



August 29, 2013

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

**Re: 2013 Semi-Annual Performance Monitoring Report
Essex/Hope Site, Jamestown, New York
URS Project No. 41569501**

Dear Mr. Moore:

This letter report is a summary of the January through June 2013 operation performance period for the remedial system at the above-referenced site. This report is submitted in accordance with the revised Performance Monitoring Plan (PMP) prepared by URS Corporation (URS) dated February 2011.

GENERAL OPERATIONS

During the reporting period, over 528,400 gallons of groundwater were treated and discharged to the City of Jamestown POTW. The system was shut down between March 28, 2013 and June 5, 2013 pending carbon changeout activities. The system carbon was changed out on June 4, 2013. There were no other major disruptions in normal operating conditions. The following sections discuss the data on groundwater quality sampling and groundwater flow.

GROUNDWATER FLOW EVALUATION

Water level measurements were taken on June 27, 2013 for the deep and shallow water-bearing zones. Water level data is provided in Appendix A of this report. Groundwater contour maps illustrating pumping conditions during the reporting period are provided as Figures 1 and 2. Groundwater flow was consistent with previous data under the same site conditions.

WATER QUALITY RESULTS

Performance monitoring for 2013 includes semi-annual sampling of the recovery wells during the 1st and 3rd Quarters and monthly influent and effluent sampling of the treatment system. Recovery Well sampling was conducted on March 27, 2013. Samples were analyzed by Pace Analytical of Greensburg, Pennsylvania for volatile organic compounds (VOC's) by US EPA Method 8260B. The recovery well analytical results are summarized in Table 1. Laboratory reports are included as Appendix B.

In accordance with the City of Jamestown Board of Public Utilities (BPU) Industrial Wastewater Discharge Permit Number 26 (Permit), the treatment system is monitored for pH

URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220
Phone: 412.503.4700
Fax: 412.503.4704

and 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 each month and reported to the Jamestown BPU on a semi-annual basis. Groundwater treatment system data for January through June 2013 is summarized on Tables 2 through 4. These tables represent the system influent, individual carbon vessel effluent and post carbon (system discharge to POTW) concentrations. There were no discharge exceedances during this reporting period.

This letter report has been prepared to satisfy the reporting requirements stipulated in the Performance Monitoring Plan and to evaluate remediation effectiveness on a semi-annual basis. If you have any questions or desire additional information, please do not hesitate to call 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
URS Dow Business Unit

Enclosure

cc: Tim King – The Dow Chemical Company
Matt Forcucci – New York State Department of Health
Patrick Foster – Division of Environmental Enforcement
Carlo J. Montisano – Custom Production Manufacturing, Inc.
Valerie Sibeto – URS

TABLES

Table 1
Semi-Annual Recovery Well Sampling
1st Quarter Analytical Results
March 27, 2013

Volatile Organic Compounds (Method 8260A) - µg/L	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

Notes:

Site GW RAOs = Site Groundwater Remedial Action Objectives

µg/l = Micrograms per liter

ND = Not Detected/Below minimum laboratory reporting limit

Table 2
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						
Acetone	10,700	70,700	19,800			6,710						
Benzene	17.9	50.9	21.8			11.5						
2-Butanone	46.1	258	86.9			31.8						
Chloroform	ND	ND	ND			ND						
Chloromethane	ND	ND	ND			ND						
Isopropylbenzene (Cumene)	ND	ND	ND			ND						
1,1-Dichloroethane	ND	ND	ND			ND						
1,1-Dichloroethene	18.5	36.0	30.6			16.7						
cis-1,2-Dichloroethene	4,210	16,800	7,720			4,970						
trans-1,2-Dichloroethene	60.4	ND	92.4			123						
Ethylbenzene	ND	ND	ND			ND						
Methylene Chloride	ND	ND	ND			ND						
Toluene	ND	ND	ND			ND						
Trichloroethene	3,160	4,060	4,210			2,300						
Vinyl Chloride	524	1,380	1,100			645						
Total Xylenes	ND	ND	ND			ND						
Pre-Carbon TOTAL VOCs	18,737	93,285	33,062	0	0	14,808	0	0	0	0	0	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.

Table 3
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						
Acetone	11,400	48,400	8,800			7,260						
Benzene	ND	ND	4.1			ND						
2-Butanone	81.9	162	44.6			ND						
Chloroform	ND	ND	ND			ND						
Chloromethane	ND	ND	ND			ND						
Isopropylbenzene (Cumene)	ND	ND	ND			ND						
1,1-Dichloroethane	ND	ND	ND			ND						
1,1-Dichloroethene	ND	11.2	13.8			ND						
cis-1,2-Dichloroethene	2,260	7,970	9,760			24.9						
trans-1,2-Dichloroethene	8.1	18.6	33.5			ND						
Ethylbenzene	ND	ND	ND			ND						
Methylene Chloride	ND	ND	ND			ND						
Toluene	ND	ND	ND			ND						
Trichloroethene	ND	7.6	116			ND						
Vinyl Chloride	862	1,010	816			89.0						
Total Xylenes	ND	ND	ND			ND						
Primary-Carbon TOTAL VOCs	14,612	57,579	19,588	0	0	7,374	0	0	0	0	0	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.

Table 4
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						
Acetone	18,200	27,900	7,610			7,190						
Benzene	ND	ND	ND			ND						
2-Butanone	ND	ND	ND			ND						
Chloroform	ND	ND	ND			ND						
Chloromethane	ND	ND	ND			ND						
Isopropylbenzene (Cumene)	ND	ND	ND			ND						
1,1-Dichloroethane	ND	ND	ND			ND						
1,1-Dichloroethene	ND	ND	ND			ND						
cis-1,2-Dichloroethene	32.2	36.9	22.2			ND						
trans-1,2-Dichloroethene	ND	ND	ND			ND						
Ethylbenzene	ND	ND	ND			ND						
Methylene Chloride	ND	ND	ND			ND						
Toluene	ND	ND	ND			ND						
Trichloroethene	ND	ND	ND			ND						
Vinyl Chloride	850	1,200	784			6.7						
Total Xylenes	ND	ND	ND			ND						
Post-Carbon TOTAL VOCs	19,082	29,137	8,416	0	0	7,197	0	0	0	0	0	0
Post-Carbon TOTAL TTOs	882	1,237	806	0	0	7	0	0	0	0	0	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)

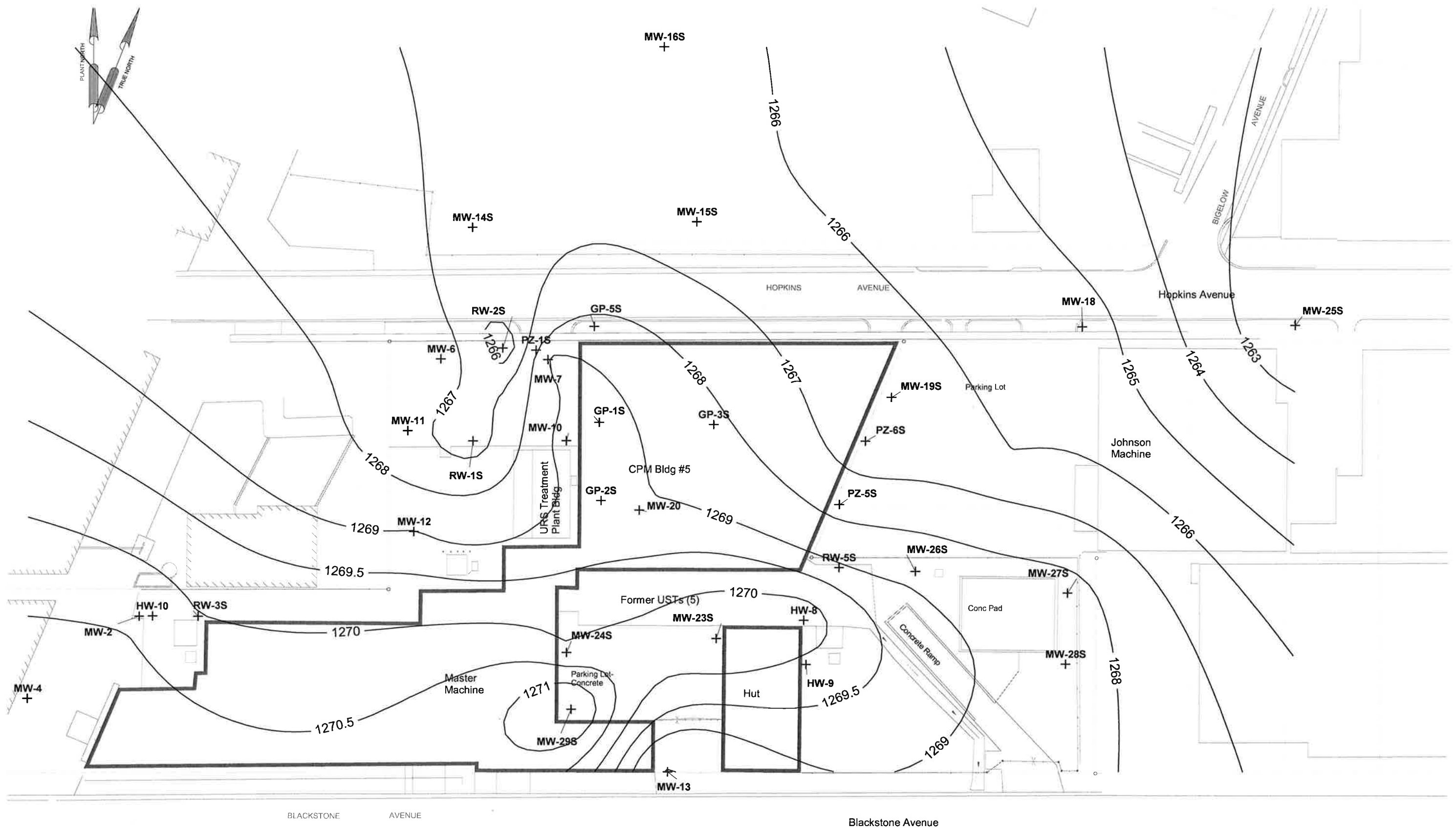
Post-Carbon sample results represent system effluent from the secondary carbon vessel (or the third carbon vessel if used) to the POTW.

Post-Carbon sample is a laboratory prepared composite of four (4) grab samples taken at 30-minute intervals.

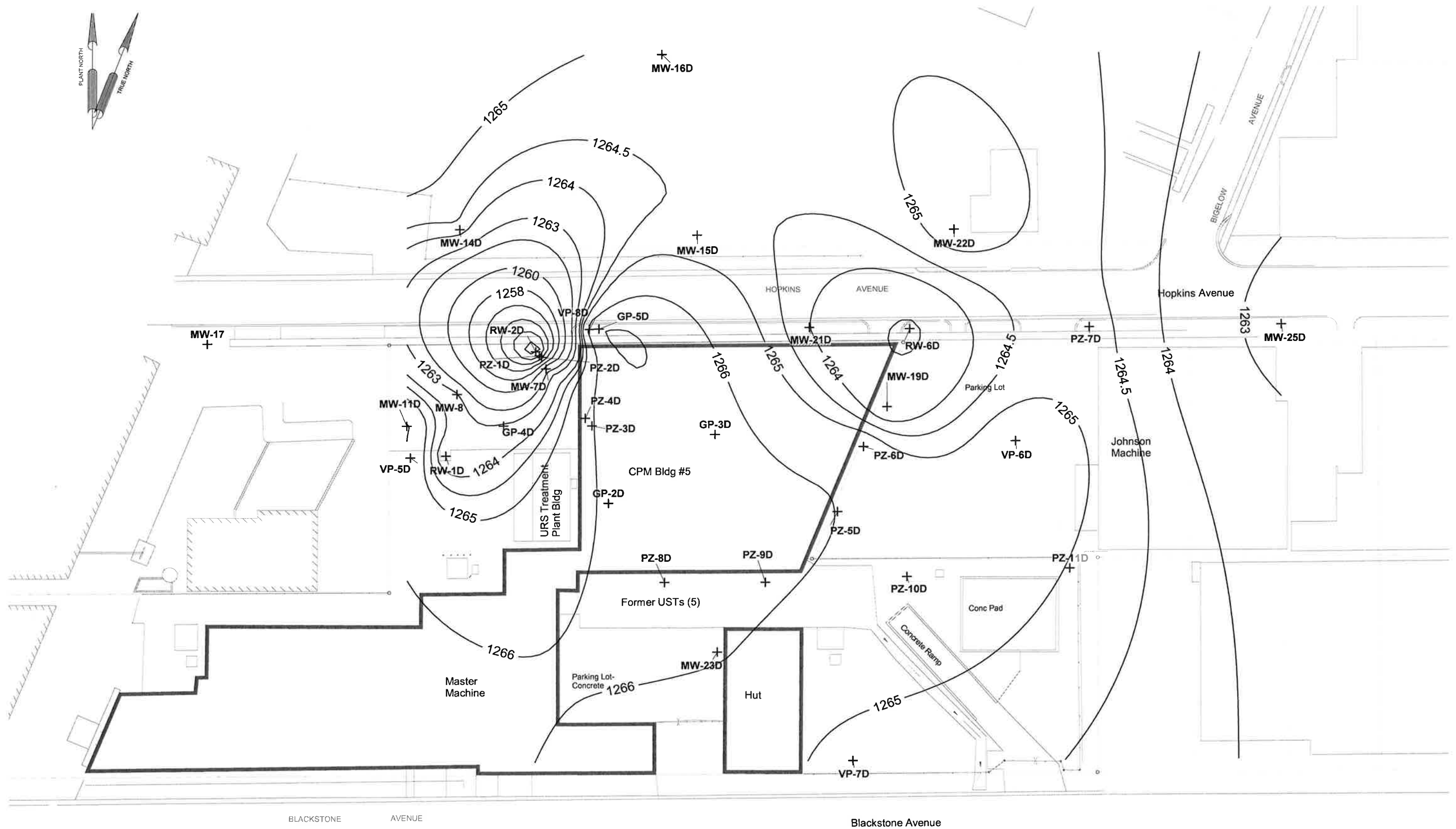
The system was shut down from March 28, 2013 to June 5, 2013 due to elevated effluent levels pending carbon changeout.

System Carbon was changed out on June 4, 2013.

FIGURES



**Figure 1- Shallow Groundwater Potentiometric Surface Map
June 27, 2013**



**Figure 2- Deep Groundwater Potentiometric Surface Map
June 27, 2013**

2013 Semi-Annual Performance
Monitoring Report

APPENDIX A

Water Level Measurement Data

APPENDIX A-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		
							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
MW-2	9837.1531	9959.6857	1279.87		16.0	Shallow	9.44	NA	1270.43
MW-4	9792.3277	9900.7631	1281.02	13.0	18.0	Shallow	10.21	NA	1270.81
MW-5	9789.6222	9631.761	1280.82	9.5	20.0	Shallow	NA	NA	NA
MW-6	9977.1197	10118.8762	1277.98			Shallow	10.03	NA	1267.95
MW-7	9976.6467	10175.6797	1277.73	10.0	20.0	Shallow	8.51	NA	1269.22
MW-7D	9973.2593	10174.8524	1277.8	35.0	45.0	Deep	15.70	NA	1262.10
MW-7DD	9970.8547	10176.2698	1277.74	90.0	100.0	Glacial Till	NA	NA	NA
MW-8	9959.6089	10127.6898	1277.97	39.6	49.6	Deep	14.75	NA	1263.22
MW-10	9932.4702	10185.7078	1277.94	8.5	18.5	Shallow	8.53	NA	1269.41
MW-11	9937.9912	10101.7016	1277.75	5.0	15.0	Shallow	10.54	NA	1267.21
MW-11D	9942.3792	10101.1482	1277.85	35.0	45.0	Deep	11.71	NA	1266.14
MW-12	9883.0874	10104.9278	1278.18	4.0	14.0	Shallow	9.13	NA	1269.05
MW-13	9752.0619	10240.2934	1278.12	8.0	18.0	Shallow	10.23	NA	1267.89
MW-14S	10048.7753	10135.5198	1280.25	10.0	20.0	Shallow	13.47	NA	1266.78
MW-14D	10049.5051	10129.1897	1280.01	40.0	50.0	Deep	15.63	NA	1264.38
MW-15S	10051.8272	10254.4862	1279.55	10.0	20.0	Shallow	13.23	NA	1266.32
MW-15D	10045.5611	10255.205	1279.46	34.0	44.0	Deep	14.91	NA	1264.55
MW-16S	10146.7788	10236.8582	1279.32	7.0	17.0	Shallow	12.68	NA	1266.64
MW-16D	10143.9497	10236.6005	1279.05	36.0	46.0	Deep	14.12	NA	1264.93
MW-17	9987.6315	9995.5207	1278.7			Deep	NA	NA	NA
MW-18	9994.6655	10459.2207	1275.49		20.0	Shallow	9.99	NA	1265.50
MW-19S	9956.1454	10358.207	1276.82	9.0	19.0	Shallow	10.32	NA	1266.50
MW-19D	9951.569	10355.9748	1276.21	34.0	44.0	Deep	12.91	NA	1263.30
MW-20	9894.7336	10224.5128	1278.56	6.5	11.5	Shallow	9.53	NA	1269.03
MW-21D	9995.0094	10314.801	1276.12	31.5	41.0	Deep	12.13	NA	1263.99
MW-22D	10048.1687	10391.3548	1276.04	32.5	42.0	Deep	10.58	NA	1265.46
MW-23S	9824.696	10265.6365	1277.85	5.0	14.5	Shallow	7.40	NA	1270.45
MW-23D	9818.3152	10265.6675	1277.89	28.0	37.5	Deep	11.82	NA	1266.07

APPENDIX A-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		
							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
MW-25S	9995.6	10572.35	1272.76	7.0	17.0	Shallow	10.79	NA	1261.97
MW-25D	9995.46	10565.28	1273.41	31.0	41.0	Deep	10.92	NA	1262.49
MW-26S	9861.3519	10371.3241	1279.422	5.0	15.0	Shallow	10.61	NA	1268.81
MW-27S	9849.63382	10452.2197	1278.864	10.0	20.0	Shallow	10.41	NA	1268.45
MW-28S	9810.84281	10451.4089	1279.25	7.0	17.0	Shallow	10.77	NA	1268.48
MW-29S	9786.06533	10188.6419	1280.7	4.0	14.0	Shallow	8.89	NA	1271.81
HW-8	9834.664	10312.0885	1277.81	6.0	16.0	Shallow	7.46	NA	1270.35
HW-9	9810.5264	10313.3873	1280.78	6.0	16.0	Shallow	10.91	NA	1269.87
HW-10	9837.2976	9966.7406	1279.55	7.0	17.0	Shallow	NA	NA	NA
RW-1S	9932.3606	10136.0515	1275.81	10.5	16.0	Shallow	9.35	11.50	1266.46
RW-1D	9925.9898	10121.7689	1276.34	32.0	57.0	Deep	13.04	NA	1263.30
RW-2S	9982.9501	10151.7112	1276.33	10.0	15.5	Shallow	11.30	12.70	1265.03
RW-2D	9982.6088	10169.3122	1276.35	27.0	42.0	Deep	28.77	36.90	1247.58
RW-3S	9837.0894	9990.9663	1278.14	9.0	13.5	Shallow	8.13	8.80	1270.01
RW-5S	9863.4298	10330.7462	1277.29	7.0	10.0	Shallow	NA	NA	NA
RW-6D	9994.04	10367.91	1277.33			Deep	14.55	NA	1262.78
GP-1S	9942.4384	10203.1085	1278.83	8.0	12.8	Shallow	NA	NA	NA
GP-2S	9899.8775	10204.1632	1278.46	2.6	12.6	Shallow	NA	NA	NA
GP-2D	9899.7358	10207.9807	1278.56	30.0	34.8	Deep	NA	NA	NA
GP-3S	9941.2543	10263.8898	1278.59	4.0	14.0	Shallow	NA	NA	NA
GP-3D	9936.9027	10264.588	1278.62	34.0	38.8	Deep	NA	NA	NA
GP-4S	9940.86*	10154.97*	1278.06	10.8	15.8	Shallow	9.10	NA	1268.96
GP-4D	9942.1743	10152.2232	1277.95	39.0	43.8	Deep	14.79	NA	1263.16
GP-5S	9994.7299	10200.2055	1277.44	7.0	11.8	Shallow	NA	NA	NA
GP-5D	9994.8642	10202.9906	1276.81	36.0	40.8	Deep	NA	NA	NA
PZ-1S	9981.8469	10169.3122	1277.77			Shallow	NA	NA	NA
PZ-1D	9980.4294	10171.2636	1277.64			Deep	NA	NA	NA
PZ-2D	9979.5627	10172.4761	1277.55			Deep	NA	NA	NA

APPENDIX A-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		
							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
PZ-4D	9946.2326	10195.679	1278.71			Deep	NA	NA	NA
PZ-5S	9897.7381	10330.7876	1276.42	5.5	12.0	Shallow	8.80	NA	1267.62
PZ-5D	9894.5731	10329.7148	1276.4	21.0	42.0	Deep	10.41	NA	1265.99
PZ-6S	9932.2079	10344.4895	1276.61	8.5	13.5	Shallow	10.23	NA	1266.38
PZ-6D	9929.8004	10343.4742	1276.62	25.5	45.5	Deep	10.92	NA	1265.70
PZ-7D	9994.5452	10463.2465	1275.68	22.0	42.0	Deep	10.98	NA	1264.70
PZ-8D	9856.4908	10237.8118	1278.12	21.0	41.0	Deep	NA	NA	NA
PZ-9D	9856.2398	10291.1658	1277.3	19.0	39.0	Deep	NA	NA	NA
PZ-10D	9858.9821	10366.4236	1277.52	26.5	46.5	Deep	NA	NA	NA
PZ-11D	9863.0677	10452.8989	1276.63	21.3	41.3	Deep	NA	NA	NA
VP-5D	9925.1052	10103.0141	1277.88	12.5	34.3	Deep	11.98	NA	1265.90
VP-6S	9928.8123	10423.4628	1276.48	18.3	24.0	Deep upper gravel	10.52	NA	1265.96
VP-6D	9932.5744	10424.1378	1276.6	29.5	39.5	Deep	11.02	NA	1265.58
VP-7D	9758.4881	10337.7133	1278.64	20.4	39.3	Deep	13.98	NA	1264.66
VP-8D	9994.6178	10197.8133	1277.15	20.0	39.0	Deep	10.38	NA	1266.77

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 B

Laboratory Certificates of Analysis

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

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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

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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	

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REPORT OF LABORATORY ANALYSIS

Page 4 of 19

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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

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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

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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		



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	Report To: MARK DOWIAK	Attention: MARK DOWIAK		Page: 1 of 1	
Address: 681 Anderson Dr. L14 400	Copy To: VALERIE SIBETO	Company Name: VALERIE SIBETO		Invoice Number: 1581653	
Phone: Pittsburgh PA 15220	Purchase Order No.: 41569501	Address: ESSEX/HOPE STATES TOWN		REGULATORY AGENCY	
Email To: Mark Dowiak Valerie Sibeto	Project Name: ESSEX/HOPE STATES TOWN	Pace Quote Reference: 41569501		☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER	
Phone: 412 503 4700	Project Number: 41569501.10000	Pace Project Manager: MARK DOWIAK		☐ UST ☐ RCRA ☐ OTHER	
Requested Due Date/TAT: STANDARD	Pace Profile #: 41569501.10000		Site Location: NY		STATE: NY

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Tissue Other	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test ↑	Y/N ↑	Requested Analysis Filtered (Y/N)												Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
					COMPOSITE START	COMPOSITE END/GRAB	DATE	TIME			DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
1	RW-60		WT	G				3/27/13	0940		4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									</

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Semi-Annual RW Sampling	BRAD CAROSENE	3/27/13		Fed Ex	3/27/13		
Dissolved Iron needs to be	Amanda Shiny Pace	3/27/13	1000				Y N Y
kb filtered							
SAMPLER NAME AND SIGNATURE							Temp in °C
PRINT Name of SAMPLER: BRAD CAROSENE							Sealed Cooler (Y/N)
SIGNATURE of SAMPLER: RLC							Received on (Y/N)
DATE Signed (MM/DD/YY): 3/27/13							Samples Intact (Y/N)

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]

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

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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

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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

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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		

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 DOWDALL		Attention:	
Address: FOSTER PLAZA 6		Copy To: VALERIE SIBETO		Company Name:	
City/State/Zip: 601 ANDERSON DR. STE 400		Purchase Order No.: 41569501		Address:	
Email To: URS@URS.COM		Project Name: ESSEX/HOPE JAYESTOWN		Pace Quote Reference:	
Phone/Fax: 781-503-4700 / 781-503-4700		Project Number: 41569501.10000		Pace Project Manager:	
Requested Due Date/TAT: STANDARD				Pace Profile #:	

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

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☐ RCRA ☐ OTHER

Site Location: **NY**

STATE: **NY**

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE DW Drinking Water WW Waste Water P Product SL/Solid Oil Wipe Air Tissue Other	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Y/N ↓	Residual Chlorine (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		WTG			1.30.13	1035			3	Unpreserved									001	30800260
2	PRIMARY-EFF					1.30.13	1040													002	
3	POST-CARB						1045													003	
4	POST-CARB						1115													004	
5	POST-CARB						1145													005	
6	POST-CARB						1215													006	
7	TB-OI		WTG			1.30.13				2										007	
8																					
9																					
10																					
11																					
12																					
ADDITIONAL COMMENTS			RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS						
COMPOSITE FOUR (4)			Valerian PERS		1.30.13		1245		Jed Ed		1.30.13		1245								
POST-CARB SAMPLES IN LOSS AND REPORT AS POST-CARB COMPOSITE			Ryan Calor								1-31-13		1000		0.7		Y N Y				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: **VALERIE SIBETO**

SIGNATURE of SAMPLER: *Valerian*

DATE Signed (MM/DD/YY): **1.30.13**

Temp in °C

Received on Ice (Y/N)

Custody Sealed Cooler (Y/N)

Samples Intact (Y/N)

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 ZiplocThermometer 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

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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

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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

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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: VALEKIE SIBETO Purchase Order No.: 415269570 Project Name: ESSEX/HOVE JAMES TOWN Project Number: 415269570.10000		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			1105		3									002	
3	POST-CARB	WW			1116		3									003	
4	POST-CARB	P			1140		3										
5	POST-CARB	Product			1210		3										
6	POST-CARB	Soil/Solid			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				Ryan Lalor	2/28/13	0940	Y N
IN LAB AND REPORT AS							
POST-CARB COMPOSITE							

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER: VALEKIE 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)

*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

URS

[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

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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

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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

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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	

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REPORT OF LABORATORY ANALYSIS

Page 9 of 13

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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: **41569501.1000**

Section C

Invoice Information:

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

Section D

Required Analysis Filtered (Y/N)

Regulatory Agency
NPDES ☐ GROUND WATER ☐ RCRA ☐ UST ☐ OTHER ☐
Site Location
STATE: **NY**

Section E

Requested Analysis Filtered (Y/N)

ITEM #	Matrix Codes MATRIX / CODE	SAMPLE TYPE (G=GRAB C=COMP) (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives						Analysis Test ↑ Y/N ↓	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
			COMPOSITE START	COMPOSITE END/GRAB			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	
1	PRE-CARB	NTG	DATE	TIME	DATE	TIME									
2	PRIMARY-EFF	NTG	3/23/13	1130											001
3	POST-CARB	NTG	1135												002
4	POST-CARB	NTG	1140												003
5	POST-CARB	NTG	1210												
6	POST-CARB	NTG	1240												
7	POST-CARB	NTG	1310												
8	TB-01	NTG	3/23/13	—		2									004
9															
10															
11															
12															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
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COMPOSITE FOUR (4)
POST-CARB SAMPLES IN
LAB AND REPORT A-S
POST-CARB COMPOSITE

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: **VALERIE SIBETO**
SIGNATURE OF SAMPLER: *Valerie Sibeto*
DATE Signed (MM/DD/YY): **3.27.13**

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

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

ures

[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

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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

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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

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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

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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

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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

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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

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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

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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

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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

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Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	URS CORP	Report To:	MARILYN DOWIAK	Attention:	
Address:	681 ANDERSON DR STE 400 FISHER PARK MIDLAND TX 79701-1872	Copy To:	VALENTINE SIBERO	Company Name:	
Email To:		Purchase Order No.:	41579501	Address:	
Phone:	(417) 503-4700 FAX: (417) 503-4701	Project Name:	ESSAY/HOPE JAMESDOWN	Pace Quote Reference:	
Requested Due Date/TAT:	STANDARD	Project Number:	41579501.10000	Pace Project Manager:	
				Pace Profile #:	

[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

UDS Corp

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