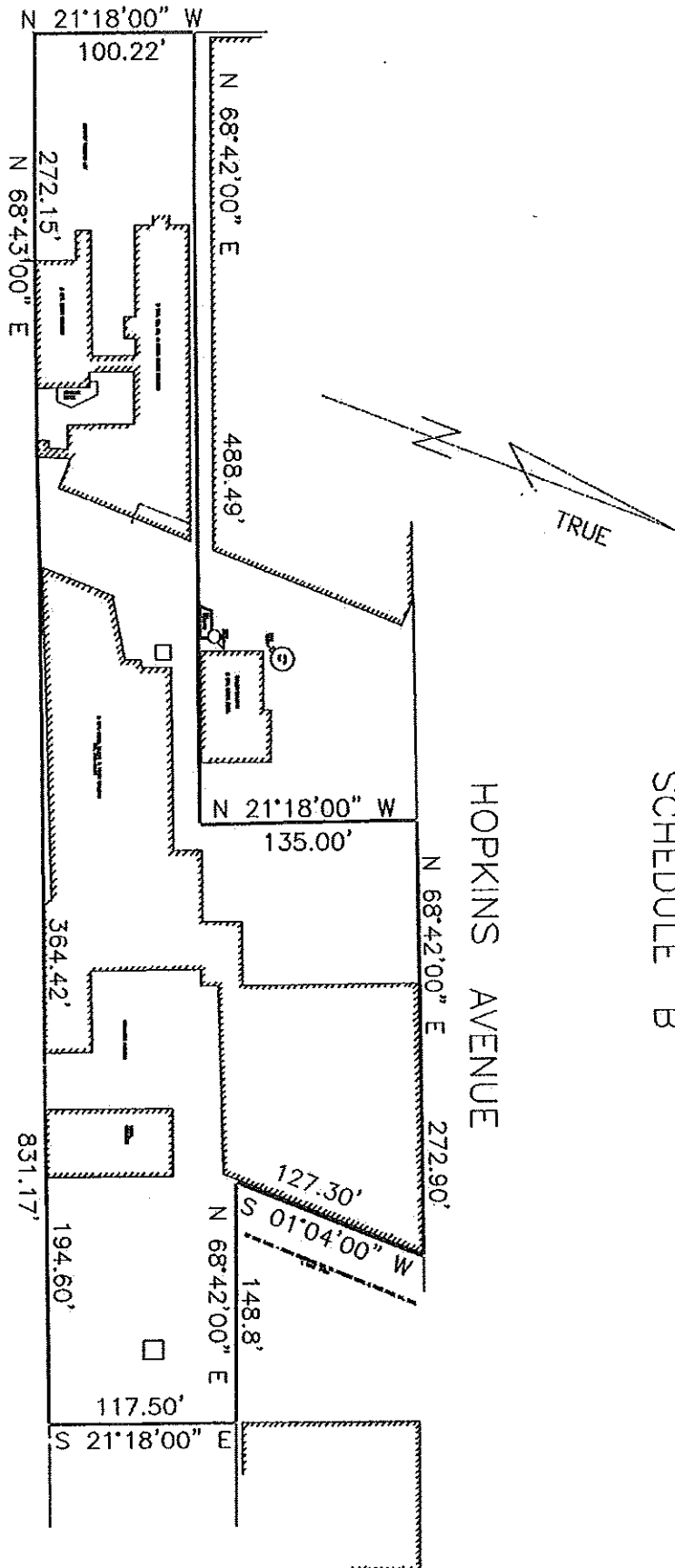
SCHEDULE "A"

Enter Property Description

SEE ATTACHED

ANGOVE AVENUE

(NOT A PUBLIC RIGHT OF WAY)



SCHEDULE "B"

BOUNDARY SURVEY

for

CUSTOM PRODUCTION MFG., INC.

123 BLACKSTONE AVENUE
CITY OF ALBANY
COUNTY OF SCHUYLER
STATE OF NEW YORK

SURVEY BY: MICHAEL J. RODGERS AND ASSOCIATES, APRIL, 1992
LAND SURVEYORS BEAUS POINT, N.Y.

SURVEY UPDATE BY: URS CORPORATION FEBRUARY 2014

Thomas P. Black 02/24/14

NORMAN R. HOOVER, URS CORPORATION, P.L.S.

SCHEDULE "B"

SEE ATTACHED

*Stamp
4/10/00*

THIS INDENTURE

Made the 16 day of July, Nineteen Hundred and Ninety Nine

BETWEEN

LILLY INDUSTRIES (USA), INC.
733 South West Street
Indianapolis, Indiana 46225

party of the first part, and

CUSTOM PRODUCTION MFG., INC.
80 Board Street, Suite 14M
Red Bank, New Jersey 07701

party of the second part,

WITNESSETH that the party of the first part in consideration of One and 00/100 Dollars (\$1.00) lawful money of the United States, paid by the party of the second part, does hereby remise, release, and quitclaim unto the party of the second part, its heirs, successors and assigns forever,

- SEE ATTACHED DESCRIPTION -

TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises,

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, its heirs, successors and assigns forever.

AND, said party of the first part covenants that it has not done or suffered anything whereby said premises have been encumbered in any way whatever; provided that, said premises are conveyed subject to i) all local zoning enactments, ii) all easements, highways, rights-of-way, liens, covenants, conditions, restrictions and other matters, apparent or of record, iii) all current, non-delinquent real estate taxes and assessments and iv) all matters that would be disclosed by an accurate survey or physical inspection of the property.

IN WITNESS WHEREOF, the party of the first part have hereunto set their hands and seals the day and year first above written.

IN PRESENCE OF

LILLY INDUSTRIES (USA), INC.

BY: Kenneth S. Mills
Secretary

State of Indiana : SS:
County of Marion :

CHAUTAUQUA COUNTY TAX MAP
0608003-3-9-1.2-45
3 Sec 3 Blk 8 Lot 2

On this 16 day of July, Nineteen Hundred and Ninety Nine, before me personally came Kenneth S. Mills, to me known, who being by me duly sworn, did depose and say that he/she resides in Marion County, Indiana that he/she is the Secretary of Lilly Industries (USA), Inc., the corporation described in and which Executed the above instrument and that he/she signed his/her name thereto by like order of the Board of Directors.

CHAUTAUQUA COUNTY TAX MAP
0608003-3-9-1.2-45
3 Sec 3 Blk 14 Lot 1.4.3

DIANE S. RIZZO
NOTARY PUBLIC
DIANE S. RIZZO
NOTARY PUBLIC STATE OF INDIANA
JOHNSON COUNTY
MY COMMISSION EXP. AUG. 29, 2001

501571.1
DEPT. OF ASSESSMENTS CITY OF JAMESTOWN, NY
REGISTERED Aug 2 1999
LIBER 133
NO. 816 88 Voge

AUG. 3.1999 9:51AM CHAUTAUQUA ABSTRACT

NO.300 P.2

Lawyers Title Insurance CorporationNATIONAL HEADQUARTERS
RICHMOND, VIRGINIASCHEDULE A cont'd.

All that tract or parcel of land situate in the City of Jamestown, County of Chautauqua, State of New York described as follows: Beginning at a point on the northerly line of Blackstone Avenue 300 feet westerly from the westerly line of Caroline Street; running thence northerly at right angles to Blackstone Avenue 117.5 feet; thence westerly 148.8 feet to a point in Tiffany's west line; thence southwesterly along said line 127.4 feet to Blackstone Avenue, thence easterly 194.6 feet to the place of beginning. And also being known as Lots 88, 89 and 90 on a map of Tiffany Farm Allotment "B" and also being shown on the official tax map of the City of Jamestown as Parcels Nos. 312116, 312117 and 312118.

Also all that tract or parcel of land situate in the City of Jamestown, County of Chautauqua and State of New York being part of the "Driving Park, Jamestown, N.Y." which is part of the middle third of Lot No. 18, Town 2, Range 11 of the Holland Land Company's Survey, bounded and described as follows: Beginning at an iron stake at the intersection of the northerly line of Blackstone Avenue with the easterly line of Angove Avenue, formerly known as Driving Park Avenue (which latter avenue is mentioned as Hopkins Avenue in a release of the Safe Deposit & Trust Company of Pittsburg of a part of the mortgaged premises relating to the premises herein described) and running thence north $68^{\circ} 43'$ east along the said northerly line of Blackstone Avenue 272.15 feet to an iron stake in the westerly line of the Erie Railroad Company's right of way for a spur track, extending northerly from the Erie Railroad Company's main line through the said middle third of Lot 18; thence north $1^{\circ} 5'$ east along the westerly line of said right of way 108.14 feet to an iron stake; thence south $68^{\circ} 43'$ west parallel with the said Blackstone Avenue 313.3 feet to an iron stake in the easterly line of the said Angove Avenue (formerly known as Driving Park Avenue) thence south $21^{\circ} 17'$ east along the said easterly line of Angove Avenue, formerly known as Driving Park Avenue, 100 feet to the place of beginning.

Schedule A Page 2 No. BF 092474

035-0-999-0000/1

ORIGINAL

This is U.S.A.

AUG. 3.1999 9:52AM CHAUTAUGUA ABSTRACT

NO.300 P.3

Lawyers Title Insurance CorporationNATIONAL HEADQUARTERS
RICHMOND, VIRGINIASCHEDULE A cont'd.

Also all that tract or parcel of land situate in the City of Jamestown aforesaid, lying and being on the tract commonly known as "Driving Park of Jamestown, N.Y." more particularly described as follows: Beginning at a point in the intersection of the easterly boundary line of the right of way of the Erie Railroad Company and the northerly boundary line of Blackstone Avenue; running thence northeasterly along the northerly boundary line of Blackstone Avenue 364.42 feet to the easterly boundary line of said "Driving Park of Jamestown, N.Y." thence northeasterly along the easterly boundary of the said "Driving Park of Jamestown, N.Y.", 108.14 feet; thence southwesterly parallel to the northerly boundary line of Blackstone Avenue 364.42 feet to the easterly boundary line of the right of way of the Erie Railroad Company; thence southwesterly along the easterly boundary line of the right of way of the Erie Railroad Company 108.14 feet to the place of beginning.

Also all that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the City of Jamestown, County of Chautauqua and State of New York being part of Lot 18, Town 2, Range 11 of the Holland Land Company's survey and bounded and described as follows: Beginning at an iron stake in the southerly street line of Hopkins Avenue at its intersection with the former easterly bounds of the Vandergriff Realty Company premises and the east line of middle third of said Lot 18; running thence South $1^{\circ} 04'$ west along said easterly bounds of the former Vandergriff Realty Company, 145.98 feet to a post; thence South $68^{\circ} 42'$ west parallel to Hopkins Avenue and 135 feet distant southerly measured at right angles therefrom, 217.35 feet to an iron stake; thence North $21^{\circ} 18'$ west, 135 feet to an iron stake in the southerly street line of Hopkins Avenue; thence North $68^{\circ} 42'$ east along said southerly street line of Hopkins Avenue, 272.90 feet to the point of beginning.

Schedule A Page 3 No. BF 092474

039-0-999-0000/1

ORIGINAL

Made in U.S.A.

AUG. 3.1999 9:52AM

CHAUTAUQUA ABSTRACT

NO.300

P.4

Lawyers Title Insurance Corporation

NATIONAL HEADQUARTERS

RICHMOND, VIRGINIA

SCHEDULE A cont'd.

Also a right of way as set forth in a Bargain and Sale Deed dated June 20, 1978 and recorded in the Chautauqua County Clerk's Office in Liber 1790 of Deeds at Page 100 on August 22, 1978 and described as a fifteen (15) foot Right of Way along the westerly boundary of the following described property: Also, all that other tract or parcel of land, situate in the City of Jamestown, County of Chautauqua and State of New York, being part of Lot 18, Town 2, Range 11 of the Holland Land Company's Survey and described as follows: Commencing at a stake at the southwest corner of Hopkins Avenue adjoining the property of the Vandergriff Realty Company, formerly owned by Solomon Jones; running thence easterly along Hopkins Avenue 33 feet; thence southerly at right angles with Hopkins Avenue 117 1/2 feet; thence westerly and parallel with Hopkins Avenue 98 feet to the west line of the Vandergriff Realty Company's east line; thence northerly along said last mentioned line of the Vandergriff Realty Company's east line to Hopkins Avenue 127 feet to the place of beginning as shown on map of Tiffany's farm, Section "B", on file in Chautauqua County Clerk's Office, and also being shown on the Official Tax Map of the City of Jamestown as Parcel No. 312101.

Also all that piece or parcel of land, situate in the City of Jamestown, County of Chautauqua and State of New York, described as follows: Beginning at an iron stake located in the northerly boundary of Blackstone Avenue; thence North 00° 56' 46" East, 108 feet more or less to a point on the southerly boundary of property now or formerly owned by Roblin Hopes Industries, Inc.; thence North 68° 41' 00" East, 28.09 feet to a point; thence South 00° 56' 40" West, 108 feet more or less to an iron stake located in the northerly boundary of Blackstone Avenue; thence South 68° 41' 00" West, 28.09 feet to the point and place of beginning. Said parcel being a 26 foot wide right of way acquired by the City of Jamestown from the Consolidated Rail Corporation by deed recorded in Liber 1922 of Deeds at page 290 in the Chautauqua County Clerk's Office.

Schedule A Page 4 No. BF 092474

038-0-998-0000/1

ORIGINAL

(110g in USA)

APPENDIX B

NOT USED IN THIS DOCUMENT

APPENDIX C

GROUNDWATER EXTRACTION MONITORING DATA

APPENDIX C-1

WATER LEVEL DATA

APPENDIX C-1

2013 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	June 27, 2013			September 23, 2013		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
MW-1	9758.7161	10383.6499	1280.48		20.0	Shallow	NA	NA	NA	NA	NA	NA
MW-2	9837.1531	9959.6857	1279.87		16.0	Shallow	9.44	NA	1270.43	8.82	NA	1271.05
MW-4	9792.3277	9900.7631	1281.02	13.0	18.0	Shallow	10.21	NA	1270.81	9.56	NA	1271.46
MW-5	9789.6222	9631.761	1280.82	9.5	20.0	Shallow	NA	NA	NA	NA	NA	NA
MW-6	9977.1197	10118.8762	1277.98			Shallow	10.03	NA	1267.95	8.12	NA	1269.86
MW-7	9976.6467	10175.6797	1277.73	10.0	20.0	Shallow	8.51	NA	1269.22	6.87	NA	1270.86
MW-7D	9973.2593	10174.8524	1277.8	35.0	45.0	Deep	15.70	NA	1262.10	16.76	NA	1261.04
MW-7DD	9970.8547	10176.2698	1277.74	90.0	100.0	Glacial Till	NA	NA	NA	NA	NA	NA
MW-8	9959.6089	10127.6898	1277.97	39.6	49.6	Deep	14.75	NA	1263.22	15.99	NA	1261.98
MW-10	9932.4702	10185.7078	1277.94	8.5	18.5	Shallow	8.53	NA	1269.41	7.13	NA	1270.81
MW-11	9937.9912	10101.7016	1277.75	5.0	15.0	Shallow	10.54	NA	1267.21	10.21	NA	1267.54
MW-11D	9942.3792	10101.1482	1277.85	35.0	45.0	Deep	11.71	NA	1266.14	15.10	NA	1262.75
MW-12	9883.0874	10104.9278	1278.18	4.0	14.0	Shallow	9.13	NA	1269.05	7.95	NA	1270.23
MW-13	9752.0619	10240.2934	1278.12	8.0	18.0	Shallow	10.23	NA	1267.89	10.39	NA	1267.73
MW-14S	10048.7753	10135.5198	1280.25	10.0	20.0	Shallow	13.47	NA	1266.78	12.84	NA	1267.41
MW-14D	10049.5051	10129.1897	1280.01	40.0	50.0	Deep	15.63	NA	1264.38	16.51	NA	1263.50
MW-15S	10051.8272	10254.4862	1279.55	10.0	20.0	Shallow	13.23	NA	1266.32	12.37	NA	1267.18
MW-15D	10045.5611	10255.205	1279.46	34.0	44.0	Deep	14.91	NA	1264.55	15.63	NA	1263.83
MW-16S	10146.7788	10236.8582	1279.32	7.0	17.0	Shallow	12.68	NA	1266.64	12.49	NA	1266.83
MW-16D	10143.9497	10236.6005	1279.05	36.0	46.0	Deep	14.12	NA	1264.93	14.64	NA	1264.41
MW-17	9987.6315	9995.5207	1278.7			Deep	NA	NA	NA	NA	NA	NA
MW-18	9994.6655	10459.2207	1275.49		20.0	Shallow	9.99	NA	1265.50	9.76	NA	1265.73
MW-19S	9956.1454	10358.207	1276.82	9.0	19.0	Shallow	10.32	NA	1266.50	9.82	NA	1267.00
MW-19D	9951.569	10355.9748	1276.21	34.0	44.0	Deep	12.91	NA	1263.30	12.90	NA	1263.31
MW-20	9894.7336	10224.5128	1278.56	6.5	11.5	Shallow	9.53	NA	1269.03	6.96	NA	1271.60
MW-21D	9995.0094	10314.801	1276.12	31.5	41.0	Deep	12.13	NA	1263.99	13.75	NA	1262.37
MW-22D	10048.1687	10391.3548	1276.04	32.5	42.0	Deep	10.58	NA	1265.46	10.40	NA	1265.64
MW-23S	9824.696	10265.6365	1277.85	5.0	14.5	Shallow	7.40	NA	1270.45	6.52	NA	1271.33
MW-23D	9818.3152	10265.6675	1277.89	28.0	37.5	Deep	11.82	NA	1266.07	12.35	NA	1265.54

APPENDIX C-1

2013 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	June 27, 2013			September 23, 2013		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
MW-24S	9817.1277	10186.2119	1278.77	5.0	14.5	Shallow	8.70	NA	1270.07	7.87	NA	1270.90
MW-25S	9995.6	10572.35	1272.76	7.0	17.0	Shallow	10.79	NA	1261.97	10.51	NA	1262.25
MW-25D	9995.46	10565.28	1273.41	31.0	41.0	Deep	10.92	NA	1262.49	11.10	NA	1262.31
MW-26S	9861.3519	10371.3241	1279.422	5.0	15.0	Shallow	10.61	NA	1268.81	9.79	NA	1269.63
MW-27S	9849.63382	10452.2197	1278.864	10.0	20.0	Shallow	10.41	NA	1268.45	9.68	NA	1269.18
MW-28S	9810.84281	10451.4089	1279.25	7.0	17.0	Shallow	10.77	NA	1268.48	9.83	NA	1269.42
MW-29S	9786.06533	10188.6419	1280.7	4.0	14.0	Shallow	8.89	NA	1271.81	8.28	NA	1272.42
HW-8	9834.664	10312.0885	1277.81	6.0	16.0	Shallow	7.46	NA	1270.35	6.45	NA	1271.36
HW-9	9810.5264	10313.3873	1280.78	6.0	16.0	Shallow	10.91	NA	1269.87	10.08	NA	1270.70
HW-10	9837.2976	9966.7406	1279.55	7.0	17.0	Shallow	NA	NA	NA	NA	NA	NA
RW-1S	9932.3606	10136.0515	1275.81	10.5	16.0	Shallow	9.35	11.50	1266.46	11.38	11.50	1264.43
RW-1D	9925.9898	10121.7689	1276.34	32.0	57.0	Deep	13.04	NA	1263.30	14.29	NA	1262.05
RW-2S	9982.9501	10151.7112	1276.33	10.0	15.5	Shallow	11.30	12.70	1265.03	9.80	12.70	1266.53
RW-2D	9982.6088	10169.3122	1276.35	27.0	42.0	Deep	28.77	36.90	1247.58	35.95	36.90	1240.40
RW-3S	9837.0894	9990.9663	1278.14	9.0	13.5	Shallow	8.13	8.80	1270.01	9.13	8.80	1269.01
RW-5S	9863.4298	10330.7462	1277.29	7.0	10.0	Shallow	NA	NA	NA	NA	NA	NA
RW-6D	9994.04	10367.91	1277.33			Deep	14.55	NA	1262.78	19.42	NA	1257.91
GP-1S	9942.4384	10203.1085	1278.83	8.0	12.8	Shallow	NA	NA	NA	NA	NA	NA
GP-2S	9899.8775	10204.1632	1278.46	2.6	12.6	Shallow	NA	NA	NA	NA	NA	NA
GP-2D	9899.7358	10207.9807	1278.56	30.0	34.8	Deep	NA	NA	NA	NA	NA	NA
GP-3S	9941.2543	10263.8898	1278.59	4.0	14.0	Shallow	NA	NA	NA	NA	NA	NA
GP-3D	9936.9027	10264.588	1278.62	34.0	38.8	Deep	NA	NA	NA	NA	NA	NA
GP-4S	9940.86*	10154.97*	1278.06	10.8	15.8	Shallow	9.10	NA	1268.96	8.82	NA	1269.24
GP-4D	9942.1743	10152.2232	1277.95	39.0	43.8	Deep	14.79	NA	1263.16	16.09	NA	1261.86
GP-5S	9994.7299	10200.2055	1277.44	7.0	11.8	Shallow	NA	NA	NA	NA	NA	NA
GP-5D	9994.8642	10202.9906	1276.81	36.0	40.8	Deep	NA	NA	NA	NA	NA	NA
PZ-1S	9981.8469	10169.3122	1277.77			Shallow	NA	NA	NA	NA	NA	NA
PZ-1D	9980.4294	10171.2636	1277.64			Deep	NA	NA	NA	NA	NA	NA
PZ-2D	9979.5627	10172.4761	1277.55			Deep	NA	NA	NA	NA	NA	NA

APPENDIX C-1

2013 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	June 27, 2013			September 23, 2013		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
PZ-3D	9942.0414	10199.2937	1278.8	20.0	40.0	Deep	NA	NA	NA	NA	NA	NA
PZ-4D	9946.2326	10195.679	1278.71			Deep	NA	NA	NA	NA	NA	NA
PZ-5S	9897.7381	10330.7876	1276.42	5.5	12.0	Shallow	8.80	NA	1267.62	7.53	NA	1268.89
PZ-5D	9894.5731	10329.7148	1276.4	21.0	42.0	Deep	10.41	NA	1265.99	10.02	NA	1266.38
PZ-6S	9932.2079	10344.4895	1276.61	8.5	13.5	Shallow	10.23	NA	1266.38	9.23	NA	1267.38
PZ-6D	9929.8004	10343.4742	1276.62	25.5	45.5	Deep	10.92	NA	1265.70	11.87	NA	1264.75
PZ-7D	9994.5452	10463.2465	1275.68	22.0	42.0	Deep	10.98	NA	1264.70	11.06	NA	1264.62
PZ-8D	9856.4908	10237.8118	1278.12	21.0	41.0	Deep	NA	NA	NA	NA	NA	NA
PZ-9D	9856.2398	10291.1658	1277.3	19.0	39.0	Deep	NA	NA	NA	NA	NA	NA
PZ-10D	9858.9821	10366.4236	1277.52	26.5	46.5	Deep	NA	NA	NA	NA	NA	NA
PZ-11D	9863.0677	10452.8989	1276.63	21.3	41.3	Deep	NA	NA	NA	NA	NA	NA
VP-5D	9925.1052	10103.0141	1277.88	12.5	34.3	Deep	11.98	NA	1265.90	12.15	NA	1265.73
VP-6S	9928.8123	10423.4628	1276.48	18.3	24.0	Deep upper gravel	10.52	NA	1265.96	10.06	NA	1266.42
VP-6D	9932.5744	10424.1378	1276.6	29.5	39.5	Deep	11.02	NA	1265.58	10.89	NA	1265.71
VP-7D	9758.4881	10337.7133	1278.64	20.4	39.3	Deep	13.98	NA	1264.66	13.73	NA	1264.91
VP-8D	9994.6178	10197.8133	1277.15	20.0	39.0	Deep	10.38	NA	1266.77	9.83	NA	1267.32

Notes:

NM = Not Measure
NA = Not Applicable

RW-4S, RW-5S taken offline in October 2002 for UST Removal.
Wells RW-4S, TW-01, and HW-7 destroyed during UST removal operations.

APPENDIX C-2

Groundwater Extraction System Monitoring Data

APPENDIX C-2

2013 Groundwater Extraction System Monitoring Data Essex/Hope Site Jamestown, NY

Date	NPL Area - Shallow WBZ			L.F. Sand WBZ			AST/UST Area - Shallow	Comments
	RW-1S	RW-2S	Total GPM	RW-2D	RW-6D	Total GPM	RW-3S	
	Avg. GPM	Avg. GPM		Avg. GPM	Avg. GPM		Avg. GPM	
01/03/13	0.129	1.91	2.039	3.14	1.31	4.45	0.032	
01/15/13	0.060	0.596	0.656	2.13	0.800	2.93	0.009	RWs down on arrival due to high tank alarm. Restart at 1030 hrs.
01/30/13	0.054	0.383	0.437	0.508	0.183	0.69	0.029	RW-2S offline at 1145 hrs due to electrical malfunction in control panel.
02/13/13	0.322	offline	0.322	3.18	1.04	4.22	0.111	
02/27/13	0.229	offline	0.229	1.72	0.719	2.44	0.041	RW-2D reset @ 1130 hrs. Bus undervoltage.
03/13/13	0.262	offline	0.262	3.17	0.621	3.79	0.060	
03/26/13	0.231	offline	0.231	1.72	0.421	2.14	0.048	System down on arrival due to high tank alarm. Restart at 1115 hrs.
03/27/13	0.310	offline	0.310	2.14	0.734	2.87	0.074	RW-2S online for 30 minutes for Semi-Annual RW Sampling. All RWs offline until subsequent carbon changeout.
06/06/13	0.324	2.57	2.89	3.65	0.526	4.18	0.060	RWs online on 6/6/13 following carbon changeout activities.
06/20/13	0.304	2.38	2.68	2.12	0.514	2.63	0.087	
07/06/13	0.133	1.18	1.31	2.31	0.279	2.59	0.045	
07/14/13	0.127	1.75	1.88	2.31	0.180	2.49	0.036	
07/30/13	0.144	1.63	1.77	2.32	0.076	2.40	0.042	
08/11/13	0.114	0.602	0.72	2.31	0.003	2.31	0.0002	
08/19/13	0.213	0.000	0.21	2.31	offline	2.31	0.006	RW-6D offline, VFD faults; motor replaced. RWs offline from 8/19-8/21 for RW-2D acid treatment activities.
08/22/13	0.221	2.19	2.41	3.42	0.730	4.15	0	RW-6D offline on 8/26/13 until acid treatment.
09/09/13	0.048	0.631	0.68	0.99	offline	0.99	0.001	RWs offline from 9/9-9/11 for RW-6D acid treatment activities.
09/23/13	0.276	2.270	2.55	2.78	0.887	3.67	0.024	
10/1/13 10/2/13	0.031	0.453	0.484	0.590	0.665	1.26	0	RW-1S, -2S, -2D, and 3S developed, pumps cleaned/inspected and meters cleaned.

APPENDIX C-2

2013 Groundwater Extraction System Monitoring Data Essex/Hope Site Jamestown, NY

Date	NPL Area - Shallow WBZ			L.F. Sand WBZ			AST/UST Area - Shallow	Comments
	RW-1S	RW-2S	Total GPM	RW-2D	RW-6D	Total GPM	RW-3S	
	Avg. GPM	Avg. GPM		Avg. GPM	Avg. GPM		Avg. GPM	
10/14/13	0.289	2.60	2.89	0.407	0.442	0.85	0.017	RW-6D offline for development and pump cleaning. Remain offline until 10/21/13 following installation of new pump.
10/31/13	0.442	2.48	2.92	offline	1.320	1.320	0.124	RW-2D offline due to electrical malfunction.
11/13/13	0.253	1.26	1.51	5.68	0.778	6.458	0.075	System down on arrival due to high tank alarm. Restart at 1054 hrs.
11/25/13	0.142	0.683	0.83	0.821	0.394	1.22	0	System down on arrival due to high tank alarm. Restart at 1051 hrs. RW-6D offline due to frozen line; heat trace will need replaced.
12/02/13	0.447	2.43	2.88	1.86	offline	1.86	0.022	RWs offline for repair of transfer pump.

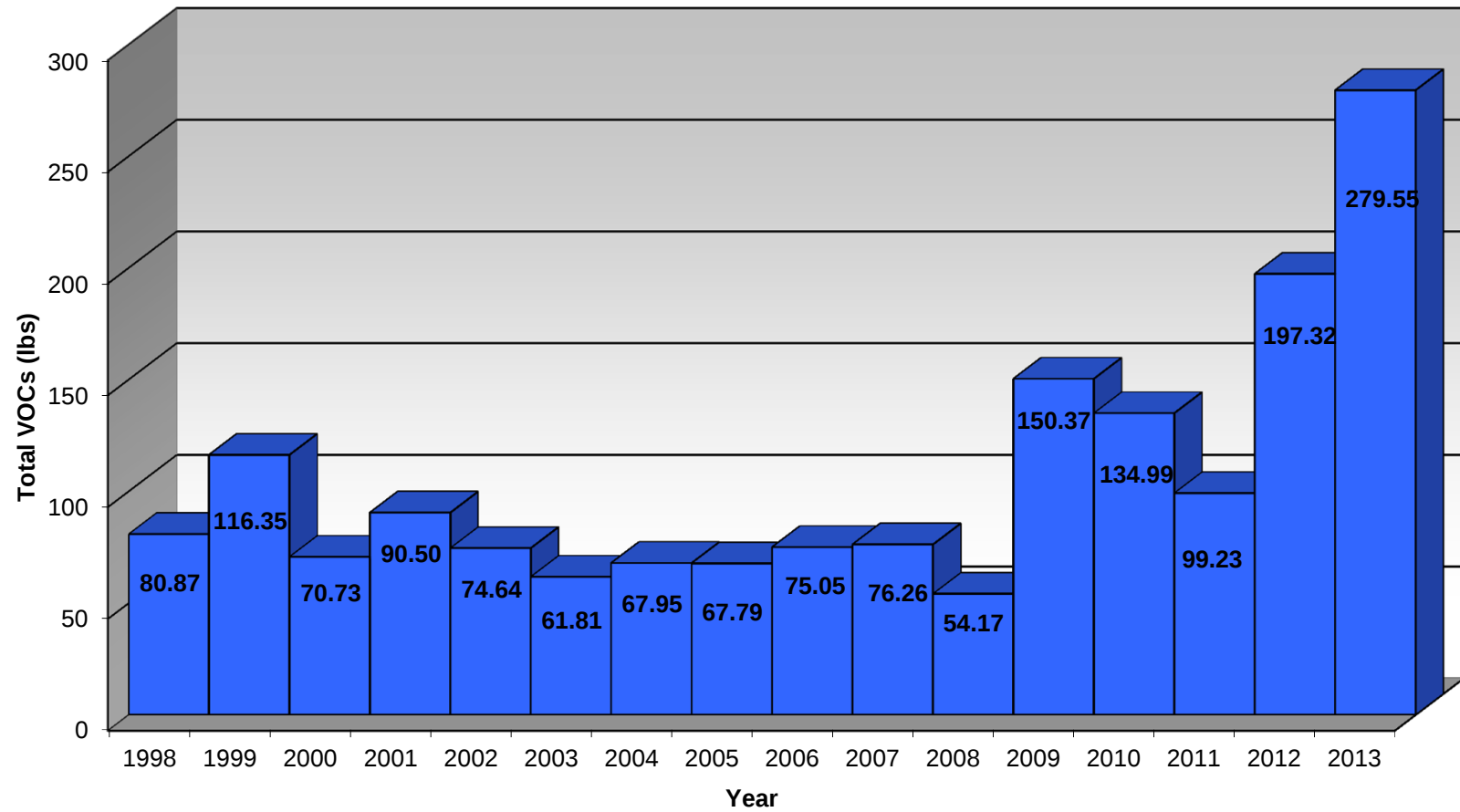
APPENDIX C-3

Recovery Well Performance Data

APPENDIX C-3 - Recovery Well Performance Data

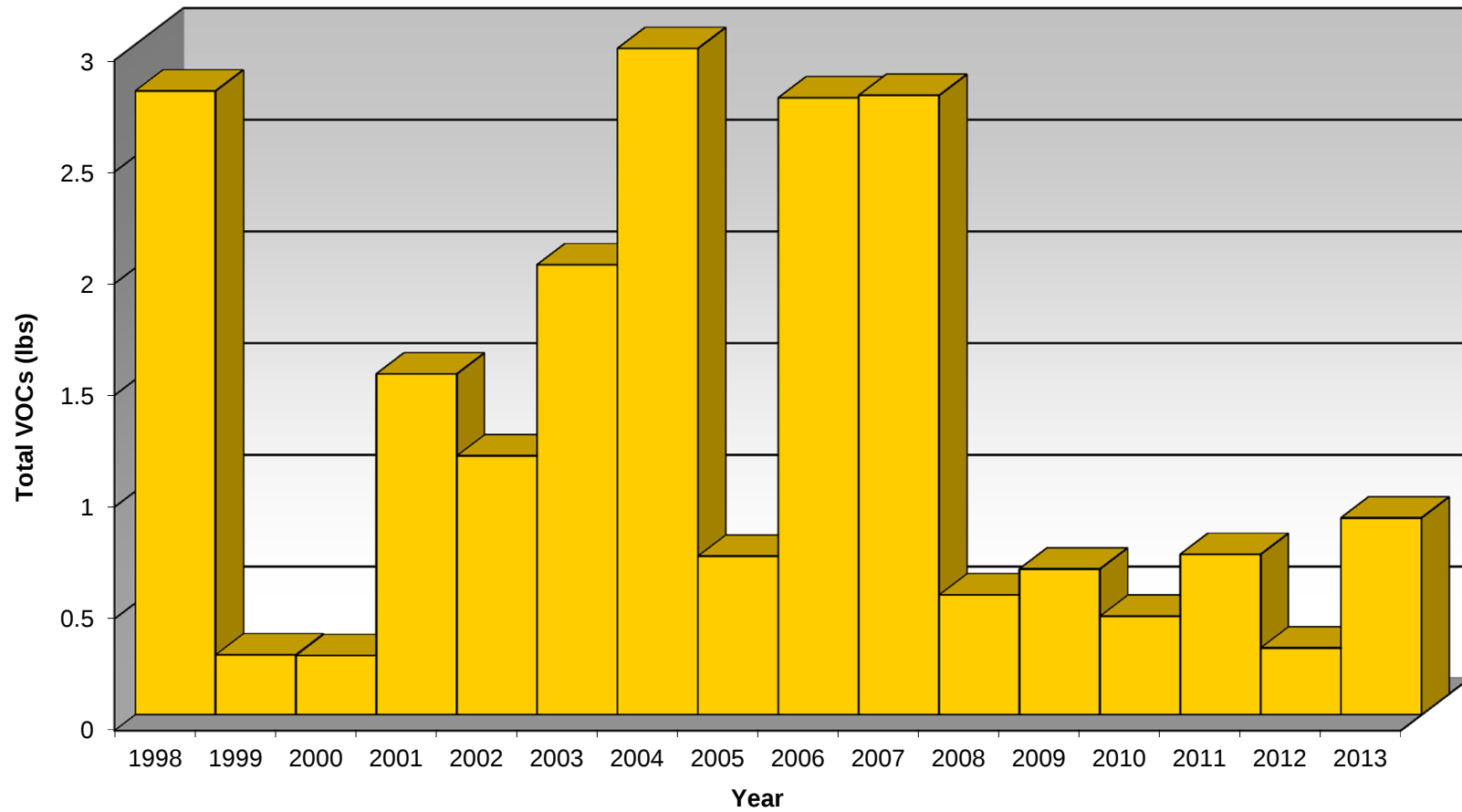
TOTAL SITE VOCs MASS REMOVED

Essex/Hope Site
Jamestown, NY



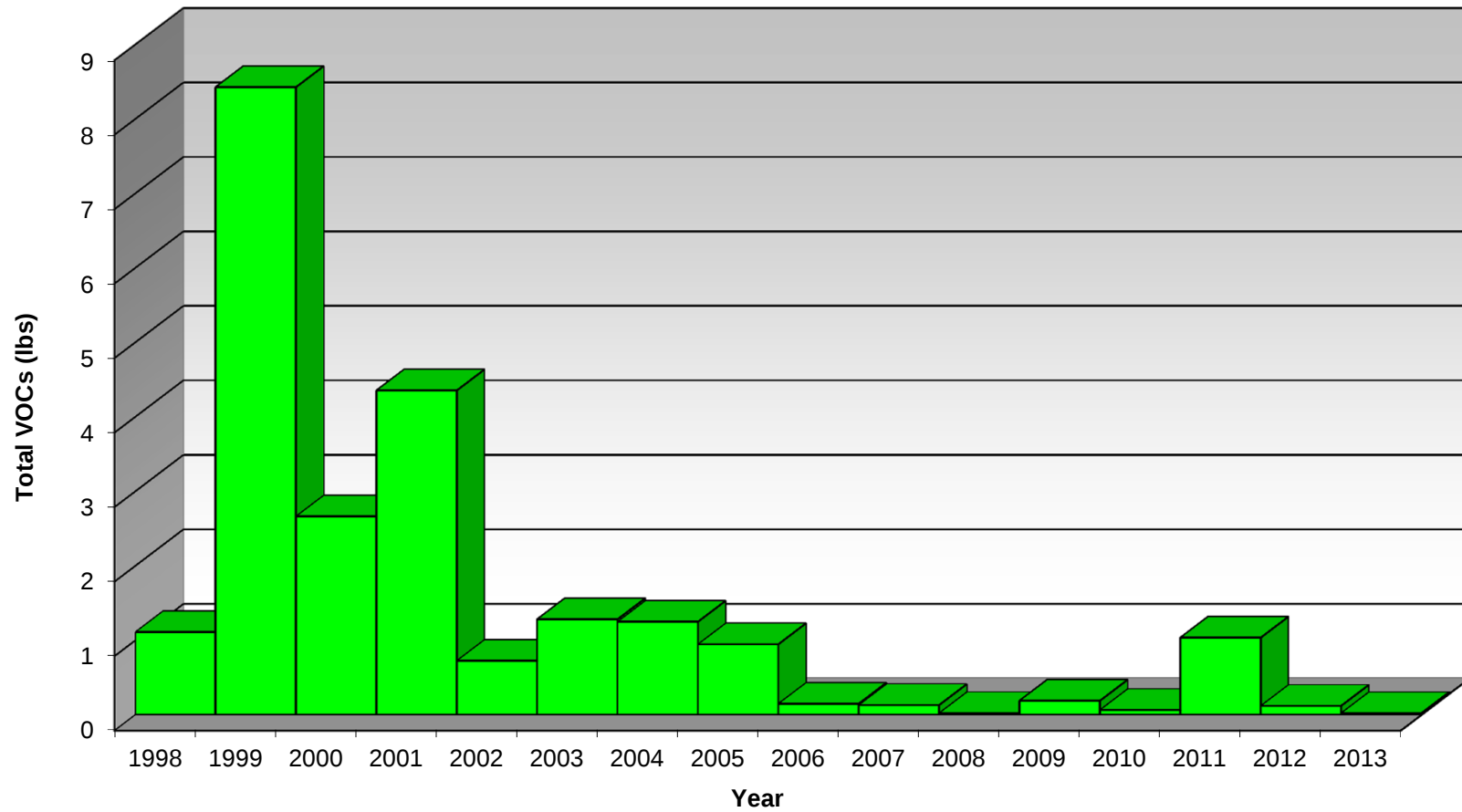
APPENDIX C-3 - Recovery Well Performance Data

RW-1S - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



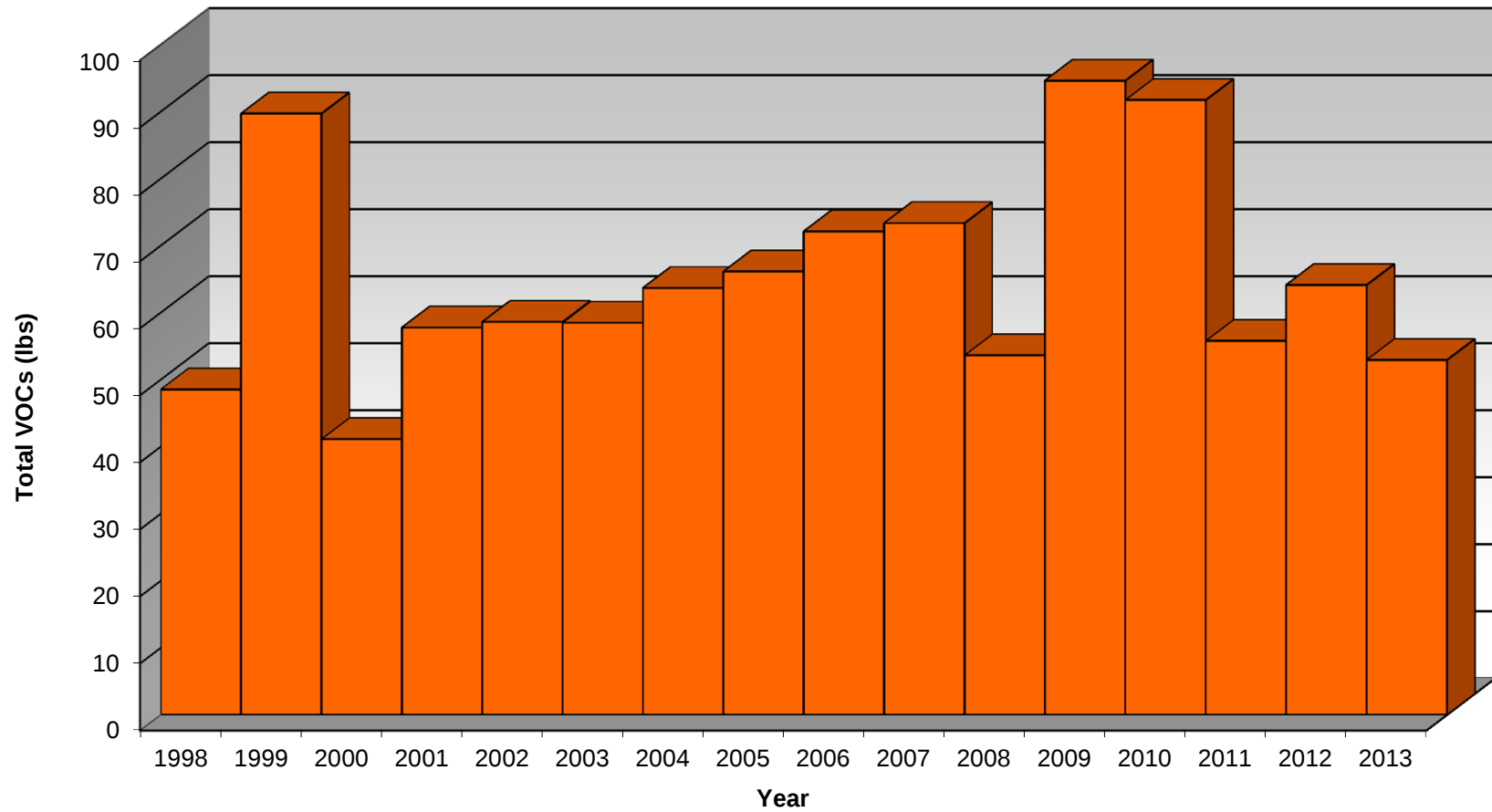
APPENDIX C-3 - Recovery Well Performance Data

RW-2S - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



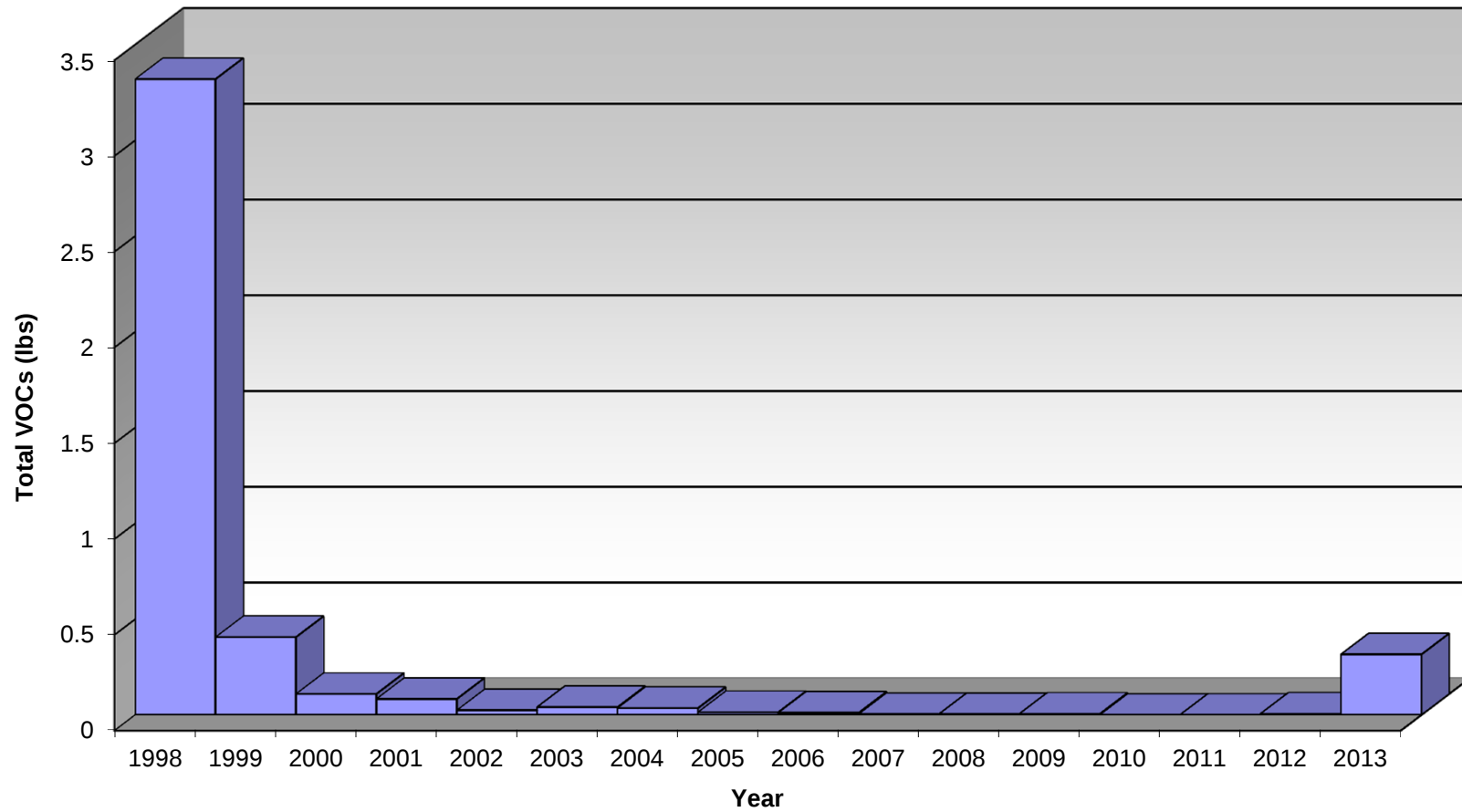
APPENDIX C-3 - Recovery Well Performance Data

RW-2D - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



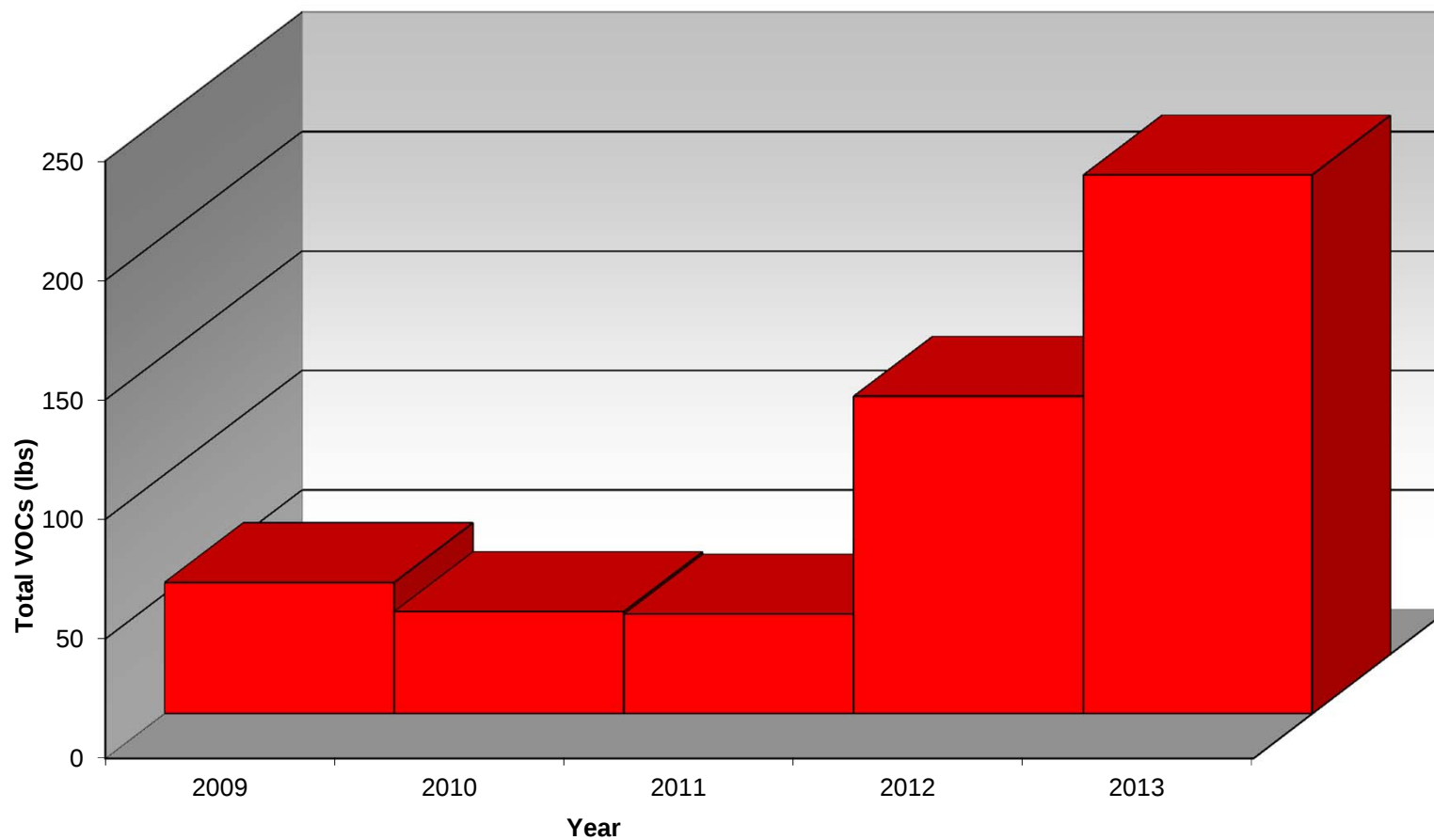
APPENDIX C-3 - Recovery Well Performance Data

RW-3S - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



APPENDIX C-3 - Recovery Well Performance Data

RW-6D - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



APPENDIX D

LABORATORY ANALYTICAL DATA

May 01, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: 41569181/Essex-Hope
Pace Project No.: 3090687

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on March 29, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This project was revised on 5/1/13 in order to revise the sample ID for 001.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 19

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

Sample: RW-6D		Lab ID: 3090687001	Collected: 03/27/13 09:40	Received: 03/29/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Lab Filtered		Analytical Method: EPA 6010 Preparation Method: EPA 3005						
Iron, Dissolved	930	ug/L	70.0	1	04/01/13 14:32	04/02/13 17:29	7439-89-6	
8260 MSV		Analytical Method: EPA 8260						
Acetone	96300	ug/L	20000	2000		04/10/13 14:30	67-64-1	
Benzene	75.3	ug/L	1.0	1		04/10/13 12:28	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		04/10/13 12:28	75-27-4	
Bromoform	ND	ug/L	5.0	1		04/10/13 12:28	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/10/13 12:28	74-83-9	
2-Butanone (MEK)	376	ug/L	10.0	1		04/10/13 12:28	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		04/10/13 12:28	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		04/10/13 12:28	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		04/10/13 12:28	108-90-7	
Chloroethane	ND	ug/L	5.0	1		04/10/13 12:28	75-00-3	
Chloroform	ND	ug/L	5.0	1		04/10/13 12:28	67-66-3	
Chloromethane	ND	ug/L	5.0	1		04/10/13 12:28	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		04/10/13 12:28	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		04/10/13 12:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		04/10/13 12:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		04/10/13 12:28	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		04/10/13 12:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		04/10/13 12:28	107-06-2	
1,1-Dichloroethene	53.7	ug/L	5.0	1		04/10/13 12:28	75-35-4	
cis-1,2-Dichloroethene	24200	ug/L	1000	200		04/10/13 12:53	156-59-2	
trans-1,2-Dichloroethene	195	ug/L	5.0	1		04/10/13 12:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		04/10/13 12:28	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		04/10/13 12:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		04/10/13 12:28	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		04/10/13 12:28	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		04/10/13 12:28	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/10/13 12:28	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		04/10/13 12:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		04/10/13 12:28	108-10-1	
Styrene	ND	ug/L	5.0	1		04/10/13 12:28	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		04/10/13 12:28	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		04/10/13 12:28	127-18-4	
Toluene	ND	ug/L	5.0	1		04/10/13 12:28	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		04/10/13 12:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		04/10/13 12:28	79-00-5	
Trichloroethene	11700	ug/L	1000	200		04/10/13 12:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		04/10/13 12:28	75-69-4	
Vinyl chloride	2350	ug/L	200	200		04/10/13 12:53	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		04/10/13 12:28	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		04/10/13 12:28	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	85-115	1		04/10/13 12:28	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	77-119	1		04/10/13 12:28	17060-07-0	
Toluene-d8 (S)	103	%	85-115	1		04/10/13 12:28	2037-26-5	

Date: 05/01/2013 02:13 PM

REPORT OF LABORATORY ANALYSIS

Page 3 of 19

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

Sample: RW-2D		Lab ID: 3090687002	Collected: 03/27/13 10:00	Received: 03/29/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Lab Filtered		Analytical Method: EPA 6010 Preparation Method: EPA 3005						
Iron, Dissolved	410 ug/L		70.0	1	04/01/13 14:32	04/02/13 17:32	7439-89-6	
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		04/09/13 17:23	67-64-1	
Benzene	12.2 ug/L		1.0	1		04/09/13 17:23	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		04/09/13 17:23	75-27-4	
Bromoform	ND ug/L		5.0	1		04/09/13 17:23	75-25-2	
Bromomethane	ND ug/L		5.0	1		04/09/13 17:23	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		04/09/13 17:23	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		04/09/13 17:23	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		04/09/13 17:23	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		04/09/13 17:23	108-90-7	
Chloroethane	ND ug/L		5.0	1		04/09/13 17:23	75-00-3	
Chloroform	ND ug/L		5.0	1		04/09/13 17:23	67-66-3	
Chloromethane	ND ug/L		5.0	1		04/09/13 17:23	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		04/09/13 17:23	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		04/09/13 17:23	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		04/09/13 17:23	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		04/09/13 17:23	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		04/09/13 17:23	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		04/09/13 17:23	107-06-2	
1,1-Dichloroethene	22.7 ug/L		5.0	1		04/09/13 17:23	75-35-4	
cis-1,2-Dichloroethene	6300 ug/L		250	50		04/10/13 16:57	156-59-2	
trans-1,2-Dichloroethene	62.4 ug/L		5.0	1		04/09/13 17:23	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		04/09/13 17:23	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		04/09/13 17:23	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		04/09/13 17:23	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		04/09/13 17:23	100-41-4	
2-Hexanone	ND ug/L		10.0	1		04/09/13 17:23	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		04/09/13 17:23	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		04/09/13 17:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		04/09/13 17:23	108-10-1	
Styrene	ND ug/L		5.0	1		04/09/13 17:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		04/09/13 17:23	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		04/09/13 17:23	127-18-4	
Toluene	ND ug/L		5.0	1		04/09/13 17:23	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		04/09/13 17:23	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		04/09/13 17:23	79-00-5	
Trichloroethene	2550 ug/L		250	50		04/10/13 16:57	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		04/09/13 17:23	75-69-4	
Vinyl chloride	832 ug/L		50.0	50		04/10/13 16:57	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		04/09/13 17:23	179601-23-1	
o-Xylene	ND ug/L		5.0	1		04/09/13 17:23	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97 %		85-115	1		04/09/13 17:23	460-00-4	
1,2-Dichloroethane-d4 (S)	109 %		77-119	1		04/09/13 17:23	17060-07-0	
Toluene-d8 (S)	99 %		85-115	1		04/09/13 17:23	2037-26-5	

Date: 05/01/2013 02:13 PM

REPORT OF LABORATORY ANALYSIS

Page 4 of 19

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

Sample: RW-3S		Lab ID: 3090687003	Collected: 03/27/13 10:25	Received: 03/29/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		04/09/13 16:58	67-64-1	
Benzene	10.7	ug/L	1.0	1		04/09/13 16:58	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		04/09/13 16:58	75-27-4	
Bromoform	ND	ug/L	5.0	1		04/09/13 16:58	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/09/13 16:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		04/09/13 16:58	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		04/09/13 16:58	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		04/09/13 16:58	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		04/09/13 16:58	108-90-7	
Chloroethane	ND	ug/L	5.0	1		04/09/13 16:58	75-00-3	
Chloroform	ND	ug/L	5.0	1		04/09/13 16:58	67-66-3	
Chloromethane	ND	ug/L	5.0	1		04/09/13 16:58	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		04/09/13 16:58	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 16:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 16:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 16:58	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		04/09/13 16:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		04/09/13 16:58	107-06-2	
1,1-Dichloroethene	15.9	ug/L	5.0	1		04/09/13 16:58	75-35-4	
cis-1,2-Dichloroethene	2720	ug/L	100	20		04/10/13 17:23	156-59-2	
trans-1,2-Dichloroethene	43.7	ug/L	5.0	1		04/09/13 16:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		04/09/13 16:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 16:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 16:58	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		04/09/13 16:58	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		04/09/13 16:58	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/09/13 16:58	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		04/09/13 16:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		04/09/13 16:58	108-10-1	
Styrene	ND	ug/L	5.0	1		04/09/13 16:58	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		04/09/13 16:58	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		04/09/13 16:58	127-18-4	
Toluene	ND	ug/L	5.0	1		04/09/13 16:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		04/09/13 16:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		04/09/13 16:58	79-00-5	
Trichloroethene	1700	ug/L	100	20		04/10/13 17:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		04/09/13 16:58	75-69-4	
Vinyl chloride	520	ug/L	20.0	20		04/10/13 17:23	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		04/09/13 16:58	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		04/09/13 16:58	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	85-115	1		04/09/13 16:58	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	77-119	1		04/09/13 16:58	17060-07-0	
Toluene-d8 (S)	101	%	85-115	1		04/09/13 16:58	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

Sample: RW-1S		Lab ID: 3090687004	Collected: 03/27/13 10:45	Received: 03/29/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		04/09/13 17:47	67-64-1	
Benzene	5.8	ug/L	1.0	1		04/09/13 17:47	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		04/09/13 17:47	75-27-4	
Bromoform	ND	ug/L	5.0	1		04/09/13 17:47	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/09/13 17:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		04/09/13 17:47	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		04/09/13 17:47	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		04/09/13 17:47	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		04/09/13 17:47	108-90-7	
Chloroethane	ND	ug/L	5.0	1		04/09/13 17:47	75-00-3	
Chloroform	ND	ug/L	5.0	1		04/09/13 17:47	67-66-3	
Chloromethane	ND	ug/L	5.0	1		04/09/13 17:47	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		04/09/13 17:47	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 17:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 17:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 17:47	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		04/09/13 17:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		04/09/13 17:47	107-06-2	
1,1-Dichloroethene	7.5	ug/L	5.0	1		04/09/13 17:47	75-35-4	
cis-1,2-Dichloroethene	1800	ug/L	100	20		04/10/13 17:48	156-59-2	
trans-1,2-Dichloroethene	18.4	ug/L	5.0	1		04/09/13 17:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		04/09/13 17:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 17:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 17:47	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		04/09/13 17:47	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		04/09/13 17:47	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/09/13 17:47	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		04/09/13 17:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		04/09/13 17:47	108-10-1	
Styrene	ND	ug/L	5.0	1		04/09/13 17:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		04/09/13 17:47	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		04/09/13 17:47	127-18-4	
Toluene	ND	ug/L	5.0	1		04/09/13 17:47	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		04/09/13 17:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		04/09/13 17:47	79-00-5	
Trichloroethene	937	ug/L	100	20		04/10/13 17:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		04/09/13 17:47	75-69-4	
Vinyl chloride	325	ug/L	1.0	1		04/09/13 17:47	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		04/09/13 17:47	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		04/09/13 17:47	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	85-115	1		04/09/13 17:47	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	77-119	1		04/09/13 17:47	17060-07-0	
Toluene-d8 (S)	100	%	85-115	1		04/09/13 17:47	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

Sample: RW-2S		Lab ID: 3090687005	Collected: 03/27/13 11:05	Received: 03/29/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		04/09/13 16:34	67-64-1	
Benzene	ND	ug/L	1.0	1		04/09/13 16:34	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		04/09/13 16:34	75-27-4	
Bromoform	ND	ug/L	5.0	1		04/09/13 16:34	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/09/13 16:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		04/09/13 16:34	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		04/09/13 16:34	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		04/09/13 16:34	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		04/09/13 16:34	108-90-7	
Chloroethane	ND	ug/L	5.0	1		04/09/13 16:34	75-00-3	
Chloroform	ND	ug/L	5.0	1		04/09/13 16:34	67-66-3	
Chloromethane	ND	ug/L	5.0	1		04/09/13 16:34	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		04/09/13 16:34	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 16:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 16:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 16:34	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		04/09/13 16:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		04/09/13 16:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		04/09/13 16:34	75-35-4	
cis-1,2-Dichloroethene	5.7	ug/L	5.0	1		04/09/13 16:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		04/09/13 16:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		04/09/13 16:34	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 16:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 16:34	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		04/09/13 16:34	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		04/09/13 16:34	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/09/13 16:34	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		04/09/13 16:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		04/09/13 16:34	108-10-1	
Styrene	ND	ug/L	5.0	1		04/09/13 16:34	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		04/09/13 16:34	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		04/09/13 16:34	127-18-4	
Toluene	ND	ug/L	5.0	1		04/09/13 16:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		04/09/13 16:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		04/09/13 16:34	79-00-5	
Trichloroethene	5.0	ug/L	5.0	1		04/09/13 16:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		04/09/13 16:34	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		04/09/13 16:34	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		04/09/13 16:34	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		04/09/13 16:34	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	108	%	85-115	1		04/09/13 16:34	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	77-119	1		04/09/13 16:34	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		04/09/13 16:34	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

Sample: TB-01		Lab ID: 3090687006		Collected: 03/27/13 00:01		Received: 03/29/13 10:00		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			04/09/13 16:10	67-64-1		
Benzene	ND ug/L	1.0	1			04/09/13 16:10	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			04/09/13 16:10	75-27-4		
Bromoform	ND ug/L	5.0	1			04/09/13 16:10	75-25-2		
Bromomethane	ND ug/L	5.0	1			04/09/13 16:10	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			04/09/13 16:10	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			04/09/13 16:10	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			04/09/13 16:10	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			04/09/13 16:10	108-90-7		
Chloroethane	ND ug/L	5.0	1			04/09/13 16:10	75-00-3		
Chloroform	ND ug/L	5.0	1			04/09/13 16:10	67-66-3		
Chloromethane	ND ug/L	5.0	1			04/09/13 16:10	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			04/09/13 16:10	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			04/09/13 16:10	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			04/09/13 16:10	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			04/09/13 16:10	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			04/09/13 16:10	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			04/09/13 16:10	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			04/09/13 16:10	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			04/09/13 16:10	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			04/09/13 16:10	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			04/09/13 16:10	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			04/09/13 16:10	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			04/09/13 16:10	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			04/09/13 16:10	100-41-4		
2-Hexanone	ND ug/L	10.0	1			04/09/13 16:10	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			04/09/13 16:10	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			04/09/13 16:10	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			04/09/13 16:10	108-10-1		
Styrene	ND ug/L	5.0	1			04/09/13 16:10	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			04/09/13 16:10	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			04/09/13 16:10	127-18-4		
Toluene	ND ug/L	5.0	1			04/09/13 16:10	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			04/09/13 16:10	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			04/09/13 16:10	79-00-5		
Trichloroethene	ND ug/L	5.0	1			04/09/13 16:10	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			04/09/13 16:10	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			04/09/13 16:10	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			04/09/13 16:10	179601-23-1		
o-Xylene	ND ug/L	5.0	1			04/09/13 16:10	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	103 %	85-115	1			04/09/13 16:10	460-00-4		
1,2-Dichloroethane-d4 (S)	108 %	77-119	1			04/09/13 16:10	17060-07-0		
Toluene-d8 (S)	100 %	85-115	1			04/09/13 16:10	2037-26-5		

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

QC Batch: MPRP/10405

Analysis Method: EPA 6010

QC Batch Method: EPA 3005

Analysis Description: 6010 MET Dissolved

Associated Lab Samples: 3090687001, 3090687002

METHOD BLANK: 562024

Matrix: Water

Associated Lab Samples: 3090687001, 3090687002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	ND	70.0	04/02/13 15:52	

LABORATORY CONTROL SAMPLE: 562025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	5000	4960	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 562027

562028

Parameter	Units	3090577002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Iron, Dissolved	ug/L	106	5000	5000	5010	5100	98	100	80-120	2	

MATRIX SPIKE SAMPLE: 562030

Parameter	Units	3090577012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	180	5000	5150	99	80-120	

SAMPLE DUPLICATE: 562026

Parameter	Units	3090577002 Result	Dup Result	RPD	Qualifiers
Iron, Dissolved	ug/L	106	63.6J		

SAMPLE DUPLICATE: 562029

Parameter	Units	3090577012 Result	Dup Result	RPD	Qualifiers
Iron, Dissolved	ug/L	180	154	16	

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

QC Batch: MSV/15783 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3090687002, 3090687003, 3090687004, 3090687005, 3090687006

METHOD BLANK: 565288 Matrix: Water
Associated Lab Samples: 3090687002, 3090687003, 3090687004, 3090687005, 3090687006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	04/09/13 14:56	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/09/13 14:56	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/09/13 14:56	
1,1-Dichloroethane	ug/L	ND	1.0	04/09/13 14:56	
1,1-Dichloroethene	ug/L	ND	1.0	04/09/13 14:56	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/09/13 14:56	
1,2-Dichloroethane	ug/L	ND	1.0	04/09/13 14:56	
1,2-Dichloropropane	ug/L	ND	1.0	04/09/13 14:56	
1,3-Dichlorobenzene	ug/L	ND	1.0	04/09/13 14:56	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/09/13 14:56	
2-Butanone (MEK)	ug/L	ND	10.0	04/09/13 14:56	
2-Hexanone	ug/L	ND	10.0	04/09/13 14:56	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	04/09/13 14:56	
Acetone	ug/L	ND	10.0	04/09/13 14:56	
Benzene	ug/L	ND	1.0	04/09/13 14:56	
Bromodichloromethane	ug/L	ND	1.0	04/09/13 14:56	
Bromoform	ug/L	ND	1.0	04/09/13 14:56	
Bromomethane	ug/L	ND	1.0	04/09/13 14:56	
Carbon disulfide	ug/L	ND	1.0	04/09/13 14:56	
Carbon tetrachloride	ug/L	ND	1.0	04/09/13 14:56	
Chlorobenzene	ug/L	ND	1.0	04/09/13 14:56	
Chloroethane	ug/L	ND	1.0	04/09/13 14:56	
Chloroform	ug/L	ND	1.0	04/09/13 14:56	
Chloromethane	ug/L	ND	1.0	04/09/13 14:56	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/09/13 14:56	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/09/13 14:56	
Dibromochloromethane	ug/L	ND	1.0	04/09/13 14:56	
Ethylbenzene	ug/L	ND	1.0	04/09/13 14:56	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	04/09/13 14:56	
m&p-Xylene	ug/L	ND	2.0	04/09/13 14:56	
Methylene Chloride	ug/L	ND	1.0	04/09/13 14:56	
o-Xylene	ug/L	ND	1.0	04/09/13 14:56	
Styrene	ug/L	ND	1.0	04/09/13 14:56	
Tetrachloroethene	ug/L	ND	1.0	04/09/13 14:56	
Toluene	ug/L	ND	1.0	04/09/13 14:56	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/09/13 14:56	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/09/13 14:56	
Trichloroethene	ug/L	1.0	1.0	04/09/13 14:56	P8
Trichlorofluoromethane	ug/L	ND	1.0	04/09/13 14:56	
Vinyl chloride	ug/L	ND	1.0	04/09/13 14:56	
1,2-Dichloroethane-d4 (S)	%	104	77-119	04/09/13 14:56	
4-Bromofluorobenzene (S)	%	104	85-115	04/09/13 14:56	
Toluene-d8 (S)	%	99	85-115	04/09/13 14:56	

Date: 05/01/2013 02:13 PM

REPORT OF LABORATORY ANALYSIS

Page 10 of 19

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

LABORATORY CONTROL SAMPLE: 565289

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.2	101	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	19.5	98	61-117	
1,1,2-Trichloroethane	ug/L	20	19.2	96	72-119	
1,1-Dichloroethane	ug/L	20	20.1	100	63-123	
1,1-Dichloroethene	ug/L	20	18.0	90	57-127	
1,2-Dichlorobenzene	ug/L	20	19.3	97	70-116	
1,2-Dichloroethane	ug/L	20	19.9	99	62-125	
1,2-Dichloropropane	ug/L	20	17.6	88	69-115	
1,3-Dichlorobenzene	ug/L	20	19.1	96	71-118	
1,4-Dichlorobenzene	ug/L	20	19.4	97	67-119	
2-Butanone (MEK)	ug/L	20	24.3	122	48-136	
2-Hexanone	ug/L	20	22.2	111	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	20.1	100	57-124	
Acetone	ug/L	20	26.2	131	49-138	
Benzene	ug/L	20	18.7	93	66-122	
Bromodichloromethane	ug/L	20	18.4	92	63-118	
Bromoform	ug/L	20	20.3	101	46-130	
Bromomethane	ug/L	20	16.1	81	10-175	
Carbon disulfide	ug/L	20	20.8	104	59-142	
Carbon tetrachloride	ug/L	20	18.5	93	55-126	
Chlorobenzene	ug/L	20	18.1	90	70-121	
Chloroethane	ug/L	20	19.7	99	24-161	
Chloroform	ug/L	20	20.6	103	62-126	
Chloromethane	ug/L	20	19.0	95	37-147	
cis-1,2-Dichloroethene	ug/L	20	22.8	114	64-121	
cis-1,3-Dichloropropene	ug/L	20	18.8	94	64-118	
Dibromochloromethane	ug/L	20	19.2	96	60-120	
Ethylbenzene	ug/L	20	18.0	90	69-119	
Isopropylbenzene (Cumene)	ug/L	20	20.4	102	68-126	
m&p-Xylene	ug/L	40	36.6	91	70-124	
Methylene Chloride	ug/L	20	20.5	103	59-128	
o-Xylene	ug/L	20	18.0	90	67-123	
Styrene	ug/L	20	22.3	111	67-146	
Tetrachloroethene	ug/L	20	20.5	103	62-125	
Toluene	ug/L	20	18.5	92	72-115	
trans-1,2-Dichloroethene	ug/L	20	18.5	92	59-122	
trans-1,3-Dichloropropene	ug/L	20	19.0	95	64-120	
Trichloroethene	ug/L	20	17.3	87	62-125	
Trichlorofluoromethane	ug/L	20	16.0	80	54-158	
Vinyl chloride	ug/L	20	19.3	96	52-145	
1,2-Dichloroethane-d4 (S)	%			100	77-119	
4-Bromofluorobenzene (S)	%			101	85-115	
Toluene-d8 (S)	%			98	85-115	

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 565290 565291											
Parameter	Units	3090598023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	12.1	20	20	38.4	37.1	132	125	62-125	3	M0
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.1	17.6	90	88	61-117	3	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.4	19.1	97	95	72-119	2	
1,1-Dichloroethane	ug/L	1.4	20	20	25.0	25.0	118	118	63-123	.1	
1,1-Dichloroethene	ug/L	1.9	20	20	21.1	22.9	96	105	57-127	8	
1,2-Dichlorobenzene	ug/L	ND	20	20	20.1	19.6	100	98	70-116	2	
1,2-Dichloroethane	ug/L	ND	20	20	23.6	23.2	118	116	62-125	2	
1,2-Dichloropropane	ug/L	ND	20	20	19.4	18.9	97	94	69-115	3	
1,3-Dichlorobenzene	ug/L	ND	20	20	19.2	19.2	96	96	71-118	.08	
1,4-Dichlorobenzene	ug/L	ND	20	20	20.0	19.2	100	96	67-119	4	
2-Butanone (MEK)	ug/L	ND	20	20	22.8	23.6	114	118	48-136	4	
2-Hexanone	ug/L	ND	20	20	21.6	21.1	108	105	52-130	3	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	19.3	19.7	97	98	57-124	2	
Acetone	ug/L	ND	20	20	22.0	23.4	110	117	49-138	6	
Benzene	ug/L	ND	20	20	20.0	19.8	100	99	66-122	1	
Bromodichloromethane	ug/L	ND	20	20	21.6	20.3	108	102	63-118	6	
Bromoform	ug/L	ND	20	20	19.9	20.2	100	101	46-130	1	
Bromomethane	ug/L	ND	20	20	10.4	13.2	52	66	10-175	24	
Carbon disulfide	ug/L	ND	20	20	18.9	28.1	95	140	59-142	39	R1
Carbon tetrachloride	ug/L	ND	20	20	22.4	22.2	112	111	55-126	.6	
Chlorobenzene	ug/L	ND	20	20	19.6	18.8	98	94	70-121	4	
Chloroethane	ug/L	ND	20	20	20.1	22.3	101	112	24-161	10	
Chloroform	ug/L	ND	20	20	24.9	24.3	124	121	62-126	3	
Chloromethane	ug/L	ND	20	20	20.6	22.0	103	110	37-147	6	
cis-1,2-Dichloroethene	ug/L	13.6	20	20	43.9	41.8	151	141	64-121	5	M0
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.7	19.2	99	96	64-118	3	
Dibromochloromethane	ug/L	ND	20	20	21.0	19.9	105	100	60-120	5	
Ethylbenzene	ug/L	ND	20	20	19.7	19.3	98	96	69-119	2	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	22.5	21.7	112	109	68-126	4	
m&p-Xylene	ug/L	ND	40	40	40.4	39.4	101	99	70-124	2	
Methylene Chloride	ug/L	ND	20	20	22.8	22.0	114	110	59-128	4	
o-Xylene	ug/L	ND	20	20	19.8	19.4	99	97	67-123	2	
Styrene	ug/L	ND	20	20	24.3	23.1	122	116	67-146	5	
Tetrachloroethene	ug/L	ND	20	20	21.6	21.2	108	106	62-125	2	
Toluene	ug/L	ND	20	20	20.2	19.8	101	99	72-115	2	
trans-1,2-Dichloroethene	ug/L	ND	20	20	21.8	21.5	109	108	59-122	1	
trans-1,3-Dichloropropene	ug/L	ND	20	20	20.1	19.7	100	98	64-120	2	
Trichloroethene	ug/L	76.7	20	20	89.7	78.8	65	11	62-125	13	M0
Trichlorofluoromethane	ug/L	ND	20	20	23.4	21.2	117	106	54-158	10	
Vinyl chloride	ug/L	ND	20	20	22.7	23.9	114	119	52-145	5	
1,2-Dichloroethane-d4 (S)	%						117	118	77-119		
4-Bromofluorobenzene (S)	%						99	103	85-115		
Toluene-d8 (S)	%						99	100	85-115		

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

QC Batch: MSV/15784

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 3090687001

METHOD BLANK: 565306

Matrix: Water

Associated Lab Samples: 3090687001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	04/10/13 03:57	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/10/13 03:57	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/10/13 03:57	
1,1-Dichloroethane	ug/L	ND	1.0	04/10/13 03:57	
1,1-Dichloroethene	ug/L	ND	1.0	04/10/13 03:57	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/10/13 03:57	
1,2-Dichloroethane	ug/L	ND	1.0	04/10/13 03:57	
1,2-Dichloropropane	ug/L	ND	1.0	04/10/13 03:57	
1,3-Dichlorobenzene	ug/L	ND	1.0	04/10/13 03:57	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/10/13 03:57	
2-Butanone (MEK)	ug/L	ND	10.0	04/10/13 03:57	
2-Hexanone	ug/L	ND	10.0	04/10/13 03:57	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	04/10/13 03:57	
Acetone	ug/L	ND	10.0	04/10/13 03:57	
Benzene	ug/L	ND	1.0	04/10/13 03:57	
Bromodichloromethane	ug/L	ND	1.0	04/10/13 03:57	
Bromoform	ug/L	ND	1.0	04/10/13 03:57	
Bromomethane	ug/L	ND	1.0	04/10/13 03:57	
Carbon disulfide	ug/L	ND	1.0	04/10/13 03:57	
Carbon tetrachloride	ug/L	ND	1.0	04/10/13 03:57	
Chlorobenzene	ug/L	ND	1.0	04/10/13 03:57	
Chloroethane	ug/L	ND	1.0	04/10/13 03:57	
Chloroform	ug/L	ND	1.0	04/10/13 03:57	
Chloromethane	ug/L	ND	1.0	04/10/13 03:57	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/10/13 03:57	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/10/13 03:57	
Dibromochloromethane	ug/L	ND	1.0	04/10/13 03:57	
Ethylbenzene	ug/L	ND	1.0	04/10/13 03:57	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	04/10/13 03:57	
m&p-Xylene	ug/L	ND	2.0	04/10/13 03:57	
Methylene Chloride	ug/L	ND	1.0	04/10/13 03:57	
o-Xylene	ug/L	ND	1.0	04/10/13 03:57	
Styrene	ug/L	ND	1.0	04/10/13 03:57	
Tetrachloroethene	ug/L	ND	1.0	04/10/13 03:57	
Toluene	ug/L	ND	1.0	04/10/13 03:57	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/10/13 03:57	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/10/13 03:57	
Trichloroethene	ug/L	ND	1.0	04/10/13 03:57	
Trichlorofluoromethane	ug/L	ND	1.0	04/10/13 03:57	
Vinyl chloride	ug/L	ND	1.0	04/10/13 03:57	
1,2-Dichloroethane-d4 (S)	%	113	77-119	04/10/13 03:57	
4-Bromofluorobenzene (S)	%	106	85-115	04/10/13 03:57	
Toluene-d8 (S)	%	99	85-115	04/10/13 03:57	

Date: 05/01/2013 02:13 PM

REPORT OF LABORATORY ANALYSIS

Page 13 of 19

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

LABORATORY CONTROL SAMPLE: 565307

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	22.7	113	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.0	85	61-117	
1,1,2-Trichloroethane	ug/L	20	18.5	92	72-119	
1,1-Dichloroethane	ug/L	20	22.0	110	63-123	
1,1-Dichloroethene	ug/L	20	20.1	100	57-127	
1,2-Dichlorobenzene	ug/L	20	18.6	93	70-116	
1,2-Dichloroethane	ug/L	20	22.9	115	62-125	
1,2-Dichloropropane	ug/L	20	18.8	94	69-115	
1,3-Dichlorobenzene	ug/L	20	18.6	93	71-118	
1,4-Dichlorobenzene	ug/L	20	18.4	92	67-119	
2-Butanone (MEK)	ug/L	20	19.9	100	48-136	
2-Hexanone	ug/L	20	21.0	105	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.3	96	57-124	
Acetone	ug/L	20	27.9	140	49-138	L1
Benzene	ug/L	20	19.8	99	66-122	
Bromodichloromethane	ug/L	20	20.5	102	63-118	
Bromoform	ug/L	20	19.7	99	46-130	
Bromomethane	ug/L	20	16.3	81	10-175	
Carbon disulfide	ug/L	20	18.6	93	59-142	
Carbon tetrachloride	ug/L	20	20.3	101	55-126	
Chlorobenzene	ug/L	20	18.5	92	70-121	
Chloroethane	ug/L	20	22.3	112	24-161	
Chloroform	ug/L	20	23.6	118	62-126	
Chloromethane	ug/L	20	21.1	105	37-147	
cis-1,2-Dichloroethene	ug/L	20	24.3	122	64-121	L1
cis-1,3-Dichloropropene	ug/L	20	19.2	96	64-118	
Dibromochloromethane	ug/L	20	20.4	102	60-120	
Ethylbenzene	ug/L	20	18.7	94	69-119	
Isopropylbenzene (Cumene)	ug/L	20	21.1	106	68-126	
m&p-Xylene	ug/L	40	38.6	97	70-124	
Methylene Chloride	ug/L	20	23.6	118	59-128	
o-Xylene	ug/L	20	19.2	96	67-123	
Styrene	ug/L	20	23.3	116	67-146	
Tetrachloroethene	ug/L	20	19.8	99	62-125	
Toluene	ug/L	20	19.5	97	72-115	
trans-1,2-Dichloroethene	ug/L	20	20.9	105	59-122	
trans-1,3-Dichloropropene	ug/L	20	19.1	96	64-120	
Trichloroethene	ug/L	20	17.5	88	62-125	
Trichlorofluoromethane	ug/L	20	18.5	92	54-158	
Vinyl chloride	ug/L	20	21.7	109	52-145	
1,2-Dichloroethane-d4 (S)	%			115	77-119	
4-Bromofluorobenzene (S)	%			101	85-115	
Toluene-d8 (S)	%			101	85-115	

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 565308 565309											
Parameter	Units	3090692002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	24.4	22.6	122	113	62-125	8	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	17.1	16.7	85	84	61-117	2	
1,1,2-Trichloroethane	ug/L	ND	20	20	18.5	16.8	92	84	72-119	9	
1,1-Dichloroethane	ug/L	ND	20	20	21.9	20.8	110	104	63-123	5	
1,1-Dichloroethene	ug/L	ND	20	20	19.5	19.1	97	95	57-127	2	
1,2-Dichlorobenzene	ug/L	ND	20	20	18.8	17.7	94	89	70-116	6	
1,2-Dichloroethane	ug/L	ND	20	20	23.4	21.8	117	109	62-125	7	
1,2-Dichloropropane	ug/L	ND	20	20	18.4	17.9	92	89	69-115	3	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.8	17.9	94	89	71-118	5	
1,4-Dichlorobenzene	ug/L	ND	20	20	19.0	18.2	95	91	67-119	4	
2-Butanone (MEK)	ug/L	ND	20	20	20.9	20.4	105	102	48-136	3	
2-Hexanone	ug/L	ND	20	20	20.7	19.8	103	99	52-130	4	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	19.4	18.8	97	94	57-124	3	
Acetone	ug/L	ND	20	20	34.9	24.6	175	123	49-138	35	M0,R1
Benzene	ug/L	ND	20	20	19.9	18.8	99	94	66-122	6	
Bromodichloromethane	ug/L	ND	20	20	21.0	19.6	105	98	63-118	7	
Bromoform	ug/L	ND	20	20	19.8	18.8	99	94	46-130	5	
Bromomethane	ug/L	ND	20	20	11.0	14.3	55	71	10-175	26	
Carbon disulfide	ug/L	ND	20	20	22.8	21.3	114	107	59-142	6	
Carbon tetrachloride	ug/L	ND	20	20	22.7	21.6	113	108	55-126	5	
Chlorobenzene	ug/L	ND	20	20	19.0	17.3	95	87	70-121	9	
Chloroethane	ug/L	ND	20	20	19.8	24.1	99	121	24-161	20	
Chloroform	ug/L	ND	20	20	23.7	22.0	119	110	62-126	8	
Chloromethane	ug/L	ND	20	20	18.2	21.4	91	107	37-147	16	
cis-1,2-Dichloroethene	ug/L	ND	20	20	25.2	23.0	126	115	64-121	9	M0
cis-1,3-Dichloropropene	ug/L	ND	20	20	20.3	18.7	101	93	64-118	8	
Dibromochloromethane	ug/L	ND	20	20	21.0	19.2	105	96	60-120	9	
Ethylbenzene	ug/L	ND	20	20	18.6	17.8	93	89	69-119	4	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	21.8	20.5	109	102	68-126	6	
m&p-Xylene	ug/L	ND	40	40	38.8	36.4	97	91	70-124	6	
Methylene Chloride	ug/L	ND	20	20	21.9	19.4	110	97	59-128	12	
o-Xylene	ug/L	ND	20	20	19.0	17.9	95	90	67-123	6	
Styrene	ug/L	ND	20	20	23.2	21.8	116	109	67-146	6	
Tetrachloroethene	ug/L	ND	20	20	21.3	20.5	106	103	62-125	4	
Toluene	ug/L	ND	20	20	19.6	18.6	98	93	72-115	5	
trans-1,2-Dichloroethene	ug/L	ND	20	20	21.2	19.8	106	99	59-122	7	
trans-1,3-Dichloropropene	ug/L	ND	20	20	20.8	19.4	104	97	64-120	7	
Trichloroethene	ug/L	ND	20	20	18.2	17.6	91	88	62-125	3	
Trichlorofluoromethane	ug/L	ND	20	20	22.0	22.0	110	110	54-158	.07	
Vinyl chloride	ug/L	ND	20	20	20.6	24.4	103	122	52-145	17	
1,2-Dichloroethane-d4 (S)	%						122	122	77-119		S0
4-Bromofluorobenzene (S)	%						99	100	85-115		
Toluene-d8 (S)	%						101	101	85-115		

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 568030 568031											
Parameter	Units	3090692002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.7	20.6	103	103	62-125	.7	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	17.5	18.5	87	93	61-117	6	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.1	17.9	101	89	72-119	12	
1,1-Dichloroethane	ug/L	ND	20	20	19.0	19.5	95	98	63-123	3	
1,1-Dichloroethene	ug/L	ND	20	20	20.1	20.6	101	103	57-127	2	
1,2-Dichlorobenzene	ug/L	ND	20	20	17.6	18.9	88	94	70-116	7	
1,2-Dichloroethane	ug/L	ND	20	20	20.1	19.3	101	96	62-125	4	
1,2-Dichloropropane	ug/L	ND	20	20	18.2	18.7	91	93	69-115	2	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.3	18.1	92	90	71-118	2	
1,4-Dichlorobenzene	ug/L	ND	20	20	18.6	18.7	93	93	67-119	.4	
2-Butanone (MEK)	ug/L	ND	20	20	18.7	20.4	93	102	48-136	9	
2-Hexanone	ug/L	ND	20	20	20.1	22.7	100	114	52-130	12	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	18.1	19.7	90	99	57-124	9	
Acetone	ug/L	ND	20	20	18.8	19.0	94	95	49-138	.8	
Benzene	ug/L	ND	20	20	19.5	20.8	97	104	66-122	6	
Bromodichloromethane	ug/L	ND	20	20	19.7	19.9	98	99	63-118	1	
Bromoform	ug/L	ND	20	20	19.3	20.1	96	100	46-130	4	
Bromomethane	ug/L	ND	20	20	20.3	24.6	102	123	10-175	19	
Carbon disulfide	ug/L	ND	20	20	22.1	24.4	110	122	59-142	10	
Carbon tetrachloride	ug/L	ND	20	20	20.0	19.9	100	100	55-126	.3	
Chlorobenzene	ug/L	ND	20	20	19.6	19.7	98	98	70-121	.7	
Chloroethane	ug/L	ND	20	20	18.0	20.9	90	105	24-161	15	
Chloroform	ug/L	ND	20	20	19.7	20.6	98	103	62-126	5	
Chloromethane	ug/L	ND	20	20	22.0	23.3	110	117	37-147	6	
cis-1,2-Dichloroethene	ug/L	ND	20	20	20.1	19.6	100	98	64-121	3	
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.8	20.4	99	102	64-118	3	
Dibromochloromethane	ug/L	ND	20	20	19.9	20.2	100	101	60-120	1	
Ethylbenzene	ug/L	ND	20	20	20.1	21.2	100	106	69-119	6	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	21.7	20.4	108	102	68-126	6	
m&p-Xylene	ug/L	ND	40	40	38.7	39.8	97	100	70-124	3	
Methylene Chloride	ug/L	ND	20	20	17.8	19.0	89	95	59-128	7	
o-Xylene	ug/L	ND	20	20	18.4	19.2	92	96	67-123	4	
Styrene	ug/L	ND	20	20	23.8	24.4	119	122	67-146	3	
Tetrachloroethene	ug/L	ND	20	20	20.4	20.5	102	102	62-125	.4	
Toluene	ug/L	ND	20	20	19.4	20.5	97	102	72-115	5	
trans-1,2-Dichloroethene	ug/L	ND	20	20	19.9	20.7	99	103	59-122	4	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.9	19.4	100	97	64-120	3	
Trichloroethene	ug/L	ND	20	20	20.2	19.5	101	97	62-125	4	
Trichlorofluoromethane	ug/L	ND	20	20	22.5	25.1	112	125	54-158	11	
Vinyl chloride	ug/L	ND	20	20	22.1	23.4	110	117	52-145	6	
1,2-Dichloroethane-d4 (S)	%						102	106	77-119		
4-Bromofluorobenzene (S)	%						95	96	85-115		
Toluene-d8 (S)	%						96	101	85-115		

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

SAMPLE DUPLICATE: 565733

Parameter	Units	3090692018 Result	Dup Result	RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,3-Dichlorobenzene	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	ND	ND		
2-Hexanone	ug/L	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	ND	ND		
Benzene	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon disulfide	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
Isopropylbenzene (Cumene)	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methylene Chloride	ug/L	ND	ND		
o-Xylene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	ND		
Toluene	ug/L	ND	ND		
trans-1,2-Dichloroethene	ug/L	ND	ND		
trans-1,3-Dichloropropene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	128	129	.3	S3
4-Bromofluorobenzene (S)	%	103	101	2	
Toluene-d8 (S)	%	102	104	2	

QUALIFIERS

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- | | |
|----|---|
| L1 | Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high. |
| M0 | Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits. |
| P8 | Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit. |
| R1 | RPD value was outside control limits. |
| S0 | Surrogate recovery outside laboratory control limits. |
| S3 | Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias. |

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181/Essex-Hope

Pace Project No.: 3090687

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3090687001	RW-6D	EPA 3005	MPRP/10405	EPA 6010	ICP/9792
3090687002	RW-2D	EPA 3005	MPRP/10405	EPA 6010	ICP/9792
3090687001	RW-6D	EPA 8260	MSV/15784		
3090687002	RW-2D	EPA 8260	MSV/15783		
3090687003	RW-3S	EPA 8260	MSV/15783		
3090687004	RW-1S	EPA 8260	MSV/15783		
3090687005	RW-2S	EPA 8260	MSV/15783		
3090687006	TB-01	EPA 8260	MSV/15783		

Section A	Section B	Section C
Required Client Information:	Required Project Information:	Invoice Information:
Company: <u>LRS</u>	Report To: <u>MARK DOWIAK</u>	Attention:
Address: <u>Cari Anderson Dr. S.W. 400</u>	Copy To: <u>VALERIE SIBETO</u>	Company Name:
<u>P.O. Box 400 PA 15820</u>		Address:
Email To: <u>Mark Dowiak Valerie Sibeto</u>	Purchase Order No.: <u>415695D1</u>	Pace Quote Reference:
Phone: <u>412-503-4700</u> Fax: <u>412-503-4701</u>	Project Name: <u>ESSEX/HOPE STANDARD</u>	Pace Project Manager:
Requested Due Date/TAT: <u>STANDARD</u>	Project Number: <u>415695D1.1000</u>	Pace Profile #:

[illegible]

PRINT Name of SAMPLER:

F-ALL-Q-020rev.07, 15-May-2007

RTL



Sample Condition Upon Receipt

Client Name: URS Project # 30901087

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 898715871135

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Ziplocs

Thermometer Used 5 6 (7)

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 0.8°

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: <u>ASD 3/29/13</u>
--

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☐ No ☒ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☐ No ☒ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☐ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☐ Yes ☒ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☒ No ☐ N/A	11. <u>Lab filter</u>
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☒ No ☐ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☒ No ☐ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>ASD</u> Lot # of added preservative
Samples checked for dechlorination:	☒ Yes ☐ No ☐ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature] Date: 4/1/13

3090687

URS

[illegible]

October 09, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 30103685

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: Essex/Hope Jamestown

Pace Project No.: 30103685

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103685

Sample: RW-6D		Lab ID: 30103685001	Collected: 09/24/13 15:25	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	102000	ug/L	10000	1000		10/08/13 21:42	67-64-1	
Benzene	90.7	ug/L	1.0	1		10/08/13 20:52	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/08/13 20:52	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/08/13 20:52	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/08/13 20:52	74-83-9	
2-Butanone (MEK)	348	ug/L	10.0	1		10/08/13 20:52	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/08/13 20:52	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/08/13 20:52	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/08/13 20:52	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/08/13 20:52	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/08/13 20:52	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/08/13 20:52	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/08/13 20:52	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 20:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 20:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 20:52	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/08/13 20:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/08/13 20:52	107-06-2	
1,1-Dichloroethene	57.1	ug/L	5.0	1		10/08/13 20:52	75-35-4	
cis-1,2-Dichloroethene	23100	ug/L	500	100		10/08/13 21:17	156-59-2	
trans-1,2-Dichloroethene	235	ug/L	5.0	1		10/08/13 20:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/08/13 20:52	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 20:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 20:52	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/08/13 20:52	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/08/13 20:52	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/08/13 20:52	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/08/13 20:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/08/13 20:52	108-10-1	
Styrene	ND	ug/L	5.0	1		10/08/13 20:52	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/08/13 20:52	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/08/13 20:52	127-18-4	
Toluene	ND	ug/L	5.0	1		10/08/13 20:52	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/08/13 20:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/08/13 20:52	79-00-5	
Trichloroethene	23600	ug/L	500	100		10/08/13 21:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/08/13 20:52	75-69-4	
Vinyl chloride	4190	ug/L	100	100		10/08/13 21:17	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/08/13 20:52	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/08/13 20:52	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	108	%	85-115	1		10/08/13 20:52	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	77-119	1		10/08/13 20:52	17060-07-0	
Toluene-d8 (S)	106	%	85-115	1		10/08/13 20:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30103685

Sample: RW-2S		Lab ID: 30103685002	Collected: 09/24/13 15:40	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/08/13 20:27	67-64-1	
Benzene	ND	ug/L	1.0	1		10/08/13 20:27	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/08/13 20:27	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/08/13 20:27	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/08/13 20:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/08/13 20:27	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/08/13 20:27	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/08/13 20:27	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/08/13 20:27	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/08/13 20:27	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/08/13 20:27	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/08/13 20:27	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/08/13 20:27	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 20:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 20:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 20:27	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/08/13 20:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/08/13 20:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/08/13 20:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/08/13 20:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/08/13 20:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/08/13 20:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 20:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 20:27	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/08/13 20:27	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/08/13 20:27	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/08/13 20:27	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/08/13 20:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/08/13 20:27	108-10-1	
Styrene	ND	ug/L	5.0	1		10/08/13 20:27	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/08/13 20:27	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/08/13 20:27	127-18-4	
Toluene	ND	ug/L	5.0	1		10/08/13 20:27	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/08/13 20:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/08/13 20:27	79-00-5	
Trichloroethene	6.0	ug/L	5.0	1		10/08/13 20:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/08/13 20:27	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		10/08/13 20:27	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/08/13 20:27	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/08/13 20:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	85-115	1		10/08/13 20:27	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	77-119	1		10/08/13 20:27	17060-07-0	
Toluene-d8 (S)	103	%	85-115	1		10/08/13 20:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30103685

Sample: RW-2D		Lab ID: 30103685003	Collected: 09/24/13 15:50	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	16.9	ug/L	10.0	1		10/08/13 22:06	67-64-1	
Benzene	9.8	ug/L	1.0	1		10/08/13 22:06	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/08/13 22:06	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/08/13 22:06	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/08/13 22:06	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/08/13 22:06	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/08/13 22:06	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/08/13 22:06	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/08/13 22:06	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/08/13 22:06	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/08/13 22:06	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/08/13 22:06	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/08/13 22:06	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 22:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 22:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 22:06	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/08/13 22:06	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/08/13 22:06	107-06-2	
1,1-Dichloroethene	20.8	ug/L	5.0	1		10/08/13 22:06	75-35-4	
cis-1,2-Dichloroethene	4340	ug/L	100	20		10/08/13 22:31	156-59-2	
trans-1,2-Dichloroethene	109	ug/L	5.0	1		10/08/13 22:06	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/08/13 22:06	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 22:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 22:06	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/08/13 22:06	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/08/13 22:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/08/13 22:06	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/08/13 22:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/08/13 22:06	108-10-1	
Styrene	ND	ug/L	5.0	1		10/08/13 22:06	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/08/13 22:06	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/08/13 22:06	127-18-4	
Toluene	ND	ug/L	5.0	1		10/08/13 22:06	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/08/13 22:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/08/13 22:06	79-00-5	
Trichloroethene	2660	ug/L	100	20		10/08/13 22:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/08/13 22:06	75-69-4	
Vinyl chloride	490	ug/L	20.0	20		10/08/13 22:31	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/08/13 22:06	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/08/13 22:06	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		10/08/13 22:06	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	77-119	1		10/08/13 22:06	17060-07-0	
Toluene-d8 (S)	104	%	85-115	1		10/08/13 22:06	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30103685

Sample: RW-1S		Lab ID: 30103685004	Collected: 09/24/13 16:00	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/08/13 22:56	67-64-1	
Benzene	ND	ug/L	1.0	1		10/08/13 22:56	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/08/13 22:56	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/08/13 22:56	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/08/13 22:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/08/13 22:56	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/08/13 22:56	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/08/13 22:56	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/08/13 22:56	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/08/13 22:56	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/08/13 22:56	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/08/13 22:56	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/08/13 22:56	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 22:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 22:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 22:56	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/08/13 22:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/08/13 22:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/08/13 22:56	75-35-4	
cis-1,2-Dichloroethene	116	ug/L	5.0	1		10/08/13 22:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/08/13 22:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/08/13 22:56	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 22:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 22:56	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/08/13 22:56	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/08/13 22:56	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/08/13 22:56	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/08/13 22:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/08/13 22:56	108-10-1	
Styrene	ND	ug/L	5.0	1		10/08/13 22:56	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/08/13 22:56	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/08/13 22:56	127-18-4	
Toluene	ND	ug/L	5.0	1		10/08/13 22:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/08/13 22:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/08/13 22:56	79-00-5	
Trichloroethene	41.9	ug/L	5.0	1		10/08/13 22:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/08/13 22:56	75-69-4	
Vinyl chloride	6.9	ug/L	1.0	1		10/08/13 22:56	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/08/13 22:56	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/08/13 22:56	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	85-115	1		10/08/13 22:56	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	77-119	1		10/08/13 22:56	17060-07-0	
Toluene-d8 (S)	102	%	85-115	1		10/08/13 22:56	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30103685

Sample: RW-3S		Lab ID: 30103685005	Collected: 09/24/13 16:10	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/08/13 13:53	67-64-1	
Benzene	1.7	ug/L	1.0	1		10/08/13 13:53	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/08/13 13:53	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/08/13 13:53	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/08/13 13:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/08/13 13:53	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/08/13 13:53	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/08/13 13:53	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/08/13 13:53	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/08/13 13:53	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/08/13 13:53	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/08/13 13:53	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/08/13 13:53	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 13:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 13:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 13:53	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/08/13 13:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/08/13 13:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/08/13 13:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/08/13 13:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/08/13 13:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/08/13 13:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 13:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 13:53	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/08/13 13:53	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/08/13 13:53	591-78-6	
Isopropylbenzene (Cumene)	3.2	ug/L	1.0	1		10/08/13 13:53	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/08/13 13:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/08/13 13:53	108-10-1	
Styrene	ND	ug/L	5.0	1		10/08/13 13:53	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/08/13 13:53	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/08/13 13:53	127-18-4	
Toluene	ND	ug/L	5.0	1		10/08/13 13:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/08/13 13:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/08/13 13:53	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/08/13 13:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/08/13 13:53	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		10/08/13 13:53	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/08/13 13:53	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/08/13 13:53	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		10/08/13 13:53	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	77-119	1		10/08/13 13:53	17060-07-0	
Toluene-d8 (S)	101	%	85-115	1		10/08/13 13:53	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30103685

QC Batch: MSV/17546 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 30103685001, 30103685002, 30103685003, 30103685004, 30103685005

METHOD BLANK: 640963 Matrix: Water
Associated Lab Samples: 30103685001, 30103685002, 30103685003, 30103685004, 30103685005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/08/13 12:39	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/08/13 12:39	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/08/13 12:39	
1,1-Dichloroethane	ug/L	ND	1.0	10/08/13 12:39	
1,1-Dichloroethene	ug/L	ND	1.0	10/08/13 12:39	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/08/13 12:39	
1,2-Dichloroethane	ug/L	ND	1.0	10/08/13 12:39	
1,2-Dichloropropane	ug/L	ND	1.0	10/08/13 12:39	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/08/13 12:39	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/08/13 12:39	
2-Butanone (MEK)	ug/L	ND	10.0	10/08/13 12:39	
2-Hexanone	ug/L	ND	10.0	10/08/13 12:39	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/08/13 12:39	
Acetone	ug/L	ND	10.0	10/08/13 12:39	
Benzene	ug/L	ND	1.0	10/08/13 12:39	
Bromodichloromethane	ug/L	ND	1.0	10/08/13 12:39	
Bromoform	ug/L	ND	1.0	10/08/13 12:39	
Bromomethane	ug/L	ND	1.0	10/08/13 12:39	
Carbon disulfide	ug/L	ND	1.0	10/08/13 12:39	
Carbon tetrachloride	ug/L	ND	1.0	10/08/13 12:39	
Chlorobenzene	ug/L	ND	1.0	10/08/13 12:39	
Chloroethane	ug/L	ND	1.0	10/08/13 12:39	
Chloroform	ug/L	ND	1.0	10/08/13 12:39	
Chloromethane	ug/L	ND	1.0	10/08/13 12:39	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/08/13 12:39	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/08/13 12:39	
Dibromochloromethane	ug/L	ND	1.0	10/08/13 12:39	
Ethylbenzene	ug/L	ND	1.0	10/08/13 12:39	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/08/13 12:39	
m&p-Xylene	ug/L	ND	2.0	10/08/13 12:39	
Methylene Chloride	ug/L	ND	1.0	10/08/13 12:39	
o-Xylene	ug/L	ND	1.0	10/08/13 12:39	
Styrene	ug/L	ND	1.0	10/08/13 12:39	
Tetrachloroethene	ug/L	ND	1.0	10/08/13 12:39	
Toluene	ug/L	ND	1.0	10/08/13 12:39	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/08/13 12:39	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/08/13 12:39	
Trichloroethene	ug/L	ND	1.0	10/08/13 12:39	
Trichlorofluoromethane	ug/L	ND	1.0	10/08/13 12:39	
Vinyl chloride	ug/L	ND	1.0	10/08/13 12:39	
1,2-Dichloroethane-d4 (S)	%	104	77-119	10/08/13 12:39	
4-Bromofluorobenzene (S)	%	104	85-115	10/08/13 12:39	
Toluene-d8 (S)	%	105	85-115	10/08/13 12:39	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30103685

LABORATORY CONTROL SAMPLE: 640964

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.3	102	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.6	88	61-117	
1,1,2-Trichloroethane	ug/L	20	20.3	102	72-119	
1,1-Dichloroethane	ug/L	20	19.1	96	63-123	
1,1-Dichloroethene	ug/L	20	20.3	102	57-127	
1,2-Dichlorobenzene	ug/L	20	19.6	98	70-116	
1,2-Dichloroethane	ug/L	20	20.2	101	62-125	
1,2-Dichloropropane	ug/L	20	17.4	87	69-115	
1,3-Dichlorobenzene	ug/L	20	19.1	96	71-118	
1,4-Dichlorobenzene	ug/L	20	20.5	102	67-119	
2-Butanone (MEK)	ug/L	20	17.0	85	48-136	
2-Hexanone	ug/L	20	23.8	119	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	17.6	88	57-124	
Acetone	ug/L	20	20.5	102	49-138	
Benzene	ug/L	20	19.1	95	66-122	
Bromodichloromethane	ug/L	20	17.2	86	63-118	
Bromoform	ug/L	20	16.7	83	46-130	
Bromomethane	ug/L	20	33.8	169	10-175	
Carbon disulfide	ug/L	20	23.6	118	59-142	
Carbon tetrachloride	ug/L	20	18.7	93	55-126	
Chlorobenzene	ug/L	20	20.1	101	70-121	
Chloroethane	ug/L	20	23.5	118	24-161	
Chloroform	ug/L	20	19.6	98	62-126	
Chloromethane	ug/L	20	22.9	114	37-147	
cis-1,2-Dichloroethene	ug/L	20	19.6	98	64-121	
cis-1,3-Dichloropropene	ug/L	20	15.6	78	64-118	
Dibromochloromethane	ug/L	20	18.4	92	60-120	
Ethylbenzene	ug/L	20	19.6	98	69-119	
Isopropylbenzene (Cumene)	ug/L	20	20.3	102	68-126	
m&p-Xylene	ug/L	40	39.8	99	70-124	
Methylene Chloride	ug/L	20	20.1	101	59-128	
o-Xylene	ug/L	20	19.2	96	67-123	
Styrene	ug/L	20	19.6	98	67-146	
Tetrachloroethene	ug/L	20	19.7	98	62-125	
Toluene	ug/L	20	19.4	97	72-115	
trans-1,2-Dichloroethene	ug/L	20	19.1	95	59-122	
trans-1,3-Dichloropropene	ug/L	20	14.7	74	64-120	
Trichloroethene	ug/L	20	20.5	102	62-125	
Trichlorofluoromethane	ug/L	20	23.6	118	54-158	
Vinyl chloride	ug/L	20	22.8	114	52-145	
1,2-Dichloroethane-d4 (S)	%			106	77-119	
4-Bromofluorobenzene (S)	%			100	85-115	
Toluene-d8 (S)	%			99	85-115	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALIFIERS

Project: Essex/Hope Jamestown

Pace Project No.: 30103685

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 30103685

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30103685001	RW-6D	EPA 8260	MSV/17546		
30103685002	RW-2S	EPA 8260	MSV/17546		
30103685003	RW-2D	EPA 8260	MSV/17546		
30103685004	RW-1S	EPA 8260	MSV/17546		
30103685005	RW-3S	EPA 8260	MSV/17546		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Section A Required Client Information: Company: URS Corp Address: FOSTER PLAZA 6 STE 400 601 WILSON AVENUE PITTSBURGH, PA 15202 Email To: _____ Phone: 412-503-4700 Fax: 412-503-4700 Requested Due Date/TAT: STANDARD		Section B Required Project Information: Report To: MARK DOMAL Copy To: VALERIE SIBETO Purchase Order No.: 415269501 Project Name: ESSEX/HOPE DATE STORM Project Number: 415269501.40000		Section C Invoice Information: Attention: _____ Company Name: _____ Address: _____ Pace Quote Reference: _____ Pace Project Manager: _____ Pace Profile #: _____	
Site Location: NY STATE: _____		REGULATORY AGENCY ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____		Page: 1 of _____ 1581652	

Section D Required Client Information				Section E Requested Analysis Filtered (Y/N)		Section F Requested Analysis Filtered (Y/N)	
ITEM #	SAMPLE ID (A-Z, 0-9 / . -)	Matrix Codes MATRIX / CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives
				COMPOSITE START	COMPOSITE END/GRAB		
			MATRIX CODE (see valid codes to left)	DATE	TIME	DATE	TIME
1	RW-60D	DW	WTG	9/24/13	1525	3	Unpreserved
2	RW-2S	WT	WTG	9/24/13	1540	3	HCl
3	RW-2D	WW	WTG	9/24/13	1550	3	HNO ₃
4	RW-1S	P	WTG	9/24/13	1600	3	NaOH
5	RW-3S	SL	WTG	9/24/13	1610	3	Na ₂ O ₂
6		OL					Other
7		WP					
8		AR					
9		TS					
10		OT					
11							
12							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
SEMI-ANNUAL RW	Shesh/NRS	9/24/13	~1620	Shesh	9/24/13	~1630	
SAMPLING				Shesh	9/24/13	0940	

Temp in °C _____ Received on _____ Custody _____ Sealed Cooler _____ Samples Intact _____			
---	--	--	--

SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: VALERIE SIBETO/BRAD CARSON SIGNATURE of SAMPLER: [Signature]		DATE Signed (MM/DD/YY): 9.24.13
--	--	--



Sample Condition Upon Receipt

Client Name: URS

Project # 30103685

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 8739 8101 9611

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used (5) 6 7

Type of Ice: Wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature 11

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: MSL 9/25/10

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WI</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions <u>(VOA)</u> coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>MSL</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	16.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☒ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 9/25/10

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

30103685

Client Name: _____

৫২৭৭

	Item No.	5048
	Matrix Code	5 →
Glass Jar (120 / 250 / 500 / 1L)		
Soil kit (2 SB, 1M, soil jar)		
Chemistry (250 / 500 / 1L)		
Organics (1L)		
Nutrient (250 / 500)		
Phenolics (250 ml)		
TOC (40 ml / 250 ml)		
TOX (250 ml)		
Total Metals		
Dissolved Metals preserved Y N		
O & G (1L)		
TPH (1L)		
VOA (40 ml) 30 ml	→ 5	
Cyanide (250 ml)		
Sulfide (500 ml)		
Bacteria (120 ml)		
Wipes / swipe/ smear/ filter		
Radchem NaIgene (125 / 250 / 500 / 1L)		
Radchem NaIgene (1/2 gal. / 1 gal.L)		
Cubitrainer (500 ml / 4L)		
Ziploc		
Other		
Other		

October 09, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: ESSEX/HOPE JAMESTOWN
Pace Project No.: 30103763

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: MW-22D		Lab ID: 30103763001		Collected: 09/25/13 08:35		Received: 09/26/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/07/13 19:35	67-64-1		
Benzene	ND	ug/L	1.0	1		10/07/13 19:35	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 19:35	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/07/13 19:35	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/07/13 19:35	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 19:35	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 19:35	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 19:35	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 19:35	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/07/13 19:35	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/07/13 19:35	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/07/13 19:35	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 19:35	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 19:35	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 19:35	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 19:35	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 19:35	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 19:35	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 19:35	75-35-4		
cis-1,2-Dichloroethene	212	ug/L	5.0	1		10/07/13 19:35	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 19:35	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 19:35	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 19:35	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 19:35	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 19:35	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/07/13 19:35	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/07/13 19:35	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 19:35	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 19:35	108-10-1		
Styrene	ND	ug/L	5.0	1		10/07/13 19:35	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 19:35	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 19:35	127-18-4		
Toluene	ND	ug/L	5.0	1		10/07/13 19:35	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 19:35	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 19:35	79-00-5		
Trichloroethene	1360	ug/L	50.0	10		10/07/13 19:59	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 19:35	75-69-4		
Vinyl chloride	3.2	ug/L	1.0	1		10/07/13 19:35	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 19:35	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/07/13 19:35	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	94	%	85-115	1		10/07/13 19:35	460-00-4		
1,2-Dichloroethane-d4 (S)	87	%	77-119	1		10/07/13 19:35	17060-07-0		
Toluene-d8 (S)	101	%	85-115	1		10/07/13 19:35	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: MW-21D		Lab ID: 30103763002		Collected: 09/25/13 09:10		Received: 09/26/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	306000	ug/L	20000	2000			10/08/13 11:34	67-64-1	
Benzene	66.6	ug/L	1.0	1			10/07/13 20:24	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/07/13 20:24	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/07/13 20:24	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/07/13 20:24	74-83-9	
2-Butanone (MEK)	2190	ug/L	100	10			10/07/13 20:49	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/07/13 20:24	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/07/13 20:24	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/07/13 20:24	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/07/13 20:24	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/07/13 20:24	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/07/13 20:24	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/07/13 20:24	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/07/13 20:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/07/13 20:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/07/13 20:24	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/07/13 20:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/07/13 20:24	107-06-2	
1,1-Dichloroethene	74.6	ug/L	5.0	1			10/07/13 20:24	75-35-4	
cis-1,2-Dichloroethene	83800	ug/L	5000	1000			10/07/13 21:13	156-59-2	
trans-1,2-Dichloroethene	427	ug/L	50.0	10			10/07/13 20:49	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/07/13 20:24	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/07/13 20:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/07/13 20:24	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			10/07/13 20:24	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/07/13 20:24	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			10/07/13 20:24	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/07/13 20:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	17.1	ug/L	10.0	1			10/07/13 20:24	108-10-1	
Styrene	ND	ug/L	5.0	1			10/07/13 20:24	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/07/13 20:24	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/07/13 20:24	127-18-4	
Toluene	5.1	ug/L	5.0	1			10/07/13 20:24	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/07/13 20:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/07/13 20:24	79-00-5	
Trichloroethene	117	ug/L	5.0	1			10/07/13 20:24	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/07/13 20:24	75-69-4	
Vinyl chloride	35700	ug/L	1000	1000			10/07/13 21:13	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			10/07/13 20:24	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			10/07/13 20:24	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	85-115	1			10/07/13 20:24	460-00-4	
1,2-Dichloroethane-d4 (S)	81	%	77-119	1			10/07/13 20:24	17060-07-0	
Toluene-d8 (S)	101	%	85-115	1			10/07/13 20:24	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: MW-23S		Lab ID: 30103763003		Collected: 09/25/13 10:00		Received: 09/26/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/07/13 13:50	67-64-1		
Benzene	ND	ug/L	1.0	1		10/07/13 13:50	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 13:50	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/07/13 13:50	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/07/13 13:50	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 13:50	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 13:50	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 13:50	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 13:50	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/07/13 13:50	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/07/13 13:50	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/07/13 13:50	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 13:50	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 13:50	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 13:50	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 13:50	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 13:50	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 13:50	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 13:50	75-35-4		
cis-1,2-Dichloroethene	5.7	ug/L	5.0	1		10/07/13 13:50	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 13:50	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 13:50	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 13:50	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 13:50	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 13:50	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/07/13 13:50	591-78-6		
Isopropylbenzene (Cumene)	2.9	ug/L	1.0	1		10/07/13 13:50	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 13:50	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 13:50	108-10-1		
Styrene	ND	ug/L	5.0	1		10/07/13 13:50	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 13:50	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 13:50	127-18-4		
Toluene	ND	ug/L	5.0	1		10/07/13 13:50	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 13:50	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 13:50	79-00-5		
Trichloroethene	ND	ug/L	5.0	1		10/07/13 13:50	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 13:50	75-69-4		
Vinyl chloride	1.4	ug/L	1.0	1		10/07/13 13:50	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 13:50	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/07/13 13:50	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	98	%	85-115	1		10/07/13 13:50	460-00-4		
1,2-Dichloroethane-d4 (S)	89	%	77-119	1		10/07/13 13:50	17060-07-0		
Toluene-d8 (S)	98	%	85-115	1		10/07/13 13:50	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: MW-24S		Lab ID: 30103763004		Collected: 09/25/13 10:30		Received: 09/26/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/07/13 17:56	67-64-1		
Benzene	ND	ug/L	1.0	1		10/07/13 17:56	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 17:56	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/07/13 17:56	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/07/13 17:56	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 17:56	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 17:56	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 17:56	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 17:56	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/07/13 17:56	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/07/13 17:56	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/07/13 17:56	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 17:56	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 17:56	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 17:56	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 17:56	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 17:56	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 17:56	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 17:56	75-35-4		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 17:56	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 17:56	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 17:56	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 17:56	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 17:56	10061-02-6		
Ethylbenzene	590	ug/L	50.0	10		10/07/13 18:21	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/07/13 17:56	591-78-6		
Isopropylbenzene (Cumene)	129	ug/L	1.0	1		10/07/13 17:56	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 17:56	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 17:56	108-10-1		
Styrene	ND	ug/L	5.0	1		10/07/13 17:56	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 17:56	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 17:56	127-18-4		
Toluene	ND	ug/L	5.0	1		10/07/13 17:56	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 17:56	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 17:56	79-00-5		
Trichloroethene	ND	ug/L	5.0	1		10/07/13 17:56	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 17:56	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		10/07/13 17:56	75-01-4		
m&p-Xylene	424	ug/L	50.0	10		10/07/13 18:21	179601-23-1		
o-Xylene	294	ug/L	5.0	1		10/07/13 17:56	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	94	%	85-115	1		10/07/13 17:56	460-00-4		
1,2-Dichloroethane-d4 (S)	88	%	77-119	1		10/07/13 17:56	17060-07-0		
Toluene-d8 (S)	105	%	85-115	1		10/07/13 17:56	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: MW-29S		Lab ID: 30103763005		Collected: 09/25/13 10:55		Received: 09/26/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	46.5	ug/L	10.0	1			10/07/13 18:46	67-64-1	
Benzene	29.6	ug/L	1.0	1			10/07/13 18:46	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/07/13 18:46	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/07/13 18:46	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/07/13 18:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/07/13 18:46	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/07/13 18:46	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/07/13 18:46	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/07/13 18:46	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/07/13 18:46	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/07/13 18:46	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/07/13 18:46	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/07/13 18:46	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/07/13 18:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/07/13 18:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/07/13 18:46	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/07/13 18:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/07/13 18:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			10/07/13 18:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1			10/07/13 18:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			10/07/13 18:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/07/13 18:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/07/13 18:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/07/13 18:46	10061-02-6	
Ethylbenzene	13300	ug/L	500	100			10/07/13 19:10	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/07/13 18:46	591-78-6	
Isopropylbenzene (Cumene)	288	ug/L	1.0	1			10/07/13 18:46	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/07/13 18:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/07/13 18:46	108-10-1	
Styrene	ND	ug/L	5.0	1			10/07/13 18:46	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/07/13 18:46	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/07/13 18:46	127-18-4	
Toluene	512	ug/L	500	100			10/07/13 19:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/07/13 18:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/07/13 18:46	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			10/07/13 18:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/07/13 18:46	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1			10/07/13 18:46	75-01-4	
m&p-Xylene	37200	ug/L	500	100			10/07/13 19:10	179601-23-1	
o-Xylene	3950	ug/L	500	100			10/07/13 19:10	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	85-115	1			10/07/13 18:46	460-00-4	
1,2-Dichloroethane-d4 (S)	84	%	77-119	1			10/07/13 18:46	17060-07-0	
Toluene-d8 (S)	148	%	85-115	1			10/07/13 18:46	2037-26-5	S2

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: MW-27S		Lab ID: 30103763006		Collected: 09/25/13 12:50		Received: 09/26/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/07/13 15:53	67-64-1		
Benzene	ND	ug/L	1.0	1		10/07/13 15:53	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 15:53	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/07/13 15:53	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/07/13 15:53	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 15:53	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 15:53	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 15:53	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 15:53	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/07/13 15:53	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/07/13 15:53	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/07/13 15:53	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 15:53	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 15:53	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 15:53	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 15:53	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 15:53	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 15:53	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 15:53	75-35-4		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 15:53	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 15:53	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 15:53	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 15:53	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 15:53	10061-02-6		
Ethylbenzene	22.0	ug/L	5.0	1		10/08/13 09:06	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/07/13 15:53	591-78-6		
Isopropylbenzene (Cumene)	49.4	ug/L	1.0	1		10/07/13 15:53	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 15:53	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 15:53	108-10-1		
Styrene	ND	ug/L	5.0	1		10/07/13 15:53	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 15:53	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 15:53	127-18-4		
Toluene	ND	ug/L	5.0	1		10/07/13 15:53	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 15:53	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 15:53	79-00-5		
Trichloroethene	ND	ug/L	5.0	1		10/07/13 15:53	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 15:53	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		10/07/13 15:53	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 15:53	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/07/13 15:53	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	95	%	85-115	1		10/07/13 15:53	460-00-4		
1,2-Dichloroethane-d4 (S)	87	%	77-119	1		10/07/13 15:53	17060-07-0		
Toluene-d8 (S)	116	%	85-115	1		10/07/13 15:53	2037-26-5		S3

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: MW-28S		Lab ID: 30103763007		Collected: 09/25/13 13:20		Received: 09/26/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			10/07/13 16:18	67-64-1	
Benzene	ND	ug/L	1.0	1			10/07/13 16:18	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/07/13 16:18	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/07/13 16:18	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/07/13 16:18	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/07/13 16:18	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/07/13 16:18	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/07/13 16:18	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/07/13 16:18	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/07/13 16:18	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/07/13 16:18	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/07/13 16:18	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/07/13 16:18	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/07/13 16:18	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/07/13 16:18	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/07/13 16:18	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/07/13 16:18	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/07/13 16:18	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			10/07/13 16:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1			10/07/13 16:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			10/07/13 16:18	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/07/13 16:18	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/07/13 16:18	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/07/13 16:18	10061-02-6	
Ethylbenzene	6.8	ug/L	5.0	1			10/07/13 16:18	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/07/13 16:18	591-78-6	
Isopropylbenzene (Cumene)	4.6	ug/L	1.0	1			10/07/13 16:18	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/07/13 16:18	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/07/13 16:18	108-10-1	
Styrene	ND	ug/L	5.0	1			10/07/13 16:18	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/07/13 16:18	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/07/13 16:18	127-18-4	
Toluene	ND	ug/L	5.0	1			10/07/13 16:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/07/13 16:18	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/07/13 16:18	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			10/07/13 16:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/07/13 16:18	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1			10/07/13 16:18	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			10/07/13 16:18	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			10/07/13 16:18	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	85-115	1			10/07/13 16:18	460-00-4	
1,2-Dichloroethane-d4 (S)	85	%	77-119	1			10/07/13 16:18	17060-07-0	
Toluene-d8 (S)	109	%	85-115	1			10/07/13 16:18	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: MW-26S		Lab ID: 30103763008		Collected: 09/25/13 14:00		Received: 09/26/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/07/13 17:07	67-64-1		
Benzene	ND	ug/L	1.0	1		10/07/13 17:07	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 17:07	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/07/13 17:07	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/07/13 17:07	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 17:07	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 17:07	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 17:07	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 17:07	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/07/13 17:07	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/07/13 17:07	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/07/13 17:07	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 17:07	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 17:07	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 17:07	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 17:07	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 17:07	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 17:07	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 17:07	75-35-4		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 17:07	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 17:07	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 17:07	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 17:07	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 17:07	10061-02-6		
Ethylbenzene	208	ug/L	5.0	1		10/07/13 17:07	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/07/13 17:07	591-78-6		
Isopropylbenzene (Cumene)	200	ug/L	1.0	1		10/07/13 17:07	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 17:07	75-09-2		
4-Methyl-2-pentanone (MIBK)	12.0	ug/L	10.0	1		10/07/13 17:07	108-10-1		
Styrene	ND	ug/L	5.0	1		10/07/13 17:07	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 17:07	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 17:07	127-18-4		
Toluene	ND	ug/L	5.0	1		10/07/13 17:07	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 17:07	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 17:07	79-00-5		
Trichloroethene	ND	ug/L	5.0	1		10/07/13 17:07	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 17:07	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		10/07/13 17:07	75-01-4		
m&p-Xylene	365	ug/L	5.0	1		10/07/13 17:07	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/07/13 17:07	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	149	%	85-115	1		10/07/13 17:07	460-00-4		S2
1,2-Dichloroethane-d4 (S)	92	%	77-119	1		10/07/13 17:07	17060-07-0		
Toluene-d8 (S)	139	%	85-115	1		10/07/13 17:07	2037-26-5		S2

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: PZ-7D		Lab ID: 30103763009		Collected: 09/25/13 14:40		Received: 09/26/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/07/13 16:43	67-64-1		
Benzene	ND	ug/L	1.0	1		10/07/13 16:43	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 16:43	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/07/13 16:43	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/07/13 16:43	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 16:43	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 16:43	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 16:43	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 16:43	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/07/13 16:43	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/07/13 16:43	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/07/13 16:43	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 16:43	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 16:43	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 16:43	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 16:43	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 16:43	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 16:43	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 16:43	75-35-4		
cis-1,2-Dichloroethene	261	ug/L	5.0	1		10/07/13 16:43	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 16:43	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 16:43	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 16:43	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 16:43	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 16:43	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/07/13 16:43	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/07/13 16:43	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 16:43	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 16:43	108-10-1		
Styrene	ND	ug/L	5.0	1		10/07/13 16:43	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 16:43	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 16:43	127-18-4		
Toluene	ND	ug/L	5.0	1		10/07/13 16:43	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 16:43	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 16:43	79-00-5		
Trichloroethene	1060	ug/L	100	20		10/08/13 11:09	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 16:43	75-69-4		
Vinyl chloride	32.1	ug/L	1.0	1		10/07/13 16:43	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 16:43	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/07/13 16:43	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	93	%	85-115	1		10/07/13 16:43	460-00-4		
1,2-Dichloroethane-d4 (S)	82	%	77-119	1		10/07/13 16:43	17060-07-0		
Toluene-d8 (S)	100	%	85-115	1		10/07/13 16:43	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: DUP-01		Lab ID: 30103763010	Collected: 09/25/13 00:01	Received: 09/26/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	321000	ug/L	20000	2000		10/08/13 11:58	67-64-1	
Benzene	65.7	ug/L	1.0	1		10/07/13 21:38	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 21:38	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/07/13 21:38	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/07/13 21:38	74-83-9	
2-Butanone (MEK)	2080	ug/L	100	10		10/07/13 22:02	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 21:38	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 21:38	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 21:38	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/07/13 21:38	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/07/13 21:38	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/07/13 21:38	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 21:38	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 21:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 21:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 21:38	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 21:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 21:38	107-06-2	
1,1-Dichloroethene	61.6	ug/L	5.0	1		10/07/13 21:38	75-35-4	
cis-1,2-Dichloroethene	80900	ug/L	5000	1000		10/07/13 22:27	156-59-2	
trans-1,2-Dichloroethene	435	ug/L	50.0	10		10/07/13 22:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 21:38	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 21:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 21:38	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 21:38	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/07/13 21:38	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/07/13 21:38	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 21:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	18.0	ug/L	10.0	1		10/07/13 21:38	108-10-1	
Styrene	ND	ug/L	5.0	1		10/07/13 21:38	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 21:38	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 21:38	127-18-4	
Toluene	ND	ug/L	5.0	1		10/07/13 21:38	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 21:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 21:38	79-00-5	
Trichloroethene	87.1	ug/L	5.0	1		10/07/13 21:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 21:38	75-69-4	
Vinyl chloride	36100	ug/L	1000	1000		10/07/13 22:27	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 21:38	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/07/13 21:38	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	85-115	1		10/07/13 21:38	460-00-4	
1,2-Dichloroethane-d4 (S)	79	%	77-119	1		10/07/13 21:38	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		10/07/13 21:38	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Sample: TB-01		Lab ID: 30103763011	Collected: 09/25/13 00:01	Received: 09/26/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		10/07/13 13:26	67-64-1	
Benzene	ND ug/L		1.0	1		10/07/13 13:26	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		10/07/13 13:26	75-27-4	
Bromoform	ND ug/L		5.0	1		10/07/13 13:26	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/07/13 13:26	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/07/13 13:26	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		10/07/13 13:26	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		10/07/13 13:26	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		10/07/13 13:26	108-90-7	
Chloroethane	ND ug/L		5.0	1		10/07/13 13:26	75-00-3	
Chloroform	ND ug/L		5.0	1		10/07/13 13:26	67-66-3	
Chloromethane	ND ug/L		5.0	1		10/07/13 13:26	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		10/07/13 13:26	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 13:26	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 13:26	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 13:26	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		10/07/13 13:26	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		10/07/13 13:26	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		10/07/13 13:26	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		10/07/13 13:26	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		10/07/13 13:26	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		10/07/13 13:26	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		10/07/13 13:26	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		10/07/13 13:26	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		10/07/13 13:26	100-41-4	
2-Hexanone	ND ug/L		10.0	1		10/07/13 13:26	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/07/13 13:26	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		10/07/13 13:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/07/13 13:26	108-10-1	
Styrene	ND ug/L		5.0	1		10/07/13 13:26	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		10/07/13 13:26	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		10/07/13 13:26	127-18-4	
Toluene	ND ug/L		5.0	1		10/07/13 13:26	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		10/07/13 13:26	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		10/07/13 13:26	79-00-5	
Trichloroethene	ND ug/L		5.0	1		10/07/13 13:26	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		10/07/13 13:26	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		10/07/13 13:26	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		10/07/13 13:26	179601-23-1	
o-Xylene	ND ug/L		5.0	1		10/07/13 13:26	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94 %		85-115	1		10/07/13 13:26	460-00-4	
1,2-Dichloroethane-d4 (S)	85 %		77-119	1		10/07/13 13:26	17060-07-0	
Toluene-d8 (S)	101 %		85-115	1		10/07/13 13:26	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

QC Batch:	MSV/17531	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	30103763001, 30103763002, 30103763003, 30103763004, 30103763005, 30103763006, 30103763007, 30103763008, 30103763009, 30103763010, 30103763011		

METHOD BLANK: 640550 Matrix: Water

Associated Lab Samples: 30103763001, 30103763002, 30103763003, 30103763004, 30103763005, 30103763006, 30103763007, 30103763008, 30103763009, 30103763010, 30103763011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/07/13 12:36	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/07/13 12:36	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/07/13 12:36	
1,1-Dichloroethane	ug/L	ND	1.0	10/07/13 12:36	
1,1-Dichloroethene	ug/L	ND	1.0	10/07/13 12:36	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/07/13 12:36	
1,2-Dichloroethane	ug/L	ND	1.0	10/07/13 12:36	
1,2-Dichloropropane	ug/L	ND	1.0	10/07/13 12:36	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/07/13 12:36	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/07/13 12:36	
2-Butanone (MEK)	ug/L	ND	10.0	10/07/13 12:36	
2-Hexanone	ug/L	ND	10.0	10/07/13 12:36	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/07/13 12:36	
Acetone	ug/L	ND	10.0	10/07/13 12:36	
Benzene	ug/L	ND	1.0	10/07/13 12:36	
Bromodichloromethane	ug/L	ND	1.0	10/07/13 12:36	
Bromoform	ug/L	ND	1.0	10/07/13 12:36	
Bromomethane	ug/L	ND	1.0	10/07/13 12:36	
Carbon disulfide	ug/L	ND	1.0	10/07/13 12:36	
Carbon tetrachloride	ug/L	ND	1.0	10/07/13 12:36	
Chlorobenzene	ug/L	ND	1.0	10/07/13 12:36	
Chloroethane	ug/L	ND	1.0	10/07/13 12:36	
Chloroform	ug/L	ND	1.0	10/07/13 12:36	
Chloromethane	ug/L	ND	1.0	10/07/13 12:36	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/07/13 12:36	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/07/13 12:36	
Dibromochloromethane	ug/L	ND	1.0	10/07/13 12:36	
Ethylbenzene	ug/L	ND	1.0	10/07/13 12:36	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/07/13 12:36	
m&p-Xylene	ug/L	ND	2.0	10/07/13 12:36	
Methylene Chloride	ug/L	ND	1.0	10/07/13 12:36	
o-Xylene	ug/L	ND	1.0	10/07/13 12:36	
Styrene	ug/L	ND	1.0	10/07/13 12:36	
Tetrachloroethene	ug/L	ND	1.0	10/07/13 12:36	
Toluene	ug/L	ND	1.0	10/07/13 12:36	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/07/13 12:36	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/07/13 12:36	
Trichloroethene	ug/L	ND	1.0	10/07/13 12:36	
Trichlorofluoromethane	ug/L	ND	1.0	10/07/13 12:36	
Vinyl chloride	ug/L	ND	1.0	10/07/13 12:36	
1,2-Dichloroethane-d4 (S)	%	91	77-119	10/07/13 12:36	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

METHOD BLANK: 640550

Matrix: Water

Associated Lab Samples: 30103763001, 30103763002, 30103763003, 30103763004, 30103763005, 30103763006, 30103763007, 30103763008, 30103763009, 30103763010, 30103763011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4-Bromofluorobenzene (S)	%	93	85-115	10/07/13 12:36	
Toluene-d8 (S)	%	101	85-115	10/07/13 12:36	

LABORATORY CONTROL SAMPLE: 640551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	18.1	90	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.7	89	61-117	
1,1,2-Trichloroethane	ug/L	20	18.6	93	72-119	
1,1-Dichloroethane	ug/L	20	19.8	99	63-123	
1,1-Dichloroethene	ug/L	20	18.4	92	57-127	
1,2-Dichlorobenzene	ug/L	20	19.0	95	70-116	
1,2-Dichloroethane	ug/L	20	17.8	89	62-125	
1,2-Dichloropropane	ug/L	20	19.3	97	69-115	
1,3-Dichlorobenzene	ug/L	20	19.2	96	71-118	
1,4-Dichlorobenzene	ug/L	20	19.2	96	67-119	
2-Butanone (MEK)	ug/L	20	14.9	74	48-136	
2-Hexanone	ug/L	20	16.5	82	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	15.9	79	57-124	
Acetone	ug/L	20	14.1	70	49-138	
Benzene	ug/L	20	19.9	99	66-122	
Bromodichloromethane	ug/L	20	16.7	84	63-118	
Bromoform	ug/L	20	16.6	83	46-130	
Bromomethane	ug/L	20	21.2	106	10-175	
Carbon disulfide	ug/L	20	24.1	121	59-142	
Carbon tetrachloride	ug/L	20	15.8	79	55-126	
Chlorobenzene	ug/L	20	19.8	99	70-121	
Chloroethane	ug/L	20	21.6	108	24-161	
Chloroform	ug/L	20	18.9	95	62-126	
Chloromethane	ug/L	20	17.6	88	37-147	
cis-1,2-Dichloroethene	ug/L	20	18.9	94	64-121	
cis-1,3-Dichloropropene	ug/L	20	20.2	101	64-118	
Dibromochloromethane	ug/L	20	17.5	88	60-120	
Ethylbenzene	ug/L	20	19.1	95	69-119	
Isopropylbenzene (Cumene)	ug/L	20	21.8	109	68-126	
m&p-Xylene	ug/L	40	40.9	102	70-124	
Methylene Chloride	ug/L	20	18.8	94	59-128	
o-Xylene	ug/L	20	19.1	96	67-123	
Styrene	ug/L	20	21.2	106	67-146	
Tetrachloroethene	ug/L	20	20.1	100	62-125	
Toluene	ug/L	20	20.1	101	72-115	
trans-1,2-Dichloroethene	ug/L	20	18.6	93	59-122	
trans-1,3-Dichloropropene	ug/L	20	18.8	94	64-120	
Trichloroethene	ug/L	20	18.9	95	62-125	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

LABORATORY CONTROL SAMPLE: 640551

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichlorofluoromethane	ug/L	20	18.4	92	54-158	
Vinyl chloride	ug/L	20	19.0	95	52-145	
1,2-Dichloroethane-d4 (S)	%			86	77-119	
4-Bromofluorobenzene (S)	%			94	85-115	
Toluene-d8 (S)	%			98	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 640553 640554

Parameter	Units	30103763003		MS		MSD		MS		MSD		% Rec		RPD	Qual
		Result	Conc.	Spike Conc.	Result	Spike Conc.	Result	% Rec	Result	% Rec	Result	Limits	Limits		
1,1,1-Trichloroethane	ug/L	ND	20	20	15.8	20	15.3	79	77	62-125	3				
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	16.6	20	16.9	83	84	61-117	2				
1,1,2-Trichloroethane	ug/L	ND	20	20	18.2	20	17.3	91	87	72-119	5				
1,1-Dichloroethane	ug/L	ND	20	20	16.8	20	17.7	84	89	63-123	5				
1,1-Dichloroethene	ug/L	ND	20	20	17.2	20	16.8	86	84	57-127	3				
1,2-Dichlorobenzene	ug/L	ND	20	20	17.5	20	16.8	87	84	70-116	4				
1,2-Dichloroethane	ug/L	ND	20	20	15.3	20	14.4	77	72	62-125	6				
1,2-Dichloropropane	ug/L	ND	20	20	18.3	20	17.6	92	88	69-115	4				
1,3-Dichlorobenzene	ug/L	ND	20	20	17.4	20	16.8	87	84	71-118	3				
1,4-Dichlorobenzene	ug/L	ND	20	20	17.1	20	16.4	85	82	67-119	4				
2-Butanone (MEK)	ug/L	ND	20	20	15.0	20	14.7	75	74	48-136	2				
2-Hexanone	ug/L	ND	20	20	16.8	20	16.5	84	83	52-130	1				
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	15.5	20	14.9	78	74	57-124	4				
Acetone	ug/L	ND	20	20	23.6	20	21.9	118	110	49-138	7				
Benzene	ug/L	ND	20	20	19.4	20	18.4	97	92	66-122	5				
Bromodichloromethane	ug/L	ND	20	20	14.0	20	13.4	70	67	63-118	5				
Bromoform	ug/L	ND	20	20	13.0	20	12.4	65	62	46-130	5				
Bromomethane	ug/L	ND	20	20	9.9	20	12.2	49	61	10-175	22				
Carbon disulfide	ug/L	ND	20	20	21.6	20	20.6	108	103	59-142	5				
Carbon tetrachloride	ug/L	ND	20	20	14.2	20	13.1	71	66	55-126	8				
Chlorobenzene	ug/L	ND	20	20	18.3	20	17.1	91	85	70-121	7				
Chloroethane	ug/L	ND	20	20	20.0	20	20.7	100	104	24-161	3				
Chloroform	ug/L	ND	20	20	16.6	20	16.1	83	80	62-126	3				
Chloromethane	ug/L	ND	20	20	17.8	20	18.0	89	90	37-147	1				
cis-1,2-Dichloroethene	ug/L	5.7	20	20	26.8	20	24.9	106	96	64-121	7				
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.5	20	17.0	87	85	64-118	3				
Dibromochloromethane	ug/L	ND	20	20	14.1	20	13.8	71	69	60-120	2				
Ethylbenzene	ug/L	ND	20	20	21.2	20	20.1	91	86	69-119	5				
Isopropylbenzene (Cumene)	ug/L	2.9	20	20	23.7	20	22.9	104	100	68-126	4				
m&p-Xylene	ug/L	ND	40	40	43.9	40	41.6	98	93	70-124	5				
Methylene Chloride	ug/L	ND	20	20	17.1	20	16.2	85	81	59-128	5				
o-Xylene	ug/L	ND	20	20	18.1	20	17.1	91	85	67-123	6				
Styrene	ug/L	ND	20	20	19.2	20	18.5	96	93	67-146	3				
Tetrachloroethene	ug/L	ND	20	20	18.5	20	17.4	93	87	62-125	6				
Toluene	ug/L	ND	20	20	18.9	20	17.9	95	89	72-115	6				
trans-1,2-Dichloroethene	ug/L	ND	20	20	17.8	20	17.0	89	85	59-122	4				
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.3	20	15.5	81	77	64-120	5				

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 640553 640554											
Parameter	Units	30103763003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Trichloroethene	ug/L	ND	20	20	17.3	16.8	86	83	62-125	3	
Trichlorofluoromethane	ug/L	ND	20	20	16.8	16.8	84	84	54-158	0	
Vinyl chloride	ug/L	1.4	20	20	21.2	21.2	99	99	52-145	0	
1,2-Dichloroethane-d4 (S)	%						77	82	77-119		
4-Bromofluorobenzene (S)	%						95	95	85-115		
Toluene-d8 (S)	%						98	100	85-115		

SAMPLE DUPLICATE: 640552

Parameter	Units	30103748001 Result	Dup Result	RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	ND		
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		
1,1,2-Trichloroethane	ug/L	ND	ND		
1,1-Dichloroethane	ug/L	ND	ND		
1,1-Dichloroethene	ug/L	ND	ND		
1,2-Dichlorobenzene	ug/L	ND	ND		
1,2-Dichloroethane	ug/L	ND	ND		
1,2-Dichloropropane	ug/L	ND	ND		
1,3-Dichlorobenzene	ug/L	ND	ND		
1,4-Dichlorobenzene	ug/L	ND	ND		
2-Butanone (MEK)	ug/L	256	243	5	
2-Hexanone	ug/L	ND	7J		
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		
Acetone	ug/L	888	903	2	
Benzene	ug/L	ND	ND		
Bromodichloromethane	ug/L	ND	ND		
Bromoform	ug/L	ND	ND		
Bromomethane	ug/L	ND	ND		
Carbon disulfide	ug/L	ND	ND		
Carbon tetrachloride	ug/L	ND	ND		
Chlorobenzene	ug/L	ND	ND		
Chloroethane	ug/L	ND	ND		
Chloroform	ug/L	ND	ND		
Chloromethane	ug/L	ND	ND		
cis-1,2-Dichloroethene	ug/L	ND	ND		
cis-1,3-Dichloropropene	ug/L	ND	ND		
Dibromochloromethane	ug/L	ND	ND		
Ethylbenzene	ug/L	ND	ND		
Isopropylbenzene (Cumene)	ug/L	ND	ND		
m&p-Xylene	ug/L	ND	ND		
Methylene Chloride	ug/L	12.6	5.5J		
o-Xylene	ug/L	ND	ND		
Styrene	ug/L	ND	ND		
Tetrachloroethene	ug/L	ND	ND		
Toluene	ug/L	1330	1120	17	
trans-1,2-Dichloroethene	ug/L	ND	ND		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

SAMPLE DUPLICATE: 640552

Parameter	Units	30103748001 Result	Dup Result	RPD	Qualifiers
trans-1,3-Dichloropropene	ug/L	ND	ND		
Trichloroethene	ug/L	ND	ND		
Trichlorofluoromethane	ug/L	ND	ND		
Vinyl chloride	ug/L	ND	ND		
1,2-Dichloroethane-d4 (S)	%	81	85	5	
4-Bromofluorobenzene (S)	%	95	92	3	
Toluene-d8 (S)	%	101	99	2	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALIFIERS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 640552

[1] 8260 W: The sample was analyzed at a dilution due to foaming of the sample in the purge vessel.

ANALYTE QUALIFIERS

S2 Surrogate recovery outside laboratory control limits due to matrix interferences (confirmed by similar results from sample re-analysis).

S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30103763

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30103763001	MW-22D	EPA 8260	MSV/17531		
30103763002	MW-21D	EPA 8260	MSV/17531		
30103763003	MW-23S	EPA 8260	MSV/17531		
30103763004	MW-24S	EPA 8260	MSV/17531		
30103763005	MW-29S	EPA 8260	MSV/17531		
30103763006	MW-27S	EPA 8260	MSV/17531		
30103763007	MW-28S	EPA 8260	MSV/17531		
30103763008	MW-26S	EPA 8260	MSV/17531		
30103763009	PZ-7D	EPA 8260	MSV/17531		
30103763010	DUP-01	EPA 8260	MSV/17531		
30103763011	TB-01	EPA 8260	MSV/17531		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	URS CORP	Report To:	MARK DOWIAK	Attention:	
Address:	FOSTER PLAZA 6, STE. 400 601 ANDERSON DR. PITTSBURGH, PA 15220	Copy To:	VALERIE SIBETO	Company Name:	
Email To:		Purchase Order No.:	41569501	Address:	
Phone:	412-503-4700	Project Name:	ESSEX/HOPE JAMESTOWN	Pace Quote Reference:	
Requested Due Date/TAT:	STANDARD	Project Number:	41589501.40000	Pace Project Manager:	
				Pace Profile #:	

Page: 1 of 1
1515759

REGULATORY AGENCY	
NPDES	☐ GROUND WATER ☐ DRINKING WATER
UST	☐ RCRA ☐ OTHER
Site Location	NY
STATE:	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	SAMPLE ID (A-Z, 0-9 / -)	Sample IDs MUST BE UNIQUE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test ↑	Y/N ↑	Requested Analysis Filtered (Y/N)											
					COMPOSITE START	COMPOSITE END/GRAB																	
1	MW-22D	DW			DATE	TIME	DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other							
2	MW-21D	WT			9.25.13	0910	9.25.13	0910	X	X	X	X	X	X	X	X	X						
3	MW-23S	WW				1000		1000	X	X	X	X	X	X	X	X	X						
4	MW-24S	P				1030		1030	X	X	X	X	X	X	X	X	X						
5	MW-29S	SL				1055		1055	X	X	X	X	X	X	X	X	X						
6	MW-27S	Product				1230		1230	X	X	X	X	X	X	X	X	X						
7	MW-28S	Soil/Solid				1320		1320	X	X	X	X	X	X	X	X	X						
8	MW-26S	Oil				1400		1400	X	X	X	X	X	X	X	X	X						
9	PZ-7D	Wipe				1440		1440	X	X	X	X	X	X	X	X	X						
10	DUP-01	Air																					
11	TB-01	Tissue																					
12		Other																					

30103763
Pace Project No./ Lab I.D.

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
2013 ANNUAL PMP		Valerie Sibeto / URS	9.25.13	1545	Valerie Sibeto / URS	9.25.13	~1545	Received on	Temp in °C
SAMPLING		Allyssa R. Wachter	9/25/13	0945.9	Allyssa R. Wachter	9/25/13	0945.9	Ice (Y/N)	
								Sealed Cooler	(Y/N)
								Custody	(Y/N)
								Samples Intact	(Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: VALERIE SIBETO / BRAD CARROLL
SIGNATURE of SAMPLER: Valerie Sibeto
DATE Signed (MM/DD/YY): 9.25.13

Sample Condition Upon Receipt

Pace Analytical

Client Name: URS corp

Project # 3003763

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 8739 8101 9622

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other protec bags

Thermometer Used 5 6 7

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 5.9

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: AKM 9/20/13

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>AKM</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☒ Yes ☐ No ☐ N/A	15. <u>sample 009, 010, 1 vial, 011, both TBS.</u>
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 9/27/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

30103753

IRS corp.

[illegible]

October 09, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Sample: MW-25S		Lab ID: 30103686001	Collected: 09/24/13 09:10	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/07/13 13:27	67-64-1	
Benzene	ND	ug/L	1.0	1		10/07/13 13:27	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 13:27	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/07/13 13:27	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/07/13 13:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 13:27	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 13:27	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 13:27	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 13:27	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/07/13 13:27	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/07/13 13:27	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/07/13 13:27	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 13:27	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 13:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 13:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 13:27	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 13:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 13:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 13:27	75-35-4	
cis-1,2-Dichloroethene	33.2	ug/L	5.0	1		10/07/13 13:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 13:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 13:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 13:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 13:27	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 13:27	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/07/13 13:27	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/07/13 13:27	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 13:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 13:27	108-10-1	
Styrene	ND	ug/L	5.0	1		10/07/13 13:27	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 13:27	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 13:27	127-18-4	
Toluene	ND	ug/L	5.0	1		10/07/13 13:27	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 13:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 13:27	79-00-5	
Trichloroethene	191	ug/L	5.0	1		10/07/13 13:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 13:27	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		10/07/13 13:27	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 13:27	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/07/13 13:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	85-115	1		10/07/13 13:27	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	77-119	1		10/07/13 13:27	17060-07-0	
Toluene-d8 (S)	100	%	85-115	1		10/07/13 13:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

Sample: MW-25D		Lab ID: 30103686002		Collected: 09/24/13 09:35		Received: 09/25/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			10/07/13 13:02	67-64-1		
Benzene	ND ug/L	1.0	1			10/07/13 13:02	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			10/07/13 13:02	75-27-4		
Bromoform	ND ug/L	5.0	1			10/07/13 13:02	75-25-2		
Bromomethane	ND ug/L	5.0	1			10/07/13 13:02	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			10/07/13 13:02	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			10/07/13 13:02	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			10/07/13 13:02	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			10/07/13 13:02	108-90-7		
Chloroethane	ND ug/L	5.0	1			10/07/13 13:02	75-00-3		
Chloroform	ND ug/L	5.0	1			10/07/13 13:02	67-66-3		
Chloromethane	ND ug/L	5.0	1			10/07/13 13:02	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			10/07/13 13:02	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 13:02	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 13:02	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 13:02	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			10/07/13 13:02	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			10/07/13 13:02	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			10/07/13 13:02	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			10/07/13 13:02	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			10/07/13 13:02	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			10/07/13 13:02	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			10/07/13 13:02	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			10/07/13 13:02	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			10/07/13 13:02	100-41-4		
2-Hexanone	ND ug/L	10.0	1			10/07/13 13:02	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			10/07/13 13:02	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			10/07/13 13:02	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			10/07/13 13:02	108-10-1		
Styrene	ND ug/L	5.0	1			10/07/13 13:02	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			10/07/13 13:02	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			10/07/13 13:02	127-18-4		
Toluene	ND ug/L	5.0	1			10/07/13 13:02	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			10/07/13 13:02	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			10/07/13 13:02	79-00-5		
Trichloroethene	ND ug/L	5.0	1			10/07/13 13:02	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			10/07/13 13:02	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			10/07/13 13:02	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			10/07/13 13:02	179601-23-1		
o-Xylene	ND ug/L	5.0	1			10/07/13 13:02	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	101 %	85-115	1			10/07/13 13:02	460-00-4		
1,2-Dichloroethane-d4 (S)	110 %	77-119	1			10/07/13 13:02	17060-07-0		
Toluene-d8 (S)	97 %	85-115	1			10/07/13 13:02	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Sample: MW-16D		Lab ID: 30103686003	Collected: 09/24/13 10:05	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		10/07/13 12:36	67-64-1	
Benzene	ND ug/L		1.0	1		10/07/13 12:36	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		10/07/13 12:36	75-27-4	
Bromoform	ND ug/L		5.0	1		10/07/13 12:36	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/07/13 12:36	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/07/13 12:36	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		10/07/13 12:36	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		10/07/13 12:36	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		10/07/13 12:36	108-90-7	
Chloroethane	ND ug/L		5.0	1		10/07/13 12:36	75-00-3	
Chloroform	ND ug/L		5.0	1		10/07/13 12:36	67-66-3	
Chloromethane	ND ug/L		5.0	1		10/07/13 12:36	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		10/07/13 12:36	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 12:36	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 12:36	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 12:36	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		10/07/13 12:36	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		10/07/13 12:36	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		10/07/13 12:36	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		10/07/13 12:36	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		10/07/13 12:36	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		10/07/13 12:36	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		10/07/13 12:36	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		10/07/13 12:36	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		10/07/13 12:36	100-41-4	
2-Hexanone	ND ug/L		10.0	1		10/07/13 12:36	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/07/13 12:36	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		10/07/13 12:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/07/13 12:36	108-10-1	
Styrene	ND ug/L		5.0	1		10/07/13 12:36	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		10/07/13 12:36	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		10/07/13 12:36	127-18-4	
Toluene	ND ug/L		5.0	1		10/07/13 12:36	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		10/07/13 12:36	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		10/07/13 12:36	79-00-5	
Trichloroethene	ND ug/L		5.0	1		10/07/13 12:36	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		10/07/13 12:36	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		10/07/13 12:36	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		10/07/13 12:36	179601-23-1	
o-Xylene	ND ug/L		5.0	1		10/07/13 12:36	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99 %		85-115	1		10/07/13 12:36	460-00-4	
1,2-Dichloroethane-d4 (S)	110 %		77-119	1		10/07/13 12:36	17060-07-0	
Toluene-d8 (S)	98 %		85-115	1		10/07/13 12:36	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Sample: MW-14S		Lab ID: 30103686004		Collected: 09/24/13 10:25		Received: 09/25/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/07/13 13:52	67-64-1		
Benzene	ND	ug/L	1.0	1		10/07/13 13:52	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 13:52	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/07/13 13:52	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/07/13 13:52	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 13:52	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 13:52	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 13:52	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 13:52	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/07/13 13:52	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/07/13 13:52	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/07/13 13:52	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 13:52	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 13:52	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 13:52	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 13:52	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 13:52	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 13:52	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 13:52	75-35-4		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 13:52	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 13:52	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 13:52	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 13:52	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 13:52	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 13:52	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/07/13 13:52	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/07/13 13:52	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 13:52	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 13:52	108-10-1		
Styrene	ND	ug/L	5.0	1		10/07/13 13:52	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 13:52	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 13:52	127-18-4		
Toluene	ND	ug/L	5.0	1		10/07/13 13:52	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 13:52	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 13:52	79-00-5		
Trichloroethene	17.7	ug/L	5.0	1		10/07/13 13:52	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 13:52	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		10/07/13 13:52	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 13:52	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/07/13 13:52	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	99	%	85-115	1		10/07/13 13:52	460-00-4		
1,2-Dichloroethane-d4 (S)	110	%	77-119	1		10/07/13 13:52	17060-07-0		
Toluene-d8 (S)	96	%	85-115	1		10/07/13 13:52	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Sample: MW-14D		Lab ID: 30103686005		Collected: 09/24/13 10:55		Received: 09/25/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			10/07/13 14:18	67-64-1		
Benzene	ND ug/L	1.0	1			10/07/13 14:18	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			10/07/13 14:18	75-27-4		
Bromoform	ND ug/L	5.0	1			10/07/13 14:18	75-25-2		
Bromomethane	ND ug/L	5.0	1			10/07/13 14:18	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			10/07/13 14:18	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			10/07/13 14:18	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			10/07/13 14:18	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			10/07/13 14:18	108-90-7		
Chloroethane	ND ug/L	5.0	1			10/07/13 14:18	75-00-3		
Chloroform	ND ug/L	5.0	1			10/07/13 14:18	67-66-3		
Chloromethane	ND ug/L	5.0	1			10/07/13 14:18	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			10/07/13 14:18	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 14:18	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 14:18	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 14:18	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			10/07/13 14:18	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			10/07/13 14:18	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			10/07/13 14:18	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			10/07/13 14:18	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			10/07/13 14:18	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			10/07/13 14:18	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			10/07/13 14:18	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			10/07/13 14:18	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			10/07/13 14:18	100-41-4		
2-Hexanone	ND ug/L	10.0	1			10/07/13 14:18	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			10/07/13 14:18	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			10/07/13 14:18	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			10/07/13 14:18	108-10-1		
Styrene	ND ug/L	5.0	1			10/07/13 14:18	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			10/07/13 14:18	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			10/07/13 14:18	127-18-4		
Toluene	ND ug/L	5.0	1			10/07/13 14:18	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			10/07/13 14:18	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			10/07/13 14:18	79-00-5		
Trichloroethene	ND ug/L	5.0	1			10/07/13 14:18	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			10/07/13 14:18	75-69-4		
Vinyl chloride	8.5 ug/L	1.0	1			10/07/13 14:18	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			10/07/13 14:18	179601-23-1		
o-Xylene	ND ug/L	5.0	1			10/07/13 14:18	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	96 %	85-115	1			10/07/13 14:18	460-00-4		
1,2-Dichloroethane-d4 (S)	114 %	77-119	1			10/07/13 14:18	17060-07-0		
Toluene-d8 (S)	97 %	85-115	1			10/07/13 14:18	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

Sample: MW-15S		Lab ID: 30103686006		Collected: 09/24/13 11:15		Received: 09/25/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			10/07/13 14:43	67-64-1		
Benzene	ND ug/L	1.0	1			10/07/13 14:43	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			10/07/13 14:43	75-27-4		
Bromoform	ND ug/L	5.0	1			10/07/13 14:43	75-25-2		
Bromomethane	ND ug/L	5.0	1			10/07/13 14:43	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			10/07/13 14:43	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			10/07/13 14:43	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			10/07/13 14:43	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			10/07/13 14:43	108-90-7		
Chloroethane	ND ug/L	5.0	1			10/07/13 14:43	75-00-3		
Chloroform	ND ug/L	5.0	1			10/07/13 14:43	67-66-3		
Chloromethane	ND ug/L	5.0	1			10/07/13 14:43	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			10/07/13 14:43	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 14:43	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 14:43	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 14:43	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			10/07/13 14:43	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			10/07/13 14:43	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			10/07/13 14:43	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			10/07/13 14:43	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			10/07/13 14:43	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			10/07/13 14:43	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			10/07/13 14:43	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			10/07/13 14:43	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			10/07/13 14:43	100-41-4		
2-Hexanone	ND ug/L	10.0	1			10/07/13 14:43	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			10/07/13 14:43	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			10/07/13 14:43	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			10/07/13 14:43	108-10-1		
Styrene	ND ug/L	5.0	1			10/07/13 14:43	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			10/07/13 14:43	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			10/07/13 14:43	127-18-4		
Toluene	ND ug/L	5.0	1			10/07/13 14:43	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			10/07/13 14:43	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			10/07/13 14:43	79-00-5		
Trichloroethene	ND ug/L	5.0	1			10/07/13 14:43	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			10/07/13 14:43	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			10/07/13 14:43	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			10/07/13 14:43	179601-23-1		
o-Xylene	ND ug/L	5.0	1			10/07/13 14:43	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	97 %	85-115	1			10/07/13 14:43	460-00-4		
1,2-Dichloroethane-d4 (S)	112 %	77-119	1			10/07/13 14:43	17060-07-0		
Toluene-d8 (S)	98 %	85-115	1			10/07/13 14:43	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

Sample: MW-15D		Lab ID: 30103686007	Collected: 09/24/13 11:40	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/07/13 18:31	67-64-1	
Benzene	3.3	ug/L	1.0	1		10/07/13 18:31	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 18:31	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/07/13 18:31	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/07/13 18:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 18:31	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 18:31	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 18:31	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 18:31	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/07/13 18:31	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/07/13 18:31	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/07/13 18:31	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 18:31	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 18:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 18:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 18:31	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 18:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 18:31	107-06-2	
1,1-Dichloroethene	196	ug/L	5.0	1		10/07/13 18:31	75-35-4	
cis-1,2-Dichloroethene	32600	ug/L	1000	200		10/07/13 19:22	156-59-2	
trans-1,2-Dichloroethene	195	ug/L	5.0	1		10/07/13 18:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 18:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 18:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 18:31	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 18:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/07/13 18:31	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/07/13 18:31	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 18:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 18:31	108-10-1	
Styrene	ND	ug/L	5.0	1		10/07/13 18:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 18:31	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 18:31	127-18-4	
Toluene	ND	ug/L	5.0	1		10/07/13 18:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 18:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 18:31	79-00-5	
Trichloroethene	24500	ug/L	1000	200		10/07/13 19:22	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 18:31	75-69-4	
Vinyl chloride	869	ug/L	10.0	10		10/07/13 18:57	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 18:31	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/07/13 18:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	85-115	1		10/07/13 18:31	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	77-119	1		10/07/13 18:31	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		10/07/13 18:31	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Sample: VP-6D		Lab ID: 30103686008		Collected: 09/24/13 12:05		Received: 09/25/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			10/07/13 15:59	67-64-1		
Benzene	ND ug/L	1.0	1			10/07/13 15:59	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			10/07/13 15:59	75-27-4		
Bromoform	ND ug/L	5.0	1			10/07/13 15:59	75-25-2		
Bromomethane	ND ug/L	5.0	1			10/07/13 15:59	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			10/07/13 15:59	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			10/07/13 15:59	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			10/07/13 15:59	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			10/07/13 15:59	108-90-7		
Chloroethane	ND ug/L	5.0	1			10/07/13 15:59	75-00-3		
Chloroform	ND ug/L	5.0	1			10/07/13 15:59	67-66-3		
Chloromethane	ND ug/L	5.0	1			10/07/13 15:59	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			10/07/13 15:59	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 15:59	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 15:59	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			10/07/13 15:59	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			10/07/13 15:59	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			10/07/13 15:59	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			10/07/13 15:59	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			10/07/13 15:59	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			10/07/13 15:59	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			10/07/13 15:59	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			10/07/13 15:59	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			10/07/13 15:59	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			10/07/13 15:59	100-41-4		
2-Hexanone	ND ug/L	10.0	1			10/07/13 15:59	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			10/07/13 15:59	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			10/07/13 15:59	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			10/07/13 15:59	108-10-1		
Styrene	ND ug/L	5.0	1			10/07/13 15:59	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			10/07/13 15:59	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			10/07/13 15:59	127-18-4		
Toluene	ND ug/L	5.0	1			10/07/13 15:59	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			10/07/13 15:59	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			10/07/13 15:59	79-00-5		
Trichloroethene	ND ug/L	5.0	1			10/07/13 15:59	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			10/07/13 15:59	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			10/07/13 15:59	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			10/07/13 15:59	179601-23-1		
o-Xylene	ND ug/L	5.0	1			10/07/13 15:59	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	96 %	85-115	1			10/07/13 15:59	460-00-4		
1,2-Dichloroethane-d4 (S)	108 %	77-119	1			10/07/13 15:59	17060-07-0		
Toluene-d8 (S)	96 %	85-115	1			10/07/13 15:59	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Sample: MW-2		Lab ID: 30103686009	Collected: 09/24/13 12:30	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/07/13 16:25	67-64-1	
Benzene	ND	ug/L	1.0	1		10/07/13 16:25	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 16:25	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/07/13 16:25	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/07/13 16:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 16:25	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 16:25	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 16:25	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 16:25	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/07/13 16:25	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/07/13 16:25	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/07/13 16:25	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 16:25	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 16:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 16:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 16:25	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 16:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 16:25	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 16:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 16:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 16:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 16:25	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 16:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 16:25	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 16:25	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/07/13 16:25	591-78-6	
Isopropylbenzene (Cumene)	6.1	ug/L	1.0	1		10/07/13 16:25	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 16:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 16:25	108-10-1	
Styrene	ND	ug/L	5.0	1		10/07/13 16:25	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 16:25	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 16:25	127-18-4	
Toluene	ND	ug/L	5.0	1		10/07/13 16:25	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 16:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 16:25	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/07/13 16:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 16:25	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		10/07/13 16:25	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 16:25	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/07/13 16:25	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	85-115	1		10/07/13 16:25	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	77-119	1		10/07/13 16:25	17060-07-0	
Toluene-d8 (S)	95	%	85-115	1		10/07/13 16:25	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

Sample: MW-6		Lab ID: 30103686010	Collected: 09/24/13 12:55	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		10/07/13 16:50	67-64-1	
Benzene	ND ug/L		1.0	1		10/07/13 16:50	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		10/07/13 16:50	75-27-4	
Bromoform	ND ug/L		5.0	1		10/07/13 16:50	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/07/13 16:50	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/07/13 16:50	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		10/07/13 16:50	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		10/07/13 16:50	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		10/07/13 16:50	108-90-7	
Chloroethane	ND ug/L		5.0	1		10/07/13 16:50	75-00-3	
Chloroform	ND ug/L		5.0	1		10/07/13 16:50	67-66-3	
Chloromethane	ND ug/L		5.0	1		10/07/13 16:50	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		10/07/13 16:50	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 16:50	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 16:50	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 16:50	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		10/07/13 16:50	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		10/07/13 16:50	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		10/07/13 16:50	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		10/07/13 16:50	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		10/07/13 16:50	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		10/07/13 16:50	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		10/07/13 16:50	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		10/07/13 16:50	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		10/07/13 16:50	100-41-4	
2-Hexanone	ND ug/L		10.0	1		10/07/13 16:50	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/07/13 16:50	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		10/07/13 16:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/07/13 16:50	108-10-1	
Styrene	ND ug/L		5.0	1		10/07/13 16:50	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		10/07/13 16:50	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		10/07/13 16:50	127-18-4	
Toluene	ND ug/L		5.0	1		10/07/13 16:50	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		10/07/13 16:50	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		10/07/13 16:50	79-00-5	
Trichloroethene	ND ug/L		5.0	1		10/07/13 16:50	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		10/07/13 16:50	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		10/07/13 16:50	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		10/07/13 16:50	179601-23-1	
o-Xylene	ND ug/L		5.0	1		10/07/13 16:50	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97 %		85-115	1		10/07/13 16:50	460-00-4	
1,2-Dichloroethane-d4 (S)	108 %		77-119	1		10/07/13 16:50	17060-07-0	
Toluene-d8 (S)	99 %		85-115	1		10/07/13 16:50	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

Sample: MW-8		Lab ID: 30103686011	Collected: 09/24/13 13:10	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/07/13 17:15	67-64-1	
Benzene	ND	ug/L	1.0	1		10/07/13 17:15	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 17:15	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/07/13 17:15	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/07/13 17:15	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 17:15	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 17:15	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 17:15	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 17:15	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/07/13 17:15	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/07/13 17:15	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/07/13 17:15	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 17:15	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 17:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 17:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 17:15	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 17:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 17:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 17:15	75-35-4	
cis-1,2-Dichloroethene	76.5	ug/L	5.0	1		10/07/13 17:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 17:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 17:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 17:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 17:15	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 17:15	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/07/13 17:15	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/07/13 17:15	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 17:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 17:15	108-10-1	
Styrene	ND	ug/L	5.0	1		10/07/13 17:15	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 17:15	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 17:15	127-18-4	
Toluene	ND	ug/L	5.0	1		10/07/13 17:15	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 17:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 17:15	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/07/13 17:15	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 17:15	75-69-4	
Vinyl chloride	7.4	ug/L	1.0	1		10/07/13 17:15	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 17:15	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/07/13 17:15	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	85-115	1		10/07/13 17:15	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	77-119	1		10/07/13 17:15	17060-07-0	
Toluene-d8 (S)	98	%	85-115	1		10/07/13 17:15	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Sample: MW-7S		Lab ID: 30103686012	Collected: 09/24/13 13:25	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		10/07/13 17:41	67-64-1	
Benzene	ND ug/L		1.0	1		10/07/13 17:41	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		10/07/13 17:41	75-27-4	
Bromoform	ND ug/L		5.0	1		10/07/13 17:41	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/07/13 17:41	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/07/13 17:41	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		10/07/13 17:41	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		10/07/13 17:41	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		10/07/13 17:41	108-90-7	
Chloroethane	ND ug/L		5.0	1		10/07/13 17:41	75-00-3	
Chloroform	ND ug/L		5.0	1		10/07/13 17:41	67-66-3	
Chloromethane	ND ug/L		5.0	1		10/07/13 17:41	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		10/07/13 17:41	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 17:41	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 17:41	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		10/07/13 17:41	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		10/07/13 17:41	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		10/07/13 17:41	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		10/07/13 17:41	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		10/07/13 17:41	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		10/07/13 17:41	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		10/07/13 17:41	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		10/07/13 17:41	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		10/07/13 17:41	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		10/07/13 17:41	100-41-4	
2-Hexanone	ND ug/L		10.0	1		10/07/13 17:41	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/07/13 17:41	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		10/07/13 17:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/07/13 17:41	108-10-1	
Styrene	ND ug/L		5.0	1		10/07/13 17:41	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		10/07/13 17:41	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		10/07/13 17:41	127-18-4	
Toluene	ND ug/L		5.0	1		10/07/13 17:41	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		10/07/13 17:41	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		10/07/13 17:41	79-00-5	
Trichloroethene	ND ug/L		5.0	1		10/07/13 17:41	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		10/07/13 17:41	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		10/07/13 17:41	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		10/07/13 17:41	179601-23-1	
o-Xylene	ND ug/L		5.0	1		10/07/13 17:41	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97 %		85-115	1		10/07/13 17:41	460-00-4	
1,2-Dichloroethane-d4 (S)	109 %		77-119	1		10/07/13 17:41	17060-07-0	
Toluene-d8 (S)	97 %		85-115	1		10/07/13 17:41	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Sample: MW-7D		Lab ID: 30103686013	Collected: 09/24/13 13:50	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/07/13 19:47	67-64-1	
Benzene	10.8	ug/L	1.0	1		10/07/13 19:47	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 19:47	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/07/13 19:47	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/07/13 19:47	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 19:47	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 19:47	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 19:47	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 19:47	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/07/13 19:47	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/07/13 19:47	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/07/13 19:47	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 19:47	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 19:47	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 19:47	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 19:47	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 19:47	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 19:47	107-06-2	
1,1-Dichloroethene	23.1	ug/L	5.0	1		10/07/13 19:47	75-35-4	
cis-1,2-Dichloroethene	6700	ug/L	250	50		10/07/13 20:13	156-59-2	
trans-1,2-Dichloroethene	43.1	ug/L	5.0	1		10/07/13 19:47	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 19:47	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 19:47	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 19:47	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 19:47	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/07/13 19:47	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/07/13 19:47	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 19:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 19:47	108-10-1	
Styrene	ND	ug/L	5.0	1		10/07/13 19:47	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 19:47	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 19:47	127-18-4	
Toluene	ND	ug/L	5.0	1		10/07/13 19:47	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 19:47	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 19:47	79-00-5	
Trichloroethene	654	ug/L	250	50		10/07/13 20:13	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 19:47	75-69-4	
Vinyl chloride	760	ug/L	50.0	50		10/07/13 20:13	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 19:47	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/07/13 19:47	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	85-115	1		10/07/13 19:47	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	77-119	1		10/07/13 19:47	17060-07-0	
Toluene-d8 (S)	101	%	85-115	1		10/07/13 19:47	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Sample: MW-2D		Lab ID: 30103686014	Collected: 09/24/13 14:20	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/08/13 14:17	67-64-1	
Benzene	ND	ug/L	1.0	1		10/08/13 14:17	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/08/13 14:17	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/08/13 14:17	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/08/13 14:17	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/08/13 14:17	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/08/13 14:17	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/08/13 14:17	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/08/13 14:17	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/08/13 14:17	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/08/13 14:17	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/08/13 14:17	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/08/13 14:17	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 14:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 14:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/08/13 14:17	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/08/13 14:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/08/13 14:17	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/08/13 14:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/08/13 14:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/08/13 14:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/08/13 14:17	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 14:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/08/13 14:17	10061-02-6	
Ethylbenzene	21.0	ug/L	5.0	1		10/08/13 14:17	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/08/13 14:17	591-78-6	
Isopropylbenzene (Cumene)	4.9	ug/L	1.0	1		10/08/13 14:17	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/08/13 14:17	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/08/13 14:17	108-10-1	
Styrene	ND	ug/L	5.0	1		10/08/13 14:17	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/08/13 14:17	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/08/13 14:17	127-18-4	
Toluene	ND	ug/L	5.0	1		10/08/13 14:17	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/08/13 14:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/08/13 14:17	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/08/13 14:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/08/13 14:17	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		10/08/13 14:17	75-01-4	
m&p-Xylene	109	ug/L	5.0	1		10/08/13 14:17	179601-23-1	
o-Xylene	6.6	ug/L	5.0	1		10/08/13 14:17	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		10/08/13 14:17	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	77-119	1		10/08/13 14:17	17060-07-0	
Toluene-d8 (S)	98	%	85-115	1		10/08/13 14:17	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

Sample: MW-19D **Lab ID: 30103686015** Collected: 09/24/13 14:55 Received: 09/25/13 09:40 Matrix: Water

Comments: • 8260 VOA: The pH of the VOA vial used for analysis is 6.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/07/13 18:06	67-64-1	
Benzene	ND	ug/L	1.0	1		10/07/13 18:06	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/07/13 18:06	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/07/13 18:06	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/07/13 18:06	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/07/13 18:06	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/07/13 18:06	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/07/13 18:06	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/07/13 18:06	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/07/13 18:06	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/07/13 18:06	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/07/13 18:06	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/07/13 18:06	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 18:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 18:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/07/13 18:06	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/07/13 18:06	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/07/13 18:06	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/07/13 18:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 18:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/07/13 18:06	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/07/13 18:06	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 18:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/07/13 18:06	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/07/13 18:06	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/07/13 18:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/07/13 18:06	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/07/13 18:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/07/13 18:06	108-10-1	
Styrene	ND	ug/L	5.0	1		10/07/13 18:06	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/07/13 18:06	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/07/13 18:06	127-18-4	
Toluene	ND	ug/L	5.0	1		10/07/13 18:06	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/07/13 18:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/07/13 18:06	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/07/13 18:06	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/07/13 18:06	75-69-4	
Vinyl chloride	20.6	ug/L	1.0	1		10/07/13 18:06	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/07/13 18:06	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/07/13 18:06	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	85-115	1		10/07/13 18:06	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	77-119	1		10/07/13 18:06	17060-07-0	
Toluene-d8 (S)	100	%	85-115	1		10/07/13 18:06	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

Sample: TB-01		Lab ID: 30103686016	Collected: 09/24/13 00:01	Received: 09/25/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		10/08/13 13:03	67-64-1	
Benzene	ND ug/L		1.0	1		10/08/13 13:03	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		10/08/13 13:03	75-27-4	
Bromoform	ND ug/L		5.0	1		10/08/13 13:03	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/08/13 13:03	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/08/13 13:03	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		10/08/13 13:03	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		10/08/13 13:03	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		10/08/13 13:03	108-90-7	
Chloroethane	ND ug/L		5.0	1		10/08/13 13:03	75-00-3	
Chloroform	ND ug/L		5.0	1		10/08/13 13:03	67-66-3	
Chloromethane	ND ug/L		5.0	1		10/08/13 13:03	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		10/08/13 13:03	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		10/08/13 13:03	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		10/08/13 13:03	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		10/08/13 13:03	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		10/08/13 13:03	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		10/08/13 13:03	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		10/08/13 13:03	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		10/08/13 13:03	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		10/08/13 13:03	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		10/08/13 13:03	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		10/08/13 13:03	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		10/08/13 13:03	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		10/08/13 13:03	100-41-4	
2-Hexanone	ND ug/L		10.0	1		10/08/13 13:03	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/08/13 13:03	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		10/08/13 13:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/08/13 13:03	108-10-1	
Styrene	ND ug/L		5.0	1		10/08/13 13:03	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		10/08/13 13:03	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		10/08/13 13:03	127-18-4	
Toluene	ND ug/L		5.0	1		10/08/13 13:03	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		10/08/13 13:03	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		10/08/13 13:03	79-00-5	
Trichloroethene	ND ug/L		5.0	1		10/08/13 13:03	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		10/08/13 13:03	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		10/08/13 13:03	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		10/08/13 13:03	179601-23-1	
o-Xylene	ND ug/L		5.0	1		10/08/13 13:03	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	109 %		85-115	1		10/08/13 13:03	460-00-4	
1,2-Dichloroethane-d4 (S)	102 %		77-119	1		10/08/13 13:03	17060-07-0	
Toluene-d8 (S)	106 %		85-115	1		10/08/13 13:03	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown
Pace Project No.: 30103686

QC Batch:	MSV/17537	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	30103686001, 30103686002, 30103686003, 30103686004, 30103686005, 30103686006, 30103686007, 30103686008, 30103686009, 30103686010, 30103686011, 30103686012, 30103686013, 30103686015		

METHOD BLANK:	640649	Matrix:	Water
Associated Lab Samples:	30103686001, 30103686002, 30103686003, 30103686004, 30103686005, 30103686006, 30103686007, 30103686008, 30103686009, 30103686010, 30103686011, 30103686012, 30103686013, 30103686015		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/07/13 12:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/07/13 12:11	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/07/13 12:11	
1,1-Dichloroethane	ug/L	ND	1.0	10/07/13 12:11	
1,1-Dichloroethene	ug/L	ND	1.0	10/07/13 12:11	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/07/13 12:11	
1,2-Dichloroethane	ug/L	ND	1.0	10/07/13 12:11	
1,2-Dichloropropane	ug/L	ND	1.0	10/07/13 12:11	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/07/13 12:11	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/07/13 12:11	
2-Butanone (MEK)	ug/L	ND	10.0	10/07/13 12:11	
2-Hexanone	ug/L	ND	10.0	10/07/13 12:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/07/13 12:11	
Acetone	ug/L	ND	10.0	10/07/13 12:11	
Benzene	ug/L	ND	1.0	10/07/13 12:11	
Bromodichloromethane	ug/L	ND	1.0	10/07/13 12:11	
Bromoform	ug/L	ND	1.0	10/07/13 12:11	
Bromomethane	ug/L	ND	1.0	10/07/13 12:11	
Carbon disulfide	ug/L	ND	1.0	10/07/13 12:11	
Carbon tetrachloride	ug/L	ND	1.0	10/07/13 12:11	
Chlorobenzene	ug/L	ND	1.0	10/07/13 12:11	
Chloroethane	ug/L	ND	1.0	10/07/13 12:11	
Chloroform	ug/L	ND	1.0	10/07/13 12:11	
Chloromethane	ug/L	ND	1.0	10/07/13 12:11	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/07/13 12:11	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/07/13 12:11	
Dibromochloromethane	ug/L	ND	1.0	10/07/13 12:11	
Ethylbenzene	ug/L	ND	1.0	10/07/13 12:11	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/07/13 12:11	
m&p-Xylene	ug/L	ND	2.0	10/07/13 12:11	
Methylene Chloride	ug/L	ND	1.0	10/07/13 12:11	
o-Xylene	ug/L	ND	1.0	10/07/13 12:11	
Styrene	ug/L	ND	1.0	10/07/13 12:11	
Tetrachloroethene	ug/L	ND	1.0	10/07/13 12:11	
Toluene	ug/L	ND	1.0	10/07/13 12:11	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/07/13 12:11	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/07/13 12:11	
Trichloroethene	ug/L	ND	1.0	10/07/13 12:11	
Trichlorofluoromethane	ug/L	ND	1.0	10/07/13 12:11	
Vinyl chloride	ug/L	ND	1.0	10/07/13 12:11	
1,2-Dichloroethane-d4 (S)	%	111	77-119	10/07/13 12:11	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

METHOD BLANK: 640649

Matrix: Water

Associated Lab Samples: 30103686001, 30103686002, 30103686003, 30103686004, 30103686005, 30103686006, 30103686007, 30103686008, 30103686009, 30103686010, 30103686011, 30103686012, 30103686013, 30103686015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4-Bromofluorobenzene (S)	%	97	85-115	10/07/13 12:11	
Toluene-d8 (S)	%	99	85-115	10/07/13 12:11	

LABORATORY CONTROL SAMPLE: 640650

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.8	99	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	19.1	96	61-117	
1,1,2-Trichloroethane	ug/L	20	20.0	100	72-119	
1,1-Dichloroethane	ug/L	20	19.6	98	63-123	
1,1-Dichloroethene	ug/L	20	19.1	95	57-127	
1,2-Dichlorobenzene	ug/L	20	19.2	96	70-116	
1,2-Dichloroethane	ug/L	20	19.5	97	62-125	
1,2-Dichloropropane	ug/L	20	19.4	97	69-115	
1,3-Dichlorobenzene	ug/L	20	19.2	96	71-118	
1,4-Dichlorobenzene	ug/L	20	19.7	98	67-119	
2-Butanone (MEK)	ug/L	20	19.2	96	48-136	
2-Hexanone	ug/L	20	17.9	90	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.4	97	57-124	
Acetone	ug/L	20	16.7	84	49-138	
Benzene	ug/L	20	19.2	96	66-122	
Bromodichloromethane	ug/L	20	18.6	93	63-118	
Bromoform	ug/L	20	18.5	93	46-130	
Bromomethane	ug/L	20	23.0	115	10-175	
Carbon disulfide	ug/L	20	24.3	122	59-142	
Carbon tetrachloride	ug/L	20	18.5	93	55-126	
Chlorobenzene	ug/L	20	19.5	97	70-121	
Chloroethane	ug/L	20	25.5	128	24-161	
Chloroform	ug/L	20	18.8	94	62-126	
Chloromethane	ug/L	20	23.8	119	37-147	
cis-1,2-Dichloroethene	ug/L	20	19.6	98	64-121	
cis-1,3-Dichloropropene	ug/L	20	19.5	98	64-118	
Dibromochloromethane	ug/L	20	18.1	90	60-120	
Ethylbenzene	ug/L	20	19.1	95	69-119	
Isopropylbenzene (Cumene)	ug/L	20	21.0	105	68-126	
m&p-Xylene	ug/L	40	39.3	98	70-124	
Methylene Chloride	ug/L	20	18.3	92	59-128	
o-Xylene	ug/L	20	18.8	94	67-123	
Styrene	ug/L	20	20.9	105	67-146	
Tetrachloroethene	ug/L	20	18.5	93	62-125	
Toluene	ug/L	20	19.2	96	72-115	
trans-1,2-Dichloroethene	ug/L	20	19.3	96	59-122	
trans-1,3-Dichloropropene	ug/L	20	18.3	92	64-120	
Trichloroethene	ug/L	20	19.4	97	62-125	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

LABORATORY CONTROL SAMPLE: 640650

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichlorofluoromethane	ug/L	20	20.9	105	54-158	
Vinyl chloride	ug/L	20	21.2	106	52-145	
1,2-Dichloroethane-d4 (S)	%			109	77-119	
4-Bromofluorobenzene (S)	%			100	85-115	
Toluene-d8 (S)	%			99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 640652 640653

Parameter	30103686003		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
	Units	Result									
1,1,1-Trichloroethane	ug/L	ND	20	20	20.3	17.6	101	88	62-125	14	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	17.4	16.4	87	82	61-117	6	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.3	17.2	96	86	72-119	11	
1,1-Dichloroethane	ug/L	ND	20	20	19.8	17.2	99	86	63-123	14	
1,1-Dichloroethene	ug/L	ND	20	20	20.1	17.8	101	89	57-127	12	
1,2-Dichlorobenzene	ug/L	ND	20	20	17.8	16.2	89	81	70-116	9	
1,2-Dichloroethane	ug/L	ND	20	20	19.0	16.9	95	85	62-125	12	
1,2-Dichloropropane	ug/L	ND	20	20	19.3	16.9	97	84	69-115	14	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.4	16.0	92	80	71-118	14	
1,4-Dichlorobenzene	ug/L	ND	20	20	17.7	16.4	89	82	67-119	8	
2-Butanone (MEK)	ug/L	ND	20	20	16.5	16.6	82	83	48-136	1	
2-Hexanone	ug/L	ND	20	20	16.5	14.8	82	74	52-130	11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	18.1	16.3	91	81	57-124	11	
Acetone	ug/L	ND	20	20	14.5	13.9	72	70	49-138	4	
Benzene	ug/L	ND	20	20	20.1	17.6	100	88	66-122	13	
Bromodichloromethane	ug/L	ND	20	20	18.3	15.8	91	79	63-118	14	
Bromoform	ug/L	ND	20	20	17.1	16.1	86	80	46-130	6	
Bromomethane	ug/L	ND	20	20	18.9	21.6	94	108	10-175	14	
Carbon disulfide	ug/L	ND	20	20	25.9	24.0	129	120	59-142	8	
Carbon tetrachloride	ug/L	ND	20	20	19.6	16.2	98	81	55-126	19	
Chlorobenzene	ug/L	ND	20	20	19.5	17.0	98	85	70-121	14	
Chloroethane	ug/L	ND	20	20	26.0	25.6	130	128	24-161	2	
Chloroform	ug/L	ND	20	20	18.3	16.4	92	82	62-126	11	
Chloromethane	ug/L	ND	20	20	25.8	26.0	129	130	37-147	1	
cis-1,2-Dichloroethene	ug/L	ND	20	20	20.3	17.7	102	88	64-121	14	
cis-1,3-Dichloropropene	ug/L	ND	20	20	18.9	16.4	95	82	64-118	15	
Dibromochloromethane	ug/L	ND	20	20	17.4	15.7	87	79	60-120	10	
Ethylbenzene	ug/L	ND	20	20	19.5	16.8	98	84	69-119	15	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	20.4	18.0	102	90	68-126	13	
m&p-Xylene	ug/L	ND	40	40	40.2	34.5	101	86	70-124	15	
Methylene Chloride	ug/L	ND	20	20	18.3	16.0	92	80	59-128	14	
o-Xylene	ug/L	ND	20	20	19.6	16.2	98	81	67-123	19	
Styrene	ug/L	ND	20	20	20.5	17.9	102	90	67-146	13	
Tetrachloroethene	ug/L	ND	20	20	18.8	17.1	94	86	62-125	9	
Toluene	ug/L	ND	20	20	19.8	17.0	97	83	72-115	15	
trans-1,2-Dichloroethene	ug/L	ND	20	20	19.6	17.0	98	85	59-122	14	
trans-1,3-Dichloropropene	ug/L	ND	20	20	17.4	15.1	87	76	64-120	14	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 640652 640653											
Parameter	Units	30103686003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Trichloroethene	ug/L	ND	20	20	20.5	17.3	102	86	62-125	17	
Trichlorofluoromethane	ug/L	ND	20	20	22.8	22.9	114	114	54-158	0	
Vinyl chloride	ug/L	ND	20	20	22.7	22.9	113	115	52-145	1	
1,2-Dichloroethane-d4 (S)	%						105	106	77-119		
4-Bromofluorobenzene (S)	%						95	97	85-115		
Toluene-d8 (S)	%						99	98	85-115		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

QC Batch: MSV/17546

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 30103686014, 30103686016

METHOD BLANK: 640963

Matrix: Water

Associated Lab Samples: 30103686014, 30103686016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/08/13 12:39	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/08/13 12:39	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/08/13 12:39	
1,1-Dichloroethane	ug/L	ND	1.0	10/08/13 12:39	
1,1-Dichloroethene	ug/L	ND	1.0	10/08/13 12:39	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/08/13 12:39	
1,2-Dichloroethane	ug/L	ND	1.0	10/08/13 12:39	
1,2-Dichloropropane	ug/L	ND	1.0	10/08/13 12:39	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/08/13 12:39	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/08/13 12:39	
2-Butanone (MEK)	ug/L	ND	10.0	10/08/13 12:39	
2-Hexanone	ug/L	ND	10.0	10/08/13 12:39	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/08/13 12:39	
Acetone	ug/L	ND	10.0	10/08/13 12:39	
Benzene	ug/L	ND	1.0	10/08/13 12:39	
Bromodichloromethane	ug/L	ND	1.0	10/08/13 12:39	
Bromoform	ug/L	ND	1.0	10/08/13 12:39	
Bromomethane	ug/L	ND	1.0	10/08/13 12:39	
Carbon disulfide	ug/L	ND	1.0	10/08/13 12:39	
Carbon tetrachloride	ug/L	ND	1.0	10/08/13 12:39	
Chlorobenzene	ug/L	ND	1.0	10/08/13 12:39	
Chloroethane	ug/L	ND	1.0	10/08/13 12:39	
Chloroform	ug/L	ND	1.0	10/08/13 12:39	
Chloromethane	ug/L	ND	1.0	10/08/13 12:39	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/08/13 12:39	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/08/13 12:39	
Dibromochloromethane	ug/L	ND	1.0	10/08/13 12:39	
Ethylbenzene	ug/L	ND	1.0	10/08/13 12:39	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/08/13 12:39	
m&p-Xylene	ug/L	ND	2.0	10/08/13 12:39	
Methylene Chloride	ug/L	ND	1.0	10/08/13 12:39	
o-Xylene	ug/L	ND	1.0	10/08/13 12:39	
Styrene	ug/L	ND	1.0	10/08/13 12:39	
Tetrachloroethene	ug/L	ND	1.0	10/08/13 12:39	
Toluene	ug/L	ND	1.0	10/08/13 12:39	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/08/13 12:39	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/08/13 12:39	
Trichloroethene	ug/L	ND	1.0	10/08/13 12:39	
Trichlorofluoromethane	ug/L	ND	1.0	10/08/13 12:39	
Vinyl chloride	ug/L	ND	1.0	10/08/13 12:39	
1,2-Dichloroethane-d4 (S)	%	104	77-119	10/08/13 12:39	
4-Bromofluorobenzene (S)	%	104	85-115	10/08/13 12:39	
Toluene-d8 (S)	%	105	85-115	10/08/13 12:39	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

LABORATORY CONTROL SAMPLE: 640964

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.3	102	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.6	88	61-117	
1,1,2-Trichloroethane	ug/L	20	20.3	102	72-119	
1,1-Dichloroethane	ug/L	20	19.1	96	63-123	
1,1-Dichloroethene	ug/L	20	20.3	102	57-127	
1,2-Dichlorobenzene	ug/L	20	19.6	98	70-116	
1,2-Dichloroethane	ug/L	20	20.2	101	62-125	
1,2-Dichloropropane	ug/L	20	17.4	87	69-115	
1,3-Dichlorobenzene	ug/L	20	19.1	96	71-118	
1,4-Dichlorobenzene	ug/L	20	20.5	102	67-119	
2-Butanone (MEK)	ug/L	20	17.0	85	48-136	
2-Hexanone	ug/L	20	23.8	119	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	17.6	88	57-124	
Acetone	ug/L	20	20.5	102	49-138	
Benzene	ug/L	20	19.1	95	66-122	
Bromodichloromethane	ug/L	20	17.2	86	63-118	
Bromoform	ug/L	20	16.7	83	46-130	
Bromomethane	ug/L	20	33.8	169	10-175	
Carbon disulfide	ug/L	20	23.6	118	59-142	
Carbon tetrachloride	ug/L	20	18.7	93	55-126	
Chlorobenzene	ug/L	20	20.1	101	70-121	
Chloroethane	ug/L	20	23.5	118	24-161	
Chloroform	ug/L	20	19.6	98	62-126	
Chloromethane	ug/L	20	22.9	114	37-147	
cis-1,2-Dichloroethene	ug/L	20	19.6	98	64-121	
cis-1,3-Dichloropropene	ug/L	20	15.6	78	64-118	
Dibromochloromethane	ug/L	20	18.4	92	60-120	
Ethylbenzene	ug/L	20	19.6	98	69-119	
Isopropylbenzene (Cumene)	ug/L	20	20.3	102	68-126	
m&p-Xylene	ug/L	40	39.8	99	70-124	
Methylene Chloride	ug/L	20	20.1	101	59-128	
o-Xylene	ug/L	20	19.2	96	67-123	
Styrene	ug/L	20	19.6	98	67-146	
Tetrachloroethene	ug/L	20	19.7	98	62-125	
Toluene	ug/L	20	19.4	97	72-115	
trans-1,2-Dichloroethene	ug/L	20	19.1	95	59-122	
trans-1,3-Dichloropropene	ug/L	20	14.7	74	64-120	
Trichloroethene	ug/L	20	20.5	102	62-125	
Trichlorofluoromethane	ug/L	20	23.6	118	54-158	
Vinyl chloride	ug/L	20	22.8	114	52-145	
1,2-Dichloroethane-d4 (S)	%			106	77-119	
4-Bromofluorobenzene (S)	%			100	85-115	
Toluene-d8 (S)	%			99	85-115	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALIFIERS

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 30103686

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30103686001	MW-25S	EPA 8260	MSV/17537		
30103686002	MW-25D	EPA 8260	MSV/17537		
30103686003	MW-16D	EPA 8260	MSV/17537		
30103686004	MW-14S	EPA 8260	MSV/17537		
30103686005	MW-14D	EPA 8260	MSV/17537		
30103686006	MW-15S	EPA 8260	MSV/17537		
30103686007	MW-15D	EPA 8260	MSV/17537		
30103686008	VP-6D	EPA 8260	MSV/17537		
30103686009	MW-2	EPA 8260	MSV/17537		
30103686010	MW-6	EPA 8260	MSV/17537		
30103686011	MW-8	EPA 8260	MSV/17537		
30103686012	MW-7S	EPA 8260	MSV/17537		
30103686013	MW-7D	EPA 8260	MSV/17537		
30103686014	MW-2D	EPA 8260	MSV/17546		
30103686015	MW-19D	EPA 8260	MSV/17537		
30103686016	TB-01	EPA 8260	MSV/17546		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	URS CORP	Report To:	MARK DOWIAK	Attention:	
Address:	FOSTER PLAZA 6, STE 400 601 ANDERSON DR. PITTSBURGH, PA 15220	Copy To:	VALERIE SIBETO	Company Name:	
Email To:		Purchase Order No.:	41269501	Address:	
Phone:	412-503-4700	Project Name:	ESSEX/HOPE JAMLESTOWN	Pace Quote Reference:	
Fax:	412-503-4701	Project Number:	41269501.40000	Pace Project Manager:	
Requested Due Date/TAT:	STANDARD			Pace Profile #:	

Page: <u>1</u> of <u>2</u>	1541310
----------------------------	---------

REGULATORY AGENCY	
☐ NPDES	☐ GROUND WATER
☐ UST	☐ RCRA
☐ DRINKING WATER	☐ OTHER

Site Location	NY
STATE:	

[illegible]



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:		Report To:		Attention:	
Address:		Copy To:		Company Name:	
Email To:			SEE PAGE 1 OF 2	Address:	
				Pace Quote Reference:	
				Purchase Order No.:	
Phone:				Pace Project Manager:	
Fax:					
Requested Due Date/TAT:		Project Number:		Pace Profile #:	

REGULATORY AGENCY	
☐ NPDES	☐ GROUND WATER
☐ UST	☐ RCRA
☐ DRINKING WATER	
☐ OTHER	
Site Location	STATE:
NY	NY

Page: 2 of 2
1253058

[illegible]

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			Temp In °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SEE PAGE 1 OF 2	Valerie L. WRS	9.24.13	1630	Valerie L. WRS	9.24.13	1630							
				Billie L. WRS	9.25.13	0944				1.1	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: VALERIE SIMON/BRAD CARLSON

SIGNATURE of SAMPLER: [Signature]

DATE Signed: 9.24.13

MM/DD/YY:

Page 28 of 30



Sample Condition Upon Receipt

Client Name: URS

Project # 30103 L86

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8739 8101 9611

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Thermometer Used (5) 6 7

Type of Ice: ☒ Wet ☐ Blue ☐ None

☒ Samples on ice, cooling process has begun

Cooler Temperature 11

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: MAE 9/25/13

Chain of Custody Present: ☒ Yes ☐ No ☐ N/A 1.

Chain of Custody Filled Out: ☒ Yes ☐ No ☐ N/A 2.

Chain of Custody Relinquished: ☒ Yes ☐ No ☐ N/A 3.

Sampler Name & Signature on COC: ☒ Yes ☐ No ☐ N/A 4.

Samples Arrived within Hold Time: ☒ Yes ☐ No ☐ N/A 5.

Short Hold Time Analysis (<72hr): ☐ Yes ☒ No ☐ N/A 6.

Rush Turn Around Time Requested: ☐ Yes ☒ No ☐ N/A 7.

Sufficient Volume: ☒ Yes ☐ No ☐ N/A 8.

Correct Containers Used: ☒ Yes ☐ No ☐ N/A 9.

-Pace Containers Used: ☐ Yes ☐ No ☐ N/A

Containers Intact: ☒ Yes ☐ No ☐ N/A 10.

Filtered volume received for Dissolved tests ☐ Yes ☐ No ☒ N/A 11.

Sample Labels match COC: ☒ Yes ☐ No ☐ N/A 12.

-Includes date/time/ID/Analysis Matrix: WT

All containers needing preservation have been checked. ☐ Yes ☐ No ☒ N/A 13.

All containers needing preservation are found to be in compliance with EPA recommendation. ☐ Yes ☐ No ☒ N/A

exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) ☒ Yes ☐ No

Initial when completed MAE

Lot # of added preservative

Samples checked for dechlorination: ☐ Yes ☐ No ☒ N/A 14.

Headspace in VOA Vials (>6mm): ☒ Yes ☐ No ☐ N/A 15. Sample 015 - 1 vial Sample 015 - 3 vials

Trip Blank Present: ☒ Yes ☐ No ☐ N/A 16.

Trip Blank Custody Seals Present ☒ Yes ☐ No ☐ N/A

Pace Trip Blank Lot # (if purchased):

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review:

Date:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Project Number: 30103686
Client Name: URS

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y	O & G (1L)	TPH (1L)	VOA (40 ml) 30 ml	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubtainer (500 ml / 4L)	Ziploc	Other	Other
001	5																							
002																								
003																								
004																								
005																								
006																								
015																								
016																								

February 15, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: 41569501 Essex/Hope Jamestown
Pace Project No.: 3086626

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on January 31, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: 41569501 Essex/Hope Jamestown

Pace Project No.: 3086626

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 10

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: 41569501 Essex/Hope Jamestown

Pace Project No.: 3086626

Sample: PRE-CARB		Lab ID: 3086626001	Collected: 01/30/13 10:35	Received: 01/31/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	10700	ug/L	500	50		02/01/13 15:02	67-64-1	
Benzene	17.9	ug/L	1.0	1		02/01/13 14:35	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		02/01/13 14:35	75-27-4	
Bromoform	ND	ug/L	5.0	1		02/01/13 14:35	75-25-2	
Bromomethane	ND	ug/L	5.0	1		02/01/13 14:35	74-83-9	
2-Butanone (MEK)	46.1	ug/L	10.0	1		02/01/13 14:35	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		02/01/13 14:35	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		02/01/13 14:35	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		02/01/13 14:35	108-90-7	
Chloroethane	ND	ug/L	5.0	1		02/01/13 14:35	75-00-3	
Chloroform	ND	ug/L	5.0	1		02/01/13 14:35	67-66-3	
Chloromethane	ND	ug/L	5.0	1		02/01/13 14:35	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		02/01/13 14:35	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		02/01/13 14:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		02/01/13 14:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		02/01/13 14:35	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		02/01/13 14:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/01/13 14:35	107-06-2	
1,1-Dichloroethene	18.5	ug/L	5.0	1		02/01/13 14:35	75-35-4	
cis-1,2-Dichloroethene	4210	ug/L	250	50		02/01/13 15:02	156-59-2	
trans-1,2-Dichloroethene	60.4	ug/L	5.0	1		02/01/13 14:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		02/01/13 14:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		02/01/13 14:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		02/01/13 14:35	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		02/01/13 14:35	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		02/01/13 14:35	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		02/01/13 14:35	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		02/01/13 14:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		02/01/13 14:35	108-10-1	
Styrene	ND	ug/L	5.0	1		02/01/13 14:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		02/01/13 14:35	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		02/01/13 14:35	127-18-4	
Toluene	ND	ug/L	5.0	1		02/01/13 14:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		02/01/13 14:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		02/01/13 14:35	79-00-5	
Trichloroethene	3160	ug/L	250	50		02/01/13 15:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		02/01/13 14:35	75-69-4	
Vinyl chloride	524	ug/L	50.0	50		02/01/13 15:02	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		02/01/13 14:35	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		02/01/13 14:35	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	85-115	1		02/01/13 14:35	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	77-119	1		02/01/13 14:35	17060-07-0	
Toluene-d8 (S)	98	%	85-115	1		02/01/13 14:35	2037-26-5	

ANALYTICAL RESULTS

Project: 41569501 Essex/Hope Jamestown

Pace Project No.: 3086626

Sample: PRIMARY-EFF		Lab ID: 3086626002	Collected: 01/30/13 10:40	Received: 01/31/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	11400	ug/L	500	50		02/01/13 16:21	67-64-1	
Benzene	ND	ug/L	1.0	1		02/01/13 15:55	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		02/01/13 15:55	75-27-4	
Bromoform	ND	ug/L	5.0	1		02/01/13 15:55	75-25-2	
Bromomethane	ND	ug/L	5.0	1		02/01/13 15:55	74-83-9	
2-Butanone (MEK)	81.9	ug/L	10.0	1		02/01/13 15:55	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		02/01/13 15:55	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		02/01/13 15:55	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		02/01/13 15:55	108-90-7	
Chloroethane	ND	ug/L	5.0	1		02/01/13 15:55	75-00-3	
Chloroform	ND	ug/L	5.0	1		02/01/13 15:55	67-66-3	
Chloromethane	ND	ug/L	5.0	1		02/01/13 15:55	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		02/01/13 15:55	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		02/01/13 15:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		02/01/13 15:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		02/01/13 15:55	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		02/01/13 15:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/01/13 15:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		02/01/13 15:55	75-35-4	
cis-1,2-Dichloroethene	2260	ug/L	250	50		02/01/13 16:21	156-59-2	
trans-1,2-Dichloroethene	8.1	ug/L	5.0	1		02/01/13 15:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		02/01/13 15:55	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		02/01/13 15:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		02/01/13 15:55	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		02/01/13 15:55	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		02/01/13 15:55	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		02/01/13 15:55	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		02/01/13 15:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		02/01/13 15:55	108-10-1	
Styrene	ND	ug/L	5.0	1		02/01/13 15:55	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		02/01/13 15:55	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		02/01/13 15:55	127-18-4	
Toluene	ND	ug/L	5.0	1		02/01/13 15:55	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		02/01/13 15:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		02/01/13 15:55	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		02/01/13 15:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		02/01/13 15:55	75-69-4	
Vinyl chloride	862	ug/L	50.0	50		02/01/13 16:21	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		02/01/13 15:55	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		02/01/13 15:55	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	94	%	85-115	1		02/01/13 15:55	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	77-119	1		02/01/13 15:55	17060-07-0	
Toluene-d8 (S)	94	%	85-115	1		02/01/13 15:55	2037-26-5	

ANALYTICAL RESULTS

Project: 41569501 Essex/Hope Jamestown

Pace Project No.: 3086626

Sample: POST-CARB		Lab ID: 3086626003	Collected: 01/30/13 10:45	Received: 01/31/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	18200	ug/L	4000	400		02/01/13 17:41	67-64-1	
Benzene	ND	ug/L	1.0	1		02/01/13 17:14	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		02/01/13 17:14	75-27-4	
Bromoform	ND	ug/L	5.0	1		02/01/13 17:14	75-25-2	
Bromomethane	ND	ug/L	5.0	1		02/01/13 17:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		02/01/13 17:14	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		02/01/13 17:14	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		02/01/13 17:14	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		02/01/13 17:14	108-90-7	
Chloroethane	ND	ug/L	5.0	1		02/01/13 17:14	75-00-3	
Chloroform	ND	ug/L	5.0	1		02/01/13 17:14	67-66-3	
Chloromethane	ND	ug/L	5.0	1		02/01/13 17:14	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		02/01/13 17:14	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		02/01/13 17:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		02/01/13 17:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		02/01/13 17:14	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		02/01/13 17:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/01/13 17:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		02/01/13 17:14	75-35-4	
cis-1,2-Dichloroethene	32.2	ug/L	5.0	1		02/01/13 17:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		02/01/13 17:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		02/01/13 17:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		02/01/13 17:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		02/01/13 17:14	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		02/01/13 17:14	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		02/01/13 17:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		02/01/13 17:14	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		02/01/13 17:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		02/01/13 17:14	108-10-1	
Styrene	ND	ug/L	5.0	1		02/01/13 17:14	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		02/01/13 17:14	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		02/01/13 17:14	127-18-4	
Toluene	ND	ug/L	5.0	1		02/01/13 17:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		02/01/13 17:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		02/01/13 17:14	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		02/01/13 17:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		02/01/13 17:14	75-69-4	
Vinyl chloride	850	ug/L	400	400		02/01/13 17:41	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		02/01/13 17:14	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		02/01/13 17:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		02/01/13 17:14	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	77-119	1		02/01/13 17:14	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		02/01/13 17:14	2037-26-5	

ANALYTICAL RESULTS

Project: 41569501 Essex/Hope Jamestown

Pace Project No.: 3086626

Sample: TB-01		Lab ID: 3086626007		Collected: 01/30/13 00:01		Received: 01/31/13 10:00		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			02/01/13 12:22	67-64-1		
Benzene	ND ug/L	1.0	1			02/01/13 12:22	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			02/01/13 12:22	75-27-4		
Bromoform	ND ug/L	5.0	1			02/01/13 12:22	75-25-2		
Bromomethane	ND ug/L	5.0	1			02/01/13 12:22	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			02/01/13 12:22	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			02/01/13 12:22	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			02/01/13 12:22	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			02/01/13 12:22	108-90-7		
Chloroethane	ND ug/L	5.0	1			02/01/13 12:22	75-00-3		
Chloroform	ND ug/L	5.0	1			02/01/13 12:22	67-66-3		
Chloromethane	ND ug/L	5.0	1			02/01/13 12:22	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			02/01/13 12:22	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			02/01/13 12:22	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			02/01/13 12:22	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			02/01/13 12:22	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			02/01/13 12:22	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			02/01/13 12:22	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			02/01/13 12:22	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			02/01/13 12:22	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			02/01/13 12:22	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			02/01/13 12:22	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			02/01/13 12:22	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			02/01/13 12:22	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			02/01/13 12:22	100-41-4		
2-Hexanone	ND ug/L	10.0	1			02/01/13 12:22	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			02/01/13 12:22	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			02/01/13 12:22	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			02/01/13 12:22	108-10-1		
Styrene	ND ug/L	5.0	1			02/01/13 12:22	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			02/01/13 12:22	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			02/01/13 12:22	127-18-4		
Toluene	ND ug/L	5.0	1			02/01/13 12:22	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			02/01/13 12:22	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			02/01/13 12:22	79-00-5		
Trichloroethene	ND ug/L	5.0	1			02/01/13 12:22	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			02/01/13 12:22	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			02/01/13 12:22	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			02/01/13 12:22	179601-23-1		
o-Xylene	ND ug/L	5.0	1			02/01/13 12:22	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	102 %	85-115	1			02/01/13 12:22	460-00-4		
1,2-Dichloroethane-d4 (S)	108 %	77-119	1			02/01/13 12:22	17060-07-0		
Toluene-d8 (S)	100 %	85-115	1			02/01/13 12:22	2037-26-5		

QUALITY CONTROL DATA

Project: 41569501 Essex/Hope Jamestown

Pace Project No.: 3086626

QC Batch: MSV/15252 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3086626001, 3086626002, 3086626003, 3086626007

METHOD BLANK: 539503 Matrix: Water

Associated Lab Samples: 3086626001, 3086626002, 3086626003, 3086626007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	02/01/13 11:29	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	02/01/13 11:29	
1,1,2-Trichloroethane	ug/L	ND	1.0	02/01/13 11:29	
1,1-Dichloroethane	ug/L	ND	1.0	02/01/13 11:29	
1,1-Dichloroethene	ug/L	ND	1.0	02/01/13 11:29	
1,2-Dichlorobenzene	ug/L	ND	1.0	02/01/13 11:29	
1,2-Dichloroethane	ug/L	ND	1.0	02/01/13 11:29	
1,2-Dichloropropane	ug/L	ND	1.0	02/01/13 11:29	
1,3-Dichlorobenzene	ug/L	ND	1.0	02/01/13 11:29	
1,4-Dichlorobenzene	ug/L	ND	1.0	02/01/13 11:29	
2-Butanone (MEK)	ug/L	ND	10.0	02/01/13 11:29	
2-Hexanone	ug/L	ND	10.0	02/01/13 11:29	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	02/01/13 11:29	
Acetone	ug/L	ND	10.0	02/01/13 11:29	
Benzene	ug/L	ND	1.0	02/01/13 11:29	
Bromodichloromethane	ug/L	ND	1.0	02/01/13 11:29	
Bromoform	ug/L	ND	1.0	02/01/13 11:29	
Bromomethane	ug/L	ND	1.0	02/01/13 11:29	
Carbon disulfide	ug/L	ND	1.0	02/01/13 11:29	
Carbon tetrachloride	ug/L	ND	1.0	02/01/13 11:29	
Chlorobenzene	ug/L	ND	1.0	02/01/13 11:29	
Chloroethane	ug/L	ND	1.0	02/01/13 11:29	
Chloroform	ug/L	ND	1.0	02/01/13 11:29	
Chloromethane	ug/L	ND	1.0	02/01/13 11:29	
cis-1,2-Dichloroethene	ug/L	ND	1.0	02/01/13 11:29	
cis-1,3-Dichloropropene	ug/L	ND	1.0	02/01/13 11:29	
Dibromochloromethane	ug/L	ND	1.0	02/01/13 11:29	
Ethylbenzene	ug/L	ND	1.0	02/01/13 11:29	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	02/01/13 11:29	
m&p-Xylene	ug/L	ND	2.0	02/01/13 11:29	
Methylene Chloride	ug/L	ND	1.0	02/01/13 11:29	
o-Xylene	ug/L	ND	1.0	02/01/13 11:29	
Styrene	ug/L	ND	1.0	02/01/13 11:29	
Tetrachloroethene	ug/L	ND	1.0	02/01/13 11:29	
Toluene	ug/L	ND	1.0	02/01/13 11:29	
trans-1,2-Dichloroethene	ug/L	ND	1.0	02/01/13 11:29	
trans-1,3-Dichloropropene	ug/L	ND	1.0	02/01/13 11:29	
Trichloroethene	ug/L	ND	1.0	02/01/13 11:29	
Trichlorofluoromethane	ug/L	ND	1.0	02/01/13 11:29	
Vinyl chloride	ug/L	ND	1.0	02/01/13 11:29	
1,2-Dichloroethane-d4 (S)	%	112	77-119	02/01/13 11:29	
4-Bromofluorobenzene (S)	%	100	85-115	02/01/13 11:29	
Toluene-d8 (S)	%	99	85-115	02/01/13 11:29	

Date: 02/15/2013 08:54 AM

REPORT OF LABORATORY ANALYSIS

Page 7 of 10

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: 41569501 Essex/Hope Jamestown

Pace Project No.: 3086626

LABORATORY CONTROL SAMPLE: 539504

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.8	104	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	19.4	97	61-117	
1,1,2-Trichloroethane	ug/L	20	19.4	97	72-119	
1,1-Dichloroethane	ug/L	20	19.1	95	63-123	
1,1-Dichloroethene	ug/L	20	20.4	102	57-127	
1,2-Dichlorobenzene	ug/L	20	19.4	97	70-116	
1,2-Dichloroethane	ug/L	20	20.2	101	62-125	
1,2-Dichloropropane	ug/L	20	18.3	91	69-115	
1,3-Dichlorobenzene	ug/L	20	20.4	102	71-118	
1,4-Dichlorobenzene	ug/L	20	20.5	103	67-119	
2-Butanone (MEK)	ug/L	20	15.1	76	48-136	
2-Hexanone	ug/L	20	16.3	82	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	15.1	76	57-124	
Acetone	ug/L	20	15.5	77	49-138	
Benzene	ug/L	20	20.3	101	66-122	
Bromodichloromethane	ug/L	20	20.0	100	63-118	
Bromoform	ug/L	20	17.9	90	46-130	
Bromomethane	ug/L	20	12.5	62	10-175	
Carbon disulfide	ug/L	20	11.7	59	59-142	
Carbon tetrachloride	ug/L	20	19.3	97	55-126	
Chlorobenzene	ug/L	20	19.3	97	70-121	
Chloroethane	ug/L	20	18.1	91	24-161	
Chloroform	ug/L	20	20.1	101	62-126	
Chloromethane	ug/L	20	18.5	93	37-147	
cis-1,2-Dichloroethene	ug/L	20	18.2	91	64-121	
cis-1,3-Dichloropropene	ug/L	20	20.7	103	64-118	
Dibromochloromethane	ug/L	20	17.8	89	60-120	
Ethylbenzene	ug/L	20	19.0	95	69-119	
Isopropylbenzene (Cumene)	ug/L	20	21.5	108	68-126	
m&p-Xylene	ug/L	40	39.4	98	70-124	
Methylene Chloride	ug/L	20	18.1	91	59-128	
o-Xylene	ug/L	20	19.7	99	67-123	
Styrene	ug/L	20	19.7	99	67-146	
Tetrachloroethene	ug/L	20	20.5	103	62-125	
Toluene	ug/L	20	20.0	100	72-115	
trans-1,2-Dichloroethene	ug/L	20	19.1	96	59-122	
trans-1,3-Dichloropropene	ug/L	20	18.6	93	64-120	
Trichloroethene	ug/L	20	20.3	101	62-125	
Trichlorofluoromethane	ug/L	20	22.4	112	54-158	
Vinyl chloride	ug/L	20	18.4	92	52-145	
1,2-Dichloroethane-d4 (S)	%			109	77-119	
4-Bromofluorobenzene (S)	%			105	85-115	
Toluene-d8 (S)	%			98	85-115	

QUALIFIERS

Project: 41569501 Essex/Hope Jamestown

Pace Project No.: 3086626

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569501 Essex/Hope Jamestown

Pace Project No.: 3086626

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3086626001	PRE-CARB	EPA 8260	MSV/15252		
3086626002	PRIMARY-EFF	EPA 8260	MSV/15252		
3086626003	POST-CARB	EPA 8260	MSV/15252		
3086626007	TB-01	EPA 8260	MSV/15252		

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: URS CORP		Report To: MARK DUMJAIL		Attention:	
Address: FOSTER PURZAT 6 601 ANDERSON DR. STE. 400 PHILADELPHIA, PA 19120		Copy To: VALERIE SIBERTO		Company Name:	
Email To:				Address:	
Phone: 215-503-4700		Purchase Order No.: 415269501		Pace Quote Reference:	
Fax: 412-503-4700		Project Name: ESSEX/HOLE JAYESTOWN		Pace Project Manager:	
Requested Due Date/TAT: STANDARD		Project Number: 415269501 10000		Pace Profile #:	

Page: **1** of **1**
1540960

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER

Site Location
NY

STATE:

[illegible]

RTL

Sample Condition Upon Receipt

Client Name: URS CorpProject # 30800210Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____Tracking #: 8739 81019541

Optional

Proj. Due Date:

Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ noPacking Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Ziploc'sThermometer Used 5 6 7Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begunCooler Temperature 0.7

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: RTL 1-31-13

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>RTL</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 3/2/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

308100210

IRS Corp

[illegible]

March 14, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: 41569181/Essex-Hope
Pace Project No.: 3088422

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: 41569181/Essex-Hope

Pace Project No.: 3088422

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 11

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3088422

Sample: PRE-CARB		Lab ID: 3088422001		Collected: 02/27/13 11:00		Received: 02/28/13 09:40		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV		Analytical Method: EPA 8260							
Acetone	70700	ug/L	4000	400		03/07/13 09:35	67-64-1		
Benzene	50.9	ug/L	1.0	1		03/07/13 08:46	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		03/07/13 08:46	75-27-4		
Bromoform	ND	ug/L	5.0	1		03/07/13 08:46	75-25-2		
Bromomethane	ND	ug/L	5.0	1		03/07/13 08:46	74-83-9		
2-Butanone (MEK)	258	ug/L	10.0	1		03/07/13 08:46	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		03/07/13 08:46	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		03/07/13 08:46	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		03/07/13 08:46	108-90-7		
Chloroethane	ND	ug/L	5.0	1		03/07/13 08:46	75-00-3		
Chloroform	ND	ug/L	5.0	1		03/07/13 08:46	67-66-3		
Chloromethane	ND	ug/L	5.0	1		03/07/13 08:46	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		03/07/13 08:46	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		03/07/13 08:46	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		03/07/13 08:46	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		03/07/13 08:46	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		03/07/13 08:46	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		03/07/13 08:46	107-06-2		
1,1-Dichloroethene	36.0	ug/L	5.0	1		03/07/13 08:46	75-35-4		
cis-1,2-Dichloroethene	16800	ug/L	250	50		03/07/13 09:10	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	250	50		03/07/13 09:10	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		03/07/13 08:46	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		03/07/13 08:46	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		03/07/13 08:46	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		03/07/13 08:46	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		03/07/13 08:46	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		03/07/13 08:46	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		03/07/13 08:46	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		03/07/13 08:46	108-10-1		
Styrene	ND	ug/L	5.0	1		03/07/13 08:46	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		03/07/13 08:46	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		03/07/13 08:46	127-18-4		
Toluene	ND	ug/L	5.0	1		03/07/13 08:46	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		03/07/13 08:46	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		03/07/13 08:46	79-00-5		
Trichloroethene	4060	ug/L	250	50		03/07/13 09:10	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		03/07/13 08:46	75-69-4		
Vinyl chloride	1380	ug/L	50.0	50		03/07/13 09:10	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		03/07/13 08:46	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		03/07/13 08:46	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	94	%	85-115	1		03/07/13 08:46	460-00-4		
1,2-Dichloroethane-d4 (S)	101	%	77-119	1		03/07/13 08:46	17060-07-0		
Toluene-d8 (S)	90	%	85-115	1		03/07/13 08:46	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3088422

Sample: PRIMARY EFF		Lab ID: 3088422002	Collected: 02/27/13 11:05	Received: 02/28/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	48400	ug/L	4000	400		03/07/13 08:22	67-64-1	
Benzene	ND	ug/L	1.0	1		03/07/13 07:33	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		03/07/13 07:33	75-27-4	
Bromoform	ND	ug/L	5.0	1		03/07/13 07:33	75-25-2	
Bromomethane	ND	ug/L	5.0	1		03/07/13 07:33	74-83-9	
2-Butanone (MEK)	162	ug/L	10.0	1		03/07/13 07:33	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		03/07/13 07:33	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		03/07/13 07:33	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		03/07/13 07:33	108-90-7	
Chloroethane	ND	ug/L	5.0	1		03/07/13 07:33	75-00-3	
Chloroform	ND	ug/L	5.0	1		03/07/13 07:33	67-66-3	
Chloromethane	ND	ug/L	5.0	1		03/07/13 07:33	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		03/07/13 07:33	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		03/07/13 07:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		03/07/13 07:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		03/07/13 07:33	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		03/07/13 07:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		03/07/13 07:33	107-06-2	
1,1-Dichloroethene	11.2	ug/L	5.0	1		03/07/13 07:33	75-35-4	
cis-1,2-Dichloroethene	7970	ug/L	100	20		03/07/13 07:57	156-59-2	
trans-1,2-Dichloroethene	18.6	ug/L	5.0	1		03/07/13 07:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		03/07/13 07:33	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		03/07/13 07:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		03/07/13 07:33	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		03/07/13 07:33	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		03/07/13 07:33	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		03/07/13 07:33	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		03/07/13 07:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		03/07/13 07:33	108-10-1	
Styrene	ND	ug/L	5.0	1		03/07/13 07:33	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		03/07/13 07:33	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		03/07/13 07:33	127-18-4	
Toluene	ND	ug/L	5.0	1		03/07/13 07:33	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		03/07/13 07:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		03/07/13 07:33	79-00-5	
Trichloroethene	7.6	ug/L	5.0	1		03/07/13 07:33	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		03/07/13 07:33	75-69-4	
Vinyl chloride	1010	ug/L	20.0	20		03/07/13 07:57	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		03/07/13 07:33	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		03/07/13 07:33	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	85-115	1		03/07/13 07:33	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	77-119	1		03/07/13 07:33	17060-07-0	
Toluene-d8 (S)	91	%	85-115	1		03/07/13 07:33	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3088422

Sample: POST-CARB		Lab ID: 3088422003	Collected: 02/27/13 11:10	Received: 02/28/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	27900	ug/L	2000	200		03/07/13 10:23	67-64-1	
Benzene	ND	ug/L	1.0	1		03/07/13 09:59	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		03/07/13 09:59	75-27-4	
Bromoform	ND	ug/L	5.0	1		03/07/13 09:59	75-25-2	
Bromomethane	ND	ug/L	5.0	1		03/07/13 09:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		03/07/13 09:59	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		03/07/13 09:59	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		03/07/13 09:59	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		03/07/13 09:59	108-90-7	
Chloroethane	ND	ug/L	5.0	1		03/07/13 09:59	75-00-3	
Chloroform	ND	ug/L	5.0	1		03/07/13 09:59	67-66-3	
Chloromethane	ND	ug/L	5.0	1		03/07/13 09:59	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		03/07/13 09:59	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		03/07/13 09:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		03/07/13 09:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		03/07/13 09:59	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		03/07/13 09:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		03/07/13 09:59	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		03/07/13 09:59	75-35-4	
cis-1,2-Dichloroethene	36.9	ug/L	5.0	1		03/07/13 09:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		03/07/13 09:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		03/07/13 09:59	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		03/07/13 09:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		03/07/13 09:59	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		03/07/13 09:59	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		03/07/13 09:59	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		03/07/13 09:59	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		03/07/13 09:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		03/07/13 09:59	108-10-1	
Styrene	ND	ug/L	5.0	1		03/07/13 09:59	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		03/07/13 09:59	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		03/07/13 09:59	127-18-4	
Toluene	ND	ug/L	5.0	1		03/07/13 09:59	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		03/07/13 09:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		03/07/13 09:59	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		03/07/13 09:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		03/07/13 09:59	75-69-4	
Vinyl chloride	1200	ug/L	200	200		03/07/13 10:23	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		03/07/13 09:59	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		03/07/13 09:59	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	85-115	1		03/07/13 09:59	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	77-119	1		03/07/13 09:59	17060-07-0	
Toluene-d8 (S)	91	%	85-115	1		03/07/13 09:59	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3088422

Sample: TB-01		Lab ID: 3088422004		Collected: 02/27/13 00:01		Received: 02/28/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			03/07/13 02:16	67-64-1		
Benzene	ND ug/L	1.0	1			03/07/13 02:16	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			03/07/13 02:16	75-27-4		
Bromoform	ND ug/L	5.0	1			03/07/13 02:16	75-25-2		
Bromomethane	ND ug/L	5.0	1			03/07/13 02:16	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			03/07/13 02:16	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			03/07/13 02:16	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			03/07/13 02:16	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			03/07/13 02:16	108-90-7		
Chloroethane	ND ug/L	5.0	1			03/07/13 02:16	75-00-3		
Chloroform	ND ug/L	5.0	1			03/07/13 02:16	67-66-3		
Chloromethane	ND ug/L	5.0	1			03/07/13 02:16	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			03/07/13 02:16	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			03/07/13 02:16	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			03/07/13 02:16	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			03/07/13 02:16	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			03/07/13 02:16	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			03/07/13 02:16	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			03/07/13 02:16	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			03/07/13 02:16	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			03/07/13 02:16	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			03/07/13 02:16	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			03/07/13 02:16	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			03/07/13 02:16	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			03/07/13 02:16	100-41-4		
2-Hexanone	ND ug/L	10.0	1			03/07/13 02:16	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			03/07/13 02:16	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			03/07/13 02:16	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			03/07/13 02:16	108-10-1		
Styrene	ND ug/L	5.0	1			03/07/13 02:16	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			03/07/13 02:16	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			03/07/13 02:16	127-18-4		
Toluene	ND ug/L	5.0	1			03/07/13 02:16	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			03/07/13 02:16	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			03/07/13 02:16	79-00-5		
Trichloroethene	ND ug/L	5.0	1			03/07/13 02:16	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			03/07/13 02:16	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			03/07/13 02:16	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			03/07/13 02:16	179601-23-1		
o-Xylene	ND ug/L	5.0	1			03/07/13 02:16	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	95 %	85-115	1			03/07/13 02:16	460-00-4		
1,2-Dichloroethane-d4 (S)	107 %	77-119	1			03/07/13 02:16	17060-07-0		
Toluene-d8 (S)	93 %	85-115	1			03/07/13 02:16	2037-26-5		

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3088422

QC Batch:	MSV/15481	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	3088422001, 3088422002, 3088422003, 3088422004		

METHOD BLANK:	551017	Matrix:	Water
---------------	--------	---------	-------

Associated Lab Samples: 3088422001, 3088422002, 3088422003, 3088422004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	03/07/13 00:15	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	03/07/13 00:15	
1,1,2-Trichloroethane	ug/L	ND	1.0	03/07/13 00:15	
1,1-Dichloroethane	ug/L	ND	1.0	03/07/13 00:15	
1,1-Dichloroethene	ug/L	ND	1.0	03/07/13 00:15	
1,2-Dichlorobenzene	ug/L	ND	1.0	03/07/13 00:15	
1,2-Dichloroethane	ug/L	ND	1.0	03/07/13 00:15	
1,2-Dichloropropane	ug/L	ND	1.0	03/07/13 00:15	
1,3-Dichlorobenzene	ug/L	ND	1.0	03/07/13 00:15	
1,4-Dichlorobenzene	ug/L	ND	1.0	03/07/13 00:15	
2-Butanone (MEK)	ug/L	ND	10.0	03/07/13 00:15	
2-Hexanone	ug/L	ND	10.0	03/07/13 00:15	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	03/07/13 00:15	
Acetone	ug/L	ND	10.0	03/07/13 00:15	
Benzene	ug/L	ND	1.0	03/07/13 00:15	
Bromodichloromethane	ug/L	ND	1.0	03/07/13 00:15	
Bromoform	ug/L	ND	1.0	03/07/13 00:15	
Bromomethane	ug/L	ND	1.0	03/07/13 00:15	
Carbon disulfide	ug/L	ND	1.0	03/07/13 00:15	
Carbon tetrachloride	ug/L	ND	1.0	03/07/13 00:15	
Chlorobenzene	ug/L	ND	1.0	03/07/13 00:15	
Chloroethane	ug/L	ND	1.0	03/07/13 00:15	
Chloroform	ug/L	ND	1.0	03/07/13 00:15	
Chloromethane	ug/L	ND	1.0	03/07/13 00:15	
cis-1,2-Dichloroethene	ug/L	ND	1.0	03/07/13 00:15	
cis-1,3-Dichloropropene	ug/L	ND	1.0	03/07/13 00:15	
Dibromochloromethane	ug/L	ND	1.0	03/07/13 00:15	
Ethylbenzene	ug/L	ND	1.0	03/07/13 00:15	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	03/07/13 00:15	
m&p-Xylene	ug/L	ND	2.0	03/07/13 00:15	
Methylene Chloride	ug/L	ND	1.0	03/07/13 00:15	
o-Xylene	ug/L	ND	1.0	03/07/13 00:15	
Styrene	ug/L	ND	1.0	03/07/13 00:15	
Tetrachloroethene	ug/L	ND	1.0	03/07/13 00:15	
Toluene	ug/L	ND	1.0	03/07/13 00:15	
trans-1,2-Dichloroethene	ug/L	ND	1.0	03/07/13 00:15	
trans-1,3-Dichloropropene	ug/L	ND	1.0	03/07/13 00:15	
Trichloroethene	ug/L	ND	1.0	03/07/13 00:15	
Trichlorofluoromethane	ug/L	ND	1.0	03/07/13 00:15	
Vinyl chloride	ug/L	ND	1.0	03/07/13 00:15	
1,2-Dichloroethane-d4 (S)	%	102	77-119	03/07/13 00:15	
4-Bromofluorobenzene (S)	%	98	85-115	03/07/13 00:15	
Toluene-d8 (S)	%	93	85-115	03/07/13 00:15	

Date: 03/14/2013 05:09 PM

REPORT OF LABORATORY ANALYSIS

Page 7 of 11

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3088422

LABORATORY CONTROL SAMPLE: 551018

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	21.2	106	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	18.1	91	61-117	
1,1,2-Trichloroethane	ug/L	20	18.5	92	72-119	
1,1-Dichloroethane	ug/L	20	22.4	112	63-123	
1,1-Dichloroethene	ug/L	20	24.9	125	57-127	
1,2-Dichlorobenzene	ug/L	20	19.0	95	70-116	
1,2-Dichloroethane	ug/L	20	19.9	99	62-125	
1,2-Dichloropropane	ug/L	20	18.8	94	69-115	
1,3-Dichlorobenzene	ug/L	20	20.1	100	71-118	
1,4-Dichlorobenzene	ug/L	20	19.8	99	67-119	
2-Butanone (MEK)	ug/L	20	20.9	104	48-136	
2-Hexanone	ug/L	20	18.1	91	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.0	95	57-124	
Acetone	ug/L	20	22.0	110	49-138	
Benzene	ug/L	20	18.4	92	66-122	
Bromodichloromethane	ug/L	20	18.2	91	63-118	
Bromoform	ug/L	20	15.6	78	46-130	
Bromomethane	ug/L	20	17.8	89	10-175	
Carbon disulfide	ug/L	20	23.5	118	59-142	
Carbon tetrachloride	ug/L	20	18.5	92	55-126	
Chlorobenzene	ug/L	20	19.3	96	70-121	
Chloroethane	ug/L	20	22.6	113	24-161	
Chloroform	ug/L	20	20.0	100	62-126	
Chloromethane	ug/L	20	19.8	99	37-147	
cis-1,2-Dichloroethene	ug/L	20	21.2	106	64-121	
cis-1,3-Dichloropropene	ug/L	20	20.0	100	64-118	
Dibromochloromethane	ug/L	20	17.8	89	60-120	
Ethylbenzene	ug/L	20	19.9	99	69-119	
Isopropylbenzene (Cumene)	ug/L	20	20.9	104	68-126	
m&p-Xylene	ug/L	40	38.7	97	70-124	
Methylene Chloride	ug/L	20	20.6	103	59-128	
o-Xylene	ug/L	20	18.3	92	67-123	
Styrene	ug/L	20	23.0	115	67-146	
Tetrachloroethene	ug/L	20	20.1	100	62-125	
Toluene	ug/L	20	19.0	95	72-115	
trans-1,2-Dichloroethene	ug/L	20	21.1	105	59-122	
trans-1,3-Dichloropropene	ug/L	20	17.4	87	64-120	
Trichloroethene	ug/L	20	19.5	97	62-125	
Trichlorofluoromethane	ug/L	20	22.5	113	54-158	
Vinyl chloride	ug/L	20	20.7	103	52-145	
1,2-Dichloroethane-d4 (S)	%			106	77-119	
4-Bromofluorobenzene (S)	%			95	85-115	
Toluene-d8 (S)	%			93	85-115	

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3088422

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 551019 551020											
Parameter	Units	3088415009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.8	21.5	104	107	62-125	3	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	17.5	17.5	87	87	61-117	.02	
1,1,2-Trichloroethane	ug/L	ND	20	20	18.5	18.7	92	94	72-119	1	
1,1-Dichloroethane	ug/L	ND	20	20	20.8	21.3	104	107	63-123	2	
1,1-Dichloroethene	ug/L	ND	20	20	23.7	24.3	118	122	57-127	3	
1,2-Dichlorobenzene	ug/L	ND	20	20	18.4	18.9	92	94	70-116	2	
1,2-Dichloroethane	ug/L	ND	20	20	18.4	18.9	92	94	62-125	2	
1,2-Dichloropropane	ug/L	ND	20	20	17.6	18.0	88	90	69-115	2	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.8	19.2	94	96	71-118	2	
1,4-Dichlorobenzene	ug/L	ND	20	20	18.9	19.6	95	98	67-119	3	
2-Butanone (MEK)	ug/L	15.6	20	20	33.3	34.0	88	92	48-136	2	
2-Hexanone	ug/L	ND	20	20	17.5	17.7	88	88	52-130	1	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	18.0	18.2	90	91	57-124	2	
Acetone	ug/L	314	20	20	285	279	-142	-174	49-138	2	M0
Benzene	ug/L	ND	20	20	17.8	18.4	89	92	66-122	3	
Bromodichloromethane	ug/L	ND	20	20	17.3	17.7	86	89	63-118	3	
Bromoform	ug/L	ND	20	20	15.0	15.0	75	75	46-130	.6	
Bromomethane	ug/L	ND	20	20	11.6	12.0	58	60	10-175	3	
Carbon disulfide	ug/L	ND	20	20	25.6	26.9	128	134	59-142	5	
Carbon tetrachloride	ug/L	ND	20	20	18.4	18.9	92	95	55-126	3	
Chlorobenzene	ug/L	ND	20	20	18.3	18.9	92	94	70-121	3	
Chloroethane	ug/L	ND	20	20	23.2	20.8	116	104	24-161	11	
Chloroform	ug/L	2.5	20	20	21.7	22.2	96	98	62-126	2	
Chloromethane	ug/L	ND	20	20	19.8	18.0	99	90	37-147	9	
cis-1,2-Dichloroethene	ug/L	ND	20	20	20.1	20.4	100	102	64-121	2	
cis-1,3-Dichloropropene	ug/L	ND	20	20	18.0	18.6	90	93	64-118	3	
Dibromochloromethane	ug/L	ND	20	20	17.5	17.8	88	89	60-120	1	
Ethylbenzene	ug/L	ND	20	20	18.9	19.4	94	97	69-119	3	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	20.6	21.0	103	105	68-126	2	
m&p-Xylene	ug/L	ND	40	40	37.8	38.3	95	96	70-124	1	
Methylene Chloride	ug/L	ND	20	20	20.6	20.5	103	103	59-128	.5	
o-Xylene	ug/L	ND	20	20	18.4	19.1	92	95	67-123	4	
Styrene	ug/L	ND	20	20	22.9	23.3	114	116	67-146	2	
Tetrachloroethene	ug/L	ND	20	20	20.1	20.6	100	103	62-125	3	
Toluene	ug/L	ND	20	20	18.3	18.8	92	94	72-115	3	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.5	20.3	102	101	59-122	1	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.7	16.9	83	85	64-120	1	
Trichloroethene	ug/L	ND	20	20	19.4	19.6	96	97	62-125	1	
Trichlorofluoromethane	ug/L	ND	20	20	25.5	22.3	127	111	54-158	13	
Vinyl chloride	ug/L	ND	20	20	22.1	19.3	110	97	52-145	13	
1,2-Dichloroethane-d4 (S)	%						103	101	77-119		
4-Bromofluorobenzene (S)	%						96	98	85-115		
Toluene-d8 (S)	%						92	94	85-115		

QUALIFIERS

Project: 41569181/Essex-Hope

Pace Project No.: 3088422

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181/Essex-Hope

Pace Project No.: 3088422

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3088422001	PRE-CARB	EPA 8260	MSV/15481		
3088422002	PRIMARY EFF	EPA 8260	MSV/15481		
3088422003	POST-CARB	EPA 8260	MSV/15481		
3088422004	TB-01	EPA 8260	MSV/15481		

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Section A Required Client Information: Company: URS CORP Address: FOSTER PATEL 681 ANDERSON DR. STE 400 PITTSBURGH, PA 15220 Email To: _____ Phone: 412-763-4700 Fax: 412-503-4701 Requested Due Date/TAT: STANDARD		Section B Required Project Information: Report To: MARK DONIAK Copy To: VALERIE SIBETO Purchase Order No.: 41509570 Project Name: ESSEX/HOVE JAMES TOWN Project Number: 41509570.10000		Section C Invoice Information: Attention: _____ Company Name: _____ Address: _____ Pace Quote Reference: _____ Pace Project Manager: _____ Pace Profile #: _____	
Regulatory Agency ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____		Site Location STATE: NY		Page: 1 of 1 1215955	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test ↓	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
				COMPOSITE START	COMPOSITE ENDIGRAS			DATE	TIME	DATE	TIME	DATE	TIME	DATE			
1	PRE-CARB	DW	WTG	2/27/13	1100		3									001	
2	PRIMARY-EFF	WT	↓	2/27/13	1105		3									002	
3	POST-CARB	WW	↓	2/27/13	1116		3									003	
4	POST-CARB	P	↓	2/27/13	1140		3										
5	POST-CARB	Product	↓	2/27/13	1210		3										
6	POST-CARB	Soil/Solid	↓	2/27/13	1240		3										
7	TB-OI	Oil	WTG	2/27/13			2									004	
8		Wipe															
9		Air															
10		Tissue															
11		Other															
12																	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
COMPOSITE FOUR (4)	Valerie Sibeto	2/27/13	1315	Valerie Sibeto	2/27/13	1315	
POST-CARB SAMPLES	Valerie Sibeto	2/28/13	0940	Ryan Lalor	2/28/13	0940	Y N
IN LAB AND REPEAT AS							
POST-CARB COMPOSITE							

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER: VALERIE SIBETO		DATE Signed (MM/DD/YY): 2.27.13	
SIGNATURE of SAMPLER: <i>[Signature]</i>			

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.



Sample Condition Upon Receipt

Client Name: URS Project # 3088422

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 8739 8101 9563

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Ziploc

Thermometer Used 5 6 7

Type of Ice: Wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature 4.8

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: RTL 2-28-13

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>RTL</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]

Date: 3/1/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

3088122

525

[illegible]

April 12, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: 41569181/Essex-Hope
Pace Project No.: 3090685

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on March 29, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 13

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

Sample: PRE-CARB		Lab ID: 3090685001	Collected: 03/27/13 11:30	Received: 03/29/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	19800	ug/L	500	50		04/09/13 09:20	67-64-1	
Benzene	21.8	ug/L	1.0	1		04/09/13 08:55	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		04/09/13 08:55	75-27-4	
Bromoform	ND	ug/L	5.0	1		04/09/13 08:55	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/09/13 08:55	74-83-9	
2-Butanone (MEK)	86.9	ug/L	10.0	1		04/09/13 08:55	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		04/09/13 08:55	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		04/09/13 08:55	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		04/09/13 08:55	108-90-7	
Chloroethane	ND	ug/L	5.0	1		04/09/13 08:55	75-00-3	
Chloroform	ND	ug/L	5.0	1		04/09/13 08:55	67-66-3	
Chloromethane	ND	ug/L	5.0	1		04/09/13 08:55	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		04/09/13 08:55	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 08:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 08:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 08:55	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		04/09/13 08:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		04/09/13 08:55	107-06-2	
1,1-Dichloroethene	30.6	ug/L	5.0	1		04/09/13 08:55	75-35-4	
cis-1,2-Dichloroethene	7720	ug/L	250	50		04/09/13 09:20	156-59-2	
trans-1,2-Dichloroethene	92.4	ug/L	5.0	1		04/09/13 08:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		04/09/13 08:55	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 08:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 08:55	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		04/09/13 08:55	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		04/09/13 08:55	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/09/13 08:55	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		04/09/13 08:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		04/09/13 08:55	108-10-1	
Styrene	ND	ug/L	5.0	1		04/09/13 08:55	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		04/09/13 08:55	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		04/09/13 08:55	127-18-4	
Toluene	ND	ug/L	5.0	1		04/09/13 08:55	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		04/09/13 08:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		04/09/13 08:55	79-00-5	
Trichloroethene	4210	ug/L	250	50		04/09/13 09:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		04/09/13 08:55	75-69-4	
Vinyl chloride	1100	ug/L	50.0	50		04/09/13 09:20	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		04/09/13 08:55	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		04/09/13 08:55	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	85-115	1		04/09/13 08:55	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	77-119	1		04/09/13 08:55	17060-07-0	
Toluene-d8 (S)	92	%	85-115	1		04/09/13 08:55	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

Sample: PRIMARY EFF		Lab ID: 3090685002	Collected: 03/27/13 11:35	Received: 03/29/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	8800	ug/L	4000	400		04/10/13 00:42	67-64-1	
Benzene	4.1	ug/L	1.0	1		04/09/13 23:53	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		04/09/13 23:53	75-27-4	
Bromoform	ND	ug/L	5.0	1		04/09/13 23:53	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/09/13 23:53	74-83-9	
2-Butanone (MEK)	44.6	ug/L	10.0	1		04/09/13 23:53	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		04/09/13 23:53	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		04/09/13 23:53	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		04/09/13 23:53	108-90-7	
Chloroethane	ND	ug/L	5.0	1		04/09/13 23:53	75-00-3	
Chloroform	ND	ug/L	5.0	1		04/09/13 23:53	67-66-3	
Chloromethane	ND	ug/L	5.0	1		04/09/13 23:53	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		04/09/13 23:53	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 23:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 23:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 23:53	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		04/09/13 23:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		04/09/13 23:53	107-06-2	
1,1-Dichloroethene	13.8	ug/L	5.0	1		04/09/13 23:53	75-35-4	
cis-1,2-Dichloroethene	9760	ug/L	2000	400		04/10/13 00:42	156-59-2	
trans-1,2-Dichloroethene	33.5	ug/L	5.0	1		04/09/13 23:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		04/09/13 23:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 23:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 23:53	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		04/09/13 23:53	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		04/09/13 23:53	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/09/13 23:53	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		04/09/13 23:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		04/09/13 23:53	108-10-1	
Styrene	ND	ug/L	5.0	1		04/09/13 23:53	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		04/09/13 23:53	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		04/09/13 23:53	127-18-4	
Toluene	ND	ug/L	5.0	1		04/09/13 23:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		04/09/13 23:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		04/09/13 23:53	79-00-5	
Trichloroethene	116	ug/L	5.0	1		04/09/13 23:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		04/09/13 23:53	75-69-4	
Vinyl chloride	816	ug/L	20.0	20		04/10/13 00:17	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		04/09/13 23:53	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		04/09/13 23:53	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	85-115	1		04/09/13 23:53	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	77-119	1		04/09/13 23:53	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		04/09/13 23:53	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

Sample: POST-CARB		Lab ID: 3090685003	Collected: 03/27/13 11:40	Received: 03/29/13 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	7610	ug/L	2000	200		04/09/13 23:29	67-64-1	
Benzene	ND	ug/L	1.0	1		04/09/13 23:04	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		04/09/13 23:04	75-27-4	
Bromoform	ND	ug/L	5.0	1		04/09/13 23:04	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/09/13 23:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		04/09/13 23:04	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		04/09/13 23:04	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		04/09/13 23:04	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		04/09/13 23:04	108-90-7	
Chloroethane	ND	ug/L	5.0	1		04/09/13 23:04	75-00-3	
Chloroform	ND	ug/L	5.0	1		04/09/13 23:04	67-66-3	
Chloromethane	ND	ug/L	5.0	1		04/09/13 23:04	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		04/09/13 23:04	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 23:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 23:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		04/09/13 23:04	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		04/09/13 23:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		04/09/13 23:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		04/09/13 23:04	75-35-4	
cis-1,2-Dichloroethene	22.2	ug/L	5.0	1		04/09/13 23:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		04/09/13 23:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		04/09/13 23:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 23:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		04/09/13 23:04	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		04/09/13 23:04	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		04/09/13 23:04	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/09/13 23:04	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		04/09/13 23:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		04/09/13 23:04	108-10-1	
Styrene	ND	ug/L	5.0	1		04/09/13 23:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		04/09/13 23:04	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		04/09/13 23:04	127-18-4	
Toluene	ND	ug/L	5.0	1		04/09/13 23:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		04/09/13 23:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		04/09/13 23:04	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		04/09/13 23:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		04/09/13 23:04	75-69-4	
Vinyl chloride	784	ug/L	200	200		04/09/13 23:29	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		04/09/13 23:04	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		04/09/13 23:04	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		04/09/13 23:04	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	77-119	1		04/09/13 23:04	17060-07-0	
Toluene-d8 (S)	100	%	85-115	1		04/09/13 23:04	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

Sample: TB-01		Lab ID: 3090685004		Collected: 03/27/13 00:01		Received: 03/29/13 10:00		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			04/09/13 00:07	67-64-1		
Benzene	ND ug/L	1.0	1			04/09/13 00:07	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			04/09/13 00:07	75-27-4		
Bromoform	ND ug/L	5.0	1			04/09/13 00:07	75-25-2		
Bromomethane	ND ug/L	5.0	1			04/09/13 00:07	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			04/09/13 00:07	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			04/09/13 00:07	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			04/09/13 00:07	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			04/09/13 00:07	108-90-7		
Chloroethane	ND ug/L	5.0	1			04/09/13 00:07	75-00-3		
Chloroform	ND ug/L	5.0	1			04/09/13 00:07	67-66-3		
Chloromethane	ND ug/L	5.0	1			04/09/13 00:07	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			04/09/13 00:07	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			04/09/13 00:07	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			04/09/13 00:07	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			04/09/13 00:07	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			04/09/13 00:07	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			04/09/13 00:07	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			04/09/13 00:07	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			04/09/13 00:07	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			04/09/13 00:07	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			04/09/13 00:07	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			04/09/13 00:07	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			04/09/13 00:07	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			04/09/13 00:07	100-41-4		
2-Hexanone	ND ug/L	10.0	1			04/09/13 00:07	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			04/09/13 00:07	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			04/09/13 00:07	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			04/09/13 00:07	108-10-1		
Styrene	ND ug/L	5.0	1			04/09/13 00:07	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			04/09/13 00:07	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			04/09/13 00:07	127-18-4		
Toluene	ND ug/L	5.0	1			04/09/13 00:07	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			04/09/13 00:07	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			04/09/13 00:07	79-00-5		
Trichloroethene	ND ug/L	5.0	1			04/09/13 00:07	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			04/09/13 00:07	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			04/09/13 00:07	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			04/09/13 00:07	179601-23-1		
o-Xylene	ND ug/L	5.0	1			04/09/13 00:07	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	101 %	85-115	1			04/09/13 00:07	460-00-4		
1,2-Dichloroethane-d4 (S)	110 %	77-119	1			04/09/13 00:07	17060-07-0		
Toluene-d8 (S)	97 %	85-115	1			04/09/13 00:07	2037-26-5		

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

QC Batch: MSV/15767

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 3090685001, 3090685004

METHOD BLANK: 564685

Matrix: Water

Associated Lab Samples: 3090685001, 3090685004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	04/08/13 23:42	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/08/13 23:42	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/08/13 23:42	
1,1-Dichloroethane	ug/L	ND	1.0	04/08/13 23:42	
1,1-Dichloroethene	ug/L	ND	1.0	04/08/13 23:42	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/08/13 23:42	
1,2-Dichloroethane	ug/L	ND	1.0	04/08/13 23:42	
1,2-Dichloropropane	ug/L	ND	1.0	04/08/13 23:42	
1,3-Dichlorobenzene	ug/L	ND	1.0	04/08/13 23:42	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/08/13 23:42	
2-Butanone (MEK)	ug/L	ND	10.0	04/08/13 23:42	
2-Hexanone	ug/L	ND	10.0	04/08/13 23:42	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	04/08/13 23:42	
Acetone	ug/L	ND	10.0	04/08/13 23:42	
Benzene	ug/L	ND	1.0	04/08/13 23:42	
Bromodichloromethane	ug/L	ND	1.0	04/08/13 23:42	
Bromoform	ug/L	ND	1.0	04/08/13 23:42	
Bromomethane	ug/L	ND	1.0	04/08/13 23:42	
Carbon disulfide	ug/L	ND	1.0	04/08/13 23:42	
Carbon tetrachloride	ug/L	ND	1.0	04/08/13 23:42	
Chlorobenzene	ug/L	ND	1.0	04/08/13 23:42	
Chloroethane	ug/L	ND	1.0	04/08/13 23:42	
Chloroform	ug/L	ND	1.0	04/08/13 23:42	
Chloromethane	ug/L	ND	1.0	04/08/13 23:42	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/08/13 23:42	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/08/13 23:42	
Dibromochloromethane	ug/L	ND	1.0	04/08/13 23:42	
Ethylbenzene	ug/L	ND	1.0	04/08/13 23:42	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	04/08/13 23:42	
m&p-Xylene	ug/L	ND	2.0	04/08/13 23:42	
Methylene Chloride	ug/L	1.2	1.0	04/08/13 23:42	B,C9
o-Xylene	ug/L	ND	1.0	04/08/13 23:42	
Styrene	ug/L	ND	1.0	04/08/13 23:42	
Tetrachloroethene	ug/L	ND	1.0	04/08/13 23:42	
Toluene	ug/L	ND	1.0	04/08/13 23:42	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/08/13 23:42	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/08/13 23:42	
Trichloroethene	ug/L	ND	1.0	04/08/13 23:42	
Trichlorofluoromethane	ug/L	ND	1.0	04/08/13 23:42	
Vinyl chloride	ug/L	ND	1.0	04/08/13 23:42	
1,2-Dichloroethane-d4 (S)	%	114	77-119	04/08/13 23:42	
4-Bromofluorobenzene (S)	%	99	85-115	04/08/13 23:42	
Toluene-d8 (S)	%	94	85-115	04/08/13 23:42	

Date: 04/12/2013 02:49 PM

REPORT OF LABORATORY ANALYSIS

Page 7 of 13

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

LABORATORY CONTROL SAMPLE: 564686

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	26.5	133	62-125	L1
1,1,2,2-Tetrachloroethane	ug/L	20	18.3	92	61-117	
1,1,2-Trichloroethane	ug/L	20	19.5	97	72-119	
1,1-Dichloroethane	ug/L	20	23.4	117	63-123	
1,1-Dichloroethene	ug/L	20	25.0	125	57-127	
1,2-Dichlorobenzene	ug/L	20	18.1	90	70-116	
1,2-Dichloroethane	ug/L	20	23.6	118	62-125	
1,2-Dichloropropane	ug/L	20	17.9	90	69-115	
1,3-Dichlorobenzene	ug/L	20	17.4	87	71-118	
1,4-Dichlorobenzene	ug/L	20	18.6	93	67-119	
2-Butanone (MEK)	ug/L	20	27.1	136	48-136	
2-Hexanone	ug/L	20	21.0	105	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.2	96	57-124	
Acetone	ug/L	20	31.6	158	49-138	L1
Benzene	ug/L	20	19.7	99	66-122	
Bromodichloromethane	ug/L	20	21.2	106	63-118	
Bromoform	ug/L	20	23.4	117	46-130	
Bromomethane	ug/L	20	23.4	117	10-175	
Carbon disulfide	ug/L	20	24.7	123	59-142	
Carbon tetrachloride	ug/L	20	26.3	132	55-126	L3
Chlorobenzene	ug/L	20	19.2	96	70-121	
Chloroethane	ug/L	20	24.1	120	24-161	
Chloroform	ug/L	20	23.4	117	62-126	
Chloromethane	ug/L	20	24.9	124	37-147	
cis-1,2-Dichloroethene	ug/L	20	21.4	107	64-121	
cis-1,3-Dichloropropene	ug/L	20	20.4	102	64-118	
Dibromochloromethane	ug/L	20	23.1	115	60-120	
Ethylbenzene	ug/L	20	18.5	92	69-119	
Isopropylbenzene (Cumene)	ug/L	20	19.8	99	68-126	
m&p-Xylene	ug/L	40	39.2	98	70-124	
Methylene Chloride	ug/L	20	24.0	120	59-128	
o-Xylene	ug/L	20	19.9	100	67-123	
Styrene	ug/L	20	24.6	123	67-146	
Tetrachloroethene	ug/L	20	20.5	103	62-125	
Toluene	ug/L	20	19.5	98	72-115	
trans-1,2-Dichloroethene	ug/L	20	23.0	115	59-122	
trans-1,3-Dichloropropene	ug/L	20	18.7	94	64-120	
Trichloroethene	ug/L	20	20.4	102	62-125	
Trichlorofluoromethane	ug/L	20	26.2	131	54-158	
Vinyl chloride	ug/L	20	24.0	120	52-145	
1,2-Dichloroethane-d4 (S)	%			116	77-119	
4-Bromofluorobenzene (S)	%			101	85-115	
Toluene-d8 (S)	%			93	85-115	

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

QC Batch: MSV/15783

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 3090685002, 3090685003

METHOD BLANK: 565288

Matrix: Water

Associated Lab Samples: 3090685002, 3090685003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	04/09/13 14:56	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	04/09/13 14:56	
1,1,2-Trichloroethane	ug/L	ND	1.0	04/09/13 14:56	
1,1-Dichloroethane	ug/L	ND	1.0	04/09/13 14:56	
1,1-Dichloroethene	ug/L	ND	1.0	04/09/13 14:56	
1,2-Dichlorobenzene	ug/L	ND	1.0	04/09/13 14:56	
1,2-Dichloroethane	ug/L	ND	1.0	04/09/13 14:56	
1,2-Dichloropropane	ug/L	ND	1.0	04/09/13 14:56	
1,3-Dichlorobenzene	ug/L	ND	1.0	04/09/13 14:56	
1,4-Dichlorobenzene	ug/L	ND	1.0	04/09/13 14:56	
2-Butanone (MEK)	ug/L	ND	10.0	04/09/13 14:56	
2-Hexanone	ug/L	ND	10.0	04/09/13 14:56	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	04/09/13 14:56	
Acetone	ug/L	ND	10.0	04/09/13 14:56	
Benzene	ug/L	ND	1.0	04/09/13 14:56	
Bromodichloromethane	ug/L	ND	1.0	04/09/13 14:56	
Bromoform	ug/L	ND	1.0	04/09/13 14:56	
Bromomethane	ug/L	ND	1.0	04/09/13 14:56	
Carbon disulfide	ug/L	ND	1.0	04/09/13 14:56	
Carbon tetrachloride	ug/L	ND	1.0	04/09/13 14:56	
Chlorobenzene	ug/L	ND	1.0	04/09/13 14:56	
Chloroethane	ug/L	ND	1.0	04/09/13 14:56	
Chloroform	ug/L	ND	1.0	04/09/13 14:56	
Chloromethane	ug/L	ND	1.0	04/09/13 14:56	
cis-1,2-Dichloroethene	ug/L	ND	1.0	04/09/13 14:56	
cis-1,3-Dichloropropene	ug/L	ND	1.0	04/09/13 14:56	
Dibromochloromethane	ug/L	ND	1.0	04/09/13 14:56	
Ethylbenzene	ug/L	ND	1.0	04/09/13 14:56	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	04/09/13 14:56	
m&p-Xylene	ug/L	ND	2.0	04/09/13 14:56	
Methylene Chloride	ug/L	ND	1.0	04/09/13 14:56	
o-Xylene	ug/L	ND	1.0	04/09/13 14:56	
Styrene	ug/L	ND	1.0	04/09/13 14:56	
Tetrachloroethene	ug/L	ND	1.0	04/09/13 14:56	
Toluene	ug/L	ND	1.0	04/09/13 14:56	
trans-1,2-Dichloroethene	ug/L	ND	1.0	04/09/13 14:56	
trans-1,3-Dichloropropene	ug/L	ND	1.0	04/09/13 14:56	
Trichloroethene	ug/L	1.0	1.0	04/09/13 14:56	P8
Trichlorofluoromethane	ug/L	ND	1.0	04/09/13 14:56	
Vinyl chloride	ug/L	ND	1.0	04/09/13 14:56	
1,2-Dichloroethane-d4 (S)	%	104	77-119	04/09/13 14:56	
4-Bromofluorobenzene (S)	%	104	85-115	04/09/13 14:56	
Toluene-d8 (S)	%	99	85-115	04/09/13 14:56	

Date: 04/12/2013 02:49 PM

REPORT OF LABORATORY ANALYSIS

Page 9 of 13

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

LABORATORY CONTROL SAMPLE: 565289

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.2	101	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	19.5	98	61-117	
1,1,2-Trichloroethane	ug/L	20	19.2	96	72-119	
1,1-Dichloroethane	ug/L	20	20.1	100	63-123	
1,1-Dichloroethene	ug/L	20	18.0	90	57-127	
1,2-Dichlorobenzene	ug/L	20	19.3	97	70-116	
1,2-Dichloroethane	ug/L	20	19.9	99	62-125	
1,2-Dichloropropane	ug/L	20	17.6	88	69-115	
1,3-Dichlorobenzene	ug/L	20	19.1	96	71-118	
1,4-Dichlorobenzene	ug/L	20	19.4	97	67-119	
2-Butanone (MEK)	ug/L	20	24.3	122	48-136	
2-Hexanone	ug/L	20	22.2	111	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	20.1	100	57-124	
Acetone	ug/L	20	26.2	131	49-138	
Benzene	ug/L	20	18.7	93	66-122	
Bromodichloromethane	ug/L	20	18.4	92	63-118	
Bromoform	ug/L	20	20.3	101	46-130	
Bromomethane	ug/L	20	16.1	81	10-175	
Carbon disulfide	ug/L	20	20.8	104	59-142	
Carbon tetrachloride	ug/L	20	18.5	93	55-126	
Chlorobenzene	ug/L	20	18.1	90	70-121	
Chloroethane	ug/L	20	19.7	99	24-161	
Chloroform	ug/L	20	20.6	103	62-126	
Chloromethane	ug/L	20	19.0	95	37-147	
cis-1,2-Dichloroethene	ug/L	20	22.8	114	64-121	
cis-1,3-Dichloropropene	ug/L	20	18.8	94	64-118	
Dibromochloromethane	ug/L	20	19.2	96	60-120	
Ethylbenzene	ug/L	20	18.0	90	69-119	
Isopropylbenzene (Cumene)	ug/L	20	20.4	102	68-126	
m&p-Xylene	ug/L	40	36.6	91	70-124	
Methylene Chloride	ug/L	20	20.5	103	59-128	
o-Xylene	ug/L	20	18.0	90	67-123	
Styrene	ug/L	20	22.3	111	67-146	
Tetrachloroethene	ug/L	20	20.5	103	62-125	
Toluene	ug/L	20	18.5	92	72-115	
trans-1,2-Dichloroethene	ug/L	20	18.5	92	59-122	
trans-1,3-Dichloropropene	ug/L	20	19.0	95	64-120	
Trichloroethene	ug/L	20	17.3	87	62-125	
Trichlorofluoromethane	ug/L	20	16.0	80	54-158	
Vinyl chloride	ug/L	20	19.3	96	52-145	
1,2-Dichloroethane-d4 (S)	%			100	77-119	
4-Bromofluorobenzene (S)	%			101	85-115	
Toluene-d8 (S)	%			98	85-115	

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 565290 565291											
Parameter	Units	3090598023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	12.1	20	20	38.4	37.1	132	125	62-125	3	M0
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.1	17.6	90	88	61-117	3	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.4	19.1	97	95	72-119	2	
1,1-Dichloroethane	ug/L	1.4	20	20	25.0	25.0	118	118	63-123	.1	
1,1-Dichloroethene	ug/L	1.9	20	20	21.1	22.9	96	105	57-127	8	
1,2-Dichlorobenzene	ug/L	ND	20	20	20.1	19.6	100	98	70-116	2	
1,2-Dichloroethane	ug/L	ND	20	20	23.6	23.2	118	116	62-125	2	
1,2-Dichloropropane	ug/L	ND	20	20	19.4	18.9	97	94	69-115	3	
1,3-Dichlorobenzene	ug/L	ND	20	20	19.2	19.2	96	96	71-118	.08	
1,4-Dichlorobenzene	ug/L	ND	20	20	20.0	19.2	100	96	67-119	4	
2-Butanone (MEK)	ug/L	ND	20	20	22.8	23.6	114	118	48-136	4	
2-Hexanone	ug/L	ND	20	20	21.6	21.1	108	105	52-130	3	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	19.3	19.7	97	98	57-124	2	
Acetone	ug/L	ND	20	20	22.0	23.4	110	117	49-138	6	
Benzene	ug/L	ND	20	20	20.0	19.8	100	99	66-122	1	
Bromodichloromethane	ug/L	ND	20	20	21.6	20.3	108	102	63-118	6	
Bromoform	ug/L	ND	20	20	19.9	20.2	100	101	46-130	1	
Bromomethane	ug/L	ND	20	20	10.4	13.2	52	66	10-175	24	
Carbon disulfide	ug/L	ND	20	20	18.9	28.1	95	140	59-142	39	R1
Carbon tetrachloride	ug/L	ND	20	20	22.4	22.2	112	111	55-126	.6	
Chlorobenzene	ug/L	ND	20	20	19.6	18.8	98	94	70-121	4	
Chloroethane	ug/L	ND	20	20	20.1	22.3	101	112	24-161	10	
Chloroform	ug/L	ND	20	20	24.9	24.3	124	121	62-126	3	
Chloromethane	ug/L	ND	20	20	20.6	22.0	103	110	37-147	6	
cis-1,2-Dichloroethene	ug/L	13.6	20	20	43.9	41.8	151	141	64-121	5	M0
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.7	19.2	99	96	64-118	3	
Dibromochloromethane	ug/L	ND	20	20	21.0	19.9	105	100	60-120	5	
Ethylbenzene	ug/L	ND	20	20	19.7	19.3	98	96	69-119	2	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	22.5	21.7	112	109	68-126	4	
m&p-Xylene	ug/L	ND	40	40	40.4	39.4	101	99	70-124	2	
Methylene Chloride	ug/L	ND	20	20	22.8	22.0	114	110	59-128	4	
o-Xylene	ug/L	ND	20	20	19.8	19.4	99	97	67-123	2	
Styrene	ug/L	ND	20	20	24.3	23.1	122	116	67-146	5	
Tetrachloroethene	ug/L	ND	20	20	21.6	21.2	108	106	62-125	2	
Toluene	ug/L	ND	20	20	20.2	19.8	101	99	72-115	2	
trans-1,2-Dichloroethene	ug/L	ND	20	20	21.8	21.5	109	108	59-122	1	
trans-1,3-Dichloropropene	ug/L	ND	20	20	20.1	19.7	100	98	64-120	2	
Trichloroethene	ug/L	76.7	20	20	89.7	78.8	65	11	62-125	13	M0
Trichlorofluoromethane	ug/L	ND	20	20	23.4	21.2	117	106	54-158	10	
Vinyl chloride	ug/L	ND	20	20	22.7	23.9	114	119	52-145	5	
1,2-Dichloroethane-d4 (S)	%						117	118	77-119		
4-Bromofluorobenzene (S)	%						99	103	85-115		
Toluene-d8 (S)	%						99	100	85-115		

QUALIFIERS

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/15767

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

C9 Common Laboratory Contaminant.

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

P8 Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.

R1 RPD value was outside control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181/Essex-Hope

Pace Project No.: 3090685

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3090685001	PRE-CARB	EPA 8260	MSV/15767		
3090685002	PRIMARY EFF	EPA 8260	MSV/15783		
3090685003	POST-CARB	EPA 8260	MSV/15783		
3090685004	TB-01	EPA 8260	MSV/15767		

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: **URS CORP**
Address: **POSTER PLAZA 6**
601 ANDERSON DR. STE. 400
PITTSBURGH, PA 15220
Email To:

Section B

Required Project Information:

Report To: **MARY DOWIAK**
Copy To: **VALERIE SIBETO**
Purchase Order No.: **41569501**
Project Name: **ESSEX/HOPE JMWEST/N**
Project Number: **41569501.10000**

Section C

Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

Section D

Required Analysis Filtered (Y/N)

Report To: **MARY DOWIAK**
Copy To: **VALERIE SIBETO**
Purchase Order No.: **41569501**
Project Name: **ESSEX/HOPE JMWEST/N**
Project Number: **41569501.10000**

Section E

Requested Analysis Filtered (Y/N)

ITEM #	Matrix Codes MATRIX / CODE	SAMPLE ID (A-Z, 0-9 / -)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test ↑	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
				COMPOSITE START	COMPOSITE END/GRAB						
1	Drinking Water	PRE-CARB	NTG	DATE	TIME	DATE	TIME	Unpreserved	↑ Analysis Test ↑		
2	Water	PRIMARY-EFF	NTG	3/23/13	1130			H ₂ SO ₄			001
3	Waste Water	POST-CARB	NTG	1135				HCl			002
4	Product	POST-CARB	NTG	1140				NaOH			003
5	Soil/Solid	POST-CARB	NTG	1210				Na ₂ S ₂ O ₃			
6	Oil	POST-CARB	NTG	1240				Other			
7	Wipe	POST-CARB	NTG	1310							
8	Air	TB-01	NTG	3/23/13							
9	Tissue										
10	Other										
11											
12											

Section F

Additional Comments

COMPOSITE FOUR (4)
POST-CARB SAMPLES IN
LAB AND REPORT A-S
POST-CARB COMPOSITE

Section G

Relinquished By / Affiliation

DATE

TIME

ACCEPTED BY / AFFILIATION

DATE

TIME

SAMPLE CONDITIONS

Temp In °C

Received on

Sealed Cooler

Custody

Samples Intact

Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

RTL

Sample Condition Upon Receipt



Client Name: URS

Project # 3090685

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 95771864541

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 5 6 7

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 2.6

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: <u>WMS/29/13</u>
--

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☐ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WA</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>WMS</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 3/4/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

3090685

WR5

[illegible]

July 15, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 3097625

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on June 28, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: Essex/Hope Jamestown

Pace Project No.: 3097625

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3097625

Sample: PRE-CARB		Lab ID: 3097625001	Collected: 06/27/13 10:00	Received: 06/28/13 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	6710	ug/L	1000	100		07/08/13 17:13	67-64-1	
Benzene	11.5	ug/L	1.0	1		07/08/13 16:49	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		07/08/13 16:49	75-27-4	
Bromoform	ND	ug/L	5.0	1		07/08/13 16:49	75-25-2	
Bromomethane	ND	ug/L	5.0	1		07/08/13 16:49	74-83-9	
2-Butanone (MEK)	31.8	ug/L	10.0	1		07/08/13 16:49	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		07/08/13 16:49	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		07/08/13 16:49	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		07/08/13 16:49	108-90-7	
Chloroethane	ND	ug/L	5.0	1		07/08/13 16:49	75-00-3	
Chloroform	ND	ug/L	5.0	1		07/08/13 16:49	67-66-3	
Chloromethane	ND	ug/L	5.0	1		07/08/13 16:49	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		07/08/13 16:49	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		07/08/13 16:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		07/08/13 16:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		07/08/13 16:49	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		07/08/13 16:49	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		07/08/13 16:49	107-06-2	
1,1-Dichloroethene	16.7	ug/L	5.0	1		07/08/13 16:49	75-35-4	
cis-1,2-Dichloroethene	4970	ug/L	500	100		07/08/13 17:13	156-59-2	
trans-1,2-Dichloroethene	123	ug/L	5.0	1		07/08/13 16:49	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		07/08/13 16:49	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		07/08/13 16:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		07/08/13 16:49	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		07/08/13 16:49	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		07/08/13 16:49	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/08/13 16:49	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		07/08/13 16:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		07/08/13 16:49	108-10-1	
Styrene	ND	ug/L	5.0	1		07/08/13 16:49	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		07/08/13 16:49	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		07/08/13 16:49	127-18-4	
Toluene	ND	ug/L	5.0	1		07/08/13 16:49	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		07/08/13 16:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		07/08/13 16:49	79-00-5	
Trichloroethene	2300	ug/L	500	100		07/08/13 17:13	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		07/08/13 16:49	75-69-4	
Vinyl chloride	645	ug/L	100	100		07/08/13 17:13	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		07/08/13 16:49	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		07/08/13 16:49	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	107	%	85-115	1		07/08/13 16:49	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	77-119	1		07/08/13 16:49	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		07/08/13 16:49	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3097625

Sample: PRIMARY-EFF		Lab ID: 3097625002		Collected: 06/27/13 10:05		Received: 06/28/13 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	7260	ug/L	1000	100			07/08/13 18:03	67-64-1	
Benzene	ND	ug/L	1.0	1			07/08/13 17:38	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			07/08/13 17:38	75-27-4	
Bromoform	ND	ug/L	5.0	1			07/08/13 17:38	75-25-2	
Bromomethane	ND	ug/L	5.0	1			07/08/13 17:38	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			07/08/13 17:38	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			07/08/13 17:38	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			07/08/13 17:38	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			07/08/13 17:38	108-90-7	
Chloroethane	ND	ug/L	5.0	1			07/08/13 17:38	75-00-3	
Chloroform	ND	ug/L	5.0	1			07/08/13 17:38	67-66-3	
Chloromethane	ND	ug/L	5.0	1			07/08/13 17:38	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			07/08/13 17:38	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			07/08/13 17:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			07/08/13 17:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			07/08/13 17:38	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			07/08/13 17:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			07/08/13 17:38	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			07/08/13 17:38	75-35-4	
cis-1,2-Dichloroethene	24.9	ug/L	5.0	1			07/08/13 17:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			07/08/13 17:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			07/08/13 17:38	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			07/08/13 17:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			07/08/13 17:38	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			07/08/13 17:38	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			07/08/13 17:38	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			07/08/13 17:38	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			07/08/13 17:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			07/08/13 17:38	108-10-1	
Styrene	ND	ug/L	5.0	1			07/08/13 17:38	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			07/08/13 17:38	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			07/08/13 17:38	127-18-4	
Toluene	ND	ug/L	5.0	1			07/08/13 17:38	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			07/08/13 17:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			07/08/13 17:38	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			07/08/13 17:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			07/08/13 17:38	75-69-4	
Vinyl chloride	89.0	ug/L	1.0	1			07/08/13 17:38	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			07/08/13 17:38	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			07/08/13 17:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	85-115	1			07/08/13 17:38	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	77-119	1			07/08/13 17:38	17060-07-0	
Toluene-d8 (S)	100	%	85-115	1			07/08/13 17:38	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3097625

Sample: POST-CARB **Lab ID: 3097625003** Collected: 06/27/13 11:40 Received: 06/28/13 09:30 Matrix: Water

Comments: • The sample was composited prior to 8260 VOA analysis.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	7190	ug/L	500	50		07/08/13 18:52	67-64-1	
Benzene	ND	ug/L	1.0	1		07/08/13 18:27	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		07/08/13 18:27	75-27-4	
Bromoform	ND	ug/L	5.0	1		07/08/13 18:27	75-25-2	
Bromomethane	ND	ug/L	5.0	1		07/08/13 18:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		07/08/13 18:27	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		07/08/13 18:27	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		07/08/13 18:27	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		07/08/13 18:27	108-90-7	
Chloroethane	ND	ug/L	5.0	1		07/08/13 18:27	75-00-3	
Chloroform	ND	ug/L	5.0	1		07/08/13 18:27	67-66-3	
Chloromethane	ND	ug/L	5.0	1		07/08/13 18:27	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		07/08/13 18:27	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		07/08/13 18:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		07/08/13 18:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		07/08/13 18:27	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		07/08/13 18:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		07/08/13 18:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		07/08/13 18:27	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		07/08/13 18:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		07/08/13 18:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		07/08/13 18:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		07/08/13 18:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		07/08/13 18:27	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		07/08/13 18:27	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		07/08/13 18:27	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/08/13 18:27	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		07/08/13 18:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		07/08/13 18:27	108-10-1	
Styrene	ND	ug/L	5.0	1		07/08/13 18:27	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		07/08/13 18:27	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		07/08/13 18:27	127-18-4	
Toluene	ND	ug/L	5.0	1		07/08/13 18:27	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		07/08/13 18:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		07/08/13 18:27	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		07/08/13 18:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		07/08/13 18:27	75-69-4	
Vinyl chloride	6.7	ug/L	1.0	1		07/08/13 18:27	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		07/08/13 18:27	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		07/08/13 18:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	85-115	1		07/08/13 18:27	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	77-119	1		07/08/13 18:27	17060-07-0	
Toluene-d8 (S)	98	%	85-115	1		07/08/13 18:27	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 3097625

Sample: TB-01		Lab ID: 3097625004		Collected: 06/27/13 00:01		Received: 06/28/13 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			07/08/13 11:04	67-64-1		
Benzene	ND ug/L	1.0	1			07/08/13 11:04	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			07/08/13 11:04	75-27-4		
Bromoform	ND ug/L	5.0	1			07/08/13 11:04	75-25-2		
Bromomethane	ND ug/L	5.0	1			07/08/13 11:04	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			07/08/13 11:04	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			07/08/13 11:04	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			07/08/13 11:04	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			07/08/13 11:04	108-90-7		
Chloroethane	ND ug/L	5.0	1			07/08/13 11:04	75-00-3		
Chloroform	ND ug/L	5.0	1			07/08/13 11:04	67-66-3		
Chloromethane	ND ug/L	5.0	1			07/08/13 11:04	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			07/08/13 11:04	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			07/08/13 11:04	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			07/08/13 11:04	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			07/08/13 11:04	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			07/08/13 11:04	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			07/08/13 11:04	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			07/08/13 11:04	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			07/08/13 11:04	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			07/08/13 11:04	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			07/08/13 11:04	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			07/08/13 11:04	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			07/08/13 11:04	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			07/08/13 11:04	100-41-4		
2-Hexanone	ND ug/L	10.0	1			07/08/13 11:04	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			07/08/13 11:04	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			07/08/13 11:04	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			07/08/13 11:04	108-10-1		
Styrene	ND ug/L	5.0	1			07/08/13 11:04	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			07/08/13 11:04	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			07/08/13 11:04	127-18-4		
Toluene	ND ug/L	5.0	1			07/08/13 11:04	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			07/08/13 11:04	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			07/08/13 11:04	79-00-5		
Trichloroethene	ND ug/L	5.0	1			07/08/13 11:04	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			07/08/13 11:04	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			07/08/13 11:04	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			07/08/13 11:04	179601-23-1		
o-Xylene	ND ug/L	5.0	1			07/08/13 11:04	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	103 %	85-115	1			07/08/13 11:04	460-00-4		
1,2-Dichloroethane-d4 (S)	107 %	77-119	1			07/08/13 11:04	17060-07-0		
Toluene-d8 (S)	98 %	85-115	1			07/08/13 11:04	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3097625

QC Batch: MSV/16660 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3097625001, 3097625002, 3097625003, 3097625004

METHOD BLANK: 603447 Matrix: Water

Associated Lab Samples: 3097625001, 3097625002, 3097625003, 3097625004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	07/08/13 10:14	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/08/13 10:14	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/08/13 10:14	
1,1-Dichloroethane	ug/L	ND	1.0	07/08/13 10:14	
1,1-Dichloroethene	ug/L	ND	1.0	07/08/13 10:14	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/08/13 10:14	
1,2-Dichloroethane	ug/L	ND	1.0	07/08/13 10:14	
1,2-Dichloropropane	ug/L	ND	1.0	07/08/13 10:14	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/08/13 10:14	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/08/13 10:14	
2-Butanone (MEK)	ug/L	ND	10.0	07/08/13 10:14	
2-Hexanone	ug/L	ND	10.0	07/08/13 10:14	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	07/08/13 10:14	
Acetone	ug/L	ND	10.0	07/08/13 10:14	
Benzene	ug/L	ND	1.0	07/08/13 10:14	
Bromodichloromethane	ug/L	ND	1.0	07/08/13 10:14	
Bromoform	ug/L	ND	1.0	07/08/13 10:14	
Bromomethane	ug/L	ND	1.0	07/08/13 10:14	
Carbon disulfide	ug/L	ND	1.0	07/08/13 10:14	
Carbon tetrachloride	ug/L	ND	1.0	07/08/13 10:14	
Chlorobenzene	ug/L	ND	1.0	07/08/13 10:14	
Chloroethane	ug/L	ND	1.0	07/08/13 10:14	
Chloroform	ug/L	ND	1.0	07/08/13 10:14	
Chloromethane	ug/L	ND	1.0	07/08/13 10:14	
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/08/13 10:14	
cis-1,3-Dichloropropene	ug/L	ND	1.0	07/08/13 10:14	
Dibromochloromethane	ug/L	ND	1.0	07/08/13 10:14	
Ethylbenzene	ug/L	ND	1.0	07/08/13 10:14	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	07/08/13 10:14	
m&p-Xylene	ug/L	ND	2.0	07/08/13 10:14	
Methylene Chloride	ug/L	ND	1.0	07/08/13 10:14	
o-Xylene	ug/L	ND	1.0	07/08/13 10:14	
Styrene	ug/L	ND	1.0	07/08/13 10:14	
Tetrachloroethene	ug/L	ND	1.0	07/08/13 10:14	
Toluene	ug/L	ND	1.0	07/08/13 10:14	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/08/13 10:14	
trans-1,3-Dichloropropene	ug/L	ND	1.0	07/08/13 10:14	
Trichloroethene	ug/L	ND	1.0	07/08/13 10:14	
Trichlorofluoromethane	ug/L	ND	1.0	07/08/13 10:14	
Vinyl chloride	ug/L	ND	1.0	07/08/13 10:14	
1,2-Dichloroethane-d4 (S)	%	105	77-119	07/08/13 10:14	
4-Bromofluorobenzene (S)	%	105	85-115	07/08/13 10:14	
Toluene-d8 (S)	%	96	85-115	07/08/13 10:14	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3097625

LABORATORY CONTROL SAMPLE: 603448

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	22.8	114	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.9	89	61-117	
1,1,2-Trichloroethane	ug/L	20	20.3	101	72-119	
1,1-Dichloroethane	ug/L	20	20.8	104	63-123	
1,1-Dichloroethene	ug/L	20	20.4	102	57-127	
1,2-Dichlorobenzene	ug/L	20	20.3	102	70-116	
1,2-Dichloroethane	ug/L	20	21.6	108	62-125	
1,2-Dichloropropane	ug/L	20	18.7	94	69-115	
1,3-Dichlorobenzene	ug/L	20	19.4	97	71-118	
1,4-Dichlorobenzene	ug/L	20	18.9	94	67-119	
2-Butanone (MEK)	ug/L	20	14.9	74	48-136	
2-Hexanone	ug/L	20	19.2	96	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	17.8	89	57-124	
Acetone	ug/L	20	15.0	75	49-138	
Benzene	ug/L	20	18.8	94	66-122	
Bromodichloromethane	ug/L	20	21.3	106	63-118	
Bromoform	ug/L	20	26.9	135	46-130	L3
Bromomethane	ug/L	20	18.7	94	10-175	
Carbon disulfide	ug/L	20	23.0	115	59-142	
Carbon tetrachloride	ug/L	20	18.6	93	55-126	
Chlorobenzene	ug/L	20	19.4	97	70-121	
Chloroethane	ug/L	20	23.3	116	24-161	
Chloroform	ug/L	20	20.6	103	62-126	
Chloromethane	ug/L	20	23.8	119	37-147	
cis-1,2-Dichloroethene	ug/L	20	21.3	106	64-121	
cis-1,3-Dichloropropene	ug/L	20	22.1	111	64-118	
Dibromochloromethane	ug/L	20	24.3	121	60-120	L3
Ethylbenzene	ug/L	20	19.9	100	69-119	
Isopropylbenzene (Cumene)	ug/L	20	20.2	101	68-126	
m&p-Xylene	ug/L	40	37.6	94	70-124	
Methylene Chloride	ug/L	20	21.9	110	59-128	
o-Xylene	ug/L	20	19.6	98	67-123	
Styrene	ug/L	20	24.1	120	67-146	
Tetrachloroethene	ug/L	20	19.7	99	62-125	
Toluene	ug/L	20	19.6	98	72-115	
trans-1,2-Dichloroethene	ug/L	20	20.7	104	59-122	
trans-1,3-Dichloropropene	ug/L	20	21.1	105	64-120	
Trichloroethene	ug/L	20	19.7	98	62-125	
Trichlorofluoromethane	ug/L	20	27.5	138	54-158	
Vinyl chloride	ug/L	20	22.6	113	52-145	
1,2-Dichloroethane-d4 (S)	%			112	77-119	
4-Bromofluorobenzene (S)	%			99	85-115	
Toluene-d8 (S)	%			98	85-115	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALIFIERS

Project: Essex/Hope Jamestown
Pace Project No.: 3097625

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/16660

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 3097625

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3097625001	PRE-CARB	EPA 8260	MSV/16660		
3097625002	PRIMARY-EFF	EPA 8260	MSV/16660		
3097625003	POST-CARB	EPA 8260	MSV/16660		
3097625004	TB-01	EPA 8260	MSV/16660		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: URS CORP	Report To: MARK DOWIAK	Attention:
Address: 681 ANDERSON DR. STE 400 PITTSBURGH, PA 15220	Copy To: VALEKIE SIBERD	Company Name:
		Address:
		Pace Quote Reference:
	Purchase Order No.: 415769501	
	Project Name: ESSAY/HOPE JAMES/DOWN	Pace Project Manager:
	Project Number: 415769501.10000	Pace Profile #:

Page: _____ of _____

1687890

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER _____

Site Location

STATE: NY

[illegible]



Sample Condition Upon Receipt

Client Name: URS Corp

Project # 3007625

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 8739 8101 9574

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 5 6 7

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 3.3

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: MAC 6/28/13

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>MAC</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 7/4/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

3097625

WDS Corp

[illegible]

August 14, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope JAMESTOWN
Pace Project No.: 3099751

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on July 31, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



David A. Pichette for
Timothy Reed
timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: Essex/Hope JAMESTOWN

Pace Project No.: 3099751

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope JAMESTOWN

Pace Project No.: 3099751

Sample: PRE-CARB		Lab ID: 3099751001	Collected: 07/30/13 10:30	Received: 07/31/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	3820	ug/L	2000	200		08/09/13 17:35	67-64-1	
Benzene	6.8	ug/L	1.0	1		08/09/13 17:10	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		08/09/13 17:10	75-27-4	
Bromoform	ND	ug/L	5.0	1		08/09/13 17:10	75-25-2	
Bromomethane	8.5	ug/L	5.0	1		08/09/13 17:10	74-83-9	
2-Butanone (MEK)	11.5	ug/L	10.0	1		08/09/13 17:10	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		08/09/13 17:10	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		08/09/13 17:10	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		08/09/13 17:10	108-90-7	
Chloroethane	ND	ug/L	5.0	1		08/09/13 17:10	75-00-3	
Chloroform	ND	ug/L	5.0	1		08/09/13 17:10	67-66-3	
Chloromethane	ND	ug/L	5.0	1		08/09/13 17:10	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		08/09/13 17:10	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		08/09/13 17:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		08/09/13 17:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		08/09/13 17:10	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		08/09/13 17:10	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		08/09/13 17:10	107-06-2	
1,1-Dichloroethene	12.6	ug/L	5.0	1		08/09/13 17:10	75-35-4	
cis-1,2-Dichloroethene	3580	ug/L	1000	200		08/09/13 17:35	156-59-2	
trans-1,2-Dichloroethene	133	ug/L	5.0	1		08/09/13 17:10	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		08/09/13 17:10	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		08/09/13 17:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		08/09/13 17:10	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		08/09/13 17:10	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		08/09/13 17:10	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		08/09/13 17:10	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/09/13 17:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		08/09/13 17:10	108-10-1	
Styrene	ND	ug/L	5.0	1		08/09/13 17:10	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		08/09/13 17:10	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		08/09/13 17:10	127-18-4	
Toluene	ND	ug/L	5.0	1		08/09/13 17:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/09/13 17:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		08/09/13 17:10	79-00-5	
Trichloroethene	1090	ug/L	1000	200		08/09/13 17:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		08/09/13 17:10	75-69-4	
Vinyl chloride	433	ug/L	200	200		08/09/13 17:35	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		08/09/13 17:10	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/09/13 17:10	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	85-115	1		08/09/13 17:10	460-00-4	
1,2-Dichloroethane-d4 (S)	94	%	77-119	1		08/09/13 17:10	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		08/09/13 17:10	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope JAMESTOWN

Pace Project No.: 3099751

Sample: PRIMARY-EFF		Lab ID: 3099751002		Collected: 07/30/13 10:35		Received: 07/31/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	57.7	ug/L	10.0	1			08/09/13 18:00	67-64-1	
Benzene	ND	ug/L	1.0	1			08/09/13 18:00	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			08/09/13 18:00	75-27-4	
Bromoform	ND	ug/L	5.0	1			08/09/13 18:00	75-25-2	
Bromomethane	ND	ug/L	5.0	1			08/09/13 18:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			08/09/13 18:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			08/09/13 18:00	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			08/09/13 18:00	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			08/09/13 18:00	108-90-7	
Chloroethane	ND	ug/L	5.0	1			08/09/13 18:00	75-00-3	
Chloroform	ND	ug/L	5.0	1			08/09/13 18:00	67-66-3	
Chloromethane	ND	ug/L	5.0	1			08/09/13 18:00	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			08/09/13 18:00	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			08/09/13 18:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			08/09/13 18:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			08/09/13 18:00	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			08/09/13 18:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			08/09/13 18:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			08/09/13 18:00	75-35-4	
cis-1,2-Dichloroethene	34.9	ug/L	5.0	1			08/09/13 18:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			08/09/13 18:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			08/09/13 18:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			08/09/13 18:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			08/09/13 18:00	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			08/09/13 18:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			08/09/13 18:00	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			08/09/13 18:00	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			08/09/13 18:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			08/09/13 18:00	108-10-1	
Styrene	ND	ug/L	5.0	1			08/09/13 18:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			08/09/13 18:00	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			08/09/13 18:00	127-18-4	
Toluene	ND	ug/L	5.0	1			08/09/13 18:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			08/09/13 18:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			08/09/13 18:00	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			08/09/13 18:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			08/09/13 18:00	75-69-4	
Vinyl chloride	434	ug/L	10.0	10			08/10/13 13:01	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			08/09/13 18:00	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			08/09/13 18:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	85-115	1			08/09/13 18:00	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	77-119	1			08/09/13 18:00	17060-07-0	
Toluene-d8 (S)	102	%	85-115	1			08/09/13 18:00	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope JAMESTOWN

Pace Project No.: 3099751

Sample: POST-CARB **Lab ID: 3099751003** Collected: 07/30/13 12:10 Received: 07/31/13 09:40 Matrix: Water

Comments: • The sample was composited from 4 vials prior to 8260 VOA analysis.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		08/09/13 18:24	67-64-1	
Benzene	ND ug/L		1.0	1		08/09/13 18:24	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		08/09/13 18:24	75-27-4	
Bromoform	ND ug/L		5.0	1		08/09/13 18:24	75-25-2	
Bromomethane	ND ug/L		5.0	1		08/09/13 18:24	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		08/09/13 18:24	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		08/09/13 18:24	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		08/09/13 18:24	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		08/09/13 18:24	108-90-7	
Chloroethane	ND ug/L		5.0	1		08/09/13 18:24	75-00-3	
Chloroform	ND ug/L		5.0	1		08/09/13 18:24	67-66-3	
Chloromethane	ND ug/L		5.0	1		08/09/13 18:24	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		08/09/13 18:24	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		08/09/13 18:24	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		08/09/13 18:24	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		08/09/13 18:24	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		08/09/13 18:24	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		08/09/13 18:24	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		08/09/13 18:24	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		08/09/13 18:24	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		08/09/13 18:24	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		08/09/13 18:24	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		08/09/13 18:24	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		08/09/13 18:24	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		08/09/13 18:24	100-41-4	
2-Hexanone	ND ug/L		10.0	1		08/09/13 18:24	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		08/09/13 18:24	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		08/09/13 18:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		08/09/13 18:24	108-10-1	
Styrene	ND ug/L		5.0	1		08/09/13 18:24	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		08/09/13 18:24	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		08/09/13 18:24	127-18-4	
Toluene	ND ug/L		5.0	1		08/09/13 18:24	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		08/09/13 18:24	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		08/09/13 18:24	79-00-5	
Trichloroethene	ND ug/L		5.0	1		08/09/13 18:24	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		08/09/13 18:24	75-69-4	
Vinyl chloride	2.3 ug/L		1.0	1		08/09/13 18:24	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		08/09/13 18:24	179601-23-1	
o-Xylene	ND ug/L		5.0	1		08/09/13 18:24	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	112 %		85-115	1		08/09/13 18:24	460-00-4	
1,2-Dichloroethane-d4 (S)	92 %		77-119	1		08/09/13 18:24	17060-07-0	
Toluene-d8 (S)	102 %		85-115	1		08/09/13 18:24	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope JAMESTOWN

Pace Project No.: 3099751

Sample: TB-01		Lab ID: 3099751004		Collected: 07/30/13 00:01		Received: 07/31/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			08/09/13 13:25	67-64-1		
Benzene	ND ug/L	1.0	1			08/09/13 13:25	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			08/09/13 13:25	75-27-4		
Bromoform	ND ug/L	5.0	1			08/09/13 13:25	75-25-2		
Bromomethane	ND ug/L	5.0	1			08/09/13 13:25	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			08/09/13 13:25	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			08/09/13 13:25	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			08/09/13 13:25	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			08/09/13 13:25	108-90-7		
Chloroethane	ND ug/L	5.0	1			08/09/13 13:25	75-00-3		
Chloroform	ND ug/L	5.0	1			08/09/13 13:25	67-66-3		
Chloromethane	ND ug/L	5.0	1			08/09/13 13:25	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			08/09/13 13:25	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			08/09/13 13:25	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			08/09/13 13:25	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			08/09/13 13:25	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			08/09/13 13:25	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			08/09/13 13:25	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			08/09/13 13:25	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			08/09/13 13:25	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			08/09/13 13:25	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			08/09/13 13:25	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			08/09/13 13:25	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			08/09/13 13:25	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			08/09/13 13:25	100-41-4		
2-Hexanone	ND ug/L	10.0	1			08/09/13 13:25	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			08/09/13 13:25	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			08/09/13 13:25	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			08/09/13 13:25	108-10-1		
Styrene	ND ug/L	5.0	1			08/09/13 13:25	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			08/09/13 13:25	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			08/09/13 13:25	127-18-4		
Toluene	ND ug/L	5.0	1			08/09/13 13:25	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			08/09/13 13:25	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			08/09/13 13:25	79-00-5		
Trichloroethene	ND ug/L	5.0	1			08/09/13 13:25	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			08/09/13 13:25	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			08/09/13 13:25	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			08/09/13 13:25	179601-23-1		
o-Xylene	ND ug/L	5.0	1			08/09/13 13:25	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	110 %	85-115	1			08/09/13 13:25	460-00-4		
1,2-Dichloroethane-d4 (S)	99 %	77-119	1			08/09/13 13:25	17060-07-0		
Toluene-d8 (S)	101 %	85-115	1			08/09/13 13:25	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope JAMESTOWN

Pace Project No.: 3099751

QC Batch: MSV16972 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3099751001, 3099751002, 3099751003, 3099751004

METHOD BLANK: 616720 Matrix: Water

Associated Lab Samples: 3099751001, 3099751002, 3099751003, 3099751004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	08/09/13 10:33	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	08/09/13 10:33	
1,1,2-Trichloroethane	ug/L	ND	1.0	08/09/13 10:33	
1,1-Dichloroethane	ug/L	ND	1.0	08/09/13 10:33	
1,1-Dichloroethene	ug/L	ND	1.0	08/09/13 10:33	
1,2-Dichlorobenzene	ug/L	ND	1.0	08/09/13 10:33	
1,2-Dichloroethane	ug/L	ND	1.0	08/09/13 10:33	
1,2-Dichloropropane	ug/L	ND	1.0	08/09/13 10:33	
1,3-Dichlorobenzene	ug/L	ND	1.0	08/09/13 10:33	
1,4-Dichlorobenzene	ug/L	ND	1.0	08/09/13 10:33	
2-Butanone (MEK)	ug/L	ND	10.0	08/09/13 10:33	
2-Hexanone	ug/L	ND	10.0	08/09/13 10:33	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	08/09/13 10:33	
Acetone	ug/L	ND	10.0	08/09/13 10:33	
Benzene	ug/L	ND	1.0	08/09/13 10:33	
Bromodichloromethane	ug/L	ND	1.0	08/09/13 10:33	
Bromoform	ug/L	ND	1.0	08/09/13 10:33	
Bromomethane	ug/L	ND	1.0	08/09/13 10:33	
Carbon disulfide	ug/L	ND	1.0	08/09/13 10:33	
Carbon tetrachloride	ug/L	ND	1.0	08/09/13 10:33	
Chlorobenzene	ug/L	ND	1.0	08/09/13 10:33	
Chloroethane	ug/L	ND	1.0	08/09/13 10:33	
Chloroform	ug/L	ND	1.0	08/09/13 10:33	
Chloromethane	ug/L	ND	1.0	08/09/13 10:33	
cis-1,2-Dichloroethene	ug/L	ND	1.0	08/09/13 10:33	
cis-1,3-Dichloropropene	ug/L	ND	1.0	08/09/13 10:33	
Dibromochloromethane	ug/L	ND	1.0	08/09/13 10:33	
Ethylbenzene	ug/L	ND	1.0	08/09/13 10:33	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	08/09/13 10:33	
m&p-Xylene	ug/L	ND	2.0	08/09/13 10:33	
Methylene Chloride	ug/L	ND	1.0	08/09/13 10:33	
o-Xylene	ug/L	ND	1.0	08/09/13 10:33	
Styrene	ug/L	ND	1.0	08/09/13 10:33	
Tetrachloroethene	ug/L	ND	1.0	08/09/13 10:33	
Toluene	ug/L	ND	1.0	08/09/13 10:33	
trans-1,2-Dichloroethene	ug/L	ND	1.0	08/09/13 10:33	
trans-1,3-Dichloropropene	ug/L	ND	1.0	08/09/13 10:33	
Trichloroethene	ug/L	ND	1.0	08/09/13 10:33	
Trichlorofluoromethane	ug/L	ND	1.0	08/09/13 10:33	
Vinyl chloride	ug/L	ND	1.0	08/09/13 10:33	
1,2-Dichloroethane-d4 (S)	%	98	77-119	08/09/13 10:33	
4-Bromofluorobenzene (S)	%	108	85-115	08/09/13 10:33	
Toluene-d8 (S)	%	99	85-115	08/09/13 10:33	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope JAMESTOWN

Pace Project No.: 3099751

LABORATORY CONTROL SAMPLE: 616721

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	16.0	80	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	21.0	105	61-117	
1,1,2-Trichloroethane	ug/L	20	19.0	95	72-119	
1,1-Dichloroethane	ug/L	20	18.1	90	63-123	
1,1-Dichloroethene	ug/L	20	17.9	90	57-127	
1,2-Dichlorobenzene	ug/L	20	18.3	91	70-116	
1,2-Dichloroethane	ug/L	20	17.1	86	62-125	
1,2-Dichloropropane	ug/L	20	18.4	92	69-115	
1,3-Dichlorobenzene	ug/L	20	19.6	98	71-118	
1,4-Dichlorobenzene	ug/L	20	19.9	99	67-119	
2-Butanone (MEK)	ug/L	20	17.6	88	48-136	
2-Hexanone	ug/L	20	19.0	95	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	18.0	90	57-124	
Acetone	ug/L	20	16.5	82	49-138	
Benzene	ug/L	20	18.1	91	66-122	
Bromodichloromethane	ug/L	20	16.0	80	63-118	
Bromoform	ug/L	20	16.4	82	46-130	
Bromomethane	ug/L	20	27.5	138	10-175	
Carbon disulfide	ug/L	20	26.0	130	59-142	
Carbon tetrachloride	ug/L	20	16.2	81	55-126	
Chlorobenzene	ug/L	20	17.3	87	70-121	
Chloroethane	ug/L	20	26.5	132	24-161	
Chloroform	ug/L	20	17.4	87	62-126	
Chloromethane	ug/L	20	21.0	105	37-147	
cis-1,2-Dichloroethene	ug/L	20	18.1	91	64-121	
cis-1,3-Dichloropropene	ug/L	20	19.5	97	64-118	
Dibromochloromethane	ug/L	20	17.3	86	60-120	
Ethylbenzene	ug/L	20	17.8	89	69-119	
Isopropylbenzene (Cumene)	ug/L	20	21.8	109	68-126	
m&p-Xylene	ug/L	40	36.3	91	70-124	
Methylene Chloride	ug/L	20	20.4	102	59-128	
o-Xylene	ug/L	20	18.4	92	67-123	
Styrene	ug/L	20	19.0	95	67-146	
Tetrachloroethene	ug/L	20	15.6	78	62-125	
Toluene	ug/L	20	17.9	89	72-115	
trans-1,2-Dichloroethene	ug/L	20	20.1	101	59-122	
trans-1,3-Dichloropropene	ug/L	20	17.7	89	64-120	
Trichloroethene	ug/L	20	17.1	86	62-125	
Trichlorofluoromethane	ug/L	20	18.0	90	54-158	
Vinyl chloride	ug/L	20	21.8	109	52-145	
1,2-Dichloroethane-d4 (S)	%			96	77-119	
4-Bromofluorobenzene (S)	%			102	85-115	
Toluene-d8 (S)	%			100	85-115	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope JAMESTOWN

Pace Project No.: 3099751

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 616873 616874											
Parameter	Units	3099742001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	19.5	21.0	98	105	62-125	7	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	22.7	22.3	113	112	61-117	2	
1,1,2-Trichloroethane	ug/L	ND	20	20	21.2	20.0	106	100	72-119	6	
1,1-Dichloroethane	ug/L	ND	20	20	21.6	22.1	108	110	63-123	2	
1,1-Dichloroethene	ug/L	ND	20	20	23.1	24.2	116	121	57-127	5	
1,2-Dichlorobenzene	ug/L	ND	20	20	21.1	21.0	105	105	70-116	0	
1,2-Dichloroethane	ug/L	ND	20	20	19.3	19.3	97	96	62-125	0	
1,2-Dichloropropane	ug/L	ND	20	20	20.4	20.7	102	104	69-115	2	
1,3-Dichlorobenzene	ug/L	ND	20	20	21.8	22.9	109	114	71-118	5	
1,4-Dichlorobenzene	ug/L	ND	20	20	23.3	22.8	117	114	67-119	2	
2-Butanone (MEK)	ug/L	ND	20	20	16.0	16.9	80	84	48-136	5	
2-Hexanone	ug/L	ND	20	20	17.1	18.2	86	91	52-130	6	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	16.1	17.1	80	86	57-124	6	
Acetone	ug/L	ND	20	20	16.7	16.9	84	84	49-138	1	
Benzene	ug/L	ND	20	20	20.4	20.9	102	105	66-122	3	
Bromodichloromethane	ug/L	ND	20	20	17.3	18.2	87	91	63-118	5	
Bromoform	ug/L	ND	20	20	18.2	19.3	91	97	46-130	6	
Bromomethane	ug/L	ND	20	20	17.7	20.2	89	101	10-175	13	
Carbon disulfide	ug/L	ND	20	20	20.0	25.3	100	126	59-142	23	
Carbon tetrachloride	ug/L	ND	20	20	19.3	18.8	96	94	55-126	2	
Chlorobenzene	ug/L	ND	20	20	19.9	20.4	99	102	70-121	3	
Chloroethane	ug/L	ND	20	20	38.2	40.6	191	203	24-161	6	M0
Chloroform	ug/L	ND	20	20	21.6	22.1	105	108	62-126	2	
Chloromethane	ug/L	ND	20	20	18.8	19.4	94	97	37-147	3	
cis-1,2-Dichloroethene	ug/L	ND	20	20	21.9	21.6	109	108	64-121	1	
cis-1,3-Dichloropropene	ug/L	ND	20	20	20.7	21.4	103	107	64-118	4	
Dibromochloromethane	ug/L	ND	20	20	19.1	17.8	96	89	60-120	7	
Ethylbenzene	ug/L	ND	20	20	21.8	22.0	104	105	69-119	1	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	25.5	25.6	127	128	68-126	1	M0
m&p-Xylene	ug/L	4.5	40	40	46.0	46.3	104	104	70-124	0	
Methylene Chloride	ug/L	ND	20	20	22.8	23.6	114	118	59-128	3	
o-Xylene	ug/L	ND	20	20	21.5	21.5	108	107	67-123	0	
Styrene	ug/L	ND	20	20	22.0	21.6	110	108	67-146	2	
Tetrachloroethene	ug/L	ND	20	20	19.4	19.6	97	98	62-125	1	
Toluene	ug/L	ND	20	20	21.3	21.7	103	105	72-115	2	
trans-1,2-Dichloroethene	ug/L	ND	20	20	22.6	23.8	113	119	59-122	5	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.7	18.9	98	95	64-120	4	
Trichloroethene	ug/L	ND	20	20	19.4	19.6	97	98	62-125	1	
Trichlorofluoromethane	ug/L	ND	20	20	18.4	19.2	92	96	54-158	4	
Vinyl chloride	ug/L	ND	20	20	24.2	25.7	121	129	52-145	6	
1,2-Dichloroethane-d4 (S)	%						98	98	77-119		
4-Bromofluorobenzene (S)	%						99	96	85-115		
Toluene-d8 (S)	%						95	94	85-115		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALIFIERS

Project: Essex/Hope JAMESTOWN

Pace Project No.: 3099751

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope JAMESTOWN

Pace Project No.: 3099751

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3099751001	PRE-CARB	EPA 8260	MSV/16972		
3099751002	PRIMARY-EFF	EPA 8260	MSV/16972		
3099751003	POST-CARB	EPA 8260	MSV/16972		
3099751004	TB-01	EPA 8260	MSV/16972		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CHAIN-OF-CUSTODY / Analytical Request Document
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	URS Corp	Report To:	MARK DOWIAK	Attention:	
Address:	FOSTER PLAZA 6 601 ANDERSEN DR STE. 400 PITTSBURGH, PA 15220	Copy To:	VIA LEXIE SIBETO	Company Name:	
Email To:		Purchase Order No.:	41569501	Address:	
Phone:	412-503-4700	Project Name:	ESSEX/HOPE JAMES STOWN	Pace Quote Reference:	
Fax:	412-503-4701	Project Number:	41569501.10000	Pace Project Manager:	
Requested Due Date/TAT:	STANDARD			Pace Profile #:	

Page: _____ of _____
1220598

REGULATORY AGENCY	
☐ NPDES	☐ GROUND WATER
☐ UST	☐ RCRA
☐ DRINKING WATER	
☐ OTHER	

Site Location
NY

STATE:

[illegible]

*Important Note- By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-A11-Q-020 rev. 07. 15-May-2007



Sample Condition Upon Receipt

TAN

Client Name: URS Corp

Project # 3064-751

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 8739 8101 9565

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used (5) 6 7

Type of Ice: Wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature 3.4

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: WTC 7-31-13

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☐ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☐ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W7</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA, coliform, TOC, O&G, WI-DRO (water)</u>	☒ Yes ☐ No	Initial when completed <u>WTC</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 8/5/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

3099751
URS Corp

URS Corp

[illegible]

September 18, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: ESSEX/HOPE JAMESTOWN
Pace Project No.: 30102562

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on September 10, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30102562

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30102562

Sample: PRE-CARB		Lab ID: 30102562001	Collected: 09/09/13 12:05	Received: 09/10/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	47.3 ug/L		10.0	1		09/16/13 20:16	67-64-1	
Benzene	3.9 ug/L		1.0	1		09/16/13 20:16	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		09/16/13 20:16	75-27-4	
Bromoform	ND ug/L		5.0	1		09/16/13 20:16	75-25-2	
Bromomethane	ND ug/L		5.0	1		09/16/13 20:16	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		09/16/13 20:16	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		09/16/13 20:16	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		09/16/13 20:16	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		09/16/13 20:16	108-90-7	
Chloroethane	ND ug/L		5.0	1		09/16/13 20:16	75-00-3	
Chloroform	ND ug/L		5.0	1		09/16/13 20:16	67-66-3	
Chloromethane	ND ug/L		5.0	1		09/16/13 20:16	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		09/16/13 20:16	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		09/16/13 20:16	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		09/16/13 20:16	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		09/16/13 20:16	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		09/16/13 20:16	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		09/16/13 20:16	107-06-2	
1,1-Dichloroethene	9.1 ug/L		5.0	1		09/16/13 20:16	75-35-4	
cis-1,2-Dichloroethene	4230 ug/L		1000	200		09/16/13 20:43	156-59-2	
trans-1,2-Dichloroethene	50.8 ug/L		5.0	1		09/16/13 20:16	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		09/16/13 20:16	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		09/16/13 20:16	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		09/16/13 20:16	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		09/16/13 20:16	100-41-4	
2-Hexanone	ND ug/L		10.0	1		09/16/13 20:16	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		09/16/13 20:16	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		09/16/13 20:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		09/16/13 20:16	108-10-1	
Styrene	ND ug/L		5.0	1		09/16/13 20:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		09/16/13 20:16	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		09/16/13 20:16	127-18-4	
Toluene	ND ug/L		5.0	1		09/16/13 20:16	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		09/16/13 20:16	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		09/16/13 20:16	79-00-5	
Trichloroethene	159 ug/L		5.0	1		09/16/13 20:16	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		09/16/13 20:16	75-69-4	
Vinyl chloride	414 ug/L		200	200		09/16/13 20:43	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		09/16/13 20:16	179601-23-1	
o-Xylene	ND ug/L		5.0	1		09/16/13 20:16	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103 %		85-115	1		09/16/13 20:16	460-00-4	
1,2-Dichloroethane-d4 (S)	108 %		77-119	1		09/16/13 20:16	17060-07-0	
Toluene-d8 (S)	92 %		85-115	1		09/16/13 20:16	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30102562

Sample: PRIMARY-EFF		Lab ID: 30102562002	Collected: 09/09/13 12:10	Received: 09/10/13 09:40	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	4420	ug/L	1000	100		09/17/13 14:07	67-64-1	
Benzene	ND	ug/L	1.0	1		09/16/13 21:09	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		09/16/13 21:09	75-27-4	
Bromoform	ND	ug/L	5.0	1		09/16/13 21:09	75-25-2	
Bromomethane	ND	ug/L	5.0	1		09/16/13 21:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		09/16/13 21:09	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		09/16/13 21:09	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		09/16/13 21:09	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		09/16/13 21:09	108-90-7	
Chloroethane	ND	ug/L	5.0	1		09/16/13 21:09	75-00-3	
Chloroform	ND	ug/L	5.0	1		09/16/13 21:09	67-66-3	
Chloromethane	ND	ug/L	5.0	1		09/16/13 21:09	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		09/16/13 21:09	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		09/16/13 21:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		09/16/13 21:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		09/16/13 21:09	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		09/16/13 21:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/16/13 21:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		09/16/13 21:09	75-35-4	
cis-1,2-Dichloroethene	92.1	ug/L	5.0	1		09/16/13 21:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		09/16/13 21:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		09/16/13 21:09	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		09/16/13 21:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		09/16/13 21:09	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		09/16/13 21:09	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		09/16/13 21:09	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/16/13 21:09	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		09/16/13 21:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/16/13 21:09	108-10-1	
Styrene	ND	ug/L	5.0	1		09/16/13 21:09	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		09/16/13 21:09	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		09/16/13 21:09	127-18-4	
Toluene	ND	ug/L	5.0	1		09/16/13 21:09	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		09/16/13 21:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		09/16/13 21:09	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		09/16/13 21:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		09/16/13 21:09	75-69-4	
Vinyl chloride	841	ug/L	10.0	10		09/16/13 21:36	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		09/16/13 21:09	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		09/16/13 21:09	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	85-115	1		09/16/13 21:09	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	77-119	1		09/16/13 21:09	17060-07-0	
Toluene-d8 (S)	93	%	85-115	1		09/16/13 21:09	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30102562

Sample: POST-CARB **Lab ID: 30102562003** Collected: 09/09/13 13:45 Received: 09/10/13 09:40 Matrix: Water

Comments: • VOA 8260: The sample was composited from 4 vials prior to analysis for 8260 VOA analysis.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	321	ug/L	10.0	1		09/16/13 22:02	67-64-1	
Benzene	ND	ug/L	1.0	1		09/16/13 22:02	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		09/16/13 22:02	75-27-4	
Bromoform	ND	ug/L	5.0	1		09/16/13 22:02	75-25-2	
Bromomethane	ND	ug/L	5.0	1		09/16/13 22:02	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		09/16/13 22:02	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		09/16/13 22:02	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		09/16/13 22:02	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		09/16/13 22:02	108-90-7	
Chloroethane	ND	ug/L	5.0	1		09/16/13 22:02	75-00-3	
Chloroform	ND	ug/L	5.0	1		09/16/13 22:02	67-66-3	
Chloromethane	ND	ug/L	5.0	1		09/16/13 22:02	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		09/16/13 22:02	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		09/16/13 22:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		09/16/13 22:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		09/16/13 22:02	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		09/16/13 22:02	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		09/16/13 22:02	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		09/16/13 22:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		09/16/13 22:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		09/16/13 22:02	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		09/16/13 22:02	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		09/16/13 22:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		09/16/13 22:02	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		09/16/13 22:02	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		09/16/13 22:02	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		09/16/13 22:02	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		09/16/13 22:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		09/16/13 22:02	108-10-1	
Styrene	ND	ug/L	5.0	1		09/16/13 22:02	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		09/16/13 22:02	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		09/16/13 22:02	127-18-4	
Toluene	ND	ug/L	5.0	1		09/16/13 22:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		09/16/13 22:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		09/16/13 22:02	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		09/16/13 22:02	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		09/16/13 22:02	75-69-4	
Vinyl chloride	7.9	ug/L	1.0	1		09/16/13 22:02	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		09/16/13 22:02	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		09/16/13 22:02	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	111	%	85-115	1		09/16/13 22:02	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	77-119	1		09/16/13 22:02	17060-07-0	
Toluene-d8 (S)	93	%	85-115	1		09/16/13 22:02	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30102562

Sample: TB-01		Lab ID: 30102562004		Collected: 09/09/13 00:01		Received: 09/10/13 09:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			09/16/13 14:04	67-64-1		
Benzene	ND ug/L	1.0	1			09/16/13 14:04	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			09/16/13 14:04	75-27-4		
Bromoform	ND ug/L	5.0	1			09/16/13 14:04	75-25-2		
Bromomethane	ND ug/L	5.0	1			09/16/13 14:04	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			09/16/13 14:04	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			09/16/13 14:04	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			09/16/13 14:04	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			09/16/13 14:04	108-90-7		
Chloroethane	ND ug/L	5.0	1			09/16/13 14:04	75-00-3		
Chloroform	ND ug/L	5.0	1			09/16/13 14:04	67-66-3		
Chloromethane	ND ug/L	5.0	1			09/16/13 14:04	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			09/16/13 14:04	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			09/16/13 14:04	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			09/16/13 14:04	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			09/16/13 14:04	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			09/16/13 14:04	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			09/16/13 14:04	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			09/16/13 14:04	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			09/16/13 14:04	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			09/16/13 14:04	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			09/16/13 14:04	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			09/16/13 14:04	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			09/16/13 14:04	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			09/16/13 14:04	100-41-4		
2-Hexanone	ND ug/L	10.0	1			09/16/13 14:04	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			09/16/13 14:04	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			09/16/13 14:04	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			09/16/13 14:04	108-10-1		
Styrene	ND ug/L	5.0	1			09/16/13 14:04	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			09/16/13 14:04	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			09/16/13 14:04	127-18-4		
Toluene	ND ug/L	5.0	1			09/16/13 14:04	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			09/16/13 14:04	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			09/16/13 14:04	79-00-5		
Trichloroethene	ND ug/L	5.0	1			09/16/13 14:04	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			09/16/13 14:04	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			09/16/13 14:04	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			09/16/13 14:04	179601-23-1		
o-Xylene	ND ug/L	5.0	1			09/16/13 14:04	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	105 %	85-115	1			09/16/13 14:04	460-00-4		
1,2-Dichloroethane-d4 (S)	105 %	77-119	1			09/16/13 14:04	17060-07-0		
Toluene-d8 (S)	97 %	85-115	1			09/16/13 14:04	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30102562

QC Batch: MSV/17340

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 30102562001, 30102562002, 30102562003, 30102562004

METHOD BLANK: 631056

Matrix: Water

Associated Lab Samples: 30102562001, 30102562002, 30102562003, 30102562004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	09/16/13 12:45	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	09/16/13 12:45	
1,1,2-Trichloroethane	ug/L	ND	1.0	09/16/13 12:45	
1,1-Dichloroethane	ug/L	ND	1.0	09/16/13 12:45	
1,1-Dichloroethene	ug/L	ND	1.0	09/16/13 12:45	
1,2-Dichlorobenzene	ug/L	ND	1.0	09/16/13 12:45	
1,2-Dichloroethane	ug/L	ND	1.0	09/16/13 12:45	
1,2-Dichloropropane	ug/L	ND	1.0	09/16/13 12:45	
1,3-Dichlorobenzene	ug/L	ND	1.0	09/16/13 12:45	
1,4-Dichlorobenzene	ug/L	ND	1.0	09/16/13 12:45	
2-Butanone (MEK)	ug/L	ND	10.0	09/16/13 12:45	
2-Hexanone	ug/L	ND	10.0	09/16/13 12:45	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	09/16/13 12:45	
Acetone	ug/L	ND	10.0	09/16/13 12:45	
Benzene	ug/L	ND	1.0	09/16/13 12:45	
Bromodichloromethane	ug/L	ND	1.0	09/16/13 12:45	
Bromoform	ug/L	ND	1.0	09/16/13 12:45	
Bromomethane	ug/L	ND	1.0	09/16/13 12:45	
Carbon disulfide	ug/L	ND	1.0	09/16/13 12:45	
Carbon tetrachloride	ug/L	ND	1.0	09/16/13 12:45	
Chlorobenzene	ug/L	ND	1.0	09/16/13 12:45	
Chloroethane	ug/L	ND	1.0	09/16/13 12:45	
Chloroform	ug/L	ND	1.0	09/16/13 12:45	
Chloromethane	ug/L	ND	1.0	09/16/13 12:45	
cis-1,2-Dichloroethene	ug/L	ND	1.0	09/16/13 12:45	
cis-1,3-Dichloropropene	ug/L	ND	1.0	09/16/13 12:45	
Dibromochloromethane	ug/L	ND	1.0	09/16/13 12:45	
Ethylbenzene	ug/L	ND	1.0	09/16/13 12:45	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	09/16/13 12:45	
m&p-Xylene	ug/L	ND	2.0	09/16/13 12:45	
Methylene Chloride	ug/L	ND	1.0	09/16/13 12:45	
o-Xylene	ug/L	ND	1.0	09/16/13 12:45	
Styrene	ug/L	ND	1.0	09/16/13 12:45	
Tetrachloroethene	ug/L	ND	1.0	09/16/13 12:45	
Toluene	ug/L	ND	1.0	09/16/13 12:45	
trans-1,2-Dichloroethene	ug/L	ND	1.0	09/16/13 12:45	
trans-1,3-Dichloropropene	ug/L	ND	1.0	09/16/13 12:45	
Trichloroethene	ug/L	ND	1.0	09/16/13 12:45	
Trichlorofluoromethane	ug/L	ND	1.0	09/16/13 12:45	
Vinyl chloride	ug/L	ND	1.0	09/16/13 12:45	
1,2-Dichloroethane-d4 (S)	%	105	77-119	09/16/13 12:45	
4-Bromofluorobenzene (S)	%	105	85-115	09/16/13 12:45	
Toluene-d8 (S)	%	96	85-115	09/16/13 12:45	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30102562

LABORATORY CONTROL SAMPLE: 631057

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.9	105	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.6	88	61-117	
1,1,2-Trichloroethane	ug/L	20	18.7	94	72-119	
1,1-Dichloroethane	ug/L	20	20.4	102	63-123	
1,1-Dichloroethene	ug/L	20	20.7	103	57-127	
1,2-Dichlorobenzene	ug/L	20	17.7	89	70-116	
1,2-Dichloroethane	ug/L	20	20.4	102	62-125	
1,2-Dichloropropane	ug/L	20	17.3	87	69-115	
1,3-Dichlorobenzene	ug/L	20	18.0	90	71-118	
1,4-Dichlorobenzene	ug/L	20	18.3	91	67-119	
2-Butanone (MEK)	ug/L	20	19.4	97	48-136	
2-Hexanone	ug/L	20	23.9	119	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	17.5	87	57-124	
Acetone	ug/L	20	19.0	95	49-138	
Benzene	ug/L	20	18.1	91	66-122	
Bromodichloromethane	ug/L	20	16.6	83	63-118	
Bromoform	ug/L	20	16.5	82	46-130	
Bromomethane	ug/L	20	25.6	128	10-175	
Carbon disulfide	ug/L	20	26.8	134	59-142	
Carbon tetrachloride	ug/L	20	19.4	97	55-126	
Chlorobenzene	ug/L	20	17.8	89	70-121	
Chloroethane	ug/L	20	19.5	97	24-161	
Chloroform	ug/L	20	20.3	101	62-126	
Chloromethane	ug/L	20	17.7	89	37-147	
cis-1,2-Dichloroethene	ug/L	20	21.0	105	64-121	
cis-1,3-Dichloropropene	ug/L	20	18.4	92	64-118	
Dibromochloromethane	ug/L	20	17.3	87	60-120	
Ethylbenzene	ug/L	20	18.1	90	69-119	
Isopropylbenzene (Cumene)	ug/L	20	18.9	94	68-126	
m&p-Xylene	ug/L	40	36.7	92	70-124	
Methylene Chloride	ug/L	20	21.7	109	59-128	
o-Xylene	ug/L	20	17.4	87	67-123	
Styrene	ug/L	20	18.8	94	67-146	
Tetrachloroethene	ug/L	20	17.6	88	62-125	
Toluene	ug/L	20	18.1	91	72-115	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	59-122	
trans-1,3-Dichloropropene	ug/L	20	17.8	89	64-120	
Trichloroethene	ug/L	20	16.7	83	62-125	
Trichlorofluoromethane	ug/L	20	18.0	90	54-158	
Vinyl chloride	ug/L	20	17.6	88	52-145	
1,2-Dichloroethane-d4 (S)	%			108	77-119	
4-Bromofluorobenzene (S)	%			98	85-115	
Toluene-d8 (S)	%			92	85-115	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30102562

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 631058 631059											
Parameter	Units	30102301001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	23.0	23.0	115	115	62-125	0	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	17.0	16.4	85	82	61-117	3	
1,1,2-Trichloroethane	ug/L	ND	20	20	17.5	18.4	87	92	72-119	5	
1,1-Dichloroethane	ug/L	18.7	20	20	41.1	40.4	112	108	63-123	2	
1,1-Dichloroethene	ug/L	ND	20	20	23.5	23.1	118	116	57-127	2	
1,2-Dichlorobenzene	ug/L	ND	20	20	16.5	16.2	83	81	70-116	2	
1,2-Dichloroethane	ug/L	ND	20	20	21.8	21.6	109	108	62-125	1	
1,2-Dichloropropane	ug/L	ND	20	20	17.4	17.2	87	86	69-115	1	
1,3-Dichlorobenzene	ug/L	ND	20	20	17.1	17.3	86	86	71-118	1	
1,4-Dichlorobenzene	ug/L	ND	20	20	16.3	16.7	82	84	67-119	2	
2-Butanone (MEK)	ug/L	ND	20	20	19.3	19.8	96	99	48-136	3	
2-Hexanone	ug/L	ND	20	20	23.8	24.5	119	122	52-130	3	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	16.6	18.0	83	90	57-124	8	
Acetone	ug/L	ND	20	20	18.1	18.0	80	80	49-138	0	
Benzene	ug/L	3.2	20	20	21.1	21.9	90	93	66-122	3	
Bromodichloromethane	ug/L	ND	20	20	16.1	15.7	81	79	63-118	3	
Bromoform	ug/L	ND	20	20	14.8	14.7	74	73	46-130	1	
Bromomethane	ug/L	ND	20	20	15.2	16.9	76	84	10-175	10	
Carbon disulfide	ug/L	ND	20	20	28.4	28.3	142	142	59-142	0	
Carbon tetrachloride	ug/L	ND	20	20	19.5	18.8	97	94	55-126	4	
Chlorobenzene	ug/L	ND	20	20	17.6	17.8	88	89	70-121	1	
Chloroethane	ug/L	ND	20	20	24.0	21.8	120	109	24-161	10	
Chloroform	ug/L	ND	20	20	21.2	20.7	106	104	62-126	2	
Chloromethane	ug/L	ND	20	20	22.6	23.5	113	117	37-147	4	
cis-1,2-Dichloroethene	ug/L	ND	20	20	23.7	23.1	115	112	64-121	2	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.4	17.7	87	89	64-118	2	
Dibromochloromethane	ug/L	ND	20	20	15.9	16.4	79	82	60-120	3	
Ethylbenzene	ug/L	ND	20	20	18.1	18.7	91	93	69-119	3	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	18.7	18.4	93	92	68-126	2	
m&p-Xylene	ug/L	ND	40	40	36.3	37.0	91	92	70-124	2	
Methylene Chloride	ug/L	ND	20	20	21.7	21.0	108	105	59-128	3	
o-Xylene	ug/L	ND	20	20	17.4	17.7	87	88	67-123	2	
Styrene	ug/L	ND	20	20	18.3	19.2	91	96	67-146	5	
Tetrachloroethene	ug/L	ND	20	20	17.9	18.0	89	90	62-125	1	
Toluene	ug/L	ND	20	20	18.0	18.7	90	93	72-115	3	
trans-1,2-Dichloroethene	ug/L	ND	20	20	22.3	22.3	111	112	59-122	0	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.6	16.8	83	84	64-120	1	
Trichloroethene	ug/L	ND	20	20	16.7	17.1	83	86	62-125	3	
Trichlorofluoromethane	ug/L	ND	20	20	22.5	22.5	113	113	54-158	0	
Vinyl chloride	ug/L	11.0	20	20	33.3	33.1	112	111	52-145	0	
1,2-Dichloroethane-d4 (S)	%						112	109	77-119		
4-Bromofluorobenzene (S)	%						99	97	85-115		
Toluene-d8 (S)	%						90	92	85-115		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALIFIERS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30102562

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30102562

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30102562001	PRE-CARB	EPA 8260	MSV/17340		
30102562002	PRIMARY-EFF	EPA 8260	MSV/17340		
30102562003	POST-CARB	EPA 8260	MSV/17340		
30102562004	TB-01	EPA 8260	MSV/17340		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Section A

Required Client Information:

Company: URS CORP
Address: FOSTAL PLAZA C
601 ANDERSON DR. STE 400
PITTSBURGH, PA 15210
Phone: 412-573-4700 Fax: 412-573-4701
Email To:
Requested Due Date/TAT: 9/12/2013

Section B

Required Project Information:

Report To: MARK DAJIAK
Copy To: VALERIE SIBERT
Purchase Order No.: 41589501
Project Name: ESSEX/HOME JAMESSTOWN
Project Number: 41589501.10000

Section C

Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

Page: 1 of 1
1584077
REGULATORY AGENCY
NPDES ☐ GROUND WATER ☐ DRINKING WATER
UST ☐ RCRA ☐ OTHER ☐
Site Location
STATE: NY

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	SAMPLE ID (A-Z, 0-9 / .)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test ↑	V/N ↑	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					COMPOSITE START	COMPOSITE END/GRAB								
1	PRE-CARB	DW WT WW P SL OL WP AR TS OT	WTG	WTG	DATE	TIME	DATE	TIME						3002562
2	PRIMARY-EFF				9.9.13	1205								001
3	POST-CARB				9.9.13	1210								002
4	POST-CARB				9.9.13	1215								003
5	POST-CARB				9.9.13	1245								004
6	POST-CARB				9.9.13	1315								005
7	POST-CARB				9.9.13	1345								006
8	TB-01				9.9.13									007
9														
10														
11														
12														
ADDITIONAL COMMENTS														
COMPOSITE FAVE (4) Valerian - was 9.9.13 1430														
POST-CARB SAMPLES														
IN LAB AND REPORT														
AS POST-CARB COMPOSITE														
RELINQUISHED BY / AFFILIATION														
DATE														
TIME														
ACCEPTED BY / AFFILIATION														
DATE														
TIME														
SAMPLE CONDITIONS														
Temp In °C														
Received on														
Ice (Y/N)														
Custody														
Sealed Cooler (Y/N)														
Samples Intact (Y/N)														

SAMPLER NAME AND SIGNATURE

ORIGINAL

NOTES AUGUST 2013
FOR W SAMPLES

PRINT Name of SAMPLER: VALERIE SIBERT

SIGNATURE of SAMPLER: Valerian

DATE Signed (MM/DD/YY): 9.9.13



Sample Condition Upon Receipt

Client Name: URS Corp

Project # 30102562

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 8739 9101 9594

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used (5) 6 7

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 3.8

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>ATC</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 9/11/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

30107562
VPS Corp

Client Name:

[illegible]

October 15, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on October 01, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mike Klunk for
Timothy Reed
timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: 41569501.10000 ESSEX/HOPE JAME

Pace Project No.: 30104099

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: 41569501.10000 ESSEX/HOPE JAME

Pace Project No.: 30104099

Sample: PRE-CARB		Lab ID: 30104099001	Collected: 09/30/13 12:00	Received: 10/01/13 09:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	7650	ug/L	200	20		10/11/13 19:50	67-64-1	
Benzene	12.1	ug/L	1.0	1		10/11/13 19:25	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/11/13 19:25	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/11/13 19:25	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/11/13 19:25	74-83-9	
2-Butanone (MEK)	34.7	ug/L	10.0	1		10/11/13 19:25	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/11/13 19:25	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/11/13 19:25	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/11/13 19:25	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/11/13 19:25	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/11/13 19:25	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/11/13 19:25	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/11/13 19:25	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 19:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 19:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 19:25	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/11/13 19:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/11/13 19:25	107-06-2	
1,1-Dichloroethene	14.7	ug/L	5.0	1		10/11/13 19:25	75-35-4	
cis-1,2-Dichloroethene	3880	ug/L	100	20		10/11/13 19:50	156-59-2	
trans-1,2-Dichloroethene	30.1	ug/L	5.0	1		10/11/13 19:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/11/13 19:25	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 19:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 19:25	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/11/13 19:25	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/11/13 19:25	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/11/13 19:25	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/11/13 19:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/11/13 19:25	108-10-1	
Styrene	ND	ug/L	5.0	1		10/11/13 19:25	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/11/13 19:25	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/11/13 19:25	127-18-4	
Toluene	ND	ug/L	5.0	1		10/11/13 19:25	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/11/13 19:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/11/13 19:25	79-00-5	
Trichloroethene	1760	ug/L	100	20		10/11/13 19:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/11/13 19:25	75-69-4	
Vinyl chloride	477	ug/L	20.0	20		10/11/13 19:50	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/11/13 19:25	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/11/13 19:25	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	85-115	1		10/11/13 19:25	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	77-119	1		10/11/13 19:25	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		10/11/13 19:25	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: 41569501.10000 ESSEX/HOPE JAME

Pace Project No.: 30104099

Sample: PRIMARY-EFF		Lab ID: 30104099002	Collected: 09/30/13 12:05	Received: 10/01/13 09:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	7100 ug/L		200	20		10/11/13 20:41	67-64-1	
Benzene	ND ug/L		1.0	1		10/11/13 20:16	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		10/11/13 20:16	75-27-4	
Bromoform	ND ug/L		5.0	1		10/11/13 20:16	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/11/13 20:16	74-83-9	
2-Butanone (MEK)	21.2 ug/L		10.0	1		10/11/13 20:16	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		10/11/13 20:16	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		10/11/13 20:16	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		10/11/13 20:16	108-90-7	
Chloroethane	ND ug/L		5.0	1		10/11/13 20:16	75-00-3	
Chloroform	ND ug/L		5.0	1		10/11/13 20:16	67-66-3	
Chloromethane	ND ug/L		5.0	1		10/11/13 20:16	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		10/11/13 20:16	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		10/11/13 20:16	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		10/11/13 20:16	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		10/11/13 20:16	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		10/11/13 20:16	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		10/11/13 20:16	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		10/11/13 20:16	75-35-4	
cis-1,2-Dichloroethene	1490 ug/L		100	20		10/11/13 20:41	156-59-2	
trans-1,2-Dichloroethene	6.8 ug/L		5.0	1		10/11/13 20:16	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		10/11/13 20:16	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		10/11/13 20:16	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		10/11/13 20:16	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		10/11/13 20:16	100-41-4	
2-Hexanone	ND ug/L		10.0	1		10/11/13 20:16	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/11/13 20:16	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		10/11/13 20:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/11/13 20:16	108-10-1	
Styrene	ND ug/L		5.0	1		10/11/13 20:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		10/11/13 20:16	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		10/11/13 20:16	127-18-4	
Toluene	ND ug/L		5.0	1		10/11/13 20:16	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		10/11/13 20:16	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		10/11/13 20:16	79-00-5	
Trichloroethene	ND ug/L		5.0	1		10/11/13 20:16	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		10/11/13 20:16	75-69-4	
Vinyl chloride	587 ug/L		20.0	20		10/11/13 20:41	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		10/11/13 20:16	179601-23-1	
o-Xylene	ND ug/L		5.0	1		10/11/13 20:16	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98 %		85-115	1		10/11/13 20:16	460-00-4	
1,2-Dichloroethane-d4 (S)	113 %		77-119	1		10/11/13 20:16	17060-07-0	
Toluene-d8 (S)	101 %		85-115	1		10/11/13 20:16	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: 41569501.10000 ESSEX/HOPE JAME

Pace Project No.: 30104099

Sample: POST-CARB **Lab ID: 30104099003** Collected: 09/30/13 13:40 Received: 10/01/13 09:45 Matrix: Water

Comments: • Composite Samples collected at 12:10, 12:40, 13:10, and 13:40.
• 8260 VOA: Sample was composited prior to analysis as requested.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	5740	ug/L	500	50		10/14/13 12:40	67-64-1	
Benzene	ND	ug/L	1.0	1		10/11/13 21:06	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/11/13 21:06	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/11/13 21:06	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/11/13 21:06	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/11/13 21:06	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/11/13 21:06	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/11/13 21:06	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/11/13 21:06	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/11/13 21:06	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/11/13 21:06	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/11/13 21:06	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/11/13 21:06	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 21:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 21:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 21:06	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/11/13 21:06	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/11/13 21:06	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/11/13 21:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/11/13 21:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/11/13 21:06	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/11/13 21:06	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 21:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 21:06	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/11/13 21:06	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/11/13 21:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/11/13 21:06	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/11/13 21:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/11/13 21:06	108-10-1	
Styrene	ND	ug/L	5.0	1		10/11/13 21:06	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/11/13 21:06	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/11/13 21:06	127-18-4	
Toluene	ND	ug/L	5.0	1		10/11/13 21:06	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/11/13 21:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/11/13 21:06	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/11/13 21:06	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/11/13 21:06	75-69-4	
Vinyl chloride	294	ug/L	50.0	50		10/14/13 12:40	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/11/13 21:06	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/11/13 21:06	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	85-115	1		10/11/13 21:06	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	77-119	1		10/11/13 21:06	17060-07-0	
Toluene-d8 (S)	97	%	85-115	1		10/11/13 21:06	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: 41569501.10000 ESSEX/HOPE JAME

Pace Project No.: 30104099

Sample: TB-01		Lab ID: 30104099004		Collected: 09/30/13 00:01		Received: 10/01/13 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			10/11/13 16:28	67-64-1		
Benzene	ND ug/L	1.0	1			10/11/13 16:28	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			10/11/13 16:28	75-27-4		
Bromoform	ND ug/L	5.0	1			10/11/13 16:28	75-25-2		
Bromomethane	ND ug/L	5.0	1			10/11/13 16:28	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			10/11/13 16:28	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			10/11/13 16:28	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			10/11/13 16:28	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			10/11/13 16:28	108-90-7		
Chloroethane	ND ug/L	5.0	1			10/11/13 16:28	75-00-3		
Chloroform	ND ug/L	5.0	1			10/11/13 16:28	67-66-3		
Chloromethane	ND ug/L	5.0	1			10/11/13 16:28	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			10/11/13 16:28	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			10/11/13 16:28	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			10/11/13 16:28	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			10/11/13 16:28	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			10/11/13 16:28	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			10/11/13 16:28	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			10/11/13 16:28	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			10/11/13 16:28	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			10/11/13 16:28	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			10/11/13 16:28	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			10/11/13 16:28	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			10/11/13 16:28	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			10/11/13 16:28	100-41-4		
2-Hexanone	ND ug/L	10.0	1			10/11/13 16:28	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			10/11/13 16:28	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			10/11/13 16:28	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			10/11/13 16:28	108-10-1		
Styrene	ND ug/L	5.0	1			10/11/13 16:28	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			10/11/13 16:28	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			10/11/13 16:28	127-18-4		
Toluene	ND ug/L	5.0	1			10/11/13 16:28	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			10/11/13 16:28	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			10/11/13 16:28	79-00-5		
Trichloroethene	ND ug/L	5.0	1			10/11/13 16:28	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			10/11/13 16:28	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			10/11/13 16:28	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			10/11/13 16:28	179601-23-1		
o-Xylene	ND ug/L	5.0	1			10/11/13 16:28	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	99 %	85-115	1			10/11/13 16:28	460-00-4		
1,2-Dichloroethane-d4 (S)	114 %	77-119	1			10/11/13 16:28	17060-07-0		
Toluene-d8 (S)	99 %	85-115	1			10/11/13 16:28	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: 41569501.10000 ESSEX/HOPE JAME

Pace Project No.: 30104099

QC Batch: MSV/17599 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 30104099001, 30104099002, 30104099003, 30104099004

METHOD BLANK: 642719 Matrix: Water

Associated Lab Samples: 30104099001, 30104099002, 30104099003, 30104099004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/11/13 11:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/11/13 11:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/11/13 11:50	
1,1-Dichloroethane	ug/L	ND	1.0	10/11/13 11:50	
1,1-Dichloroethene	ug/L	ND	1.0	10/11/13 11:50	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/11/13 11:50	
1,2-Dichloroethane	ug/L	ND	1.0	10/11/13 11:50	
1,2-Dichloropropane	ug/L	ND	1.0	10/11/13 11:50	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/11/13 11:50	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/11/13 11:50	
2-Butanone (MEK)	ug/L	ND	10.0	10/11/13 11:50	
2-Hexanone	ug/L	ND	10.0	10/11/13 11:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/11/13 11:50	
Acetone	ug/L	ND	10.0	10/11/13 11:50	
Benzene	ug/L	ND	1.0	10/11/13 11:50	
Bromodichloromethane	ug/L	ND	1.0	10/11/13 11:50	
Bromoform	ug/L	ND	1.0	10/11/13 11:50	
Bromomethane	ug/L	ND	1.0	10/11/13 11:50	
Carbon disulfide	ug/L	ND	1.0	10/11/13 11:50	
Carbon tetrachloride	ug/L	ND	1.0	10/11/13 11:50	
Chlorobenzene	ug/L	ND	1.0	10/11/13 11:50	
Chloroethane	ug/L	ND	1.0	10/11/13 11:50	
Chloroform	ug/L	ND	1.0	10/11/13 11:50	
Chloromethane	ug/L	ND	1.0	10/11/13 11:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/11/13 11:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/11/13 11:50	
Dibromochloromethane	ug/L	ND	1.0	10/11/13 11:50	
Ethylbenzene	ug/L	ND	1.0	10/11/13 11:50	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/11/13 11:50	
m&p-Xylene	ug/L	ND	2.0	10/11/13 11:50	
Methylene Chloride	ug/L	ND	1.0	10/11/13 11:50	
o-Xylene	ug/L	ND	1.0	10/11/13 11:50	
Styrene	ug/L	ND	1.0	10/11/13 11:50	
Tetrachloroethene	ug/L	ND	1.0	10/11/13 11:50	
Toluene	ug/L	ND	1.0	10/11/13 11:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/11/13 11:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/11/13 11:50	
Trichloroethene	ug/L	ND	1.0	10/11/13 11:50	
Trichlorofluoromethane	ug/L	ND	1.0	10/11/13 11:50	
Vinyl chloride	ug/L	ND	1.0	10/11/13 11:50	
1,2-Dichloroethane-d4 (S)	%	115	77-119	10/11/13 11:50	
4-Bromofluorobenzene (S)	%	98	85-115	10/11/13 11:50	
Toluene-d8 (S)	%	98	85-115	10/11/13 11:50	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: 41569501.10000 ESSEX/HOPE JAME

Pace Project No.: 30104099

LABORATORY CONTROL SAMPLE: 642720

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	18.1	91	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	16.7	83	61-117	
1,1,2-Trichloroethane	ug/L	20	18.0	90	72-119	
1,1-Dichloroethane	ug/L	20	19.6	98	63-123	
1,1-Dichloroethene	ug/L	20	19.0	95	57-127	
1,2-Dichlorobenzene	ug/L	20	17.9	90	70-116	
1,2-Dichloroethane	ug/L	20	19.1	95	62-125	
1,2-Dichloropropane	ug/L	20	19.0	95	69-115	
1,3-Dichlorobenzene	ug/L	20	17.5	87	71-118	
1,4-Dichlorobenzene	ug/L	20	18.1	91	67-119	
2-Butanone (MEK)	ug/L	20	20.5	103	48-136	
2-Hexanone	ug/L	20	18.6	93	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	20.4	102	57-124	
Acetone	ug/L	20	19.4	97	49-138	
Benzene	ug/L	20	17.8	89	66-122	
Bromodichloromethane	ug/L	20	17.1	85	63-118	
Bromoform	ug/L	20	16.3	81	46-130	
Bromomethane	ug/L	20	21.4	107	10-175	
Carbon disulfide	ug/L	20	22.2	111	59-142	
Carbon tetrachloride	ug/L	20	17.1	85	55-126	
Chlorobenzene	ug/L	20	18.1	90	70-121	
Chloroethane	ug/L	20	24.6	123	24-161	
Chloroform	ug/L	20	18.3	92	62-126	
Chloromethane	ug/L	20	28.2	141	37-147	
cis-1,2-Dichloroethene	ug/L	20	19.7	98	64-121	
cis-1,3-Dichloropropene	ug/L	20	18.0	90	64-118	
Dibromochloromethane	ug/L	20	16.7	83	60-120	
Ethylbenzene	ug/L	20	18.1	91	69-119	
Isopropylbenzene (Cumene)	ug/L	20	19.7	98	68-126	
m&p-Xylene	ug/L	40	37.3	93	70-124	
Methylene Chloride	ug/L	20	18.1	90	59-128	
o-Xylene	ug/L	20	17.7	89	67-123	
Styrene	ug/L	20	20.5	102	67-146	
Tetrachloroethene	ug/L	20	17.4	87	62-125	
Toluene	ug/L	20	17.9	89	72-115	
trans-1,2-Dichloroethene	ug/L	20	19.6	98	59-122	
trans-1,3-Dichloropropene	ug/L	20	16.7	83	64-120	
Trichloroethene	ug/L	20	18.1	91	62-125	
Trichlorofluoromethane	ug/L	20	20.1	100	54-158	
Vinyl chloride	ug/L	20	22.7	113	52-145	
1,2-Dichloroethane-d4 (S)	%			115	77-119	
4-Bromofluorobenzene (S)	%			99	85-115	
Toluene-d8 (S)	%			98	85-115	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALIFIERS

Project: 41569501.10000 ESSEX/HOPE JAME

Pace Project No.: 30104099

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/17599

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569501.10000 ESSEX/HOPE JAME

Pace Project No.: 30104099

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30104099001	PRE-CARB	EPA 8260	MSV/17599		
30104099002	PRIMARY-EFF	EPA 8260	MSV/17599		
30104099003	POST-CARB	EPA 8260	MSV/17599		
30104099004	TB-01	EPA 8260	MSV/17599		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Section A Required Client Information: Company: URS CORP Address: 681 ANDERSON PK STE 400 PITTSBURGH, PA 15220 Email To: _____		Section B Required Project Information: Report To: MARCO DOWIAK Copy To: VALERIE SIBETO Purchase Order No.: 415695201 Project Name: ESSEX/HOPE JAMES BRWN Project Number: 415695201.10000		Section C Invoice Information: Attention: _____ Company Name: _____ Address: _____ Pace Quote Reference: _____ Pace Project Manager: _____ Pace Profile #: _____	
Section D Required Client Information: Requested Due Date/TAT: STANDARD		Regulatory Agency: _____ ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____ Site Location: NY STATE: _____			

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test ↑ Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	SAMPLE CONDITIONS
			DATE	TIME							
1	PREF-CARB	WTG	9:30:13	1200		3	Unpreserved	✓			001
2	PRIMARY-EFF	WTG	9:30:13	1205		3	Unpreserved	✓			002
3	POST-CARB	WTG	9:30:13	1210		3	Unpreserved	✓			003
4	POST-CARB	WTG	9:30:13	1240		3	Unpreserved	✓			004
5	POST-CARB	WTG	9:30:13	1310		3	Unpreserved	✓			005
6	POST-CARB	WTG	9:30:13	1340		3	Unpreserved	✓			006
7	TR-OI	WTG	9:30:13	---		2	Unpreserved	✓			007
8											
9											
10											
11											
12											
ADDITIONAL COMMENTS: COMPOSITE FOUR (4) POST-CARB SAMPLES IN LAB AND REPORT AS POST-CARB COMPOSITE											
RELINQUISHED BY / AFFILIATION: Halenden/URS DATE: 9.30.13 TIME: 1420 ACCEPTED BY / AFFILIATION: Allyce R. Muchoney DATE: 9.30.13 TIME: 1430											
SAMPLER NAME AND SIGNATURE: VALERIE SIBETO PRINT Name of SAMPLER: Valerie Sibeto DATE Signed (MM/DD/YY): 9.30.13 SIGNATURE of SAMPLER: <i>[Signature]</i>											
Temp in °C: _____ Received on Ice (Y/N): _____ Sealed Cooler (Y/N): _____ Samples Intact (Y/N): _____											

ORIGINAL



Sample Condition Upon Receipt

Client Name: URS corp

Project # 30104098 ^{99 raw} 10-1-13

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 8739 8101 9033

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☒ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 5 6 7

Type of Ice: Wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature 3.2

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: ARM 10/1/13

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , collform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>ARM</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☒ Yes ☐ No ☐ N/A	15. <u>Both TB's</u>
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Garner S. Chambers

Date: 10/1/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

November 13, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 30106426

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on November 01, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: Essex/Hope Jamestown

Pace Project No.: 30106426

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30106426

Sample: PRE-CARB		Lab ID: 30106426001	Collected: 10/31/13 10:20	Received: 11/01/13 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	24000	ug/L	2000	200		11/07/13 14:55	67-64-1	
Benzene	36.3	ug/L	1.0	1		11/06/13 17:45	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/06/13 17:45	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/06/13 17:45	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/06/13 17:45	74-83-9	
2-Butanone (MEK)	132	ug/L	10.0	1		11/06/13 17:45	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/06/13 17:45	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/06/13 17:45	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/06/13 17:45	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/06/13 17:45	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/06/13 17:45	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/06/13 17:45	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/06/13 17:45	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 17:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 17:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 17:45	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/06/13 17:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/06/13 17:45	107-06-2	
1,1-Dichloroethene	21.2	ug/L	5.0	1		11/06/13 17:45	75-35-4	
cis-1,2-Dichloroethene	6720	ug/L	125	25		11/06/13 18:10	156-59-2	
trans-1,2-Dichloroethene	101	ug/L	5.0	1		11/06/13 17:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/06/13 17:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 17:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 17:45	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/06/13 17:45	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/06/13 17:45	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/06/13 17:45	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/06/13 17:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/06/13 17:45	108-10-1	
Styrene	ND	ug/L	5.0	1		11/06/13 17:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/06/13 17:45	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/06/13 17:45	127-18-4	
Toluene	ND	ug/L	5.0	1		11/06/13 17:45	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/06/13 17:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/06/13 17:45	79-00-5	
Trichloroethene	4130	ug/L	125	25		11/06/13 18:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/06/13 17:45	75-69-4	
Vinyl chloride	698	ug/L	25.0	25		11/06/13 18:10	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/06/13 17:45	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/06/13 17:45	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	85-115	1		11/06/13 17:45	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	77-119	1		11/06/13 17:45	17060-07-0	
Toluene-d8 (S)	100	%	85-115	1		11/06/13 17:45	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30106426

Sample: PRIMARY-EFF		Lab ID: 30106426002	Collected: 10/31/13 10:25	Received: 11/01/13 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	21500	ug/L	2000	200		11/07/13 15:20	67-64-1	
Benzene	3.8	ug/L	1.0	1		11/06/13 18:35	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/06/13 18:35	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/06/13 18:35	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/06/13 18:35	74-83-9	
2-Butanone (MEK)	69.0	ug/L	10.0	1		11/06/13 18:35	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/06/13 18:35	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/06/13 18:35	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/06/13 18:35	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/06/13 18:35	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/06/13 18:35	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/06/13 18:35	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/06/13 18:35	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 18:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 18:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 18:35	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/06/13 18:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/06/13 18:35	107-06-2	
1,1-Dichloroethene	8.0	ug/L	5.0	1		11/06/13 18:35	75-35-4	
cis-1,2-Dichloroethene	4080	ug/L	125	25		11/06/13 18:59	156-59-2	
trans-1,2-Dichloroethene	28.2	ug/L	5.0	1		11/06/13 18:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/06/13 18:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 18:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 18:35	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/06/13 18:35	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/06/13 18:35	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/06/13 18:35	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/06/13 18:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/06/13 18:35	108-10-1	
Styrene	ND	ug/L	5.0	1		11/06/13 18:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/06/13 18:35	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/06/13 18:35	127-18-4	
Toluene	ND	ug/L	5.0	1		11/06/13 18:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/06/13 18:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/06/13 18:35	79-00-5	
Trichloroethene	378	ug/L	125	25		11/06/13 18:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/06/13 18:35	75-69-4	
Vinyl chloride	601	ug/L	25.0	25		11/06/13 18:59	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/06/13 18:35	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/06/13 18:35	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	85-115	1		11/06/13 18:35	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	77-119	1		11/06/13 18:35	17060-07-0	
Toluene-d8 (S)	105	%	85-115	1		11/06/13 18:35	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30106426

Sample: POST-CARB		Lab ID: 30106426003	Collected: 10/31/13 12:00	Received: 11/01/13 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	21900	ug/L	5000	500		11/07/13 15:45	67-64-1	
Benzene	ND	ug/L	1.0	1		11/06/13 19:24	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/06/13 19:24	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/06/13 19:24	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/06/13 19:24	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/06/13 19:24	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/06/13 19:24	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/06/13 19:24	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/06/13 19:24	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/06/13 19:24	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/06/13 19:24	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/06/13 19:24	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/06/13 19:24	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 19:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 19:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 19:24	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/06/13 19:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/06/13 19:24	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/06/13 19:24	75-35-4	
cis-1,2-Dichloroethene	6.9	ug/L	5.0	1		11/06/13 19:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/06/13 19:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/06/13 19:24	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 19:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 19:24	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/06/13 19:24	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/06/13 19:24	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/06/13 19:24	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/06/13 19:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/06/13 19:24	108-10-1	
Styrene	ND	ug/L	5.0	1		11/06/13 19:24	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/06/13 19:24	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/06/13 19:24	127-18-4	
Toluene	ND	ug/L	5.0	1		11/06/13 19:24	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/06/13 19:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/06/13 19:24	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		11/06/13 19:24	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/06/13 19:24	75-69-4	
Vinyl chloride	764	ug/L	50.0	50		11/06/13 19:49	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/06/13 19:24	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/06/13 19:24	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	109	%	85-115	1		11/06/13 19:24	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	77-119	1		11/06/13 19:24	17060-07-0	
Toluene-d8 (S)	95	%	85-115	1		11/06/13 19:24	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30106426

Sample: TB-01		Lab ID: 30106426004		Collected: 10/31/13 00:01		Received: 11/01/13 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			11/06/13 12:48	67-64-1		
Benzene	ND ug/L	1.0	1			11/06/13 12:48	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			11/06/13 12:48	75-27-4		
Bromoform	ND ug/L	5.0	1			11/06/13 12:48	75-25-2		
Bromomethane	ND ug/L	5.0	1			11/06/13 12:48	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			11/06/13 12:48	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			11/06/13 12:48	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			11/06/13 12:48	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			11/06/13 12:48	108-90-7		
Chloroethane	ND ug/L	5.0	1			11/06/13 12:48	75-00-3		
Chloroform	ND ug/L	5.0	1			11/06/13 12:48	67-66-3		
Chloromethane	ND ug/L	5.0	1			11/06/13 12:48	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			11/06/13 12:48	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			11/06/13 12:48	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			11/06/13 12:48	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			11/06/13 12:48	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			11/06/13 12:48	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			11/06/13 12:48	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			11/06/13 12:48	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			11/06/13 12:48	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			11/06/13 12:48	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			11/06/13 12:48	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			11/06/13 12:48	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			11/06/13 12:48	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			11/06/13 12:48	100-41-4		
2-Hexanone	ND ug/L	10.0	1			11/06/13 12:48	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			11/06/13 12:48	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			11/06/13 12:48	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			11/06/13 12:48	108-10-1		
Styrene	ND ug/L	5.0	1			11/06/13 12:48	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			11/06/13 12:48	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			11/06/13 12:48	127-18-4		
Toluene	ND ug/L	5.0	1			11/06/13 12:48	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			11/06/13 12:48	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			11/06/13 12:48	79-00-5		
Trichloroethene	ND ug/L	5.0	1			11/06/13 12:48	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			11/06/13 12:48	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			11/06/13 12:48	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			11/06/13 12:48	179601-23-1		
o-Xylene	ND ug/L	5.0	1			11/06/13 12:48	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	109 %	85-115	1			11/06/13 12:48	460-00-4		
1,2-Dichloroethane-d4 (S)	118 %	77-119	1			11/06/13 12:48	17060-07-0		
Toluene-d8 (S)	91 %	85-115	1			11/06/13 12:48	2037-26-5		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30106426

QC Batch: MSV/17907 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 30106426001, 30106426002, 30106426003, 30106426004

METHOD BLANK: 653828 Matrix: Water

Associated Lab Samples: 30106426001, 30106426002, 30106426003, 30106426004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	11/06/13 12:23	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/06/13 12:23	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/06/13 12:23	
1,1-Dichloroethane	ug/L	ND	1.0	11/06/13 12:23	
1,1-Dichloroethene	ug/L	ND	1.0	11/06/13 12:23	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/06/13 12:23	
1,2-Dichloroethane	ug/L	ND	1.0	11/06/13 12:23	
1,2-Dichloropropane	ug/L	ND	1.0	11/06/13 12:23	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/06/13 12:23	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/06/13 12:23	
2-Butanone (MEK)	ug/L	ND	10.0	11/06/13 12:23	
2-Hexanone	ug/L	ND	10.0	11/06/13 12:23	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	11/06/13 12:23	
Acetone	ug/L	ND	10.0	11/06/13 12:23	
Benzene	ug/L	ND	1.0	11/06/13 12:23	
Bromodichloromethane	ug/L	ND	1.0	11/06/13 12:23	
Bromoform	ug/L	ND	1.0	11/06/13 12:23	
Bromomethane	ug/L	ND	1.0	11/06/13 12:23	
Carbon disulfide	ug/L	ND	1.0	11/06/13 12:23	
Carbon tetrachloride	ug/L	ND	1.0	11/06/13 12:23	
Chlorobenzene	ug/L	ND	1.0	11/06/13 12:23	
Chloroethane	ug/L	ND	1.0	11/06/13 12:23	
Chloroform	ug/L	ND	1.0	11/06/13 12:23	
Chloromethane	ug/L	ND	1.0	11/06/13 12:23	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/06/13 12:23	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/06/13 12:23	
Dibromochloromethane	ug/L	ND	1.0	11/06/13 12:23	
Ethylbenzene	ug/L	ND	1.0	11/06/13 12:23	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	11/06/13 12:23	
m&p-Xylene	ug/L	ND	2.0	11/06/13 12:23	
Methylene Chloride	ug/L	ND	1.0	11/06/13 12:23	
o-Xylene	ug/L	ND	1.0	11/06/13 12:23	
Styrene	ug/L	ND	1.0	11/06/13 12:23	
Tetrachloroethene	ug/L	ND	1.0	11/06/13 12:23	
Toluene	ug/L	ND	1.0	11/06/13 12:23	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/06/13 12:23	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/06/13 12:23	
Trichloroethene	ug/L	ND	1.0	11/06/13 12:23	
Trichlorofluoromethane	ug/L	ND	1.0	11/06/13 12:23	
Vinyl chloride	ug/L	ND	1.0	11/06/13 12:23	
1,2-Dichloroethane-d4 (S)	%	117	77-119	11/06/13 12:23	
4-Bromofluorobenzene (S)	%	94	85-115	11/06/13 12:23	
Toluene-d8 (S)	%	100	85-115	11/06/13 12:23	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30106426

LABORATORY CONTROL SAMPLE: 653829

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	25.5	128	62-125	L3
1,1,2,2-Tetrachloroethane	ug/L	20	15.7	78	61-117	
1,1,2-Trichloroethane	ug/L	20	20.2	101	72-119	
1,1-Dichloroethane	ug/L	20	22.5	113	63-123	
1,1-Dichloroethene	ug/L	20	18.0	90	57-127	
1,2-Dichlorobenzene	ug/L	20	17.3	86	70-116	
1,2-Dichloroethane	ug/L	20	21.9	110	62-125	
1,2-Dichloropropane	ug/L	20	20.4	102	69-115	
1,3-Dichlorobenzene	ug/L	20	17.7	89	71-118	
1,4-Dichlorobenzene	ug/L	20	16.6	83	67-119	
2-Butanone (MEK)	ug/L	20	20.1	100	48-136	
2-Hexanone	ug/L	20	16.2	81	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.0	95	57-124	
Acetone	ug/L	20	18.6	93	49-138	
Benzene	ug/L	20	20.5	103	66-122	
Bromodichloromethane	ug/L	20	23.9	119	63-118	L3
Bromoform	ug/L	20	28.1	141	46-130	L3
Bromomethane	ug/L	20	19.8	99	10-175	
Carbon disulfide	ug/L	20	20.5	103	59-142	
Carbon tetrachloride	ug/L	20	29.8	149	55-126	L1
Chlorobenzene	ug/L	20	19.2	96	70-121	
Chloroethane	ug/L	20	15.0	75	24-161	
Chloroform	ug/L	20	22.3	111	62-126	
Chloromethane	ug/L	20	16.9	84	37-147	
cis-1,2-Dichloroethene	ug/L	20	22.1	110	64-121	
cis-1,3-Dichloropropene	ug/L	20	18.6	93	64-118	
Dibromochloromethane	ug/L	20	25.4	127	60-120	L1
Ethylbenzene	ug/L	20	18.7	94	69-119	
Isopropylbenzene (Cumene)	ug/L	20	17.3	86	68-126	
m&p-Xylene	ug/L	40	37.4	94	70-124	
Methylene Chloride	ug/L	20	20.1	101	59-128	
o-Xylene	ug/L	20	19.0	95	67-123	
Styrene	ug/L	20	18.3	92	67-146	
Tetrachloroethene	ug/L	20	21.8	109	62-125	
Toluene	ug/L	20	20.6	103	72-115	
trans-1,2-Dichloroethene	ug/L	20	19.5	97	59-122	
trans-1,3-Dichloropropene	ug/L	20	18.0	90	64-120	
Trichloroethene	ug/L	20	23.1	116	62-125	
Trichlorofluoromethane	ug/L	20	18.9	94	54-158	
Vinyl chloride	ug/L	20	15.7	79	52-145	
1,2-Dichloroethane-d4 (S)	%			113	77-119	
4-Bromofluorobenzene (S)	%			101	85-115	
Toluene-d8 (S)	%			109	85-115	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALIFIERS

Project: Essex/Hope Jamestown

Pace Project No.: 30106426

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/17907

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 30106426

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30106426001	PRE-CARB	EPA 8260	MSV/17907		
30106426002	PRIMARY-EFF	EPA 8260	MSV/17907		
30106426003	POST-CARB	EPA 8260	MSV/17907		
30106426004	TB-01	EPA 8260	MSV/17907		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: **URS CORP**
 Address: **FOSTER PURCH 6, STE. 400**
681 ANDERSON PK
ELSTON, ILL 60630
 Email To:
 Phone: **412-503-4701**
 Requested Due Date/TAT: **STANDARD**

Section B

Required Project Information:

Report To: **MARK DOWIAK**
 Copy To: **VALERIE SIBETO**
 Purchase Order No.: **41569501**
 Project Name: **ESSEX/HOPK JAMESTOWN**
 Project Number: **41569501**

Section C

Invoice Information:

Attention:
 Company Name:
 Address:
 Pace Quote Reference:
 Pace Project Manager:
 Pace Profile #:

Page: **1** of **1**
1755768
 REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER
 Site Location: **NY**
 STATE:

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test ↓	Y/N	Requested Analysis Filtered (Y/N)											
				DATE	TIME	DATE	TIME	COMPOSITE START	COMPOSITE END/GRAB													
1	PRE-CARB	DW	WTG	10-31-13	1020	10-31-13	1020															
2	PRIMARY-EFF	WT			1025		1025															
3	POST-CARB	WW			1030		1030															
4	POST-CARB	P			1100		1100															
5	POST-CARB	SL			1130		1130															
6	POST-CARB	OL			1200		1200															
7	TB-OI	WP	WTG	10-31-13		10-31-13																
8		AR																				
9		TS																				
10		OT																				
11																						
12																						

ADDITIONAL COMMENTS: **COMPOSITE FOUR (4)**
POST-CARB SAMPLES
IN LAB AND REPORT
AS POST-CARB COMPOSITE

RELINQUISHED BY / AFFILIATION: **URS** DATE: **10-31-13** TIME: **1230**

ACCEPTED BY / AFFILIATION: **Valerie Sibeto** DATE: **10-31-13** TIME: **1230**

SAMPLE CONDITIONS: **Temp in °C** **Received on** **Custody** **Sealed Cooler** **Samples Intact**

SAMPLER NAME AND SIGNATURE: **VALERIE SIBETO**
 PRINT Name of SAMPLER: **VALERIE SIBETO** DATE Signed (MM/DD/YY): **10-31-13**
 SIGNATURE of SAMPLER: **Valerie Sibeto**



Sample Condition Upon Receipt

Client Name: URS

Project # 30106426

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 87348101 4655

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 5 6 7

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 0.9

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: PAC to 11-1-13

PAC 11-1-13

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>PAC</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☒ No ☐ N/A	16. <u>PAC to 11-1-13</u> <u>PAC 11-1-13</u>
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Samantha Bayne

Date: 11/5/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

20102426

۷۲۵

[illegible]

December 06, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 30108361

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on November 26, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: Essex/Hope Jamestown

Pace Project No.: 30108361

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30108361

Sample: PRE-CARB		Lab ID: 30108361001	Collected: 11/25/13 11:20	Received: 11/26/13 11:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	4080	ug/L	500	50		12/04/13 16:49	67-64-1	
Benzene	6.8	ug/L	1.0	1		12/04/13 16:23	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		12/04/13 16:23	75-27-4	
Bromoform	ND	ug/L	5.0	1		12/04/13 16:23	75-25-2	
Bromomethane	ND	ug/L	5.0	1		12/04/13 16:23	74-83-9	
2-Butanone (MEK)	10.7	ug/L	10.0	1		12/04/13 16:23	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		12/04/13 16:23	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		12/04/13 16:23	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		12/04/13 16:23	108-90-7	
Chloroethane	ND	ug/L	5.0	1		12/04/13 16:23	75-00-3	
Chloroform	ND	ug/L	5.0	1		12/04/13 16:23	67-66-3	
Chloromethane	ND	ug/L	5.0	1		12/04/13 16:23	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		12/04/13 16:23	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 16:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 16:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 16:23	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		12/04/13 16:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		12/04/13 16:23	107-06-2	
1,1-Dichloroethene	10.3	ug/L	5.0	1		12/04/13 16:23	75-35-4	
cis-1,2-Dichloroethene	2580	ug/L	250	50		12/04/13 16:49	156-59-2	
trans-1,2-Dichloroethene	20.4	ug/L	5.0	1		12/04/13 16:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		12/04/13 16:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 16:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 16:23	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		12/04/13 16:23	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		12/04/13 16:23	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		12/04/13 16:23	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		12/04/13 16:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		12/04/13 16:23	108-10-1	
Styrene	ND	ug/L	5.0	1		12/04/13 16:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		12/04/13 16:23	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		12/04/13 16:23	127-18-4	
Toluene	ND	ug/L	5.0	1		12/04/13 16:23	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		12/04/13 16:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		12/04/13 16:23	79-00-5	
Trichloroethene	824	ug/L	250	50		12/04/13 16:49	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		12/04/13 16:23	75-69-4	
Vinyl chloride	340	ug/L	1.0	1		12/04/13 16:23	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		12/04/13 16:23	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		12/04/13 16:23	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		12/04/13 16:23	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	77-119	1		12/04/13 16:23	17060-07-0	
Toluene-d8 (S)	110	%	85-115	1		12/04/13 16:23	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30108361

Sample: PRIMARY-EFF		Lab ID: 30108361002	Collected: 11/25/13 11:25	Received: 11/26/13 11:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	11100	ug/L	500	50		12/04/13 17:39	67-64-1	
Benzene	1.3	ug/L	1.0	1		12/04/13 17:14	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		12/04/13 17:14	75-27-4	
Bromoform	ND	ug/L	5.0	1		12/04/13 17:14	75-25-2	
Bromomethane	ND	ug/L	5.0	1		12/04/13 17:14	74-83-9	
2-Butanone (MEK)	52.1	ug/L	10.0	1		12/04/13 17:14	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		12/04/13 17:14	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		12/04/13 17:14	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		12/04/13 17:14	108-90-7	
Chloroethane	ND	ug/L	5.0	1		12/04/13 17:14	75-00-3	
Chloroform	ND	ug/L	5.0	1		12/04/13 17:14	67-66-3	
Chloromethane	ND	ug/L	5.0	1		12/04/13 17:14	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		12/04/13 17:14	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 17:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 17:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 17:14	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		12/04/13 17:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		12/04/13 17:14	107-06-2	
1,1-Dichloroethene	8.6	ug/L	5.0	1		12/04/13 17:14	75-35-4	
cis-1,2-Dichloroethene	3740	ug/L	250	50		12/04/13 17:39	156-59-2	
trans-1,2-Dichloroethene	34.7	ug/L	5.0	1		12/04/13 17:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		12/04/13 17:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 17:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 17:14	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		12/04/13 17:14	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		12/04/13 17:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		12/04/13 17:14	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		12/04/13 17:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		12/04/13 17:14	108-10-1	
Styrene	ND	ug/L	5.0	1		12/04/13 17:14	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		12/04/13 17:14	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		12/04/13 17:14	127-18-4	
Toluene	ND	ug/L	5.0	1		12/04/13 17:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		12/04/13 17:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		12/04/13 17:14	79-00-5	
Trichloroethene	69.5	ug/L	5.0	1		12/04/13 17:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		12/04/13 17:14	75-69-4	
Vinyl chloride	584	ug/L	50.0	50		12/04/13 17:39	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		12/04/13 17:14	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		12/04/13 17:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	85-115	1		12/04/13 17:14	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	77-119	1		12/04/13 17:14	17060-07-0	
Toluene-d8 (S)	106	%	85-115	1		12/04/13 17:14	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 30108361

Sample: POST-CARB **Lab ID: 30108361003** Collected: 11/25/13 11:30 Received: 11/26/13 11:45 Matrix: Water

Comments: • 8260 VOA: The sample was composited prior to analysis as requested.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	16300	ug/L	500	50		12/04/13 18:29	67-64-1	
Benzene	ND	ug/L	1.0	1		12/04/13 18:04	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		12/04/13 18:04	75-27-4	
Bromoform	ND	ug/L	5.0	1		12/04/13 18:04	75-25-2	
Bromomethane	ND	ug/L	5.0	1		12/04/13 18:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		12/04/13 18:04	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		12/04/13 18:04	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		12/04/13 18:04	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		12/04/13 18:04	108-90-7	
Chloroethane	ND	ug/L	5.0	1		12/04/13 18:04	75-00-3	
Chloroform	ND	ug/L	5.0	1		12/04/13 18:04	67-66-3	
Chloromethane	ND	ug/L	5.0	1		12/04/13 18:04	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		12/04/13 18:04	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 18:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 18:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 18:04	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		12/04/13 18:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		12/04/13 18:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		12/04/13 18:04	75-35-4	
cis-1,2-Dichloroethene	6.3	ug/L	5.0	1		12/04/13 18:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		12/04/13 18:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		12/04/13 18:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 18:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 18:04	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		12/04/13 18:04	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		12/04/13 18:04	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		12/04/13 18:04	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		12/04/13 18:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		12/04/13 18:04	108-10-1	
Styrene	ND	ug/L	5.0	1		12/04/13 18:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		12/04/13 18:04	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		12/04/13 18:04	127-18-4	
Toluene	ND	ug/L	5.0	1		12/04/13 18:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		12/04/13 18:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		12/04/13 18:04	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		12/04/13 18:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		12/04/13 18:04	75-69-4	
Vinyl chloride	639	ug/L	50.0	50		12/04/13 18:29	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		12/04/13 18:04	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		12/04/13 18:04	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	85-115	1		12/04/13 18:04	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	77-119	1		12/04/13 18:04	17060-07-0	
Toluene-d8 (S)	107	%	85-115	1		12/04/13 18:04	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

Sample: TB-01		Lab ID: 30108361004	Collected: 11/25/13 00:01	Received: 11/26/13 11:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		12/04/13 11:48	67-64-1	
Benzene	ND ug/L		1.0	1		12/04/13 11:48	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		12/04/13 11:48	75-27-4	
Bromoform	ND ug/L		5.0	1		12/04/13 11:48	75-25-2	
Bromomethane	ND ug/L		5.0	1		12/04/13 11:48	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		12/04/13 11:48	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		12/04/13 11:48	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		12/04/13 11:48	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		12/04/13 11:48	108-90-7	
Chloroethane	ND ug/L		5.0	1		12/04/13 11:48	75-00-3	
Chloroform	ND ug/L		5.0	1		12/04/13 11:48	67-66-3	
Chloromethane	ND ug/L		5.0	1		12/04/13 11:48	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		12/04/13 11:48	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		12/04/13 11:48	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		12/04/13 11:48	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		12/04/13 11:48	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		12/04/13 11:48	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		12/04/13 11:48	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		12/04/13 11:48	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		12/04/13 11:48	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		12/04/13 11:48	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		12/04/13 11:48	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		12/04/13 11:48	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		12/04/13 11:48	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		12/04/13 11:48	100-41-4	
2-Hexanone	ND ug/L		10.0	1		12/04/13 11:48	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		12/04/13 11:48	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		12/04/13 11:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		12/04/13 11:48	108-10-1	
Styrene	ND ug/L		5.0	1		12/04/13 11:48	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		12/04/13 11:48	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		12/04/13 11:48	127-18-4	
Toluene	ND ug/L		5.0	1		12/04/13 11:48	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		12/04/13 11:48	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		12/04/13 11:48	79-00-5	
Trichloroethene	ND ug/L		5.0	1		12/04/13 11:48	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		12/04/13 11:48	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		12/04/13 11:48	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		12/04/13 11:48	179601-23-1	
o-Xylene	ND ug/L		5.0	1		12/04/13 11:48	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103 %		85-115	1		12/04/13 11:48	460-00-4	
1,2-Dichloroethane-d4 (S)	93 %		77-119	1		12/04/13 11:48	17060-07-0	
Toluene-d8 (S)	108 %		85-115	1		12/04/13 11:48	2037-26-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30108361

QC Batch: MSV/18173 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 30108361001, 30108361002, 30108361003, 30108361004

METHOD BLANK: 664988 Matrix: Water
Associated Lab Samples: 30108361001, 30108361002, 30108361003, 30108361004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	12/04/13 11:23	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	12/04/13 11:23	
1,1,2-Trichloroethane	ug/L	ND	1.0	12/04/13 11:23	
1,1-Dichloroethane	ug/L	ND	1.0	12/04/13 11:23	
1,1-Dichloroethene	ug/L	ND	1.0	12/04/13 11:23	
1,2-Dichlorobenzene	ug/L	ND	1.0	12/04/13 11:23	
1,2-Dichloroethane	ug/L	ND	1.0	12/04/13 11:23	
1,2-Dichloropropane	ug/L	ND	1.0	12/04/13 11:23	
1,3-Dichlorobenzene	ug/L	ND	1.0	12/04/13 11:23	
1,4-Dichlorobenzene	ug/L	ND	1.0	12/04/13 11:23	
2-Butanone (MEK)	ug/L	ND	10.0	12/04/13 11:23	
2-Hexanone	ug/L	ND	10.0	12/04/13 11:23	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	12/04/13 11:23	
Acetone	ug/L	ND	10.0	12/04/13 11:23	
Benzene	ug/L	ND	1.0	12/04/13 11:23	
Bromodichloromethane	ug/L	ND	1.0	12/04/13 11:23	
Bromoform	ug/L	ND	1.0	12/04/13 11:23	
Bromomethane	ug/L	ND	1.0	12/04/13 11:23	
Carbon disulfide	ug/L	ND	1.0	12/04/13 11:23	
Carbon tetrachloride	ug/L	ND	1.0	12/04/13 11:23	
Chlorobenzene	ug/L	ND	1.0	12/04/13 11:23	
Chloroethane	ug/L	ND	1.0	12/04/13 11:23	
Chloroform	ug/L	ND	1.0	12/04/13 11:23	
Chloromethane	ug/L	ND	1.0	12/04/13 11:23	
cis-1,2-Dichloroethene	ug/L	ND	1.0	12/04/13 11:23	
cis-1,3-Dichloropropene	ug/L	ND	1.0	12/04/13 11:23	
Dibromochloromethane	ug/L	ND	1.0	12/04/13 11:23	
Ethylbenzene	ug/L	ND	1.0	12/04/13 11:23	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	12/04/13 11:23	
m&p-Xylene	ug/L	ND	2.0	12/04/13 11:23	
Methylene Chloride	ug/L	ND	1.0	12/04/13 11:23	
o-Xylene	ug/L	ND	1.0	12/04/13 11:23	
Styrene	ug/L	ND	1.0	12/04/13 11:23	
Tetrachloroethene	ug/L	ND	1.0	12/04/13 11:23	
Toluene	ug/L	ND	1.0	12/04/13 11:23	
trans-1,2-Dichloroethene	ug/L	ND	1.0	12/04/13 11:23	
trans-1,3-Dichloropropene	ug/L	ND	1.0	12/04/13 11:23	
Trichloroethene	ug/L	ND	1.0	12/04/13 11:23	
Trichlorofluoromethane	ug/L	ND	1.0	12/04/13 11:23	
Vinyl chloride	ug/L	ND	1.0	12/04/13 11:23	
1,2-Dichloroethane-d4 (S)	%	96	77-119	12/04/13 11:23	
4-Bromofluorobenzene (S)	%	104	85-115	12/04/13 11:23	
Toluene-d8 (S)	%	106	85-115	12/04/13 11:23	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30108361

LABORATORY CONTROL SAMPLE: 664989

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.3	96	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	16.1	81	61-117	
1,1,2-Trichloroethane	ug/L	20	20.3	102	72-119	
1,1-Dichloroethane	ug/L	20	18.8	94	63-123	
1,1-Dichloroethene	ug/L	20	19.4	97	57-127	
1,2-Dichlorobenzene	ug/L	20	18.7	94	70-116	
1,2-Dichloroethane	ug/L	20	17.6	88	62-125	
1,2-Dichloropropane	ug/L	20	20.3	102	69-115	
1,3-Dichlorobenzene	ug/L	20	19.2	96	71-118	
1,4-Dichlorobenzene	ug/L	20	18.6	93	67-119	
2-Butanone (MEK)	ug/L	20	17.2	86	48-136	
2-Hexanone	ug/L	20	22.3	112	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	20.7	104	57-124	
Acetone	ug/L	20	17.8	89	49-138	
Benzene	ug/L	20	19.4	97	66-122	
Bromodichloromethane	ug/L	20	19.5	97	63-118	
Bromoform	ug/L	20	21.7	109	46-130	
Bromomethane	ug/L	20	19.5	98	10-175	
Carbon disulfide	ug/L	20	17.1	85	59-142	
Carbon tetrachloride	ug/L	20	23.7	119	55-126	
Chlorobenzene	ug/L	20	20.5	103	70-121	
Chloroethane	ug/L	20	12.1	61	24-161	
Chloroform	ug/L	20	16.9	85	62-126	
Chloromethane	ug/L	20	22.5	112	37-147	
cis-1,2-Dichloroethene	ug/L	20	19.2	96	64-121	
cis-1,3-Dichloropropene	ug/L	20	22.3	112	64-118	
Dibromochloromethane	ug/L	20	24.2	121	60-120	L3
Ethylbenzene	ug/L	20	20.2	101	69-119	
Isopropylbenzene (Cumene)	ug/L	20	19.5	97	68-126	
m&p-Xylene	ug/L	40	41.2	103	70-124	
Methylene Chloride	ug/L	20	21.6	108	59-128	
o-Xylene	ug/L	20	20.7	104	67-123	
Styrene	ug/L	20	21.9	109	67-146	
Tetrachloroethene	ug/L	20	19.1	96	62-125	
Toluene	ug/L	20	20.0	100	72-115	
trans-1,2-Dichloroethene	ug/L	20	18.3	92	59-122	
trans-1,3-Dichloropropene	ug/L	20	21.1	105	64-120	
Trichloroethene	ug/L	20	21.2	106	62-125	
Trichlorofluoromethane	ug/L	20	18.5	93	54-158	
Vinyl chloride	ug/L	20	17.7	88	52-145	
1,2-Dichloroethane-d4 (S)	%			96	77-119	
4-Bromofluorobenzene (S)	%			104	85-115	
Toluene-d8 (S)	%			108	85-115	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 30108361

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 664990 664991											
Parameter	Units	30108416003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.1	19.6	100	98	62-125	3	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	15.0	15.2	75	76	61-117	1	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.1	19.7	95	99	72-119	3	
1,1-Dichloroethane	ug/L	ND	20	20	19.4	18.5	97	93	63-123	5	
1,1-Dichloroethene	ug/L	ND	20	20	20.3	20.1	102	101	57-127	1	
1,2-Dichlorobenzene	ug/L	ND	20	20	18.0	18.0	90	90	70-116	0	
1,2-Dichloroethane	ug/L	ND	20	20	18.1	17.9	90	89	62-125	1	
1,2-Dichloropropane	ug/L	ND	20	20	19.2	19.5	96	98	69-115	2	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.4	17.9	92	89	71-118	3	
1,4-Dichlorobenzene	ug/L	ND	20	20	18.0	17.7	90	89	67-119	1	
2-Butanone (MEK)	ug/L	ND	20	20	17.0	15.0	85	75	48-136	12	
2-Hexanone	ug/L	ND	20	20	21.8	21.2	109	106	52-130	3	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	20.4	18.7	102	93	57-124	9	
Acetone	ug/L	ND	20	20	24.2	22.6	85	76	49-138	7	
Benzene	ug/L	ND	20	20	19.3	19.3	97	97	66-122	0	
Bromodichloromethane	ug/L	ND	20	20	18.8	19.0	94	95	63-118	1	
Bromoform	ug/L	ND	20	20	19.3	19.3	96	97	46-130	0	
Bromomethane	ug/L	ND	20	20	15.7	17.9	78	90	10-175	14	
Carbon disulfide	ug/L	ND	20	20	17.8	16.9	89	84	59-142	5	
Carbon tetrachloride	ug/L	ND	20	20	23.6	23.8	118	119	55-126	1	
Chlorobenzene	ug/L	ND	20	20	20.1	20.4	100	102	70-121	1	
Chloroethane	ug/L	ND	20	20	12.2	12.2	61	61	24-161	0	
Chloroform	ug/L	ND	20	20	16.9	17.0	85	85	62-126	0	
Chloromethane	ug/L	ND	20	20	21.7	22.1	108	111	37-147	2	
cis-1,2-Dichloroethene	ug/L	ND	20	20	20.8	20.3	100	98	64-121	2	
cis-1,3-Dichloropropene	ug/L	ND	20	20	21.1	21.2	105	106	64-118	1	
Dibromochloromethane	ug/L	ND	20	20	23.1	23.4	116	117	60-120	1	
Ethylbenzene	ug/L	ND	20	20	20.1	20.0	101	100	69-119	0	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	19.1	18.8	96	94	68-126	2	
m&p-Xylene	ug/L	ND	40	40	41.0	41.5	103	104	70-124	1	
Methylene Chloride	ug/L	ND	20	20	21.1	20.4	105	102	59-128	3	
o-Xylene	ug/L	ND	20	20	20.5	20.4	102	102	67-123	0	
Styrene	ug/L	ND	20	20	21.1	20.9	105	104	67-146	1	
Tetrachloroethene	ug/L	ND	20	20	19.4	18.9	97	95	62-125	2	
Toluene	ug/L	ND	20	20	19.9	19.8	100	99	72-115	1	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.2	19.5	101	97	59-122	4	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.7	19.8	99	99	64-120	0	
Trichloroethene	ug/L	ND	20	20	21.4	21.7	107	109	62-125	2	
Trichlorofluoromethane	ug/L	ND	20	20	19.2	18.8	96	94	54-158	2	
Vinyl chloride	ug/L	ND	20	20	18.0	17.6	88	86	52-145	2	
1,2-Dichloroethane-d4 (S)	%						102	99	77-119		
4-Bromofluorobenzene (S)	%						102	101	85-115		
Toluene-d8 (S)	%						104	106	85-115		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALIFIERS

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 30108361

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30108361001	PRE-CARB	EPA 8260	MSV/18173		
30108361002	PRIMARY-EFF	EPA 8260	MSV/18173		
30108361003	POST-CARB	EPA 8260	MSV/18173		
30108361004	TB-01	EPA 8260	MSV/18173		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Section A

Required Client Information:

Company: **URS CORP**
 Address: **FOSTER PARK 6**
600 ANDERSON DR, STE 400
PITTSBURGH, PA 15220
 Email To: _____
 Project Name: **ESSEX/HOPE JAMESTOWN**
 Project Number: **4150950110000**
 Requested Due Date/TAT: **STANDARD**

Section B

Required Project Information:

Report To: **MARK DOWLING**
 Copy To: **VALERIE SIBETO**
 Purchase Order No.: **41509501**
 Project Name: **ESSEX/HOPE JAMESTOWN**
 Project Number: **4150950110000**

Section C

Invoice Information:

Attention: _____
 Company Name: _____
 Address: _____
 Pace Quote Reference: _____
 Pace Project Manager: _____
 Pace Profile #: _____
 Regulatory Agency: _____
 NPDES ☐ GROUND WATER ☐ DRINKING WATER
 UST ☐ RCRA ☐ OTHER _____
 Site Location: **NY**
 STATE: **NY**
 Page: _____ of _____
1572358

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test ↑	Y/N	Requested Analysis Filtered (Y/N)	Pace Project No./ Lab I.D.
			COMPOSITE START	COMPOSITE END/GRAB			DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME				
1	PRE-CARB	DW WT WW P SL OL WP AR TS OT	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME		
2	PRIMARY-EFF		11/25/13	1120														001		
3	POST-CARB		11/25	1125														002		
4	POST-CARB		11/30	1130														003		
5	POST-CARB		12/00	1200														↓		
6	POST-CARB		12/30	1230														↓		
7	TB-DI		11/25/13	1300														004		
8																				
9																				
10																				
11																				
12																				
ADDITIONAL COMMENTS																				
COMPOSITE FIVE (4)																				
POST-CARB SAMPLES																				
IN LAB AND REPORT AS																				
POST-CARB COMPOSITE																				
RELINQUISHED BY / AFFILIATION																				
DATE																				
TIME																				
ACCEPTED BY / AFFILIATION																				
DATE																				
TIME																				
SAMPLE CONDITIONS																				
TEMP IN °C																				
RECEIVED ON																				
ICE (Y/N)																				
CUSTODY																				
SEALED COOLER																				
SAMPLES INTACT																				
SAMPLER NAME AND SIGNATURE																				
PRINT NAME OF SAMPLER: VALERIE SIBETO																				
DATE SIGNED (MM/DD/YY): 11/25/13																				
SIGNATURE OF SAMPLER: <i>Valerie Sibeto</i>																				

ORIGINAL



Sample Condition Upon Receipt

Client Name: URB corp

Project # 30108361

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 8739 8101 914110

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 5 6 7

Type of Ice: Wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature 3.0

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: ARM 11/20/13

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☐ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked,	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>ARM</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☒ Yes ☐ No ☐ N/A	15. <u>Both TB's</u>
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 11/27/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)



Project Number: 30108361

Client Name: VRB corp

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y	N	O & G (1L)	TPH (1L)	VOA (40 ml / 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubtainer (500 ml / 4L)	Ziploc	Other	Other
100	WT																								
101	WT																								
102	WT																								
103	WT																								
104	WT																								

APPENDIX E

SEMI-ANNUAL BPU REPORTS



July 31, 2013

Mr. Michael V. Saar, P.E.
Water Resources Manager
Division of Wastewater/Solid Waste
Jamestown Board of Public Utilities
P.O. Box 700
Jamestown, NY 14702-0700

**Subject: Essex/Hope Site
Semi-Annual Self Monitoring Report
January through June 2013
BPU Permit No. 26
URS Project No. 41569501**

Dear Mr. Saar:

This submittal represents the January through June 2013 monitoring report in accordance with the City of Jamestown Board of Public Utilities Industrial Wastewater Discharge Permit Number 26 for the Essex Specialty Products, Inc facility referenced above. For reporting purposes, Essex Specialty Products, Inc., is classified as a Significant Industrial User subject to Categorical Pretreatment Standards. As such, this report has been developed in accordance with the requirements of 40 CFR 403.12(e).

Specific requirements included in this report as shown on Table 1 are as follows:

- Concentrations of Total Toxic Organics (TTOs) in discharge to POTW as measured monthly. Note: The Baseline Monitoring conducted for the discharge identified volatile organic compounds (VOCs) as approximately 98% of the influent TTO component. Non-volatile components historically were not a major component of chemical usage at the site. Based on these conditions, the permit requires sampling of VOCs to measure TTO concentration.
- pH of discharge to POTW as measured monthly.
- Flow rate of discharge to POTW as measured monthly.
- Estimated daily average and maximum flow rates.

This Semi-Annual Report contains system influent and effluent data for January through June 2013. No noncompliance events occurred during this reporting period. The system was shut down between March 28, 2013 and June 5, 2013 pending carbon changeout. The system carbon was changed out on June 4, 2013. Table 1 summarizes the monthly discharge rates, and the total TTOs and constituents detected in the discharge to the POTW for each month. In addition to the permit requirements, Table 1 includes the total mass of Acetone discharged to the POTW during the reporting period. Discharge flow rates for the reporting period ranged from 95,958 to 227,448 gallons per month over the reporting period. The daily average flow rates shown on Table 1 were estimated based upon the total volume of water discharged per month. Daily maximum flow rates were estimated to be 20 percent greater than daily averages. The supporting Laboratory Certificates of Analysis for the reported concentrations of VOCs are also attached.

We trust that this submittal satisfies our reporting obligation pursuant to 40 CFR 403.12. If you have any questions or require additional information, please contact me at (412) 503-4672.

Sincerely,

URS

Handwritten signature of Mark Dowiak in black ink, with a stylized 'us' at the end.

Mark Dowiak, P.E.
Project Manager

Attachment

cc: Tim King (Dow)
Maurice Moore (NYSDEC)
Valerie Sibeto (URS)

Table 1
January - June 2013
Post Carbon (Effluent) Monitoring Data
Essex/Hope Site
Jamestown, NY

Reporting Requirements for Pre-Treated Discharge (System Effluent to POTW)	Industrial Wastewater Discharge Permit #26 Limits	January	February	March	April	May	June
POTW Discharge Analytical Data							
Total TTOs (µg/L)	2,130 µg/L (TTO)	882	1,237	806			7
Detected TTO Compounds	Report	cis-1,2-DCE, Vinyl Chloride	cis-1,2-DCE, Vinyl Chloride	cis-1,2-DCE, Vinyl Chloride			Vinyl Chloride
pH (Standard Units)	5.5 to 10	7.10	7.07	7.31			7.18
		7.04	7.06	7.28			7.17
		7.07	7.06	7.35			7.21
		7.13	7.05	7.31			7.19
Acetone Discharged (lbs)	Not applicable/No limits	14.6	35.9	14.1			16.4
POTW Discharge Flow Data							
Monthly Total Flow (gallons)	Report	95,958	148,706	147,918			227,448
Average Daily Flow (gallons)	Report	3,095	5,311	4,772			7,337
Maximum Daily Flow (gallons)	Report	3,714	6,373	5,726			8,804

Notes:

Jamestown BPU Industrial Wastewater Discharge Permit #26 effective 11/4/12 through 11/3/17.

Maximum Daily Flow is estimated to be 20% greater than Average Daily Flow.

VOCs sample is a laboratory prepared composite of 4 grab samples collected from the pre-treatment system discharge to the POTW at 30 minute intervals.

pH measurements recorded are concurrent with the time of each grab sample. Italicized measurements are approximate.

TTO = Total Toxic Organics

The system was shut down from March 28, 2013 to June 5, 2013 due to elevated effluent levels pending carbon changeout.

System Carbon was changed out on June 4, 2013.



February 5, 2014

Mr. Michael V. Saar, P.E.
Water Resources Manager
Division of Wastewater/Solid Waste
Jamestown Board of Public Utilities
P.O. Box 700
Jamestown, NY 14702-0700

**Subject: Essex/Hope Site
Semi-Annual Self Monitoring Report
July through December 2013
BPU Permit No. 26
URS Project No. 41569501**

Dear Mr. Saar:

This submittal represents the July through December 2013 monitoring report in accordance with the City of Jamestown Board of Public Utilities Industrial Wastewater Discharge Permit Number 26 for the Essex Specialty Products, Inc facility referenced above. For reporting purposes, Essex Specialty Products, Inc., is classified as a Significant Industrial User subject to Categorical Pretreatment Standards. As such, this report has been developed in accordance with the requirements of 40 CFR 403.12(e).

Specific requirements included in this report as shown on Table 1 are as follows:

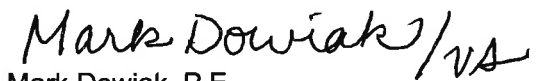
- Concentrations of Total Toxic Organics (TTOs) in discharge to POTW as measured monthly. Note: The Baseline Monitoring conducted for the discharge identified volatile organic compounds (VOCs) as approximately 98% of the influent TTO component. Non-volatile components historically were not a major component of chemical usage at the site. Based on these conditions, the permit requires sampling of VOCs to measure TTO concentration.
- pH of discharge to POTW as measured monthly.
- Flow rate of discharge to POTW as measured monthly.
- Estimated daily average and maximum flow rates.

URS Corporation
Foster Plaza 6, Suite 400
681 Andersen Drive
Pittsburgh, PA 15220
Tel: 412-503-4700
Fax: 412-503-4701
www.urscorp.com

This Semi-Annual Report contains system influent and effluent data for July through December 2013. No noncompliance events occurred during this reporting period. The system was shut down on December 2, 2013 for repair of the groundwater treatment system transfer pump. Table 1 summarizes the monthly discharge rates, and the total TTOs and constituents detected in the discharge to the POTW for each month. In addition to the permit requirements, Table 1 includes the total mass of Acetone discharged to the POTW during the reporting period. Discharge flow rates for the reporting period ranged from 107,078 to 267,698 gallons per month over the reporting period. The daily average flow rates shown on Table 1 were estimated based upon the total volume of water discharged per month. Daily maximum flow rates were estimated to be 20 percent greater than daily averages. The supporting Laboratory Certificates of Analysis for the reported concentrations of VOCs are also attached.

We trust that this submittal satisfies our reporting obligation pursuant to 40 CFR 403.12. If you have any questions or require additional information, please contact me at (412) 503-4672.

Sincerely,
URS

A handwritten signature in black ink that reads "Mark Dowiak" followed by a stylized flourish or initials.

Mark Dowiak, P.E.
Project Manager

Attachment

cc: Tim King (Dow)
Maurice Moore (NYSDEC)
Valerie Sibeto (URS)

Table 1
July - December 2013
Post Carbon (Effluent) Monitoring Data
Essex/Hope Site
Jamestown, NY

Reporting Requirements for Pre-Treated Discharge (System Effluent to POTW)	Industrial Wastewater Discharge Permit #26 Limits	July	August	September	October	November	December
POTW Discharge Analytical Data							
Total TTOs (µg/L)	2,130 µg/L (TTO)	2	8	294	771	645	
Detected TTO Compounds	Report	Vinyl Chloride	Vinyl Chloride	Vinyl Chloride	cis-1,2-DCE, Vinyl Chloride	cis-1,2-DCE, Vinyl Chloride	
pH (Standard Units)	5.5 to 10	7.20	7.06	7.00	7.02	7.00	
		7.19	7.11	6.93	6.97	6.99	
		7.21	7.09	6.95	6.99	6.99	
		7.23	7.10	6.95	6.98	7.00	
Acetone Discharged (lbs)	Not applicable/No limits	0.0	0.25	10.9	31.6	8.7	
POTW Discharge Flow Data							
Monthly Total Flow (gallons)	Report	197,072	107,078	267,698	195,443	115,357	
Average Daily Flow (gallons)	Report	6,158	3,245	7,873	5,584	3,204	
Maximum Daily Flow (gallons)	Report	7,390	3,894	9,448	6,701	3,845	

Notes:

Jamestown BPU Industrial Wastewater Discharge Permit #26 effective 11/4/12 through 11/3/17.

Maximum Daily Flow is estimated to be 20% greater than Average Daily Flow.

VOCs sample is a laboratory prepared composite of 4 grab samples collected from the pre-treatment system discharge to the POTW at 30 minute intervals.

pH measurements recorded are concurrent with the time of each grab sample. Italicized measurements are approximate.

TTO = Total Toxic Organics

Note: August samples were collected during first week of September 2013.

System down December 2, 2013 for transfer pump repair.