URS

February 5, 2014

Mr. Michael V. Saar, P.E.
Water Resources Manager
Division of Wastewater/Solid Waste
Jamestown Board of Public Utilities
P.O. Box 700
Jamestown, NY 14702-0700

Subject: **Essex/Hope Site**
Semi-Annual Self Monitoring Report
July through December 2013
BPU Permit No. 26
URS Project No. 41569501

Dear Mr. Saar:

This submittal represents the July through December 2013 monitoring report in accordance with the City of Jamestown Board of Public Utilities Industrial Wastewater Discharge Permit Number 26 for the Essex Specialty Products, Inc facility referenced above. For reporting purposes, Essex Specialty Products, Inc., is classified as a Significant Industrial User subject to Categorical Pretreatment Standards. As such, this report has been developed in accordance with the requirements of 40 CFR 403.12(e).

Specific requirements included in this report as shown on Table 1 are as follows:

- Concentrations of Total Toxic Organics (TTOs) in discharge to POTW as measured monthly. Note: The Baseline Monitoring conducted for the discharge identified volatile organic compounds (VOCs) as approximately 98% of the influent TTO component. Non-volatile components historically were not a major component of chemical usage at the site. Based on these conditions, the permit requires sampling of VOCs to measure TTO concentration.
- pH of discharge to POTW as measured monthly.
- Flow rate of discharge to POTW as measured monthly.
- Estimated daily average and maximum flow rates.

URS Corporation
Foster Plaza 6, Suite 400
681 Andersen Drive
Pittsburgh, PA 15220
Tel: 412-503-4700
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www.urscorp.com

This Semi-Annual Report contains system influent and effluent data for July through December 2013. No noncompliance events occurred during this reporting period. The system was shut down on December 2, 2013 for repair of the groundwater treatment system transfer pump. Table 1 summarizes the monthly discharge rates, and the total TTOs and constituents detected in the discharge to the POTW for each month. In addition to the permit requirements, Table 1 includes the total mass of Acetone discharged to the POTW during the reporting period. Discharge flow rates for the reporting period ranged from 107,078 to 267,698 gallons per month over the reporting period. The daily average flow rates shown on Table 1 were estimated based upon the total volume of water discharged per month. Daily maximum flow rates were estimated to be 20 percent greater than daily averages. The supporting Laboratory Certificates of Analysis for the reported concentrations of VOCs are also attached.

We trust that this submittal satisfies our reporting obligation pursuant to 40 CFR 403.12. If you have any questions or require additional information, please contact me at (412) 503-4672.

Sincerely,
URS

Mark Dowiak /VS

Mark Dowiak, P.E.
Project Manager

Attachment

cc: Tim King (Dow)
Maurice Moore (NYSDEC)
Valerie Sibeto (URS)

Table 1

July - December 2013
Post Carbon (Effluent) Monitoring Data
Essex/Hope Site
Jamestown, NY

Reporting Requirements for Pre-Treated Discharge (System Effluent to POTW)	Industrial Wastewater Discharge Permit #26 Limits	July	August	September	October	November	December
POTW Discharge Analytical Data							
Total TTOs (µg/L)	2,130 µg/L (TTO)	2	8	294	771	645	
Detected TTO Compounds	Report	Vinyl Chloride	Vinyl Chloride	Vinyl Chloride	cis-1,2-DCE, Vinyl Chloride	cis-1,2-DCE, Vinyl Chloride	
pH (Standard Units)	5.5 to 10	7.20	7.06	7.00	7.02	7.00	
		7.19	7.11	6.93	6.97	6.99	
		7.21	7.09	6.95	6.99	6.99	
		7.23	7.10	6.95	6.98	7.00	
Acetone Discharged (lbs)	Not applicable/No limits	0.0	0.25	10.9	31.6	8.7	
POTW Discharge Flow Data							
Monthly Total Flow (gallons)	Report	197,072	107,078	267,698	195,443	115,357	
Average Daily Flow (gallons)	Report	6,158	3,245	7,873	5,584	3,204	
Maximum Daily Flow (gallons)	Report	7,390	3,894	9,448	6,701	3,845	

Notes:

Jamestown BPU Industrial Wastewater Discharge Permit #26 effective 11/4/12 through 11/3/17.

Maximum Daily Flow is estimated to be 20% greater than Average Daily Flow.

VOCs sample is a laboratory prepared composite of 4 grab samples collected from the pre-treatment system discharge to the POTW at 30 minute intervals.

pH measurements recorded are concurrent with the time of each grab sample. Italicized measurements are approximate.

TTO = Total Toxic Organics

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

System down December 2, 2013 for transfer pump repair.

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

August 14, 2013

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

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

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

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

Sincerely,

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

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

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

Pennsylvania Certification IDs

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

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

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

Sample: PRE-CARB **Lab ID: 3099751001** Collected: 07/30/13 10:30 Received: 07/31/13 09:40 Matrix: Water

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

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

Sample: PRIMARY-EFF **Lab ID: 3099751002** Collected: 07/30/13 10:35 Received: 07/31/13 09:40 Matrix: Water

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

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

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

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

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

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

Sample: TB-01 **Lab ID: 3099751004** Collected: 07/30/13 00:01 Received: 07/31/13 09:40 Matrix: Water

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

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

QC Batch: MSV/16972 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3099751001, 3099751002, 3099751003, 3099751004

METHOD BLANK: 616720 Matrix: Water
Associated Lab Samples: 3099751001, 3099751002, 3099751003, 3099751004

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

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

LABORATORY CONTROL SAMPLE: 616721

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 616873 616874

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

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

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

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

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

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

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

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: | of |

1220598

Section A Required Client Information:

Company: URS CORP
Address: FOSTER PLAZA 6, 601 ANDERSEN DR. STE. 400, PITTSBURGH, PA 15220
Email To:
Phone: 412-503-4700 Fax: 412-503-4701
Requested Due Date/TAT: STANDARD

Section B Required Project Information:

Report To: MARK DOWIAK
Copy To: VALERIE SIBETO
Purchase Order No.: 41569501
Project Name: ESSEX/HOPE JAMESTOWN
Project Number: 41569501.10000

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

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: VOCs 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 3099751
1	PRE-CARB	WT	G			7.30.13	1030		3				X							001
2	PRIMARY-EFF						1035		3				X							002
3	POST-CARB						1040		3				X							003
4	POST-CARB						1110		3				X							↓
5	POST-CARB						1140		3				X							
6	POST-CARB	↓	↓			↓	1210		3				X							
7	TB-01	WT	G			7.30.13			1				X							004
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COMPOSITE FOUR (4) POST-CARB SAMPLES IN LAB AND REPORT AS POST-CARB COMPOSITE	Valerie Sibeto	7.30.13	~1240	[illegible] 7.30.13	7.30.13	~1240				
				[illegible]	7.31.13	0940	3.4	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: VALERIE SIBETO
SIGNATURE of SAMPLER: Valerie Sibeto
DATE Signed (MM/DD/YY): 7.30.13

ORIGINAL

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

TAN

Sample Condition Upon Receipt

Pace Analytical

Client Name: URS Corp Project # 30044751

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

Tracking #: 8739 8101 9565

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 3.4 Biological Tissue is Frozen: Yes No

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

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: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	Initial when completed MAT / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14:
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☑Yes ☐No ☐N/A	16.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 8/5/13

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

Pace Analytical

Project Number: 30997751

Client Name: URS Corp

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml) 30 ml	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT													3										
002	↓													3										
003														12										
004														1										

SCURF Back (C016-4 15May2012).xls

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 18, 2013

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

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

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

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

Sincerely,

Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

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

Pennsylvania Certification IDs

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

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

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

Sample: PRE-CARB **Lab ID: 30102562001** Collected: 09/09/13 12:05 Received: 09/10/13 09:40 Matrix: Water

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

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

Sample: PRIMARY-EFF **Lab ID: 30102562002** Collected: 09/09/13 12:10 Received: 09/10/13 09:40 Matrix: Water

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

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

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

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

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

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

Sample: TB-01 **Lab ID: 30102562004** Collected: 09/09/13 00:01 Received: 09/10/13 09:40 Matrix: Water

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

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

QC Batch: MSV/17340 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 30102562001, 30102562002, 30102562003, 30102562004

METHOD BLANK: 631056 Matrix: Water
Associated Lab Samples: 30102562001, 30102562002, 30102562003, 30102562004

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

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

LABORATORY CONTROL SAMPLE: 631057

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.9	105	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.6	88	61-117	
1,1,2-Trichloroethane	ug/L	20	18.7	94	72-119	
1,1-Dichloroethane	ug/L	20	20.4	102	63-123	
1,1-Dichloroethene	ug/L	20	20.7	103	57-127	
1,2-Dichlorobenzene	ug/L	20	17.7	89	70-116	
1,2-Dichloroethane	ug/L	20	20.4	102	62-125	
1,2-Dichloropropane	ug/L	20	17.3	87	69-115	
1,3-Dichlorobenzene	ug/L	20	18.0	90	71-118	
1,4-Dichlorobenzene	ug/L	20	18.3	91	67-119	
2-Butanone (MEK)	ug/L	20	19.4	97	48-136	
2-Hexanone	ug/L	20	23.9	119	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	17.5	87	57-124	
Acetone	ug/L	20	19.0	95	49-138	
Benzene	ug/L	20	18.1	91	66-122	
Bromodichloromethane	ug/L	20	16.6	83	63-118	
Bromoform	ug/L	20	16.5	82	46-130	
Bromomethane	ug/L	20	25.6	128	10-175	
Carbon disulfide	ug/L	20	26.8	134	59-142	
Carbon tetrachloride	ug/L	20	19.4	97	55-126	
Chlorobenzene	ug/L	20	17.8	89	70-121	
Chloroethane	ug/L	20	19.5	97	24-161	
Chloroform	ug/L	20	20.3	101	62-126	
Chloromethane	ug/L	20	17.7	89	37-147	
cis-1,2-Dichloroethene	ug/L	20	21.0	105	64-121	
cis-1,3-Dichloropropene	ug/L	20	18.4	92	64-118	
Dibromochloromethane	ug/L	20	17.3	87	60-120	
Ethylbenzene	ug/L	20	18.1	90	69-119	
Isopropylbenzene (Cumene)	ug/L	20	18.9	94	68-126	
m&p-Xylene	ug/L	40	36.7	92	70-124	
Methylene Chloride	ug/L	20	21.7	109	59-128	
o-Xylene	ug/L	20	17.4	87	67-123	
Styrene	ug/L	20	18.8	94	67-146	
Tetrachloroethene	ug/L	20	17.6	88	62-125	
Toluene	ug/L	20	18.1	91	72-115	
trans-1,2-Dichloroethene	ug/L	20	20.0	100	59-122	
trans-1,3-Dichloropropene	ug/L	20	17.8	89	64-120	
Trichloroethene	ug/L	20	16.7	83	62-125	
Trichlorofluoromethane	ug/L	20	18.0	90	54-158	
Vinyl chloride	ug/L	20	17.6	88	52-145	
1,2-Dichloroethane-d4 (S)	%			108	77-119	
4-Bromofluorobenzene (S)	%			98	85-115	
Toluene-d8 (S)	%			92	85-115	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 631058 631059

Parameter	Units	30102301001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	23.0	23.0	115	115	62-125	0	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	17.0	16.4	85	82	61-117	3	
1,1,2-Trichloroethane	ug/L	ND	20	20	17.5	18.4	87	92	72-119	5	
1,1-Dichloroethane	ug/L	18.7	20	20	41.1	40.4	112	108	63-123	2	
1,1-Dichloroethene	ug/L	ND	20	20	23.5	23.1	118	116	57-127	2	
1,2-Dichlorobenzene	ug/L	ND	20	20	16.5	16.2	83	81	70-116	2	
1,2-Dichloroethane	ug/L	ND	20	20	21.8	21.6	109	108	62-125	1	
1,2-Dichloropropane	ug/L	ND	20	20	17.4	17.2	87	86	69-115	1	
1,3-Dichlorobenzene	ug/L	ND	20	20	17.1	17.3	86	86	71-118	1	
1,4-Dichlorobenzene	ug/L	ND	20	20	16.3	16.7	82	84	67-119	2	
2-Butanone (MEK)	ug/L	ND	20	20	19.3	19.8	96	99	48-136	3	
2-Hexanone	ug/L	ND	20	20	23.8	24.5	119	122	52-130	3	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	16.6	18.0	83	90	57-124	8	
Acetone	ug/L	ND	20	20	18.1	18.0	80	80	49-138	0	
Benzene	ug/L	3.2	20	20	21.1	21.9	90	93	66-122	3	
Bromodichloromethane	ug/L	ND	20	20	16.1	15.7	81	79	63-118	3	
Bromoform	ug/L	ND	20	20	14.8	14.7	74	73	46-130	1	
Bromomethane	ug/L	ND	20	20	15.2	16.9	76	84	10-175	10	
Carbon disulfide	ug/L	ND	20	20	28.4	28.3	142	142	59-142	0	
Carbon tetrachloride	ug/L	ND	20	20	19.5	18.8	97	94	55-126	4	
Chlorobenzene	ug/L	ND	20	20	17.6	17.8	88	89	70-121	1	
Chloroethane	ug/L	ND	20	20	24.0	21.8	120	109	24-161	10	
Chloroform	ug/L	ND	20	20	21.2	20.7	106	104	62-126	2	
Chloromethane	ug/L	ND	20	20	22.6	23.5	113	117	37-147	4	
cis-1,2-Dichloroethene	ug/L	ND	20	20	23.7	23.1	115	112	64-121	2	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.4	17.7	87	89	64-118	2	
Dibromochloromethane	ug/L	ND	20	20	15.9	16.4	79	82	60-120	3	
Ethylbenzene	ug/L	ND	20	20	18.1	18.7	91	93	69-119	3	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	18.7	18.4	93	92	68-126	2	
m&p-Xylene	ug/L	ND	40	40	36.3	37.0	91	92	70-124	2	
Methylene Chloride	ug/L	ND	20	20	21.7	21.0	108	105	59-128	3	
o-Xylene	ug/L	ND	20	20	17.4	17.7	87	88	67-123	2	
Styrene	ug/L	ND	20	20	18.3	19.2	91	96	67-146	5	
Tetrachloroethene	ug/L	ND	20	20	17.9	18.0	89	90	62-125	1	
Toluene	ug/L	ND	20	20	18.0	18.7	90	93	72-115	3	
trans-1,2-Dichloroethene	ug/L	ND	20	20	22.3	22.3	111	112	59-122	0	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.6	16.8	83	84	64-120	1	
Trichloroethene	ug/L	ND	20	20	16.7	17.1	83	86	62-125	3	
Trichlorofluoromethane	ug/L	ND	20	20	22.5	22.5	113	113	54-158	0	
Vinyl chloride	ug/L	11.0	20	20	33.3	33.1	112	111	52-145	0	
1,2-Dichloroethane-d4 (S)	%						112	109	77-119		
4-Bromofluorobenzene (S)	%						99	97	85-115		
Toluene-d8 (S)	%						90	92	85-115		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

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

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

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

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30102562001	**PRE-CARB**	EPA 8260	MSV/17340		
30102562002	**PRIMARY-EFF**	EPA 8260	MSV/17340		
30102562003	**POST-CARB**	EPA 8260	MSV/17340		
30102562004	**TB-01**	EPA 8260	MSV/17340		

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

1584077

Section A Required Client Information:

Company:	URS CORP
Address:	FOSTER PLAZA 6, 601 ANDERSON DR. STE. 400, PITTSBURGH, PA 15220
Email To:	
Phone: 412-503-4700	Fax: 412-503-4701
Requested Due Date/TAT:	STANDARD

Section B Required Project Information:

Report To:	MARK DOWIAK
Copy To:	VALERIE SIBETO
Purchase Order No.:	41569501
Project Name:	ESSEX/HOPE JAMESTOWN
Project Number:	41569501.10000

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

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VOCs 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 3002562
1	PRE-CARB	WT	G			9.9.13	1205		3				X						X		001
2	PRIMARY-EFF	↓	↓			↓	1210		3				X						X		002
3	POST-CARB	↓	↓			↓	1215		3				X						X		003
4	POST-CARB	↓	↓			↓	1245		3				X						X		↓
5	POST-CARB	↓	↓			↓	1315		3				X						X		↓
6	POST-CARB	↓	↓			↓	1345		3				X						X		↓
7	TB-01	WT	G			9.9.13	—		2				X						X		004
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COMPOSITE FOUR (4)	Valerie [signature] / URS	9.9.13	1430	[signature]	9.9.13	1430				
POST-CARB SAMPLES				[signature]	9/10/13	0940	3.8	Y	N	Y
IN LAB AND REPORT										
AS POST-CARB COMPOSITE										

NOTE: AUGUST 2013 POTW SAMPLES

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: VALERIE SIBETO

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 9.9.13

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

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

Sample Condition Upon Receipt

Pace Analytical

Client Name: URS Corp

Project # 30102562

ARM

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

Tracking #: 8739 9101 9596

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 3.8 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: MAC 9-10-13

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: WT				
All containers needing preservation have been checked.	☐Yes	☐No	☒N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☒N/A	
exceptions: (VOA), coliform, TOC, O&G, WI-DRO (water)	☒Yes	☐No		Initial when completed MAC / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☒No	☐N/A	15.
Trip Blank Present:	☒Yes	☐No	☐N/A	16.
Trip Blank Custody Seals Present	☒Yes	☐No	☐N/A	
Pace Trip Blank Lot # (if purchased):				

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 9/11/13

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

Pace Analytical

Project Number: 30102562

Client Name: URS Corp

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml) 30 ml	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT													3									
002	↓													3									
003														1									
004	↓													2									

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Greensburg, PA 15601
(724)850-5600

October 15, 2013

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

RE: Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

Dear Mr. Dowiak:
Enclosed are the analytical results for sample(s) received by the laboratory on October 01, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Mike Klunk for
Timothy Reed
timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

Pennsylvania Certification IDs

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

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ANALYTICAL RESULTS

Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

Sample: PRE-CARB **Lab ID: 30104099001** Collected: 09/30/13 12:00 Received: 10/01/13 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**7650**	ug/L	200	20		10/11/13 19:50	67-64-1	
Benzene	**12.1**	ug/L	1.0	1		10/11/13 19:25	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/11/13 19:25	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/11/13 19:25	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/11/13 19:25	74-83-9	
2-Butanone (MEK)	**34.7**	ug/L	10.0	1		10/11/13 19:25	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/11/13 19:25	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/11/13 19:25	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/11/13 19:25	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/11/13 19:25	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/11/13 19:25	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/11/13 19:25	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/11/13 19:25	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 19:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 19:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 19:25	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/11/13 19:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/11/13 19:25	107-06-2	
1,1-Dichloroethene	**14.7**	ug/L	5.0	1		10/11/13 19:25	75-35-4	
cis-1,2-Dichloroethene	**3880**	ug/L	100	20		10/11/13 19:50	156-59-2	
trans-1,2-Dichloroethene	**30.1**	ug/L	5.0	1		10/11/13 19:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/11/13 19:25	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 19:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 19:25	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/11/13 19:25	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/11/13 19:25	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/11/13 19:25	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/11/13 19:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/11/13 19:25	108-10-1	
Styrene	ND	ug/L	5.0	1		10/11/13 19:25	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/11/13 19:25	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/11/13 19:25	127-18-4	
Toluene	ND	ug/L	5.0	1		10/11/13 19:25	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/11/13 19:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/11/13 19:25	79-00-5	
Trichloroethene	**1760**	ug/L	100	20		10/11/13 19:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/11/13 19:25	75-69-4	
Vinyl chloride	**477**	ug/L	20.0	20		10/11/13 19:50	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/11/13 19:25	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/11/13 19:25	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	85-115	1		10/11/13 19:25	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	77-119	1		10/11/13 19:25	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		10/11/13 19:25	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

Sample: PRIMARY-EFF **Lab ID: 30104099002** Collected: 09/30/13 12:05 Received: 10/01/13 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**7100**	ug/L	200	20		10/11/13 20:41	67-64-1	
Benzene	ND	ug/L	1.0	1		10/11/13 20:16	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/11/13 20:16	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/11/13 20:16	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/11/13 20:16	74-83-9	
2-Butanone (MEK)	**21.2**	ug/L	10.0	1		10/11/13 20:16	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/11/13 20:16	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/11/13 20:16	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/11/13 20:16	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/11/13 20:16	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/11/13 20:16	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/11/13 20:16	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/11/13 20:16	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 20:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 20:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 20:16	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/11/13 20:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/11/13 20:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/11/13 20:16	75-35-4	
cis-1,2-Dichloroethene	**1490**	ug/L	100	20		10/11/13 20:41	156-59-2	
trans-1,2-Dichloroethene	**6.8**	ug/L	5.0	1		10/11/13 20:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/11/13 20:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 20:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 20:16	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/11/13 20:16	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/11/13 20:16	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/11/13 20:16	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/11/13 20:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/11/13 20:16	108-10-1	
Styrene	ND	ug/L	5.0	1		10/11/13 20:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/11/13 20:16	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/11/13 20:16	127-18-4	
Toluene	ND	ug/L	5.0	1		10/11/13 20:16	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/11/13 20:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/11/13 20:16	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/11/13 20:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/11/13 20:16	75-69-4	
Vinyl chloride	**587**	ug/L	20.0	20		10/11/13 20:41	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/11/13 20:16	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/11/13 20:16	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	85-115	1		10/11/13 20:16	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	77-119	1		10/11/13 20:16	17060-07-0	
Toluene-d8 (S)	101	%	85-115	1		10/11/13 20:16	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

Sample: POST-CARB **Lab ID: 30104099003** Collected: 09/30/13 13:40 Received: 10/01/13 09:45 Matrix: Water

Comments: • Composite Samples collected at 12:10, 12:40, 13:10, and 13:40.
• 8260 VOA: Sample was composited prior to analysis as requested.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**5740**	ug/L	500	50		10/14/13 12:40	67-64-1	
Benzene	ND	ug/L	1.0	1		10/11/13 21:06	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/11/13 21:06	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/11/13 21:06	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/11/13 21:06	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/11/13 21:06	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/11/13 21:06	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/11/13 21:06	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/11/13 21:06	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/11/13 21:06	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/11/13 21:06	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/11/13 21:06	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/11/13 21:06	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 21:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 21:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 21:06	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/11/13 21:06	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/11/13 21:06	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/11/13 21:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/11/13 21:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/11/13 21:06	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/11/13 21:06	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 21:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 21:06	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/11/13 21:06	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/11/13 21:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/11/13 21:06	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/11/13 21:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/11/13 21:06	108-10-1	
Styrene	ND	ug/L	5.0	1		10/11/13 21:06	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/11/13 21:06	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/11/13 21:06	127-18-4	
Toluene	ND	ug/L	5.0	1		10/11/13 21:06	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/11/13 21:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/11/13 21:06	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/11/13 21:06	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/11/13 21:06	75-69-4	
Vinyl chloride	**294**	ug/L	50.0	50		10/14/13 12:40	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/11/13 21:06	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/11/13 21:06	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	85-115	1		10/11/13 21:06	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	77-119	1		10/11/13 21:06	17060-07-0	
Toluene-d8 (S)	97	%	85-115	1		10/11/13 21:06	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

Sample: TB-01 **Lab ID: 30104099004** Collected: 09/30/13 00:01 Received: 10/01/13 09:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/11/13 16:28	67-64-1	
Benzene	ND	ug/L	1.0	1		10/11/13 16:28	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/11/13 16:28	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/11/13 16:28	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/11/13 16:28	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/11/13 16:28	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/11/13 16:28	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/11/13 16:28	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/11/13 16:28	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/11/13 16:28	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/11/13 16:28	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/11/13 16:28	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/11/13 16:28	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 16:28	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 16:28	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/11/13 16:28	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/11/13 16:28	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/11/13 16:28	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/11/13 16:28	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/11/13 16:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/11/13 16:28	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/11/13 16:28	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 16:28	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/11/13 16:28	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/11/13 16:28	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/11/13 16:28	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/11/13 16:28	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/11/13 16:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/11/13 16:28	108-10-1	
Styrene	ND	ug/L	5.0	1		10/11/13 16:28	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/11/13 16:28	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/11/13 16:28	127-18-4	
Toluene	ND	ug/L	5.0	1		10/11/13 16:28	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/11/13 16:28	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/11/13 16:28	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/11/13 16:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/11/13 16:28	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		10/11/13 16:28	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/11/13 16:28	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/11/13 16:28	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	85-115	1		10/11/13 16:28	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%	77-119	1		10/11/13 16:28	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		10/11/13 16:28	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

QC Batch: MSV/17599 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 30104099001, 30104099002, 30104099003, 30104099004

METHOD BLANK: 642719 Matrix: Water
Associated Lab Samples: 30104099001, 30104099002, 30104099003, 30104099004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/11/13 11:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/11/13 11:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/11/13 11:50	
1,1-Dichloroethane	ug/L	ND	1.0	10/11/13 11:50	
1,1-Dichloroethene	ug/L	ND	1.0	10/11/13 11:50	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/11/13 11:50	
1,2-Dichloroethane	ug/L	ND	1.0	10/11/13 11:50	
1,2-Dichloropropane	ug/L	ND	1.0	10/11/13 11:50	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/11/13 11:50	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/11/13 11:50	
2-Butanone (MEK)	ug/L	ND	10.0	10/11/13 11:50	
2-Hexanone	ug/L	ND	10.0	10/11/13 11:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/11/13 11:50	
Acetone	ug/L	ND	10.0	10/11/13 11:50	
Benzene	ug/L	ND	1.0	10/11/13 11:50	
Bromodichloromethane	ug/L	ND	1.0	10/11/13 11:50	
Bromoform	ug/L	ND	1.0	10/11/13 11:50	
Bromomethane	ug/L	ND	1.0	10/11/13 11:50	
Carbon disulfide	ug/L	ND	1.0	10/11/13 11:50	
Carbon tetrachloride	ug/L	ND	1.0	10/11/13 11:50	
Chlorobenzene	ug/L	ND	1.0	10/11/13 11:50	
Chloroethane	ug/L	ND	1.0	10/11/13 11:50	
Chloroform	ug/L	ND	1.0	10/11/13 11:50	
Chloromethane	ug/L	ND	1.0	10/11/13 11:50	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/11/13 11:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/11/13 11:50	
Dibromochloromethane	ug/L	ND	1.0	10/11/13 11:50	
Ethylbenzene	ug/L	ND	1.0	10/11/13 11:50	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/11/13 11:50	
m&p-Xylene	ug/L	ND	2.0	10/11/13 11:50	
Methylene Chloride	ug/L	ND	1.0	10/11/13 11:50	
o-Xylene	ug/L	ND	1.0	10/11/13 11:50	
Styrene	ug/L	ND	1.0	10/11/13 11:50	
Tetrachloroethene	ug/L	ND	1.0	10/11/13 11:50	
Toluene	ug/L	ND	1.0	10/11/13 11:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/11/13 11:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/11/13 11:50	
Trichloroethene	ug/L	ND	1.0	10/11/13 11:50	
Trichlorofluoromethane	ug/L	ND	1.0	10/11/13 11:50	
Vinyl chloride	ug/L	ND	1.0	10/11/13 11:50	
1,2-Dichloroethane-d4 (S)	%	115	77-119	10/11/13 11:50	
4-Bromofluorobenzene (S)	%	98	85-115	10/11/13 11:50	
Toluene-d8 (S)	%	98	85-115	10/11/13 11:50	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

LABORATORY CONTROL SAMPLE: 642720

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	18.1	91	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	16.7	83	61-117	
1,1,2-Trichloroethane	ug/L	20	18.0	90	72-119	
1,1-Dichloroethane	ug/L	20	19.6	98	63-123	
1,1-Dichloroethene	ug/L	20	19.0	95	57-127	
1,2-Dichlorobenzene	ug/L	20	17.9	90	70-116	
1,2-Dichloroethane	ug/L	20	19.1	95	62-125	
1,2-Dichloropropane	ug/L	20	19.0	95	69-115	
1,3-Dichlorobenzene	ug/L	20	17.5	87	71-118	
1,4-Dichlorobenzene	ug/L	20	18.1	91	67-119	
2-Butanone (MEK)	ug/L	20	20.5	103	48-136	
2-Hexanone	ug/L	20	18.6	93	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	20.4	102	57-124	
Acetone	ug/L	20	19.4	97	49-138	
Benzene	ug/L	20	17.8	89	66-122	
Bromodichloromethane	ug/L	20	17.1	85	63-118	
Bromoform	ug/L	20	16.3	81	46-130	
Bromomethane	ug/L	20	21.4	107	10-175	
Carbon disulfide	ug/L	20	22.2	111	59-142	
Carbon tetrachloride	ug/L	20	17.1	85	55-126	
Chlorobenzene	ug/L	20	18.1	90	70-121	
Chloroethane	ug/L	20	24.6	123	24-161	
Chloroform	ug/L	20	18.3	92	62-126	
Chloromethane	ug/L	20	28.2	141	37-147	
cis-1,2-Dichloroethene	ug/L	20	19.7	98	64-121	
cis-1,3-Dichloropropene	ug/L	20	18.0	90	64-118	
Dibromochloromethane	ug/L	20	16.7	83	60-120	
Ethylbenzene	ug/L	20	18.1	91	69-119	
Isopropylbenzene (Cumene)	ug/L	20	19.7	98	68-126	
m&p-Xylene	ug/L	40	37.3	93	70-124	
Methylene Chloride	ug/L	20	18.1	90	59-128	
o-Xylene	ug/L	20	17.7	89	67-123	
Styrene	ug/L	20	20.5	102	67-146	
Tetrachloroethene	ug/L	20	17.4	87	62-125	
Toluene	ug/L	20	17.9	89	72-115	
trans-1,2-Dichloroethene	ug/L	20	19.6	98	59-122	
trans-1,3-Dichloropropene	ug/L	20	16.7	83	64-120	
Trichloroethene	ug/L	20	18.1	91	62-125	
Trichlorofluoromethane	ug/L	20	20.1	100	54-158	
Vinyl chloride	ug/L	20	22.7	113	52-145	
1,2-Dichloroethane-d4 (S)	%			115	77-119	
4-Bromofluorobenzene (S)	%			99	85-115	
Toluene-d8 (S)	%			98	85-115	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/17599

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

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569501.10000 ESSEX/HOPE JAME
Pace Project No.: 30104099

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30104099001	**PRE-CARB**	EPA 8260	MSV/17599		
30104099002	**PRIMARY-EFF**	EPA 8260	MSV/17599		
30104099003	**POST-CARB**	EPA 8260	MSV/17599		
30104099004	**TB-01**	EPA 8260	MSV/17599		

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: | of |

1662213

Section A Required Client Information:

Company: URS CORP
Address: FOSTER PLAZA 6 680 ANDERSEN DR SUITE 400 PITTSBURGH, PA 15220
Email To:
Phone: 412-503-4700 Fax: 412-503-4701
Requested Due Date/TAT: STANDARD

Section B Required Project Information:

Report To: MARK DOWIAK
Copy To: VALERIE SIBETO
Purchase Order No.: 41569501
Project Name: ESSEX/HOPE JAMESTOWN
Project Number: 41569501.10000

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

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: VOCs 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	PRE-CARB	WT	G			9.30.13	1200		3				X					X		001
2	PRIMARY-EFF						1205		3				X					X		002
3	POST-CARB						1210		3				X					X		003
4	POST-CARB						1240		3				X					X		~~004~~ ↓
5	POST-CARB						1310		3				X					X		~~005~~ ↓
6	POST-CARB	↓	↓			↓	1340		3				X					X		~~006~~ 003
7	TB-01	WT	G			9.30.13	—		2				X					X		004
8																				
9																				
10																				
11																				
12																				

30104099 TAW 10-1-13

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COMPOSITE FOUR (4) POST-CARB SAMPLES IN LAB AND REPORT AS POST-CARB COMPOSITE	Valerie/URS	9.30.13	~1430	Alyssa R. Muchoney	9.30.13	1430	3.2	Y	N	Y
					10/1/13	0945				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: VALERIE SIBETO

SIGNATURE of SAMPLER: Valerie DATE Signed (MM/DD/YY): 9.30.13

ORIGINAL

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

Sample Condition Upon Receipt

ARM 99 rbw 10-1-13

Pace Analytical

Client Name: VRS corp

Project # 30104098

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

Tracking #: 8739 8101 9633

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 3.2 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: ARM 10/1/13

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: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	Initial when completed ARM / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☑Yes ☐No ☐N/A	15. Both TB's
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: Rachel B Christner **Date:** 10/2/13

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)

F-ALL-C003-6 SCURF front 2April2012.xls

Pace Analytical

99
Project Number: 30104098 TAW
Client Name: URS corp 10-1-13

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml) 30 ml	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT													3									
002	WT													3									
003	WT													12									
004	WT													2									

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 13, 2013

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

RE: Project: Essex/Hope Jamestown
Pace Project No.: 30106426

Dear Mr. Dowiak:
Enclosed are the analytical results for sample(s) received by the laboratory on November 01, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Essex/Hope Jamestown
Pace Project No.: 30106426

Pennsylvania Certification IDs

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

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30106426

Sample: PRE-CARB **Lab ID: 30106426001** Collected: 10/31/13 10:20 Received: 11/01/13 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**24000**	ug/L	2000	200		11/07/13 14:55	67-64-1	
Benzene	**36.3**	ug/L	1.0	1		11/06/13 17:45	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/06/13 17:45	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/06/13 17:45	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/06/13 17:45	74-83-9	
2-Butanone (MEK)	**132**	ug/L	10.0	1		11/06/13 17:45	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/06/13 17:45	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/06/13 17:45	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/06/13 17:45	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/06/13 17:45	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/06/13 17:45	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/06/13 17:45	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/06/13 17:45	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 17:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 17:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 17:45	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/06/13 17:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/06/13 17:45	107-06-2	
1,1-Dichloroethene	**21.2**	ug/L	5.0	1		11/06/13 17:45	75-35-4	
cis-1,2-Dichloroethene	**6720**	ug/L	125	25		11/06/13 18:10	156-59-2	
trans-1,2-Dichloroethene	**101**	ug/L	5.0	1		11/06/13 17:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/06/13 17:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 17:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 17:45	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/06/13 17:45	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/06/13 17:45	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/06/13 17:45	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/06/13 17:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/06/13 17:45	108-10-1	
Styrene	ND	ug/L	5.0	1		11/06/13 17:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/06/13 17:45	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/06/13 17:45	127-18-4	
Toluene	ND	ug/L	5.0	1		11/06/13 17:45	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/06/13 17:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/06/13 17:45	79-00-5	
Trichloroethene	**4130**	ug/L	125	25		11/06/13 18:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/06/13 17:45	75-69-4	
Vinyl chloride	**698**	ug/L	25.0	25		11/06/13 18:10	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/06/13 17:45	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/06/13 17:45	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	85-115	1		11/06/13 17:45	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	77-119	1		11/06/13 17:45	17060-07-0	
Toluene-d8 (S)	100	%	85-115	1		11/06/13 17:45	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30106426

Sample: PRIMARY-EFF **Lab ID: 30106426002** Collected: 10/31/13 10:25 Received: 11/01/13 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**21500**	ug/L	2000	200		11/07/13 15:20	67-64-1	
Benzene	**3.8**	ug/L	1.0	1		11/06/13 18:35	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/06/13 18:35	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/06/13 18:35	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/06/13 18:35	74-83-9	
2-Butanone (MEK)	**69.0**	ug/L	10.0	1		11/06/13 18:35	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/06/13 18:35	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/06/13 18:35	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/06/13 18:35	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/06/13 18:35	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/06/13 18:35	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/06/13 18:35	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/06/13 18:35	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 18:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 18:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 18:35	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/06/13 18:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/06/13 18:35	107-06-2	
1,1-Dichloroethene	**8.0**	ug/L	5.0	1		11/06/13 18:35	75-35-4	
cis-1,2-Dichloroethene	**4080**	ug/L	125	25		11/06/13 18:59	156-59-2	
trans-1,2-Dichloroethene	**28.2**	ug/L	5.0	1		11/06/13 18:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/06/13 18:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 18:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 18:35	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/06/13 18:35	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/06/13 18:35	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/06/13 18:35	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/06/13 18:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/06/13 18:35	108-10-1	
Styrene	ND	ug/L	5.0	1		11/06/13 18:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/06/13 18:35	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/06/13 18:35	127-18-4	
Toluene	ND	ug/L	5.0	1		11/06/13 18:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/06/13 18:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/06/13 18:35	79-00-5	
Trichloroethene	**378**	ug/L	125	25		11/06/13 18:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/06/13 18:35	75-69-4	
Vinyl chloride	**601**	ug/L	25.0	25		11/06/13 18:59	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/06/13 18:35	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/06/13 18:35	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	85-115	1		11/06/13 18:35	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	77-119	1		11/06/13 18:35	17060-07-0	
Toluene-d8 (S)	105	%	85-115	1		11/06/13 18:35	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30106426

Sample: POST-CARB **Lab ID: 30106426003** Collected: 10/31/13 12:00 Received: 11/01/13 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**21900**	ug/L	5000	500		11/07/13 15:45	67-64-1	
Benzene	ND	ug/L	1.0	1		11/06/13 19:24	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/06/13 19:24	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/06/13 19:24	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/06/13 19:24	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/06/13 19:24	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/06/13 19:24	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/06/13 19:24	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/06/13 19:24	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/06/13 19:24	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/06/13 19:24	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/06/13 19:24	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/06/13 19:24	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 19:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 19:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 19:24	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/06/13 19:24	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/06/13 19:24	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/06/13 19:24	75-35-4	
cis-1,2-Dichloroethene	**6.9**	ug/L	5.0	1		11/06/13 19:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/06/13 19:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/06/13 19:24	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 19:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 19:24	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/06/13 19:24	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/06/13 19:24	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/06/13 19:24	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/06/13 19:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/06/13 19:24	108-10-1	
Styrene	ND	ug/L	5.0	1		11/06/13 19:24	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/06/13 19:24	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/06/13 19:24	127-18-4	
Toluene	ND	ug/L	5.0	1		11/06/13 19:24	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/06/13 19:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/06/13 19:24	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		11/06/13 19:24	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/06/13 19:24	75-69-4	
Vinyl chloride	**764**	ug/L	50.0	50		11/06/13 19:49	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/06/13 19:24	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/06/13 19:24	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	109	%	85-115	1		11/06/13 19:24	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	77-119	1		11/06/13 19:24	17060-07-0	
Toluene-d8 (S)	95	%	85-115	1		11/06/13 19:24	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30106426

Sample: TB-01 **Lab ID: 30106426004** Collected: 10/31/13 00:01 Received: 11/01/13 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		11/06/13 12:48	67-64-1	
Benzene	ND	ug/L	1.0	1		11/06/13 12:48	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/06/13 12:48	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/06/13 12:48	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/06/13 12:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/06/13 12:48	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/06/13 12:48	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/06/13 12:48	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/06/13 12:48	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/06/13 12:48	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/06/13 12:48	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/06/13 12:48	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/06/13 12:48	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 12:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 12:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/06/13 12:48	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/06/13 12:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/06/13 12:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/06/13 12:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		11/06/13 12:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/06/13 12:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/06/13 12:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 12:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/06/13 12:48	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/06/13 12:48	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/06/13 12:48	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/06/13 12:48	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/06/13 12:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/06/13 12:48	108-10-1	
Styrene	ND	ug/L	5.0	1		11/06/13 12:48	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/06/13 12:48	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/06/13 12:48	127-18-4	
Toluene	ND	ug/L	5.0	1		11/06/13 12:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/06/13 12:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/06/13 12:48	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		11/06/13 12:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/06/13 12:48	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		11/06/13 12:48	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/06/13 12:48	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/06/13 12:48	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	109	%	85-115	1		11/06/13 12:48	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	77-119	1		11/06/13 12:48	17060-07-0	
Toluene-d8 (S)	91	%	85-115	1		11/06/13 12:48	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown
Pace Project No.: 30106426

QC Batch: MSV/17907 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 30106426001, 30106426002, 30106426003, 30106426004

METHOD BLANK: 653828 Matrix: Water
Associated Lab Samples: 30106426001, 30106426002, 30106426003, 30106426004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	11/06/13 12:23	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/06/13 12:23	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/06/13 12:23	
1,1-Dichloroethane	ug/L	ND	1.0	11/06/13 12:23	
1,1-Dichloroethene	ug/L	ND	1.0	11/06/13 12:23	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/06/13 12:23	
1,2-Dichloroethane	ug/L	ND	1.0	11/06/13 12:23	
1,2-Dichloropropane	ug/L	ND	1.0	11/06/13 12:23	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/06/13 12:23	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/06/13 12:23	
2-Butanone (MEK)	ug/L	ND	10.0	11/06/13 12:23	
2-Hexanone	ug/L	ND	10.0	11/06/13 12:23	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	11/06/13 12:23	
Acetone	ug/L	ND	10.0	11/06/13 12:23	
Benzene	ug/L	ND	1.0	11/06/13 12:23	
Bromodichloromethane	ug/L	ND	1.0	11/06/13 12:23	
Bromoform	ug/L	ND	1.0	11/06/13 12:23	
Bromomethane	ug/L	ND	1.0	11/06/13 12:23	
Carbon disulfide	ug/L	ND	1.0	11/06/13 12:23	
Carbon tetrachloride	ug/L	ND	1.0	11/06/13 12:23	
Chlorobenzene	ug/L	ND	1.0	11/06/13 12:23	
Chloroethane	ug/L	ND	1.0	11/06/13 12:23	
Chloroform	ug/L	ND	1.0	11/06/13 12:23	
Chloromethane	ug/L	ND	1.0	11/06/13 12:23	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/06/13 12:23	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/06/13 12:23	
Dibromochloromethane	ug/L	ND	1.0	11/06/13 12:23	
Ethylbenzene	ug/L	ND	1.0	11/06/13 12:23	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	11/06/13 12:23	
m&p-Xylene	ug/L	ND	2.0	11/06/13 12:23	
Methylene Chloride	ug/L	ND	1.0	11/06/13 12:23	
o-Xylene	ug/L	ND	1.0	11/06/13 12:23	
Styrene	ug/L	ND	1.0	11/06/13 12:23	
Tetrachloroethene	ug/L	ND	1.0	11/06/13 12:23	
Toluene	ug/L	ND	1.0	11/06/13 12:23	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/06/13 12:23	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/06/13 12:23	
Trichloroethene	ug/L	ND	1.0	11/06/13 12:23	
Trichlorofluoromethane	ug/L	ND	1.0	11/06/13 12:23	
Vinyl chloride	ug/L	ND	1.0	11/06/13 12:23	
1,2-Dichloroethane-d4 (S)	%	117	77-119	11/06/13 12:23	
4-Bromofluorobenzene (S)	%	94	85-115	11/06/13 12:23	
Toluene-d8 (S)	%	100	85-115	11/06/13 12:23	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown
Pace Project No.: 30106426

LABORATORY CONTROL SAMPLE: 653829

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	25.5	128	62-125	L3
1,1,2,2-Tetrachloroethane	ug/L	20	15.7	78	61-117	
1,1,2-Trichloroethane	ug/L	20	20.2	101	72-119	
1,1-Dichloroethane	ug/L	20	22.5	113	63-123	
1,1-Dichloroethene	ug/L	20	18.0	90	57-127	
1,2-Dichlorobenzene	ug/L	20	17.3	86	70-116	
1,2-Dichloroethane	ug/L	20	21.9	110	62-125	
1,2-Dichloropropane	ug/L	20	20.4	102	69-115	
1,3-Dichlorobenzene	ug/L	20	17.7	89	71-118	
1,4-Dichlorobenzene	ug/L	20	16.6	83	67-119	
2-Butanone (MEK)	ug/L	20	20.1	100	48-136	
2-Hexanone	ug/L	20	16.2	81	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.0	95	57-124	
Acetone	ug/L	20	18.6	93	49-138	
Benzene	ug/L	20	20.5	103	66-122	
Bromodichloromethane	ug/L	20	23.9	119	63-118	L3
Bromoform	ug/L	20	28.1	141	46-130	L3
Bromomethane	ug/L	20	19.8	99	10-175	
Carbon disulfide	ug/L	20	20.5	103	59-142	
Carbon tetrachloride	ug/L	20	29.8	149	55-126	L1
Chlorobenzene	ug/L	20	19.2	96	70-121	
Chloroethane	ug/L	20	15.0	75	24-161	
Chloroform	ug/L	20	22.3	111	62-126	
Chloromethane	ug/L	20	16.9	84	37-147	
cis-1,2-Dichloroethene	ug/L	20	22.1	110	64-121	
cis-1,3-Dichloropropene	ug/L	20	18.6	93	64-118	
Dibromochloromethane	ug/L	20	25.4	127	60-120	L1
Ethylbenzene	ug/L	20	18.7	94	69-119	
Isopropylbenzene (Cumene)	ug/L	20	17.3	86	68-126	
m&p-Xylene	ug/L	40	37.4	94	70-124	
Methylene Chloride	ug/L	20	20.1	101	59-128	
o-Xylene	ug/L	20	19.0	95	67-123	
Styrene	ug/L	20	18.3	92	67-146	
Tetrachloroethene	ug/L	20	21.8	109	62-125	
Toluene	ug/L	20	20.6	103	72-115	
trans-1,2-Dichloroethene	ug/L	20	19.5	97	59-122	
trans-1,3-Dichloropropene	ug/L	20	18.0	90	64-120	
Trichloroethene	ug/L	20	23.1	116	62-125	
Trichlorofluoromethane	ug/L	20	18.9	94	54-158	
Vinyl chloride	ug/L	20	15.7	79	52-145	
1,2-Dichloroethane-d4 (S)	%			113	77-119	
4-Bromofluorobenzene (S)	%			101	85-115	
Toluene-d8 (S)	%			109	85-115	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Essex/Hope Jamestown
Pace Project No.: 30106426

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSV/17907

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

ANALYTE QUALIFIERS

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

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

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown
Pace Project No.: 30106426

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30106426001	**PRE-CARB**	EPA 8260	MSV/17907		
30106426002	**PRIMARY-EFF**	EPA 8260	MSV/17907		
30106426003	**POST-CARB**	EPA 8260	MSV/17907		
30106426004	**TB-01**	EPA 8260	MSV/17907		

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

1755768

Section A Required Client Information:

Company: URS CORP
Address: FOSTER PLAZA 6, STE. 400
601 ANDERSEN DR.
PITTSBURGH, PA 15220
Email To:
Phone: 412-503-4700 Fax: 412-503-4701
Requested Due Date/TAT: STANDARD

Section B Required Project Information:

Report To: MARK DOWIAK
Copy To: VALERIE SIBETO
Purchase Order No.: 41569501
Project Name: ESSEX/HOPE JAMESTOWN
Project Number: 41569501

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

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: VOCs 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	PRE-CARB	WT	G			10.31.13	1020		3				X						X		001
2	PRIMARY-EFF						1025		3				X						X		002
3	POST-CARB						1030		3				X						X		003
4	POST-CARB						1100		3				X						X		
5	POST-CARB						1130		3				X						X		
6	POST-CARB						1200		3				X						X		
7	TB-01	WT	G			10.31.13	—		2				X						X		004
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COMPOSITE FOUR (4)	URS	10.31.13	1230		10.31.13	1230				
POST-CARB SAMPLES					11-1-13	0930	0.9	Y	N	Y
IN LAB AND REPORT										
AS POST-CARB COMPOSITE										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: VALERIE SIBETO
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10.31.13

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

ORIGINAL

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

Sample Condition Upon Receipt

TAC

Pace Analytical

Client Name: URS

Project # 30106426

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

Tracking #: 873481016655

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 0.9 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: PAC ~~11-1-13~~ 11-1-13 RAC 11-1-13

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: WT		
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	Initial when completed RAC / 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. PAC 11-1-13 RAC 11-1-13
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Samantha Bayne **Date:** 11/5/13

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

Pace Analytical

Project Number: 30102426

Client Name: ORS

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT													3									
002	↓													3									
003														12									
004														2									

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

December 06, 2013

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

RE: Project: Essex/Hope Jamestown
Pace Project No.: 30108361

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

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

Sincerely,

Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

Pennsylvania Certification IDs

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

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

Sample: PRE-CARB **Lab ID: 30108361001** Collected: 11/25/13 11:20 Received: 11/26/13 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**4080**	ug/L	500	50		12/04/13 16:49	67-64-1	
Benzene	**6.8**	ug/L	1.0	1		12/04/13 16:23	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		12/04/13 16:23	75-27-4	
Bromoform	ND	ug/L	5.0	1		12/04/13 16:23	75-25-2	
Bromomethane	ND	ug/L	5.0	1		12/04/13 16:23	74-83-9	
2-Butanone (MEK)	**10.7**	ug/L	10.0	1		12/04/13 16:23	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		12/04/13 16:23	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		12/04/13 16:23	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		12/04/13 16:23	108-90-7	
Chloroethane	ND	ug/L	5.0	1		12/04/13 16:23	75-00-3	
Chloroform	ND	ug/L	5.0	1		12/04/13 16:23	67-66-3	
Chloromethane	ND	ug/L	5.0	1		12/04/13 16:23	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		12/04/13 16:23	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 16:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 16:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 16:23	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		12/04/13 16:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		12/04/13 16:23	107-06-2	
1,1-Dichloroethene	**10.3**	ug/L	5.0	1		12/04/13 16:23	75-35-4	
cis-1,2-Dichloroethene	**2580**	ug/L	250	50		12/04/13 16:49	156-59-2	
trans-1,2-Dichloroethene	**20.4**	ug/L	5.0	1		12/04/13 16:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		12/04/13 16:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 16:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 16:23	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		12/04/13 16:23	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		12/04/13 16:23	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		12/04/13 16:23	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		12/04/13 16:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		12/04/13 16:23	108-10-1	
Styrene	ND	ug/L	5.0	1		12/04/13 16:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		12/04/13 16:23	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		12/04/13 16:23	127-18-4	
Toluene	ND	ug/L	5.0	1		12/04/13 16:23	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		12/04/13 16:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		12/04/13 16:23	79-00-5	
Trichloroethene	**824**	ug/L	250	50		12/04/13 16:49	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		12/04/13 16:23	75-69-4	
Vinyl chloride	**340**	ug/L	1.0	1		12/04/13 16:23	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		12/04/13 16:23	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		12/04/13 16:23	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		12/04/13 16:23	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	77-119	1		12/04/13 16:23	17060-07-0	
Toluene-d8 (S)	110	%	85-115	1		12/04/13 16:23	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

Sample: PRIMARY-EFF **Lab ID: 30108361002** Collected: 11/25/13 11:25 Received: 11/26/13 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**11100**	ug/L	500	50		12/04/13 17:39	67-64-1	
Benzene	**1.3**	ug/L	1.0	1		12/04/13 17:14	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		12/04/13 17:14	75-27-4	
Bromoform	ND	ug/L	5.0	1		12/04/13 17:14	75-25-2	
Bromomethane	ND	ug/L	5.0	1		12/04/13 17:14	74-83-9	
2-Butanone (MEK)	**52.1**	ug/L	10.0	1		12/04/13 17:14	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		12/04/13 17:14	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		12/04/13 17:14	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		12/04/13 17:14	108-90-7	
Chloroethane	ND	ug/L	5.0	1		12/04/13 17:14	75-00-3	
Chloroform	ND	ug/L	5.0	1		12/04/13 17:14	67-66-3	
Chloromethane	ND	ug/L	5.0	1		12/04/13 17:14	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		12/04/13 17:14	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 17:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 17:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 17:14	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		12/04/13 17:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		12/04/13 17:14	107-06-2	
1,1-Dichloroethene	**8.6**	ug/L	5.0	1		12/04/13 17:14	75-35-4	
cis-1,2-Dichloroethene	**3740**	ug/L	250	50		12/04/13 17:39	156-59-2	
trans-1,2-Dichloroethene	**34.7**	ug/L	5.0	1		12/04/13 17:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		12/04/13 17:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 17:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 17:14	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		12/04/13 17:14	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		12/04/13 17:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		12/04/13 17:14	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		12/04/13 17:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		12/04/13 17:14	108-10-1	
Styrene	ND	ug/L	5.0	1		12/04/13 17:14	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		12/04/13 17:14	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		12/04/13 17:14	127-18-4	
Toluene	ND	ug/L	5.0	1		12/04/13 17:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		12/04/13 17:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		12/04/13 17:14	79-00-5	
Trichloroethene	**69.5**	ug/L	5.0	1		12/04/13 17:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		12/04/13 17:14	75-69-4	
Vinyl chloride	**584**	ug/L	50.0	50		12/04/13 17:39	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		12/04/13 17:14	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		12/04/13 17:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	85-115	1		12/04/13 17:14	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	77-119	1		12/04/13 17:14	17060-07-0	
Toluene-d8 (S)	106	%	85-115	1		12/04/13 17:14	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

Sample: POST-CARB **Lab ID: 30108361003** Collected: 11/25/13 11:30 Received: 11/26/13 11:45 Matrix: Water

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

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**16300**	ug/L	500	50		12/04/13 18:29	67-64-1	
Benzene	ND	ug/L	1.0	1		12/04/13 18:04	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		12/04/13 18:04	75-27-4	
Bromoform	ND	ug/L	5.0	1		12/04/13 18:04	75-25-2	
Bromomethane	ND	ug/L	5.0	1		12/04/13 18:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		12/04/13 18:04	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		12/04/13 18:04	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		12/04/13 18:04	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		12/04/13 18:04	108-90-7	
Chloroethane	ND	ug/L	5.0	1		12/04/13 18:04	75-00-3	
Chloroform	ND	ug/L	5.0	1		12/04/13 18:04	67-66-3	
Chloromethane	ND	ug/L	5.0	1		12/04/13 18:04	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		12/04/13 18:04	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 18:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 18:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 18:04	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		12/04/13 18:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		12/04/13 18:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		12/04/13 18:04	75-35-4	
cis-1,2-Dichloroethene	**6.3**	ug/L	5.0	1		12/04/13 18:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		12/04/13 18:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		12/04/13 18:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 18:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 18:04	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		12/04/13 18:04	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		12/04/13 18:04	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		12/04/13 18:04	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		12/04/13 18:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		12/04/13 18:04	108-10-1	
Styrene	ND	ug/L	5.0	1		12/04/13 18:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		12/04/13 18:04	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		12/04/13 18:04	127-18-4	
Toluene	ND	ug/L	5.0	1		12/04/13 18:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		12/04/13 18:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		12/04/13 18:04	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		12/04/13 18:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		12/04/13 18:04	75-69-4	
Vinyl chloride	**639**	ug/L	50.0	50		12/04/13 18:29	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		12/04/13 18:04	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		12/04/13 18:04	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	85-115	1		12/04/13 18:04	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	77-119	1		12/04/13 18:04	17060-07-0	
Toluene-d8 (S)	107	%	85-115	1		12/04/13 18:04	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

Sample: TB-01 **Lab ID: 30108361004** Collected: 11/25/13 00:01 Received: 11/26/13 11:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		12/04/13 11:48	67-64-1	
Benzene	ND	ug/L	1.0	1		12/04/13 11:48	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		12/04/13 11:48	75-27-4	
Bromoform	ND	ug/L	5.0	1		12/04/13 11:48	75-25-2	
Bromomethane	ND	ug/L	5.0	1		12/04/13 11:48	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		12/04/13 11:48	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		12/04/13 11:48	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		12/04/13 11:48	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		12/04/13 11:48	108-90-7	
Chloroethane	ND	ug/L	5.0	1		12/04/13 11:48	75-00-3	
Chloroform	ND	ug/L	5.0	1		12/04/13 11:48	67-66-3	
Chloromethane	ND	ug/L	5.0	1		12/04/13 11:48	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		12/04/13 11:48	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 11:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 11:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		12/04/13 11:48	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		12/04/13 11:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		12/04/13 11:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		12/04/13 11:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		12/04/13 11:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		12/04/13 11:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		12/04/13 11:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 11:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		12/04/13 11:48	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		12/04/13 11:48	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		12/04/13 11:48	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		12/04/13 11:48	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		12/04/13 11:48	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		12/04/13 11:48	108-10-1	
Styrene	ND	ug/L	5.0	1		12/04/13 11:48	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		12/04/13 11:48	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		12/04/13 11:48	127-18-4	
Toluene	ND	ug/L	5.0	1		12/04/13 11:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		12/04/13 11:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		12/04/13 11:48	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		12/04/13 11:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		12/04/13 11:48	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		12/04/13 11:48	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		12/04/13 11:48	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		12/04/13 11:48	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		12/04/13 11:48	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	77-119	1		12/04/13 11:48	17060-07-0	
Toluene-d8 (S)	108	%	85-115	1		12/04/13 11:48	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

QC Batch: MSV/18173 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 30108361001, 30108361002, 30108361003, 30108361004

METHOD BLANK: 664988 Matrix: Water
Associated Lab Samples: 30108361001, 30108361002, 30108361003, 30108361004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	12/04/13 11:23	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	12/04/13 11:23	
1,1,2-Trichloroethane	ug/L	ND	1.0	12/04/13 11:23	
1,1-Dichloroethane	ug/L	ND	1.0	12/04/13 11:23	
1,1-Dichloroethene	ug/L	ND	1.0	12/04/13 11:23	
1,2-Dichlorobenzene	ug/L	ND	1.0	12/04/13 11:23	
1,2-Dichloroethane	ug/L	ND	1.0	12/04/13 11:23	
1,2-Dichloropropane	ug/L	ND	1.0	12/04/13 11:23	
1,3-Dichlorobenzene	ug/L	ND	1.0	12/04/13 11:23	
1,4-Dichlorobenzene	ug/L	ND	1.0	12/04/13 11:23	
2-Butanone (MEK)	ug/L	ND	10.0	12/04/13 11:23	
2-Hexanone	ug/L	ND	10.0	12/04/13 11:23	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	12/04/13 11:23	
Acetone	ug/L	ND	10.0	12/04/13 11:23	
Benzene	ug/L	ND	1.0	12/04/13 11:23	
Bromodichloromethane	ug/L	ND	1.0	12/04/13 11:23	
Bromoform	ug/L	ND	1.0	12/04/13 11:23	
Bromomethane	ug/L	ND	1.0	12/04/13 11:23	
Carbon disulfide	ug/L	ND	1.0	12/04/13 11:23	
Carbon tetrachloride	ug/L	ND	1.0	12/04/13 11:23	
Chlorobenzene	ug/L	ND	1.0	12/04/13 11:23	
Chloroethane	ug/L	ND	1.0	12/04/13 11:23	
Chloroform	ug/L	ND	1.0	12/04/13 11:23	
Chloromethane	ug/L	ND	1.0	12/04/13 11:23	
cis-1,2-Dichloroethene	ug/L	ND	1.0	12/04/13 11:23	
cis-1,3-Dichloropropene	ug/L	ND	1.0	12/04/13 11:23	
Dibromochloromethane	ug/L	ND	1.0	12/04/13 11:23	
Ethylbenzene	ug/L	ND	1.0	12/04/13 11:23	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	12/04/13 11:23	
m&p-Xylene	ug/L	ND	2.0	12/04/13 11:23	
Methylene Chloride	ug/L	ND	1.0	12/04/13 11:23	
o-Xylene	ug/L	ND	1.0	12/04/13 11:23	
Styrene	ug/L	ND	1.0	12/04/13 11:23	
Tetrachloroethene	ug/L	ND	1.0	12/04/13 11:23	
Toluene	ug/L	ND	1.0	12/04/13 11:23	
trans-1,2-Dichloroethene	ug/L	ND	1.0	12/04/13 11:23	
trans-1,3-Dichloropropene	ug/L	ND	1.0	12/04/13 11:23	
Trichloroethene	ug/L	ND	1.0	12/04/13 11:23	
Trichlorofluoromethane	ug/L	ND	1.0	12/04/13 11:23	
Vinyl chloride	ug/L	ND	1.0	12/04/13 11:23	
1,2-Dichloroethane-d4 (S)	%	96	77-119	12/04/13 11:23	
4-Bromofluorobenzene (S)	%	104	85-115	12/04/13 11:23	
Toluene-d8 (S)	%	106	85-115	12/04/13 11:23	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

LABORATORY CONTROL SAMPLE: 664989

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.3	96	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	16.1	81	61-117	
1,1,2-Trichloroethane	ug/L	20	20.3	102	72-119	
1,1-Dichloroethane	ug/L	20	18.8	94	63-123	
1,1-Dichloroethene	ug/L	20	19.4	97	57-127	
1,2-Dichlorobenzene	ug/L	20	18.7	94	70-116	
1,2-Dichloroethane	ug/L	20	17.6	88	62-125	
1,2-Dichloropropane	ug/L	20	20.3	102	69-115	
1,3-Dichlorobenzene	ug/L	20	19.2	96	71-118	
1,4-Dichlorobenzene	ug/L	20	18.6	93	67-119	
2-Butanone (MEK)	ug/L	20	17.2	86	48-136	
2-Hexanone	ug/L	20	22.3	112	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	20.7	104	57-124	
Acetone	ug/L	20	17.8	89	49-138	
Benzene	ug/L	20	19.4	97	66-122	
Bromodichloromethane	ug/L	20	19.5	97	63-118	
Bromoform	ug/L	20	21.7	109	46-130	
Bromomethane	ug/L	20	19.5	98	10-175	
Carbon disulfide	ug/L	20	17.1	85	59-142	
Carbon tetrachloride	ug/L	20	23.7	119	55-126	
Chlorobenzene	ug/L	20	20.5	103	70-121	
Chloroethane	ug/L	20	12.1	61	24-161	
Chloroform	ug/L	20	16.9	85	62-126	
Chloromethane	ug/L	20	22.5	112	37-147	
cis-1,2-Dichloroethene	ug/L	20	19.2	96	64-121	
cis-1,3-Dichloropropene	ug/L	20	22.3	112	64-118	
Dibromochloromethane	ug/L	20	24.2	121	60-120	L3
Ethylbenzene	ug/L	20	20.2	101	69-119	
Isopropylbenzene (Cumene)	ug/L	20	19.5	97	68-126	
m&p-Xylene	ug/L	40	41.2	103	70-124	
Methylene Chloride	ug/L	20	21.6	108	59-128	
o-Xylene	ug/L	20	20.7	104	67-123	
Styrene	ug/L	20	21.9	109	67-146	
Tetrachloroethene	ug/L	20	19.1	96	62-125	
Toluene	ug/L	20	20.0	100	72-115	
trans-1,2-Dichloroethene	ug/L	20	18.3	92	59-122	
trans-1,3-Dichloropropene	ug/L	20	21.1	105	64-120	
Trichloroethene	ug/L	20	21.2	106	62-125	
Trichlorofluoromethane	ug/L	20	18.5	93	54-158	
Vinyl chloride	ug/L	20	17.7	88	52-145	
1,2-Dichloroethane-d4 (S)	%			96	77-119	
4-Bromofluorobenzene (S)	%			104	85-115	
Toluene-d8 (S)	%			108	85-115	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		664990			664991						
Parameter	Units	30108416003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.1	19.6	100	98	62-125	3	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	15.0	15.2	75	76	61-117	1	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.1	19.7	95	99	72-119	3	
1,1-Dichloroethane	ug/L	ND	20	20	19.4	18.5	97	93	63-123	5	
1,1-Dichloroethene	ug/L	ND	20	20	20.3	20.1	102	101	57-127	1	
1,2-Dichlorobenzene	ug/L	ND	20	20	18.0	18.0	90	90	70-116	0	
1,2-Dichloroethane	ug/L	ND	20	20	18.1	17.9	90	89	62-125	1	
1,2-Dichloropropane	ug/L	ND	20	20	19.2	19.5	96	98	69-115	2	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.4	17.9	92	89	71-118	3	
1,4-Dichlorobenzene	ug/L	ND	20	20	18.0	17.7	90	89	67-119	1	
2-Butanone (MEK)	ug/L	ND	20	20	17.0	15.0	85	75	48-136	12	
2-Hexanone	ug/L	ND	20	20	21.8	21.2	109	106	52-130	3	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	20.4	18.7	102	93	57-124	9	
Acetone	ug/L	ND	20	20	24.2	22.6	85	76	49-138	7	
Benzene	ug/L	ND	20	20	19.3	19.3	97	97	66-122	0	
Bromodichloromethane	ug/L	ND	20	20	18.8	19.0	94	95	63-118	1	
Bromoform	ug/L	ND	20	20	19.3	19.3	96	97	46-130	0	
Bromomethane	ug/L	ND	20	20	15.7	17.9	78	90	10-175	14	
Carbon disulfide	ug/L	ND	20	20	17.8	16.9	89	84	59-142	5	
Carbon tetrachloride	ug/L	ND	20	20	23.6	23.8	118	119	55-126	1	
Chlorobenzene	ug/L	ND	20	20	20.1	20.4	100	102	70-121	1	
Chloroethane	ug/L	ND	20	20	12.2	12.2	61	61	24-161	0	
Chloroform	ug/L	ND	20	20	16.9	17.0	85	85	62-126	0	
Chloromethane	ug/L	ND	20	20	21.7	22.1	108	111	37-147	2	
cis-1,2-Dichloroethene	ug/L	ND	20	20	20.8	20.3	100	98	64-121	2	
cis-1,3-Dichloropropene	ug/L	ND	20	20	21.1	21.2	105	106	64-118	1	
Dibromochloromethane	ug/L	ND	20	20	23.1	23.4	116	117	60-120	1	
Ethylbenzene	ug/L	ND	20	20	20.1	20.0	101	100	69-119	0	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	19.1	18.8	96	94	68-126	2	
m&p-Xylene	ug/L	ND	40	40	41.0	41.5	103	104	70-124	1	
Methylene Chloride	ug/L	ND	20	20	21.1	20.4	105	102	59-128	3	
o-Xylene	ug/L	ND	20	20	20.5	20.4	102	102	67-123	0	
Styrene	ug/L	ND	20	20	21.1	20.9	105	104	67-146	1	
Tetrachloroethene	ug/L	ND	20	20	19.4	18.9	97	95	62-125	2	
Toluene	ug/L	ND	20	20	19.9	19.8	100	99	72-115	1	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.2	19.5	101	97	59-122	4	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.7	19.8	99	99	64-120	0	
Trichloroethene	ug/L	ND	20	20	21.4	21.7	107	109	62-125	2	
Trichlorofluoromethane	ug/L	ND	20	20	19.2	18.8	96	94	54-158	2	
Vinyl chloride	ug/L	ND	20	20	18.0	17.6	88	86	52-145	2	
1,2-Dichloroethane-d4 (S)	%						102	99	77-119		
4-Bromofluorobenzene (S)	%						102	101	85-115		
Toluene-d8 (S)	%						104	106	85-115		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

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

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown
Pace Project No.: 30108361

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30108361001	**PRE-CARB**	EPA 8260	MSV/18173		
30108361002	**PRIMARY-EFF**	EPA 8260	MSV/18173		
30108361003	**POST-CARB**	EPA 8260	MSV/18173		
30108361004	**TB-01**	EPA 8260	MSV/18173		

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: | of |

1572358

Section A
Required Client Information:

Company: URS CORP
Address: FOSTER PLAZA 6
681 ANDERSEN DR, STE 400
PITTSBURGH, PA 15220
Email To:
Phone: 412-503-4700 | Fax: 412-503-4701
Requested Due Date/TAT: STANDARD

Section B
Required Project Information:

Report To: MARK DOWIAK
Copy To: VALERIE SIBETO
Purchase Order No.: 41569501
Project Name: ESSEX/HOPE JAMESTOWN
Project Number: 41569501.10000

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

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	VOCs 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	PRE-CARB	WT	G			11.25.13	1120		3				X						X		001
2	PRIMARY-EFF	↓	↓			↓	1125		3				X						X		002
3	POST-CARB	↓	↓			↓	1130		3				X						X		003
4	POST-CARB	↓	↓			↓	1200		3				X						X		↓
5	POST-CARB	↓	↓			↓	1230		3				X						X		↓
6	POST-CARB	↓	↓			↓	1300		3				X						X		↓
7	TB-01	WT	G			11.25.13	—		2				X						X		004
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COMPOSITE FOUR (4)	[signature] / URS	~~1320~~ 11.25.13	1320	[signature] Pace	11.25.13	~~1320~~				
POST-CARB SAMPLES				Alymar Muchoney	11/26/13	1145	3.0	Y	N	Y
IN LAB AND REPORT AS										
POST-CARB COMPOSITE							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: VALERIE SIBETO
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11.25.13

ORIGINAL

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

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

ARM

Sample Condition Upon Receipt

Pace Analytical

Client Name: URS Corp

Project # 30106361

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

Tracking #: 8739 8101 9040

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 3.0 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C Comments:

Date and Initials of person examining contents: ARM 11/20/13

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 11/27/13

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

Pace Analytical

page 2

Project Number: 30108361

Client Name: IRS comp

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil Kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml / 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other	Other
001	WT													3										
002	WT													3										
003	WT													2	2									
004	WT													2										

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SCURF Back (C016-4 15May2012).xls