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report.hw907015.2003-01-06.3rdQrtr2002PMR.pdf

January 6, 2003

**RECEIVED**

Mr. Maurice Moore  
Division of Hazardous Waste Remediation  
NYSDEC  
270 Michigan Ave.  
Buffalo, NY 14203-2999

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**Subject:**     **3<sup>RD</sup> Quarter 2002 Performance Monitoring Report**  
                 **July - September, 2002**  
                 **Essex/Hope Site, Jamestown, New York**  
                 **URS Project No. 801419**

Dear Mr. Moore:

This letter report is a summary of the 3<sup>RD</sup> Quarter 2002 operational performance for the remedial system at the above-referenced site in accordance with the June 1997 Performance Monitoring Plan (PMP) prepared by Radian International LLC. During the quarter approximately 238,000' gallons of water was treated and discharged to the City of Jamestown POTW from the site. The following sections discuss the data on groundwater quality sampling and groundwater flow. No soil sampling was conducted during this reporting period. Soil Sampling is performed as part of the Annual Sampling.

#### **GROUNDWATER FLOW EVALUATION**

Water level measurements were taken on July 22, 2002 and September 4, 2002 during the reporting quarter. Water level data is provided in Appendix A of this report. Groundwater contour maps representative of pumping conditions during the reporting period are provided as Figures 1 and 2. The following discussions review the flow conditions of the shallow (water table) and Lower Fine Sand (deep) water-bearing zones.

Pumping equipment and the discharge piping of recovery well RW-2D was cleaned of precipitate fouling in September 2002 using phosphoric acid. Based upon flow rate evaluation, an additional clean out of RW-2D screen using phosphoric acid was completed in October 2002 to remove precipitate buildup. The phosphoric acid was removed from the well and processed through the pre-treatment system after adjustment for pH was completed.

Recent Work in the UST Area in November involving removal of the five underground tanks revealed a series of three drywell sumps. These sumps were all located along the south wall of CPM Plant No. 5 and receive rainwater from the building roof. The sumps drain into the shallow water-bearing zone and are expected to affect the local water table conditions. The specific impacts of the drywell discharge on the water table elevations have not been assessed at this time. URS and Essex Specialty Products, Inc. (ESP) will discuss possible options with NYSDEC for diversion of the stormwater from the UST Area.

As part of the UST Area tank removal actions, Recovery Well RW-4S, piezometers PZ-8 and PZ-9, and the Air Sparge/SVE System in the UST Area were destroyed. Recovery Well RW-5S is still intact, but is not operating. URS and ESP will meet with NYSDEC to review the results of the UST removal work and determine the scope of future actions in the UST Area.

### **Shallow Water-Bearing Zone**

Water table contour maps representing pumping conditions in the upper water-bearing zone on September 4, 2002 is provided as Figure 1. Groundwater drawdown conditions for the 3<sup>RD</sup> Quarter were similar to the 1<sup>st</sup> Quarter of 2002, and an improvement over the 2<sup>nd</sup> Quarter data after the shallow wells were re-developed at the end of June 2002. Shallow groundwater was extracted at an average rate of 0.08 gallons per minute (gpm) from the NPL Area, 0.03 gpm from the AST/UST Area and 0.17 gpm from the UST Area.

### **Lower Fine Sand Water-Bearing Zone**

Deep zone groundwater extraction is conducted from Recovery Well RW-2D in the NPL Area. No groundwater is pumped from RW-1D, which was shut down in June of 1999 with the approval of the NYSDEC. A potentiometric surface contour map representing pumping conditions on September 4, 2002 is provided as Figures 2. The cone of depression decreased in the lower zone during the 3<sup>rd</sup> Quarter due to buildup of precipitates in RW-2D. As described above, the pump and discharge piping was cleaned out using acid in September 2002, followed by acidification and redevelopment of the well screen in October 2002. Groundwater was extracted from the deep zone at a rate between 1.4 to 1.9 gpm over the reporting period.

## **WATER QUALITY RESULTS**

Third Quarter 2002 performance monitoring included quarterly sampling of all recovery wells and monthly influent and effluent sampling of the onsite pre-treatment system. The recovery well samples were taken on September 27, 2002, the monthly influent/effluent samples were collected on July 28, 2002, August 28, 2002, and September 27, 2002. Pace Analytical Laboratories of Export, Pennsylvania analyzed the samples for volatile organic compounds (VOC's) by US EPA Method 8260B. The recovery well analytical results are summarized in Table 1. Historical analytical results for individual recovery wells are summarized in Tables 2 through 8. Table 9 summarizes the monthly influent and effluent sample results. Copies of the laboratory data packages for the quarterly samples and the monthly treatment plant influent and effluent samples are found in Appendix B. The following sections discuss the analytical data for each remedial area.

### **NPL Area – Shallow Zone**

Constituents detected in RW-1S (Table 2) during the July sampling round included: 1,1-DCE (8.4 ug/L), cis-1,2-DCE (1,100 ug/L), trans-1,2-DCE (5.2 ug/L), TCE (2,400 ug/L) and vinyl chloride (26 ug/L). 1,1-DCE and trans-1,2-DCE have been periodically detected at this location at low levels. The concentration for cis-1,2-DCE shows an increase since the last three quarterly sampling rounds, with concentrations similar to the September 2001 value. TCE concentrations increased since the last sampling round, and shows variability over the last year with concentrations ranging between 360 to 3,300 ug/L. Vinyl chloride, that has been regularly detected at this location since August 2000, continues to show a general decrease in concentration.

Constituents detected at RW-2S (Table 3) included cis-1,2-DCE (210 ug/L), TCE (630 ug/L) and vinyl chloride (7.4 ug/L). Cis-1,2-DCE has been showing decreasing concentrations since 2001 where values ranged from 400 to 620 ug/L, this sampling round is an increase over the last three rounds completed between the 4<sup>th</sup> Quarter 2001 and 2<sup>nd</sup> Quarter 2002 sampling events. TCE has shown trends similar to cis-1,2-DCE with a higher concentration during the most recent sampling. Vinyl chloride, has been periodically detected at this location in the past, concentrations for this round remain at low levels.

### **NPL Area – Lower Fine Sand Water Bearing Zone**

Constituents detected at RW-1D (Table 7) included benzene (3.6 ug/L), 1,1-DCE (11 ug/L), cis-1,2-DCE (1,400 ug/L), trans-1,2-DCE (6.8 ug/L), TCE (39 ug/L), and vinyl chloride (26 ug/L). Benzene, which has regularly been detected at this location over the past 2 years, remains at low levels. Cis-1,2-DCE concentrations continue to show a general decline since the 1<sup>st</sup> Quarter 2002 results of 3,000 ug/L. 1,1-DCE and trans-1,2-DCE continue to remain at low concentrations as historically detected. TCE has shown some variability, but remains at generally similar levels. Vinyl chloride continues to exhibit a decreasing trend over 2002.

Constituents detected at RW-2D (Table 8) included: benzene (9.5 ug/L), 1,1-DCE (32 ug/L), cis-1,2-DCE (7,900 ug/L), trans-1,2-DCE (26 ug/L), TCE (210 ug/L) and vinyl chloride (1,300 ug/L). TCE has increased at this location since the last sampling round where it was non-detect. Generally, TCE has shown a steady decrease since the installation of the pilot permeable reactive wall in August 2000. Cis-1,2-DCE and vinyl chloride both have increased in concentration since the last sampling round, to levels similar to the 3<sup>rd</sup> Quarter 2001 through 2<sup>nd</sup> Quarter 2002 results. Benzene, cis-1,2-DCE and Trans-1,2-DCE, show concentrations consistent with previous values.

### **AST/UST Area**

Constituents detected at RW-3S (Table 4) include: benzene (1.6 ug/L), ethylbenzene (9.1 ug/L) and xylenes (63.4 ug/L). Benzene has remained at low levels at this location during the year. Ethylbenzene shows a decrease in concentration since the last sampling event, but shows variability over time. Xylenes also show variable concentrations over time, and generally have shown decreased concentrations over 2002 as compared to the previous year.

### **UST Area**

Constituents detected at RW-4S (Table 5) included isopropylbenzene (38 ug/L), ethylbenzene (1,700 ug/L), toluene (560 ug/L) and xylenes (14,200 ug/L). All of these compounds show an order of magnitude decrease in concentration as compared to the previous sampling event.

The only constituent detected at RW-5S (Table 6) was xylenes (7.3 ug/L). Other compounds typically detected at this location were non-detect. Review of the historical data indicates that compound concentrations are variable at this well.

### **Treatment Plant Influent/Effluent**

The waste stream influent and effluent concentrations for the 3<sup>rd</sup> Quarter of 2002 are provided on Table 9. Influent data (Pre-Carb) reflect a composite from all the groundwater extraction wells prior to pre-treatment. Primary Carbon data represents the effluent from the first carbon treatment unit prior to the second treatment unit. Effluent data (Post-Carb) represents pre-treated water prior to discharge to the City of Jamestown Publicly Owned Treatment Works (POTW). System influent data as related to extracted groundwater conditions for the quarter are discussed below.

Constituent ranges detected in the influent during the 3<sup>rd</sup> Quarter included: acetone (14 in July 2002), benzene (2 to 6.9 ug/L), isopropylbenzene (<5 to 6.8 ug/L), 1,1-DCE (<5 to 9.4 ug/L), cis-1,2-DCE (1,700 to 5,100 ug/L), trans-1,2-DCE (<5 to 14 ug/L), ethylbenzene (130 to 360 ug/L), toluene (39 to 230 ug/L), TCE (92 to 350 ug/L), vinyl chloride (240 to 530 ug/L) and xylenes (1,170 to 4,100 ug/L).

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Constituents detected in the system effluent during July 2002 included cis-1,2-DCE (200 ug/L) and vinyl chloride (17 ug/L). A fresh carbon vessel was placed online on July 22, 2002. The two spent carbon vessels were changed-out with new carbon on August 9, 2002.

## CLOSING

This letter report has been prepared to satisfy the reporting requirements stipulated in the Performance Monitoring Plan and to evaluate remediation effectiveness on a quarterly basis. If you have any questions or desire additional information, please do not hesitate to call me at (412) 788-2717 Extension 1266.

Sincerely yours,



Mark Dowiak  
Project Manager

cc: Ben Baker – The Dow Chemical Company  
Keith Dodrill – URS Corporation  
John Ross – URS Corporation  
Cameron O'Connor – NY State Dept. of Health  
Andrew English – Chief, Bur. of Western Remedial Action  
Glen R. Bailey – Dept. of Environmental Enforcement  
Randall Peterson – Jamestown Board of Public Utilities  
Carlo J. Montisano – Custom Production MFG., Inc



**Table 1**  
**Recovery Well Analytical Results**  
**3rd Quarter Sampling**  
**September 27, 2002**

Volatile Compounds (Method 8260B)	Site GW RAOs (ug/L)	RW-1S (ug/L)	RW-1D (ug/L)	RW-2S (ug/L)	RW-2D (ug/L)	RW-3S (ug/L)	RW-4S (ug/L)	RW-5S (ug/L)	Trip Blank (ug/L)
Acetone	-	<10	<10	<10	<10	<10	<10	<10	<10
Benzene	-	<1	<b>3.6</b>	<1	<b>9.5</b>	<b>1.6</b>	<1	<1	<1
2-Butanone	-	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	-	<5	<5	<5	<5	<5	<5	<5	<5
Isopropylbenzene (Cumene)	-	<5	<5	<5	<5	<5	<b>38</b>	<5	<5
1,1-Dichloroethane	-	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethene	-	<b>8.4</b>	<b>11</b>	<5	<b>32</b>	<5	<5	<5	<5
cis-1,2-Dichloroethene	-	<b>1,100</b>	<b>1,400</b>	<b>210</b>	<b>7,900</b>	<5	<5	<5	<5
trans-1,2-Dichloroethene	5	<b>5.2</b>	<b>6.8</b>	<5	<b>26</b>	<5	<5	<5	<5
Ethylbenzene	5	<5	<5	<5	<5	<b>9.1</b>	<b>1,700</b>	<5	<5
4-Methyl-2-pentanone	-	<10	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	-	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene	-	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	5	<5	<5	<5	<5	<5	<b>560</b>	<5	<5
Trichloroethene	5	<b>2,400</b>	<b>39</b>	<b>630</b>	<b>210</b>	<5	<5	<5	<5
Vinyl Chloride	5	<b>26</b>	<2	<b>7.4</b>	<b>1,300</b>	<2	<2	<2	<2
Total Xylenes	5	<5	<5	<5	<5	<b>63.4</b>	<b>14,200</b>	<b>7.3</b>	<5

**Table 2**  
**RW-1S**  
**Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site GW RAOs (ug/L)	Aug-95 (ug/L)**	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)	Apr-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Mar-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-06-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)
Acetone	-	10	< 50 <sup>b</sup>	< 10	< 10	<200	<25	<50	<10	<5	<5	0	<5	<10	<5	15 <sup>b</sup>	<5	<5	<5	50	<5	14	<10	
Benzene	-		< 25	< 5	< 5	<100	<5	<25	<5	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	
2-Butanone	-		120	< 10	< 10	<200	<5	<50	<10	<5	<5	<5	<5	<10	<5	0	<5	<5	<5	<10	<5	<10	<10	
Chloroform	-		< 25	< 5	< 5	<100	<5	<25	<5	<1	<1	<1	<1	<5	<1	<1	<5	<5	<5	<5	<5	<5	<5	
Isopropylbenzene	-			< 5	< 5	<100	<5	<25	<5	<1	<1	<1	<1	<5	<1	14	6.1	<5	<5	<5	<5	<5	<5	
1,1-Dichloroethene	-																2.5	<5	<5	<5	5.4	5.4	<5	8.4
cis-1,2-Dichloroethene	-																	44	530	1,200	780	760	59	1,100
trans-1,2-Dichloroethene	5	1,700	160	< 5	< 5	<100	<5	<25	0	2	2	<1	<1	<5	<1	77	7.2	<5	<5	11	<5	12	<5	5.2
Ethylbenzene	5		< 25	< 5	< 5	<100	<5	<25	<5	<1	<1	<1	<1	<5	<1	0	2.52	<5	<5	<5	<5	77	<5	
Methylene Chloride	-	<17	<35 <sup>a</sup>	11	< 5	<100	18	10 J	<5	<1	1 <sup>b</sup>	2	2 <sup>b</sup>	<5	4 <sup>b</sup>	8	6.01 <sup>b</sup>	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	5	3,500	460	< 5	1,900 D	12,000	910	570	1,300	180 D	590	41	37	41	24	150	120	100	1,500	3,300	1,800	2,300	360	2,400
Toluene	5		< 25	< 5	< 5	<100	<5	<25	<5	<1	<1	<1	<1	<5	<1	4	1.34	<5	<5	<5	<5	38	<5	
Vinyl Chloride	5	240	< 25	< 5	32	110	<5	11 J	20	6	3	1	<1	<5	<1	470 D	320 D	28	150	160	180	87	<2	28
Total Xylenes	5	4	< 25	< 5	< 5	<100	<5	<25	<5	<1	<1	2	5	<5	<3	78	22	<5	<5	<5	<5	480	<5	

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site GW RAOs (ug/L)	Aug-95 (ug/L)**	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)
Aroclor-1016	0.1		< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1121	0.1		< 0.20	N/A	< 0.3	< 0.3	< 0.1	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.10	< 0.20
Aroclor-1232	0.1		< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1242	0.1		< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1248	0.1		< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1254	0.1	< 1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	0.032 J	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1260	0.1		< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10

**Notes:**

B = Qualified as non-detect due to blank contamination.

D = Analyzed with dilution. See laboratory reports for dilution factors.

\*\* Sample results reported represent the highest values obtained from the 5.5 hr and 29 hr samples.

E = Concentration exceeded calibration range of instrument.

J = Estimated Concentration

N/A = Not analyzed

**Table 3**  
**RW-2S**  
**Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site GW RACs (ug/L)	Aug-95 (ug/L)**	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)	Apr-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Mar-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-06-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)
Acetone	-	<10/<10	<10	<500	<10	<50	<5	<10	<10	<5	<50	<5	<5	<10	<5	65 <sup>a</sup>	<5	<5	<10	<5	<10	<5	<10	<10
Benzene	-	-	<5	<250	<5	<25	<1	<5	<5	<1	<10	<1	<1	<5	<1	<2	<1	<1	<1	<5	<1	<1	<1	
2-Butanone	-	-	<10	<500	<10	<50	<5	<10	<10	<5	<50	<5	<5	<10	<5	21	<5	<5	<5	<5	<10	<5	<10	<10
Chloroform	-	-	<5	<250	<5	<25	<1	<5	<5	<1	<10	<1	<1	<5	<1	<2	<1	<5	<5	<5	<5	<5	<5	<5
Isopropylbenzene	-	-	-	<250	<5	<25	<1	<5	<5	<1	<10	<1	<1	<5	<1	2	1.54	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	<5	<5	<5	<5	<5	<5	<5	<5
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	620	400	500	110	99	6.6	210	-	
trans-1,2-Dichloroethene	5	2,200/2,600	130	<250	<5	<25	<1	17	<5	<1	<10	<1	<1	<5	<1	92	56	6.7	<5	<5	<5	<5	<5	<5
Ethylbenzene	5	-	<5	<250	<5	<25	<1	<5	<5	<1	<10	3	<1	<5	<1	2	1.34	<5	<5	<5	<5	<5	<5	<5
Methylene Chloride	-	<10/<10	<13 <sup>b</sup>	880	<5	30	<1	2 J	<5	<1	36 <sup>b</sup>	<1	5 <sup>b</sup>	<5	4 <sup>b</sup>	48 <sup>b</sup>	4.23 <sup>b</sup>	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.93	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	5	-	<5	<250	<5	<25	<1	<5	<5	<1	<10	<1	<1	<5	<1	<2	2.01	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.05	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	5	7,700/10,000	410 D	3,700	750 D	380	120	970 E	1,100	1,000 D	2,700	1,500 D	17	46	490 D	43	6,400 D	1,500	2,200	2,900	22	7.7	200	630
Vinyl Chloride	5	100/81	<5	<250	<5	<25	<1	<5	6	4	<10	2	<1	<5	<1	180	470 D	120	38	<2	15	5.8	<2	7.4
Total Xylenes	5	<10/10	<5	<250	<5	<25	<1	<5	<5	<1	<10	20	2	<5	<3	17	13	<5	<5	<5	<5	<5	<5	<5

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site GW RACs (ug/L)	Aug-95 (ug/L)**	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)								
Aroclor-1016	0.1	-	<0.10	N/A	<0.3	<0.3	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1221	0.1	-	<0.20	N/A	<0.3	<0.3	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1232	0.1	-	<0.10	N/A	<0.3	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1242	0.1	-	<0.10	N/A	<0.3	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1248	0.1	-	<0.10	N/A	<0.3	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1254	0.1	<1/<1	<0.10	N/A	<0.3	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Aroclor-1260	0.1	<0.10	N/A	<0.3	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

**Notes:**

B = Qualified as non-detect due to blank contamination.

D = Analyzed with dilution. See laboratory reports for dilution factors.

\*\* Sample results reported represent the highest values obtained from the 5.5 hr and 29 hr samples.

E = Concentration exceeded calibration range of instrument.

J = Estimated Concentration

N/A = Not analyzed

**Table 4**  
**RW-3S**  
**Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site GW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)	Apr-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Mar-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-06-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)
Acetone	-	< 2000	< 1000	14	<500	<50	<100	< 10	<5	15	<5	<10	10	18 <sup>B</sup>	<5	<10	<5	<5	<5	<10	<5	<10	<10
Benzene	-	< 2000	< 500	21	<250	15	16 J	9	17	<2	7	11	<5	12	18	11	7.7	35	21	52	1.3	<1	1.6
2-Butanone	-	< 2000	< 1000	< 10	<500	<50	<100	< 10	<5	<10	<5	<10	<10	<10	<5	<10	<5	<5	<10	<5	<10	<10	<10
Chloroform	-	< 1000	< 500	< 5	<250	<10	<50	< 5	<1	<2	<1	<2	<5	<2	<1	<2	<5	<5	<5	<5	<5	<5	<5
Isopropylbenzene	-	-	< 500	160	<250	71	110	24	83	3	34	39	13	47	50	24	17	38	27	56	<5	15	<5
1,1-Dichloroethane	-	<1000	<500	<5	<250	<50	<50	<5	2	<2	<1	<2	<5	<2	<1	<2	<5	<5	<5	<5	<5	<5	<5
cis-1,2-Dichloroethene	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<5	<5	<5	6.3	<5	<5
trans-1,2-Dichloroethene	5	< 1000	< 500	< 5	<250	<10	<50	< 5	<1	<2	<1	<2	<5	<2	<1	<2	<5	<5	<5	<5	<5	<5	<5
Ethylenes Chloride	5	1,800	740	1,100 D	940	510	600	780	490 D	12	140	190	81	180	210 D	120	96	190	95	310	11	97	9.1
Methylene Chloride	-	< 1000	< 500	< 5	360	<10	<50	< 5	<1	12 <sup>B</sup>	<1	2 <sup>B</sup>	<5	57 <sup>B</sup>	<1	12	<5	<5	<5	<5	<5	<5	<5
Toluene	5	7,700	4,800	3,700 D	1,700	430	180	< 250	83	3	15	8	6	6	2	<2	<5	<5	<5	<5	<5	140	<5
Trichloroethene	5	< 1000	< 500	< 5	<250	<10	<50	< 5	87 D	<2	<1	2	<10	<2	2	2.66	<5	<5	<5	<5	<5	<5	<5
Vinyl Chloride	5	< 1000	< 500	11	<250	<10	<50	< 5	11	<2	<1	<2	<5	<2	2	<2	<2	<2	<5	17	<2	<2	<2
Total Xylenes	5	22,000	11,000	13,000 D	13,000	5,100	4,200 E	20,000	3,100 D	370	700 D	640	370 D	440	150	93	184	279	99	590	55	95	63.4

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site GW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)
Aroclor-1016	0.1	< 0.10	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1221	0.1	< 0.20	N/A	< 0.3	< 0.3	<0.1	<0.2	< 0.2	< 0.2	<0.20	<0.20	<0.10	<0.20
Aroclor-1232	0.1	< 0.10	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1242	0.1	< 0.10	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1248	0.1	< 0.10	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1254	0.1	< 0.10	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1260	0.1	< 0.10	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10

**Notes:**

B = Quotient as non-detect due to blank contamination

D,\* = Analyzed with dilution. See laboratory reports for dilution factors.

E = Concentration exceeded calibration range of instrument.

J = Estimated Concentration

N/A = Not analyzed

**Table 5**  
**RW-4S**  
**Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site QW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-00 (ug/L)	Feb-00 (ug/L)	Apr-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Mar-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-06-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)	
Acetone	-	< 3200 <sup>a</sup>	< 200	800	<5000	<500	<1000	58	<1300	<2,500	87	<2500	67	1600 <sup>b</sup>	44 <sup>b</sup>	<2500	27	18	15	33	29	25	<10	
Benzene	-	< 1000	< 100	26	<2500	<100	<500	6	<250	<500	25	<500	19	<250	27	<500	20	26	25	14	18	21	<1	
2-Butanone	-	< 2000	< 200	82	<5000	<500	<1000	< 10	<1300	<2,500	13	<2500	<10	<1300	<5	<2500	<5	6.5	<5	<10	<5	<10	<10	
Chloroform	-	< 1000	< 100	< 25	<2500	<100	<500	< 5	<250	<500	<1	<500	<5	<250	<1	<500	<5	<5	<5	<5	<5	<5	<5	
Isopropylbenzene	-	< 100	210	<2500	130	310 J	43	<250	<500	210	<500	130	<250	260 E	<500	150	140	180	120	170	190	38		
1,2-Dichloroethane	-	< 1000	< 100	< 25	<2500	<100	<500	< 5	<250	<500	<1	<500	<5	<250	<1	<500	<5	<5	<5	<5	<5	<5	<5	
cis-1,2-Dichloroethene	-																	<5	<5	7.4	<5	9.3	<5	<5
trans-1,2-Dichloroethene	5	< 1000	< 100	< 25	<2500	<100	<500	< 5	<250	<500	<1	<500	<5	<250	<1	<500	<5	<5	<5	<5	<5	<5	<5	
Ethybenzene	5	7,800	550	17,000 D	9,400	8,800	18,000	18,000	11,000	12,000	15,000 D	13,000	160	12,000	14,000 <sup>d</sup>	11,000	11,000	9,000	<5	7,900	<5	14,000	1,700	
4-Methyl-2-pentanone	-																	14	14	14	20	<10	<10	
Methylene Chloride	-	< 1200 <sup>d</sup>	220	< 25	6,500	<100	<500	< 5	<250	1,300 D	<1	5,600 <sup>b</sup>	<5	1100 <sup>b</sup>	<1	1,600	<5	<5	<5	<5	<5	<5	<5	
Toluene	5	6,100	< 100	3,100 D	<2500	1,600	8,400	110,000	2,500	390	4,700 D	3,800	2,900 D	6,500	7,200 D	5,400	4,700	4,500	3,600	3,100	2,500	7,000	560	
Trichloroethene	5	< 1000	< 100	< 25	<2500	<100	<500	< 5	<250	540	2	<500	<5	<250	2	770	<5	<5	<5	<5	<5	<5	<5	
Vinyl Chloride	5	< 1000	< 100	< 25	<2500	<100	<500	< 5	<250	<500	<1	<500	<5	<250	<1	<500	<2	<2	<2	<5	<5	<2	<2	
Total Xylenes	5	45,000	3,000	97,000 D	51,000	46,000	97,000 E	110,000	72,000	77,000	81,000 D	80,000	57,000 D	87,000	81,000 DE	74,000	72,000	65,000	63,000	64,000	88,000	101,000	14,200	

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site QW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-00 (ug/L)	Feb-00 (ug/L)
Aroclor-1016	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10
Aroclor-1221	0.1	< 0.20	N/A	< 0.3	< 0.3	< 0.1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.10	< 0.20
Aroclor-1232	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10
Aroclor-1242	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10
Aroclor-1248	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10
Aroclor-1254	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10
Aroclor-1260	0.1	0.092 J	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10

**Notes:**

<sup>a</sup> = Qualified as non-detect due to blank contamination.

<sup>b</sup> = Analyzed with dilution. See laboratory reports for dilution factors.

<sup>c</sup> = Concentration exceeded calibration range of instrument.

<sup>d</sup> = Estimated Concentration

N/A = Not analyzed

**Table 6**  
**RW-5S**  
**Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site GW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)	Apr-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Mar-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-06-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)
Acetone	-	< 200	< 200	< 20	<20	<10	33 J	11	<5	<5	<5	<5	<10	<5	16 *	<500	<5	<5	<5	14	35	<10	<10
Benzene	-	< 100	< 100	< 10	<10	<2	<25	< 5	<1	<1	<1	<1	<5	<1	<1	<100	<1	<1	<1	<5	<5	29	<1
2-Butanone	-	< 200	440	< 20	<20	66	68	< 10	<5	<5	<5	<5	<10	<5	<1	<500	<5	<5	<5	<10	<5	<10	<10
Chloroform	-	< 100	< 100	< 10	<10	<2	<25	< 5	<1	<1	<1	<1	<5	<1	<1	<100	<5	<5	<5	<10	<5	<5	<5
Isopropylbenzene	-	< 100	< 10	<10	6	8 J	11	7	<1	4	3	<5	5	4	<70	<5	<5	6.9	<5	15	51	<5	
cis-1,2-Dichloroethene																	<5	<5	180	<5	<5	<5	<5
trans-1,2-Dichloroethene	5	< 100	< 100	< 10	<10	<2	<25	< 5	<1	<1	<1	<1	<5	<1	<1	<100	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane		<100	<100	<10	<10	<2	<25	< 5	<1	<5	1	<1	<5	<1	<1	<100	<5	<5	<5	<5	<5	<5	<5
Ethybenzene	5	620	420	35	<10	57	92	120	74	3	53	22	<5	41	29	16,000	35	20	91	<5	83	180	<5
Methylene Chloride	-	< 130*	580	< 10	<10	8	<25	34	1	1*	<1	2*	<5	4*	9	840	<5	<5	<5	<5	<5	<5	<5
Toluene	5	< 100	< 100	17	15	520	890	320	94	7	16	<1	<5	15	7	6,100	<5	12	370	<5	6.9	6.6	<5
Trichloroethene	5	< 100	< 100	< 10	<10	34	<25	7	<2*	7	<1	<1	<5	<1	<1	<100	<5	<5	6.2	<5	<5	<5	<5
Vinyl Chloride	5	< 100	< 100	< 10	<10	<2	<25	< 5	<1	2	<1	<1	<5	<1	<1	<100	<2	<2	14	<5	<5	<2	<2
Total Xylenes	5	2,000	2,300	410	86	520	640	570	330	26	660 D	63	12	82	68	73,000-D	186	231	445	11	274	35	7.3

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site GW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)
Aroclor-1016	0.1	< 0.10	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1221	0.1	< 0.20	N/A	< 0.3	< 0.3	<0.1	<0.2	< 0.2	< 0.2	<0.20	<0.20	<0.10	<0.20
Aroclor-1232	0.1	< 0.10	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1242	0.1	< 0.10	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1248	0.1	< 0.10	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1254	0.1	< 0.10	N/A	0.28 J	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1260	0.1	0.042 J	N/A	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10

**Notes:**

The November 2000 analytical data is considered suspect and non-representative of Recovery Well RW-5S.

B = Qualified as non-detect due to blank contamination

D = Analyzed with dilution. See laboratory reports for dilution factors.

J = Estimated Concentration

N/A = Not analyzed

**Table 7  
RW-1D  
Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site GW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Apr-8-00 (ug/L)	Apr-30-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Apr-05-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-06-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)
Acetone	-	< 10 <sup>b</sup>	< 10	< 10	37	< 5	< 10	< 10	< 5	< 5	< 10	< 10	14 <sup>b</sup>	< 25	4 <sup>b</sup>	< 5	< 5	< 5	12	< 5	< 10	< 10	
Benzene	-	< 5	< 5	< 5	< 5	< 1	< 5	< 5	2	2	< 2	6	23	17	4	14	3.7	6.0	3.6	< 5	9.7	6.6	3.6
2-Butanone	-	< 10	< 10	< 10	< 10	< 5	< 10	< 10	< 5	< 5	< 10	< 10	< 5	< 25	< 5	< 5	< 5	< 5	< 10	< 5	< 10	< 10	
Chloroform	-	< 5	< 5	< 5	< 1	< 5	< 5	< 1	< 1	< 2	1	< 5	< 1	< 1	< 1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloromethane	-										4	< 2	< 1	< 5	< 1	< 1	< 5	< 5	< 5	< 5	< 5	< 5	
Isopropylbenzene	-		< 5	< 5	< 5	< 1	< 5	< 5	< 1	< 1	< 2	< 2	< 1	< 5	< 1	< 1	< 5	< 5	< 5	< 5	< 5	< 5	
1,1-Dichloroethene	-	< 5	< 5	< 5	< 5	< 1	< 5	< 5	3	4	2	54	85	53	11	41	10	12	12	< 5	25	15	11
cis-1,2-Dichloroethene																	1,500	1,700	1,400	180	3,000	2,300	1,400
trans-1,2-Dichloroethene	5	26	< 5	< 5	< 5	2	2 J	< 5	4	4	16	43	110	84	17	52	14	12	17	< 5	41	9.4	6.8
Ethylbenzene	5	< 5	< 5	< 5	< 5	< 1	< 5	< 5	< 1	< 1	< 2	< 2	< 1	< 5	< 1	< 1	< 5	< 5	< 5	< 5	< 5	< 5	
Methylene Chloride	-	< 8 <sup>b</sup>	14	< 5	< 5	3	2 J	< 5	< 1	1 <sup>b</sup>	3	24 <sup>b</sup>	11 <sup>b</sup>	27 <sup>b</sup>	< 1	< 1	< 5	< 5	< 5	< 5	< 5	< 5	
Toluene	5	< 5	< 5	< 5	< 5	< 1	< 5	< 5	< 1	< 1	< 2	< 2	< 1	< 5	< 1	< 1	< 5	< 5	< 5	< 5	< 5	< 5	
Trichloroethene	5	< 5	< 5	< 5	< 5	< 1	3 J	6	< 10 <sup>b</sup>	19	< 2	38	8	25	16	150	< 5	14	73	< 5	62	8.1	39
Vinyl Chloride	5	23	29	93	200	200	130	130	140 D	210	120	830 D	450 D	530	25	910 D	< 2	110	130	360	52	< 100	26
Total Xylenes	5	< 5	< 5	< 5	< 5	< 1	< 5	< 5	< 1	< 1	< 2	< 2	< 3	< 15	< 3	< 1	< 5	< 5	< 5	< 5	15	< 5	

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site GW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)
Aroclor-1016	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1221	0.1	< 0.20	N/A	< 0.3	< 0.3	< 0.1	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.10	< 0.20
Aroclor-1232	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1242	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1248	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1254	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1260	0.1	< 0.10	N/A	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10

**Notes:**

B = Quantified as non-detect due to blank contamination

D\* = Analyzed with dilution. See laboratory reports for dilution factors.

J = Estimated Concentration

N/A = Not analyzed

**Table 8**  
**RW-2D**  
**Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site GW RAOe (ug/L)	Aug-95 (ug/L)**	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)	Apr-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Mar-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-06-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)			
Acetone	-	<10	<90 <sup>b</sup>	<100	<10	<500	<130/ <sup>c</sup> 130	<250	<10	<5	<5	<5	<100	<10	120 <sup>D</sup>	<5	<5	<5	<5	<10	<10	<10	<10	<10			
Benzene	-		<5	<50	<5	<250	<25/ <sup>c</sup> 25	<120	<5	<1	<1	2	<20	<5	<10	3	4.7	6.5	7.2	7.5	9.2	9.8	9.1	9.5			
2-Butanone	-		130	270	<10	<500	<25/ <sup>c</sup> 25	<250	<10	<5	<5	<5	<100	<10	<50	16	<5	<5	<5	<5	<10	<5	26	<10			
Chloroform	-		<5	<50	<5	<250	<25/ <sup>c</sup> 25	<120	<5	<1	<1	<1	<20	<5	<10	<1	<1	<5	<5	<5	<5	<5	<5	<5			
Isopropylbenzene	-			<50	<5	<250	<25/ <sup>c</sup> 25	<120	<5	<1	<1	<1	<20	<5	<10	<1	<1	<5	<5	<5	<5	<5	<5	<5			
1,1-Dichloroethene	-		<5	<50	<5	<250	<25	>120	<5	5	8	<1	65	8	<10	12	25	17	16	25	25	33	<5	32			
cis-1,2-Dichloroethene																					5,200	4,200	7,900	7,800	12,000	60	7,900
trans-1,2-Dichloroethene	5	200	320 D	<50	<5	<250	<25/ <sup>c</sup> 25	<120	<5	5	5	5	94	7	<10	11	19	27	27	32	41	29	7.8	26			
Ethylbenzene	5		<5	<50	<5	<250	<25/ <sup>c</sup> 25	<120	<5	<1	<1	2	<20	7	<10	<1	<1	<5	<5	<5	<5	<5	<5	<5			
Methylene Chloride	-	<10	<12 <sup>b</sup>	340	<5	<250	<25/ <sup>c</sup> 25	80 J	<5	<1	1 <sup>b</sup>	<1	260 <sup>A</sup>	<5	410 <sup>A</sup>	<1	3.06 <sup>B</sup>	<5	<5	<5	<5	<5	<5	<5	<5		
Tetrachloroethene	-		<5	<50	<5	<250	<25	<120	<5	1	1	1	<20	<5	<10	<1	1.04	<5	<5	<5	<5	<5	<5	<5			
Toluene	5		<5	<50	<5	<250	<25/ <sup>c</sup> 25	<120	<5	<1	<1	<1	<20	<5	<10	<1	<1	<5	<5	<5	<5	<5	<5	<5			
Trichloroethene	5	5,600	2,200 D	1,800 D	4,500 D	4,900	2,200/ <sup>c</sup> 2,500	3,200	4,700	4,500 D	4,000	2,800 D	18,000 D	1,900 D	3,100	3,000 D	4,400 D	1,100	270	330	310	150	<5	210			
Vinyl Chloride	5	32	32	<50	71	<250	83/ <sup>c</sup> 25	110 J	150	190	280	190 D	<20	210	150	160 D	120 D	530	610	1,300	1,100	1,700	55	1,300			
Total Xylenes	5	<10	<5	<50	<5	<250	<25/ <sup>c</sup> 25	<120	<5	<2 <sup>b</sup>	2	13	<20	38	<30	<3	1.49	<5	<5	<5	8.9	<5	12	<5			

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site GW RAOe (ug/L)	Aug-95 (ug/L)**	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)
Aroclor-1016	0.1		<0.10	N/A	<0.3	<0.3	<0.1/ <sup>c</sup> 0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1221	0.1		<0.20	N/A	<0.3	<0.3	<0.1/ <sup>c</sup> 0.1	<0.2	<0.2	<0.2	<0.20	<0.20	<0.10	<0.20
Aroclor-1232	0.1		<0.10	N/A	<0.3	<0.3	<0.1/ <sup>c</sup> 0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1242	0.1		<0.10	N/A	<0.3	<0.3	<0.1/ <sup>c</sup> 0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1248	0.1		<0.10	N/A	<0.3	<0.3	<0.1/ <sup>c</sup> 0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1254	0.1	<1	<0.10	N/A	<0.3	<0.3	<0.1/ <sup>c</sup> 0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1260	0.1		<0.10	N/A	<0.3	<0.3	<0.1/ <sup>c</sup> 0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.10	<0.10

**Notes:**

B = Qualified as non-detect due to blank contamination

D = Analyzed with dilution. See laboratory reports for dilution factors.

\*\* Sample results reported represent the highest values obtained from the 5.5 hr and 29 hr samples.

J = Estimated Concentration

N/A = Not analyzed

**Table 9**  
**POTW Monthly Monitoring Summary**  
**2002 System Influent/Effluent Data**  
**Volatile Organic Compounds**

Pre-Carbon Analytical Results	Jan-27-02 (ug/L)	Mar-1-02 (ug/L)	Mar-28-02 (ug/L)	Apr-25-02 (ug/L)	May-30-02 (ug/L)	June-28-02 (ug/L)	Jul-30-02 (ug/L)	Aug-28-02 (ug/L)	Sep-29-02 (ug/L)	Oct-02 (ug/L)	Nov-02 (ug/L)	Dec-02 (ug/L)
Acetone	<5	62	14	<5	1,600	<10	14	<10	<10	.	.	.
Benzene	7.2	6.5	3.8	3.6	5.5	4.3	2	6.9	4.2	.	.	.
2-Butanone	<5	<5	<5	<5	45	<10	<10	<10	<10	.	.	.
Chloroform	<5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
Chloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
Isopropylbenzene (Cumene)	6.5	9.6	7	5.9	6.1	6.8	<5.0	6.8	7.8	.	.	.
1,1-Dichloroethene	18	11	9.2	10	13	6.8	5.2	<5	9.4	.	.	.
cis-1,2-Dichloroethene	5,700	4,700	3,500	3,000	3,600	3,200	1,700	5,100	2,500	.	.	.
trans-1,2-Dichloroethene	34	41	9.3	7.2	12	7.3	<5.0	14	7.7	.	.	.
Ethylbenzene	400	480	510	380	380	610	130	360	440	.	.	.
Methylene Chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
Toluene	170	250	240	190	200	270	39	200	230	.	.	.
Trichloroethene	320	240	230	<250	260	100	92	350	200	.	.	.
Vinyl Chloride	720	640	520	520	540	510	240	530	370	.	.	.
Total Xylenes	3,740	3,210	4,200	3,270	3,190	4,900	1,170	2,920	4,100	.	.	.
Pre-Carb TOTAL VOCs	11,115.7	9,630.1	9,243.3	7,386.7	9,851.6	9,615.2	3,392.2	9,487.70	7,869	.	.	.

Primary Carbon Analytical Results	Jan-27-02 (ug/L)	Mar-1-02 (ug/L)	Mar-28-02 (ug/L)	Apr-02 (ug/L)	May-02 (ug/L)	June-28-02 (ug/L)	Jul-30-02 (ug/L)	Aug-28-02 (ug/L)	Sep-29-02 (ug/L)	Oct-02 (ug/L)	Nov-02 (ug/L)	Dec-02 (ug/L)
Acetone	<0.5	3,700	270	<5.0	1,200	2,300	<10	<10	<10	.	.	.
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	.	.	.
2-Butanone	<0.5	13	29	<5	<5	37	<10	<10	<10	.	.	.
Chloroform	<0.5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
Chloromethane	<0.5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
Isopropylbenzene (Cumene)	<0.5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
1,1-Dichloroethene	<0.5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
cis-1,2-Dichloroethene	9	27	110	7.3	19	370	7.9	130	87	.	.	.
trans-1,2-Dichloroethene	<0.5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
Ethylbenzene	<0.5	<5	<5	<5	<5	6.3	<5	<5	<5	.	.	.
Methylene Chloride	<0.5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
Toluene	<0.5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
Trichloroethene	<0.5	<5	<5	<5	<5	<5	<5	<5	<5	.	.	.
Vinyl Chloride	700	1,300	1,100	14	78	670	11	9.2	5.3	.	.	.
Total Xylenes	<0.5	<5	7.9	<5	<5	52	<5	<5	<5	.	.	.
Primary-Carb TOTAL VOCs	709	5,040	1,516.9	21.3	1,297	3,435.3	18.9	139.20	92.30	.	.	.

Post-Carbon Analytical Results	Jan-27-02 (ug/L)	Mar-1-02 (ug/L)	Mar-28-02 (ug/L)	Apr-02 (ug/L)	May-02 (ug/L)	June-28-02 (ug/L)	Jul-02 (ug/L)	Aug-28-02 (ug/L)	Sep-02 (ug/L)	Oct-02 (ug/L)	Nov-02 (ug/L)	Dec-02 (ug/L)
Acetone	<5.0	1,500	1,900	11	<5.0	2,800	<10.0	<10	<10	.	.	.
Benzene	<1	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1	<1	.	.	.
2-Butanone	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10	<10	.	.	.
Chloroform	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
Chloromethane	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
Isopropylbenzene (Cumene)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
1,1-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
cis-1,2-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
trans-1,2-Dichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
Ethylbenzene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
Methylene Chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
Toluene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
Trichloroethene	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
Vinyl Chloride	<2	8.2	240	3.4	2.4	3.4	17	<2	<2	.	.	.
Total Xylenes	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5	.	.	.
Post-Carb TOTAL VOCs	ND	1,608.2	2,140	14.4	2.4	2,803.4	217	ND	ND	.	.	.

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

**Note:**

Primary and Secondary Carbon Units changed out on April 13, 2002

Pre-Carbon sample results represent system influent.

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

Post-Carbon sample results represent system effluent from the secondary carbon vessel to the POTW.

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

B = Qualified as non-detect due to blank contamination

D = Analyzed with dilution, see laboratory reports for dilution factor

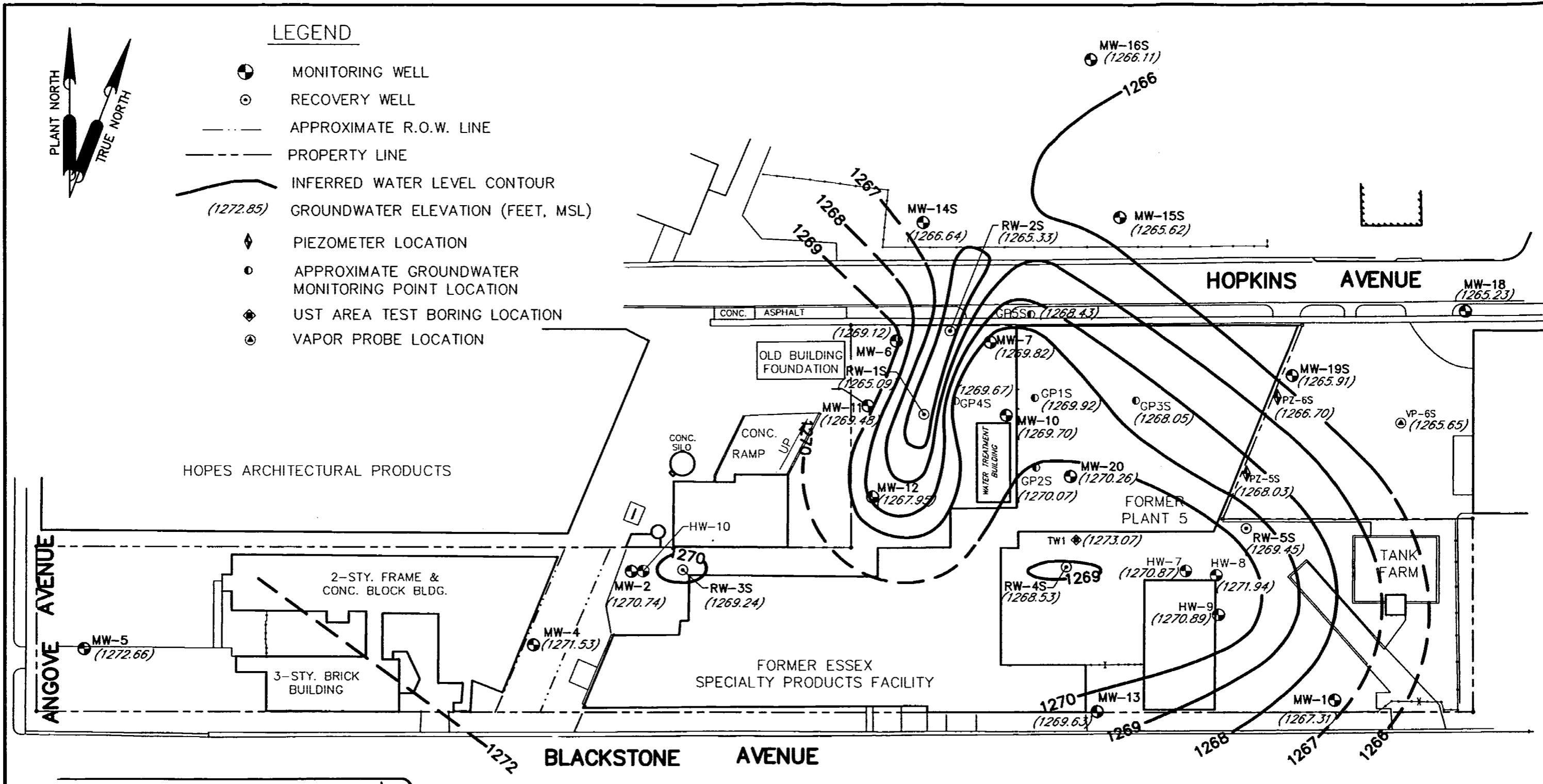
J = Estimated Concentration

ND = Non detect

NS = Not Sampled

NA = Not Analyzed





FILE: J:\ESSEXHOP\7138\801419\80141913.DWG

0 60 120  
SCALE IN FEET

11  
22  
11  
00  
22  
KK  
GG

**URS**

WATER TABLE CONTOUR MAP  
SEPTEMBER 4, 2002

ESSEX/HOPE SITE

JAMESTOWN, NY

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 801419.2010

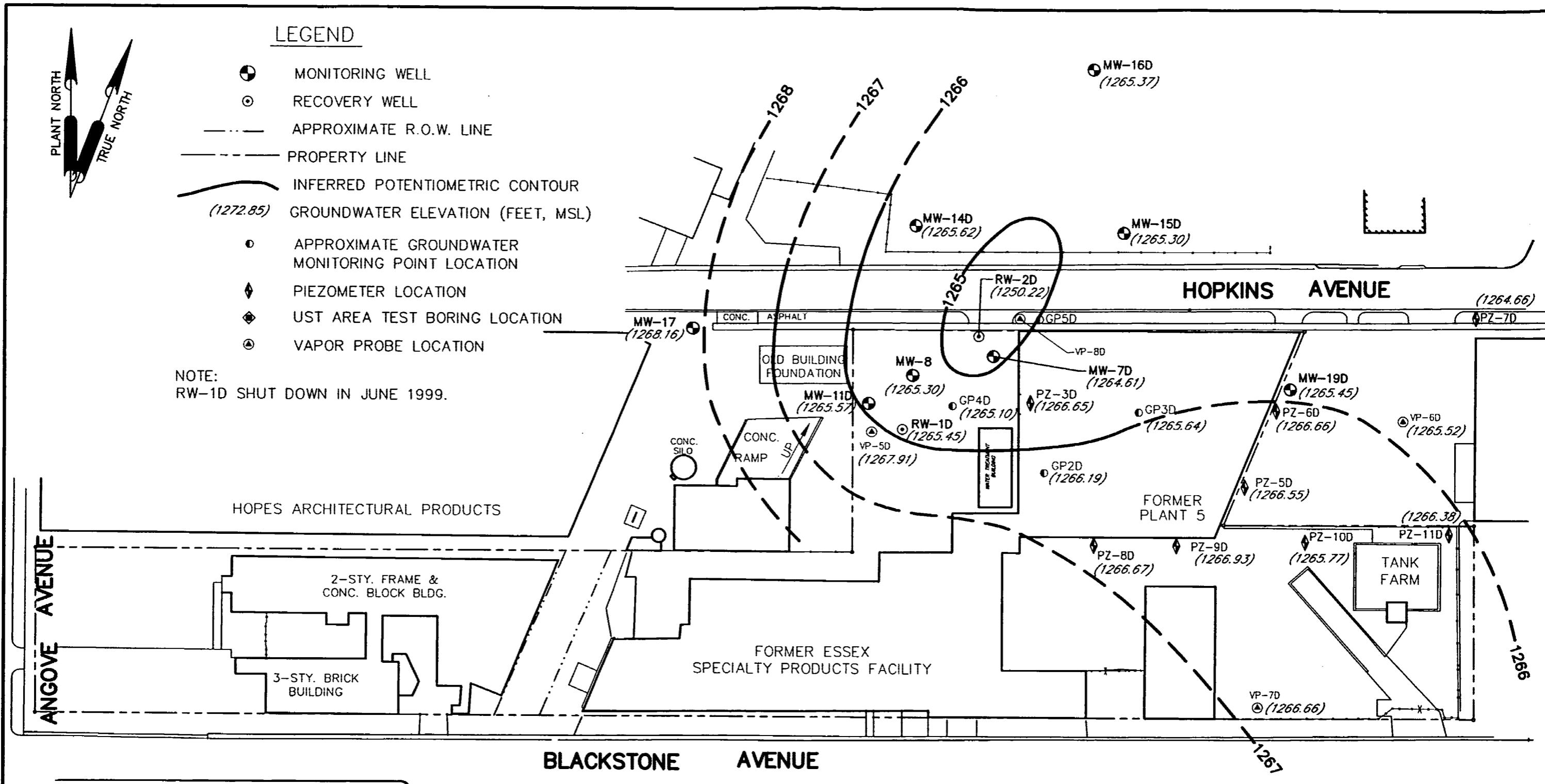
SCALE: AS SHOWN

FIGURE  
NUMBER

1

REV  
0

VERTICAL BENCH MARK INFORMATION CAME FROM U.S.G.S. PLAQUE U-88-S.E. ABUTT. ERIE R.R. BRIDGE  
OVER BUFFALO ST., ELEV.=1296.034 (NATIONAL GEODETIC VERTICAL DATUM, 1929).



FILE: J:\\ESSEX\\HOP\\7138\\801419\\80141912.DWG

0 60 120  
SCALE IN FEET

0 1  
0 2  
0 1  
0 2  
0 0  
0 2  
0 K  
0 G

**URS**

POTENTIOMETRIC CONTOUR MAP  
LOWER FINE SAND WATER BEARING ZONE  
SEPTEMBER 4, 2002

ESSEX/HOPE SITE

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JAMESTOWN, NY  
JOB NUMBER: 801419.2010

SCALE: AS SHOWN

FIGURE  
NUMBER

2

REV  
0

VERTICAL BENCH MARK INFORMATION CAME FROM U.S.G.S. PLAQUE U-88-S.E. ABUTT. ERIE R.R. BRIDGE  
OVER BUFFALO ST., ELEV.=1296.034 (NATIONAL GEODETIC VERTICAL DATUM, 1929).





**APPENDIX A**

**WATER LEVEL MEASUREMENT DATA**

**Groundwater Extraction System Monitoring Data**  
**July through September 2002 Water Levels**

**Essex/Hope Site Remedial Action**  
**Jamestown, New York**  
**URS Project No. 801419**

Well No.	Northing	Easting	Reference Elevation (ft msl)	Screened Zone	July 22, 2002		September 4, 2002	
					Depth to Water	Groundwater Elevation (ft msl)	Depth to Water	Groundwater Elevation (ft msl)
MW-1	9758.7161	10383.6499	1280.48	Shallow WBZ	13.43	1267.05	13.17	1267.31
MW-2	9837.1531	9959.6857	1279.87	Shallow WBZ	Dry		9.13	1270.74
MW-4	9792.3277	9900.7631	1281.02	Shallow WBZ	9.46	1271.56	9.49	1271.53
MW-5	9789.6222	9631.761	1280.82	Shallow WBZ	8.13	1272.69	8.16	1272.66
MW-6*	9977.1197	10118.8762	1277.88	Shallow WBZ	8.26	1269.72	8.86	1269.12
MW-7*	9976.6467	10175.6797	1277.73	Shallow WBZ	9.36	1269.37	7.91	1269.82
MW-10	9932.4702	10185.7078	1277.94	Shallow WBZ	8.04	1269.90	8.24	1269.70
MW-11*	9937.9912	10101.7016	1277.75	Shallow WBZ	8.76	1268.99	8.27	1269.48
MW-12	9883.0874	10104.9278	1278.18	Shallow WBZ	10.02	1268.16	10.23	1267.95
MW-13	9752.0619	10240.2934	1278.12	Shallow WBZ	9.96	1268.16	8.49	1269.63
MW-14S	10048.7753	10135.5198	1280.25	Shallow WBZ	13.73	1266.52	13.61	1266.64
MW-15S	10051.8277	10254.4862	1279.55	Shallow WBZ	13.89	1265.66	13.93	1265.62
MW-16S	10146.7788	10236.8582	1279.32	Shallow WBZ	12.97	1266.35	13.21	1266.11
MW-18	9994	10465	1275.59	Shallow WBZ	10.13	1265.46	10.36	1265.23
MW-19S	9956.1454	10358.207	1276.82	Shallow WBZ	10.93	1265.89	10.91	1265.91
MW-20	9895.0082	10224.2128	1278.64	Shallow WBZ	5.86	1272.78	8.38	1270.26
HW-1	9874.8053	10079.0259	1281.91	Shallow WBZ	NA	NA	NA	NA
HW-2	9977.6477	10079.7882	1281.13	Shallow WBZ	NA	NA	NA	NA
HW-3	9866.163	9957.6007	1283.24	Shallow WBZ	NA	NA	NA	NA
HW-7	9837.3164	10293.8428	1277.55	Shallow WBZ	6.38	1271.17	6.68	1270.87
HW-8	9833.664	10312.0865	1277.81	Shallow WBZ	6.65	1271.16	5.87	1271.94
HW-9	9810.5264	10313.3873	1280.78	Shallow WBZ	9.29	1271.49	9.89	1270.89
HW-10	9837.2976	9966.7406	1279.55	Shallow WBZ	8.82	1270.73	Dry	NA
SP-10	9815.1646	9977.9909	1279.03	Shallow WBZ	NA	NA	NA	NA
SP-11	9839.7566	9977.9072	1279.23	Shallow WBZ	NA	NA	NA	NA
SP-12	9833.1836	9958.7423	1279.68	Shallow WBZ	NA	NA	NA	NA
SP-13	9819.5009	9958.5764	1278.57	Shallow WBZ	NA	NA	NA	NA
SP-14	9807.2232	9967.0477	1279.39	Shallow WBZ	NA	NA	NA	NA
SP-15	9840.6722	10209.4525	1278.65	Shallow WBZ	NA	NA	NA	NA
SP-16	9840.3119	10250.4484	1277.84	Shallow WBZ	NA	NA	NA	NA
SP-17	9845.107	10287.9591	1277.56	Shallow WBZ	NA	NA	NA	NA
SP-18	9855.8421	10323.265	1277.41	Shallow WBZ	NA	NA	NA	NA
SDO-1	N/A	N/A	N/A	Shallow WBZ	NA	NA	NA	NA
RW-1S	9932.8951	10135.8706	1278.06	Shallow WBZ	9.28	1266.78	10.97	1265.09
RW-2S*	9983.3861	10151.6403	1276.59	Shallow WBZ	10.39	1266.20	11.26	1265.33
RW-3S	9838.2594	9990.4502	1278.29	Shallow WBZ	9.03	1269.26	9.05	1269.24
RW-4S	9839.8053	10221.6766	1277.34	Shallow WBZ	8.76	1268.58	9.81	1268.53
RW-5S	9863.2271	10330.2423	1277.43	Shallow WBZ	8.19	1269.24	7.98	1269.45
MW-7D*	9973.2593	10174.8524	1277.8	Lower Fine Sand WBZ	13.47	1264.33	13.19	1264.61
MW-8	9959.6089	10127.6896	1277.87	Lower Fine Sand WBZ	12.46	1265.51	12.67	1265.30
MW-11D	9942.3792	10101.1482	1277.85	Lower Fine Sand WBZ	10.96	1266.89	12.28	1265.57
MW-14D	10049.5051	10129.1897	1280.01	Lower Fine Sand WBZ	14.71	1265.30	14.39	1265.62
MW-15D	10045.5611	10255.205	1279.46	Lower Fine Sand WBZ	14.42	1265.04	14.16	1265.30
MW-16D	10143.9497	10236.6005	1279.05	Lower Fine Sand WBZ	13.89	1265.16	13.68	1265.37
MW-17	9967.6315	9995.5207	1278.7	Lower Fine Sand WBZ	10.72	1267.98	10.54	1268.16
MW-19D	9951.569	10355.9748	1276.21	Lower Fine Sand WBZ	11.17	1265.04	10.76	1265.45
RW-1D	9926.5987	10121.3968	1276.64	Lower Fine Sand WBZ	11.69	1264.95	11.19	1265.45
RW-2D	9983.0619	10167.3168	1276.46	Lower Fine Sand WBZ	25.69	1247.77	26.24	1250.22
MW-7D*	9970.8547	10176.2696	1277.74	Glacial Till	2.06	1275.68	2.49	1275.25
GP-1S	9954.39*	10203.02*	1278.98	Shallow WBZ	10.07	1268.91	9.06	1269.92
GP-2S	9914.69*	10201.04*	1278.63	Shallow WBZ	7.06	1271.57	8.56	1270.07
GP-2D	9914.91*	10207.84*	1278.7	Lower Fine Sand WBZ	12.83	1265.87	12.51	1268.19
GP-3S	9941.13*	10264.03*	1278.67	Shallow WBZ	10.83	1268.04	10.82	1268.05
GP-3D	9937.38*	10264.53*	1278.77	Lower Fine Sand WBZ	13.47	1265.30	13.13	1265.64
GP-4S	9940.86*	10154.97*	1278.06	Shallow WBZ	8.76	1269.30	8.39	1269.67
GP-4D	9940.85*	10151.57*	1278.08	Lower Fine Sand WBZ	12.29	1265.79	12.98	1265.10
GP-5S	9993.54*	10200.34*	1277.44	Shallow WBZ	8.61	1268.83	9.01	1268.43
GP-5D	9993.55*	10290.21*	1277.37	Lower Fine Sand WBZ	NA	Flooded	NA	
PZ-1S			1277.97	Shallow WBZ	8.62	1269.35	8.43	1269.54
PZ-1D			1277.75	Lower Fine Sand WBZ	11.88	1265.87	11.11	1266.64
PZ-2D			1277.86	Lower Fine Sand WBZ	11.39	1266.47	10.96	1266.90
PZ-3D			1279.02	Lower Fine Sand WBZ	12.21	1266.81	12.37	1266.65
PZ-4D			1278.94	Lower Fine Sand WBZ	12.51	1266.43	12.32	1266.62
PZ-5S			1276.56	Shallow WBZ	8.27	1268.29	8.53	1268.03
PZ-5D			1276.52	Lower Fine Sand WBZ	10.48	1266.04	10.17	1266.35
PZ-6S			1276.77	Shallow WBZ	10.15	1266.62	10.07	1266.70
PZ-6D			1276.57	Lower Fine Sand WBZ	9.98	1266.59	9.91	1266.66
PZ-7D			1275.83	Lower Fine Sand WBZ	11.13	1264.70	11.17	1264.66
PZ-8D			1278.63	Lower Fine Sand WBZ	12.27	1266.36	11.96	1266.67
PZ-9D			1278.04	Lower Fine Sand WBZ	11.43	1266.61	11.11	1266.93
PZ-10D			1277.58	Lower Fine Sand WBZ	11.72	1265.86	11.81	1265.77
PZ-11D			1276.71	Lower Fine Sand WBZ	11.31	1265.39	10.32	1266.38
TW-01			1279.11	Shallow WBZ	4.86	1274.24	5.03	1273.07
VP-5D			1278.2	Lower Fine Sand WBZ	9.96	1268.24	10.29	1267.91
VP-6S			1276.62	Upper Gravel of LFSWBZ	10.93	1265.69	10.97	1265.65
VP-6D			1278.71	Lower Fine Sand WBZ	11.20	1265.51	11.19	1265.52
VP-7D			1278.87	Lower Fine Sand WBZ	12.31	1266.56	12.21	1266.66
VP-8D			1277.37	Lower Fine Sand WBZ	11.28	1266.09	11.04	1266.33

Comments

WBZ - Water Bearing Zone

\* = Estimated Coordinate

MW-5 TOC elev. altered from 1280.91 ft msl to 1280.82 ft msl on May 5, 2000

\* Wells resurveyed on 10/11/00 due to uplift of concrete from injection work.

1736 Days of System Operation

1780 Days of System Operation

**B**

**APPENDIX B**

**LABORATORY CERTIFICATES OF ANALYSIS**

October 15, 2002

Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on September 30, 2002. Please reference Pace project number 02-4046 when inquiring about this report.

Client Site: Essex-Hope  
 Client Ref.: 801419.1010

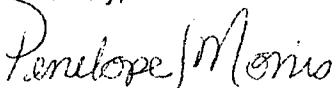
Pace Sample Identification	Client Sample Identification
0209-1938	RW-1S
0209-1939	RW-1D
0209-1940	RW-2S
0209-1941	RW-2D

Pace Sample Identification	Client Sample Identification
0209-1942	RW-3S
0209-1943	RW-4S
0209-1944	RW-5S
0209-1945	Trip Blank

**General Comments:** Ice was present upon receipt.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Penelope J. Morris  
 Project Manager

PJG: jld

Enclosures

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.1010

**Lab Project ID:** 02-4046  
**Lab Sample ID:** 0209-1938  
**Client Sample ID:** RW-1S  
**Sample Matrix:** Aqueous

**Date Sampled:** 09/27/2002  
**Date Received:** 09/30/2002

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	10/09/2002	0016176-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	8.4	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	1100	50	ug/l	MAK	10/09/2002	0016176-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	5.2	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0209-1938  
 Client Sample ID: RW-1S

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	2400	250	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	26	2.0	ug/l	MAK	10/09/2002	0016176-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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0295  
0296

# Pace Analytical™

[www.pacelabs.com](http://www.pacelabs.com)

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Client Site: Essex-Hope  
Client Ref.: 801419.1010

Pace Analytical Services, Inc.

One Triangle Lane  
Export, PA 15632

Phone: 724.733.1161  
Fax: 724.327.7793

Lab Project ID: 02-4046  
Lab Sample ID: 0209-1939  
Client Sample ID: RW-1D  
Sample Matrix: Aqueous

Date Sampled: 09/27/2002  
Date Received: 09/30/2002

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Benzene	8260B <sup>(1)</sup>	3.6	1.0	ug/l	MAK	10/09/2002	0016176-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	11	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	1400	250	ug/l	MAK	10/09/2002	0016176-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	6.8	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0

(Continued)

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Lab Sample ID: 0209-1939  
 Client Sample ID: RW-1D

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	39	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	26	2.0	ug/l	MAK	10/09/2002	0016176-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.1010

Lab Project ID: 02-4046  
 Lab Sample ID: 0209-1940  
 Client Sample ID: RW-2S  
 Sample Matrix: Aqueous  
  
 Date Sampled: 09/27/2002  
 Date Received: 09/30/2002

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	10/09/2002	0016176-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	210	50	ug/l	MAK	10/09/2002	0016176-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0

(Continued)

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Lab Sample ID: 0209-1940  
 Client Sample ID: RW-2S

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	630	50	ug/l	MAK	10/09/2002	0016176-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	7.4	2.0	ug/l	MAK	10/09/2002	0016176-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Client Ref.: 801419.1010

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Lab Project ID: 02-4046  
Lab Sample ID: 0209-1941  
Client Sample ID: RW-2D  
Sample Matrix: Aqueous  
  
Date Sampled: 09/27/2002  
Date Received: 09/30/2002

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Benzene	8260B <sup>(1)</sup>	9.5	1.0	ug/l	MAK	10/09/2002	0016176-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	32	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	7900	250	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	26	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016176-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0

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Lab Sample ID: 0209-1941  
 Client Sample ID: RW-2D

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	210	100	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	1300	100	ug/l	MAK	10/09/2002	0016177-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016176-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis..

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Lab Project ID: 02-4046  
Lab Sample ID: 0209-1942  
Client Sample ID: RW-3S  
Sample Matrix: Aqueous  
Date Sampled: 09/27/2002  
Date Received: 09/30/2002

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Benzene	8260B <sup>(1)</sup>	1.6	1.0	ug/l	MAK	10/09/2002	0016177-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	9.1	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

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Lab Sample ID: 0209-1942  
 Client Sample ID: RW-3S

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	10/09/2002	0016177-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	57	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	6.4	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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 Client Ref.: 801419.1010

Lab Project ID: 02-4046  
 Lab Sample ID: 0209-1943  
 Client Sample ID: RW-4S  
 Sample Matrix: Aqueous  
 Date Sampled: 09/27/2002  
 Date Received: 09/30/2002

**Volatiles**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	10/09/2002	0016177-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Cumene	8260B <sup>(1)</sup>	38	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	1700	500	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

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Lab Sample ID: 0209-1943  
 Client Sample ID: RW-4S

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Toluene	8260B <sup>(1)</sup>	560	500	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	10/09/2002	0016177-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	11000	2500	ug/l	MAK	10/09/2002	0016177-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	3200	2500	ug/l	MAK	10/09/2002	0016177-1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Client Site: Essex-Hope  
Client Ref.: 801419.1010

Pace Analytical Services, Inc.

One Triangle Lane  
Export, PA 15632

Phone: 724.733.1161  
Fax: 724.327.7793

Lab Project ID: 02-4046  
Lab Sample ID: 0209-1944  
Client Sample ID: RW-5S  
Sample Matrix: Aqueous  
Date Sampled: 09/27/2002  
Date Received: 09/30/2002

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	10/09/2002	0016177-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0209-1944  
 Client Sample ID: RW-5S

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	10/09/2002	0016177-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	7.3	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Client Site: Essex-Hope  
Client Ref.: 801419.1010

**Pace Analytical Services, Inc.**

One Triangle Lane  
Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

**Lab Project ID:** 02-4046  
**Lab Sample ID:** 0209-1945  
**Client Sample ID:** Trip Blank  
**Sample Matrix:** Aqueous  
  
**Date Sampled:** 09/27/2002  
**Date Received:** 09/30/2002

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	10/09/2002	0016177-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

(Continued)

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CD  
CS  
CP

Lab Sample ID: 0209-1945  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	10/09/2002	0016177-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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## CHAIN-OF-CUSTODY / Analytical Request Document

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

690035

## Section C

Required Client Information: **Section A**Required Client Information: **Section B**

Page: 1 of 1

To Be Completed by Pace Analytical and Client

Quote Reference:

Required Client Information: **Section A**Report To: *Keith Dodrill*

Project Manager:

Company: **URS**

Copy To:

Project #: *02-4045*Address: **4955 Steubenville Pike**Invoice To: **URS**

Profile #:

Twin Tower Suite 250

P.O.:

Requested Analysis:

**Pittsburgh PA 15205**Project Name: *Essex-Hope*

*Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.*

*Turn Around Time (TAT) in calendar days.*

*g260*

Phone: **412-788-2717**Fax: **412-788-1316**Project Number: **801419.2030**

Remarks / Lab ID

ITEM # **Section D Required Client Information:****SAMPLE ID**One character per box.  
(A-Z, 0-9 / -)

Sample IDs MUST BE UNIQUE

Valid Matrix Codes	
MATRIX	CODE
WATER	WT
SOIL	SL
OIL	CL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

ITEM #	DATE COLLECTED mm / dd / yy	TIME COLLECTED hh:mm a/p	Preservatives								
			# Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>		
1 RW15	9-27-02	1540	2		X					X	09-1938
2 RW1D		1550									1939
3 RW2S		1600									1940
4 RW2D		1610									1941
5 RW3S		1620									1942
6 RW4S		1630									1943
7 RW5S		1640									1944
8 TR1 P BLANK		3									1945
9											
10											
11											
12											

SHIPMENT METHOD AIRBILL NO. SHIPPING DATE NO. OF COOLERS ITEM NUMBER RELINQUISHED BY / AFFILIATION DATE TIME ACCEPTED BY / AFFILIATION DATE TIME

Federal Express 82788330 9-27-02 1 FCO EX 9-27-02 17:11 9-27-02

SAMPLE CONDITION SAMPLE NOTES 4743

Temp in °C NO VIAL

Received on Ice Y/N

Sealed Cooler Y/N

Samples Intact Y/N

## SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: *John Ross*SIGNATURE OF SAMPLER: *John S. Ross*

DATE Signed: (MM / DD / YY)

9-27-02

Additional Comments:

8 PGS

August 16, 2002

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on July 30, 2002. Please reference Pace project number 02-3139 when inquiring about this report.

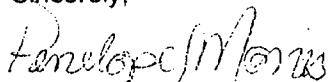
Client Site: Essex-Hope  
Client Ref.: 801419.2030

Pace Sample Identification	Client Sample Identification
0207-1851	Pre-Carb
0207-1852	Primary Effluent
0207-1853	Post-Carb
0207-1857	Trip Blank

**General Comments:** Cooler temperature 15.1 ° C upon receipt. Ice was present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Penelope J. Morris  
Project Manager

PJG: jld

Enclosures

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URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Client Site: Essex-Hope  
Client Ref.: 801419.2030

Pace Analytical Services, Inc.

One Triangle Lane  
Export, PA 15632

Phone: 724.733.1161  
Fax: 724.327.7793

Lab Project ID: 02-3139  
Lab Sample ID: 0207-1851  
Client Sample ID: Pre-Carb  
Sample Matrix: Aqueous

Date Sampled: 07/28/2002  
Date Received: 07/30/2002

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Acetone	8260B <sup>(1)</sup>	14	10	ug/l	REC	08/08/2002	014465MB1	<10
Benzene	8260B <sup>(1)</sup>	2.0	1.0	ug/l	REC	08/08/2002	014465MB1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	5.2	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	1700	100	ug/l	MAK	08/09/2002	014466MB1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	130	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0

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## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0207-1851  
 Client Sample ID: Pre-Carb

**Volatiles (Cont.)**

1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Toluene	8260B <sup>(1)</sup>	39	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	92	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	240	40	ug/l	MAK	08/09/2002	014466MB1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	890	25	ug/l	REC	08/08/2002	014465MB1	<5.0
o-Xylene	8260B <sup>(1)</sup>	280	100	ug/l	MAK	08/09/2002	014466MB1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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 Twin Towers, Suite 250  
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 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

**Pace Analytical Services, Inc.**

One Triangle Lane  
 Export, PA 15632

Phone: 724.733.1161  
 Fax: 724.327.7793

Lab Project ID: 02-3139  
 Lab Sample ID: 0207-1852  
 Client Sample ID: Primary Effluent  
 Sample Matrix: Aqueous

Date Sampled: 07/28/2002  
 Date Received: 07/30/2002

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	REC	08/08/2002	014465MB1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	7.9	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0

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### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0207-1852  
 Client Sample ID: Primary Effluent

**Volatiles (Cont.)**

1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	11	2.0	ug/l	REC	08/08/2002	014465MB1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

Lab Project ID: 02-3139  
 Lab Sample ID: 0207-1853  
 Client Sample ID: Post-Carb  
 Sample Matrix: Aqueous

Date Sampled: 07/28/2002  
 Date Received: 07/30/2002

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	REC	08/08/2002	014465MB1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	200	10	ug/l	MAK	08/09/2002	014466MB1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0

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Lab Sample ID: 0207-1853  
 Client Sample ID: Post-Carb

**Volatiles (Cont.)**

1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Tetrachloroethylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Trichloroethylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	17	2.0	ug/l	REC	08/08/2002	014465MB1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Lab Project ID: 02-3139  
 Lab Sample ID: 0207-1857  
 Client Sample ID: Trip Blank  
 Sample Matrix: Aqueous

Date Sampled: 07/28/2002  
 Date Received: 07/30/2002

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	REC	08/08/2002	014465MB1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	REC	08/08/2002	014465MB1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0

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## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0207-1857  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Tetrachloroethylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Trichloroethylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	REC	08/08/2002	014465MB1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	REC	08/08/2002	014465MB1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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# CHAIN-OF-CUSTODY / Analytical Request Document

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

689629

Required Client Information: **Section A**

Required Client Information: **Section B**

Page: 1 of 1

To Be Completed by Pace Analytical and Client **Section C**

Report To: *Keith Docrill*

Report To: *Keith Docrill*

Quote Reference:

Company: **URS**

Copy To:

Project Manager:

Address: **4955 Steubenville Pike**

Invoice To:

Project #: *02-3139*

**Pittsburgh, PA 15205**

PO:

Profile #:

Phone: **412-788-2717**

Fax:

Requested Analysis:

Project Number: **801419, 2030**

Project Name: **Essex-Hope**

*8260*

ITEM #

Required Client Information:

## SAMPLE ID

One character per box.  
(A-Z, 0-9 / -)

Sample IDs MUST BE UNIQUE

Valid Matrix Codes	
MATRIX	CODE
WATER	WT
SOIL	SL
OIL	CL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

MATRIX CODE

DATE COLLECTED	TIME COLLECTED	Preservatives							Remarks / Lab ID
		# Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	
mm / dd / yy	hh: mm a/p								
7-28-02	1130	2	X						1851
	1130								1852
	1130								1853
	1200								1854
	1230								1855
	1300								1856
	1								—
	3								1857
9									
10									
11									
12									

SHIPMENT METHOD

AIRBILL NO.

SHIPPING DATE

NO. OF COOLERS

ITEM  
NUMBER

RELINQUISHED BY / AFFILIATION

DATE

TIME

ACCEPTED BY / AFFILIATION

DATE

TIME

**FED-EXPRESS**

82788330

7-29-02

1

John Ross - URS

7-29-02

1630

FED-EXP

7/30

1103

SAMPLE CONDITION

SAMPLE NOTES

4868 0215

Temp in °C

15.1

Received on Ice

Y/N

Sealed Cooler

Y/N

Samples Intact

Y/N

Additional Comments:

8185

## SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed: (MM / DD / YY)

September 19, 2002

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on August 30, 2002. Please reference Pace project number 02-3626 when inquiring about this report.

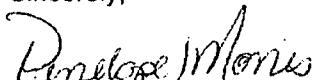
Client Site: Essex-Hope  
Client Ref.: 801419.2030

Pace Sample Identification	Client Sample Identification
0208-2308	Pre-Carb
0208-2309	Primary Effluent
0208-2310	Post-Carb
0208-2314	Trip Blank

**General Comments:** Cooler temperature 9.6 ° C upon receipt. Ice was not present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Penelope J. Morris  
Project Manager

PJG: jld

Enclosures

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

Lab Project ID: 02-3626  
 Lab Sample ID: 0208-2308  
 Client Sample ID: Pre-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 08/28/2002  
 Date Received: 08/30/2002

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Cumene	8260B <sup>(1)</sup>	6.8	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	5100	500	ug/l	MAK	09/12/2002	015516MB1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	360	50	ug/l	MAK	09/12/2002	015516MB1	<5.0
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Benzene	8260B <sup>(1)</sup>	6.9	1.0	ug/l	MAK	09/12/2002	015389MB1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	17	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	14	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0

(Continued)

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Lab Sample ID: 0208-2308  
 Client Sample ID: Pre-Carb

**Volatiles (Cont.)**

1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Toluene	8260B <sup>(1)</sup>	200	50	ug/l	MAK	09/12/2002	015516MB1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	350	50	ug/l	MAK	09/12/2002	015516MB1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	530	20	ug/l	MAK	09/12/2002	015516MB1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	2100	50	ug/l	MAK	09/12/2002	015516MB1	<5.0
o-Xylene	8260B <sup>(1)</sup>	820	50	ug/l	MAK	09/12/2002	015516MB1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis. Samples 0208-2308, 2309, 2310 and 2314 were analyzed one day beyond the EPA recommended analytical holding time. Dilutions for sample 0208-2308 were analyzed two days beyond the EPA recommended analytical holding time.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

**Pace Analytical Services, Inc.**  
 One Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

Lab Project ID: 02-3626  
 Lab Sample ID: 0208-2309  
 Client Sample ID: Primary Effluent  
 Sample Matrix: Aqueous  
 Date Sampled: 08/28/2002  
 Date Received: 08/30/2002

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	09/12/2002	015389MB1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	130	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0208-2309  
 Client Sample ID: Primary Effluent

**Volatiles (Cont.)**

1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Tetrachloroethylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Trichloroethylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	9.2	2.0	ug/l	MAK	09/12/2002	015389MB1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

Lab Project ID: 02-3626  
 Lab Sample ID: 0208-2310  
 Client Sample ID: Post-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 08/28/2002  
 Date Received: 08/30/2002

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	09/12/2002	015389MB1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0208-2310  
 Client Sample ID: Post-Carb

**Volatiles (Cont.)**

1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	09/12/2002	015389MB1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

Lab Project ID: 02-3626  
 Lab Sample ID: 0208-2314  
 Client Sample ID: Trip Blank  
 Sample Matrix: Aqueous  
 Date Sampled: 08/28/2002  
 Date Received: 08/30/2002

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	09/12/2002	015389MB1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	09/12/2002	015389MB1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0

(Continued)

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Lab Sample ID: 0208-2314  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	09/12/2002	015389MB1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	09/12/2002	015389MB1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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# Antech Ltd. Chain of Custody Record

Ship To:  
Antech Ltd.  
One Triangle Drive  
Export, PA 15632  
(724) 733-1161  
FAX (724) 327-7793

Page 1 of 1

For Laboratory Use Only

Laboratory Project No.

023626

Project Name: Essex-Hope

Project No.: 801419.2030

Sampler: John Ross

(Printed Name)

John S. Ross

(Signature)

Relinquished By: (Signature and Printed Name)

Date \_\_\_\_\_

Time \_\_\_\_\_

Received By: (Signature and Printed Name)

Date \_\_\_\_\_

Time \_\_\_\_\_

Relinquished By: (Signature and Printed Name)

Date \_\_\_\_\_

Time \_\_\_\_\_

Received at Lab By: (Signature and Printed Name)

Date \_\_\_\_\_

Time \_\_\_\_\_

Antech Quote ID No.: \_\_\_\_\_

Antech Contact Name: \_\_\_\_\_

Client Purchase Order No.: \_\_\_\_\_

Method of Shipment: Fed Ex.

Shipment ID: 8278833047320215

Sample ID Number	Sample Description			Grab	Composite	Chemistry (500 ml, 1000 ml)	Nutrients (250 ml, 500 ml)	Total Metals (250 ml, 500 ml)	Dissolved Metals (250 ml, 500 ml)	Crustate (250 ml, 500 ml)	Phenolics (1000 ml)	TOC (125 ml)	Sulfide (500 ml)	Oil & Grease (1000 ml)	TPHC (1000 ml)	Bacteriological (125 ml)	VOA (40 ml)	Organics: Pesticides/Herbicides (1 or 2 1/2 L)	Radiochemical (125 ml)	VOA Sample Jar, Soil (125 ml)	VOA Sample Jar, Soil (50 ml, 50 ml, 100 ml)	Wideremouth Jar, Soil (50 ml, 50 ml, 100 ml)	VOA Sampling Device, Sp. (50 ml)	VOA Methanol Vials (5ml/25 ml)	PCB Wipe Can (Clean)	Other (Please Specify)	Please Check when Monitoring Samples are Collected:		
	Date	Time	Description			<input type="checkbox"/> Residual Chlorine Present	<input type="checkbox"/> Residual Chlorine Not Present																						
8-28-02 1530	Pre-Carb	x																								<input type="checkbox"/>	2	8-28-02 1530	
	Primary Effluent	x																									<input type="checkbox"/>	2	2309
↓	Post-Carb	x																									<input type="checkbox"/>	2	2310
1600	Post-Carb	x																									<input type="checkbox"/>	2	2311
1630	Post-Carb	x																									<input type="checkbox"/>	2	2312
1700	Post-Carb	x																									<input type="checkbox"/>	2	2313
	Trip Blank																											3	2314
	Temp Blank																											1	

Special Instructions/Comments: Combine 4 post-Carb samples into (1) one for Analysis

#### Sample Return/Disposal

- Return to Client  
 Disposal by Antech

#### Results To:

Client Name: Keith Dodrill  
Company: URS Corp  
Address: 4955 Steinberville Pike  
Pittsburgh PA 15205

#### Invoice To:

Client Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Address: \_\_\_\_\_

#### For Laboratory Use Only:

Sample Condition Upon Receipt/Comments: \_\_\_\_\_

Was Temperature Vial Sent With Cooler? YES  NO  Cooler Temperature: \_\_\_\_\_

WHITE - Original COC File    YELLOW - Return with Report

PINK - Project File

GOLD - Client Receipt

October 15, 2002

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on October 1, 2002. Please reference Pace project number 02-4117 when inquiring about this report.

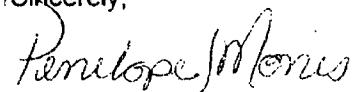
Client Site: Essex, Jamestown, NY  
Client Ref.: 804041.81

Pace Sample Identification	Client Sample Identification
0210-0485	Pre-Carb
0210-0486	Primary Effluent
0210-0487	Post Carb Comp
0210-0491	Trip Blank

**General Comments:** Cooler temperature 6.0 ° C upon receipt. Ice was present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Penelope J. Morris  
Project Manager

PJG: jld

Enclosures

## REPORT OF LABORATORY ANALYSIS

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# Pace Analytical™

[www.pacelabs.com](http://www.pacelabs.com)

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Client Site: Essex, Jamestown, NY  
Client Ref.: 804041.81

Pace Analytical Services, Inc.

One Triangle Lane  
Export, PA 15632

Phone: 724.733.1161  
Fax: 724.327.7793

Lab Project ID: 02-4117  
Lab Sample ID: 0210-0485  
Client Sample ID: Pre-Carb  
Sample Matrix: Aqueous  
  
Date Sampled: 09/29/2002  
Date Received: 10/01/2002

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Benzene	8260B <sup>(1)</sup>	4.2	1.0	ug/l	MAK	10/09/2002	0016177-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Cumene	8260B <sup>(1)</sup>	7.8	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	9.4	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	2500	130	ug/l	MAK	10/10/2002	0016171-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	7.7	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	440	130	ug/l	MAK	10/10/2002	0016171-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0210-0485  
 Client Sample ID: Pre-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Toluene	8260B <sup>(1)</sup>	230	130	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	200	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trifluorochloromethane	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Vinyl chloride	8260B <sup>(1)</sup>	370	50	ug/l	MAK	10/10/2002	0016171-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	3000	130	ug/l	MAK	10/10/2002	0016171-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	1100	130	ug/l	MAK	10/10/2002	0016171-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Lab Project ID: 02-4117  
 Lab Sample ID: 0210-0486  
 Client Sample ID: Primary Effluent  
 Sample Matrix: Aqueous

Date Sampled: 09/29/2002  
 Date Received: 10/01/2002

Client Site: Essex, Jamestown, NY  
 Client Ref.: 804041.81

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/10/2002	0016171-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	10/10/2002	0016171-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/10/2002	0016171-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	87	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/10/2002	0016171-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/10/2002	0016171-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0210-0486  
 Client Sample ID: Primary Effluent

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
Trifluorochloromethane	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/10/2002	0016171-1	<10
Vinyl chloride	8260B <sup>(1)</sup>	5.3	2.0	ug/l	MAK	10/10/2002	0016171-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/10/2002	0016171-1	<5.0

(1) U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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# Pace Analytical™

[www.pacelabs.com](http://www.pacelabs.com)

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Client Site: Essex, Jamestown, NY  
Client Ref.: 804041.81

Pace Analytical Services, Inc.

One Triangle Lane  
Export, PA 15632

Phone: 724.733.1161  
Fax: 724.327.7793

Lab Project ID: 02-4117  
Lab Sample ID: 0210-0487  
Client Sample ID: Post Carb Comp  
Sample Matrix: Aqueous  
Date Sampled: 09/29/2002  
Date Received: 10/01/2002

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	10/09/2002	0016177-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0210-0487  
 Client Sample ID: Post Carb Comp

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trifluorochloromethane	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	10/09/2002	0016177-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Lab Project ID: 02-4117  
 Lab Sample ID: 0210-0491  
 Client Sample ID: Trip Blank  
 Sample Matrix: Aqueous  
 Date Sampled: 09/29/2002  
 Date Received: 10/01/2002

Client Site: Essex, Jamestown, NY  
 Client Ref.: 804041.81

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	10/09/2002	0016177-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

(Continued)

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Lab Sample ID: 0210-0491  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
Trifluorochloromethane	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	10/09/2002	0016177-1	<10
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	10/09/2002	0016177-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	10/09/2002	0016177-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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# CHAIN-OF-CUSTODY / Analytical Request Document

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

680987

Required Client Information:

**Section A**

Required Client Information:

**Section B**

Report To:

Keith Dodrill

Page: 1 of 1

Company: URS

Address: Twin Tower Suite 250

4955 Steubenville Pike

Pittsburgh, PA. 15205

Phone: 412-788-2717

Fax: 412-788-1316

Copy To:

Invoice To:

URS

PO

Project Name: Essex-Hope

Project Number: 801419.2030

Client Information (Check quote/contract):

Requested Due Date:

\*TAT:

Project Manager:

Project #:

Profile #:

Turn Around Time (TAT) in calendar days.

\* Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.

Turn Around Time (TAT) in calendar days.

Preservatives

ITEM #	Section D Required Client Information:  SAMPLE ID  One character per box. (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE WATER WT SOIL SL OIL CL WIPE WP AIR AR TISSUE TS OTHER OT	MATRIX CODE	DATE COLLECTED mm / dd / yy	TIME COLLECTED hh:mm a/p	# Containers	Preservatives							
							Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Methanol	
1	PRECARB			WT 9-29-02	0830	2	X							0485
2	PRIMARY EFFLUENT				0830	1								0486
3	POST CARB #1				0830	1								0487
4	POST CARB #2				0900	1								0488
5	POST CARB #3				0930	1								0489
6	POST CARB #4				1000	1								0490
7	TRIP BLANK					3								0491
8	TEMP BLANK					1								
9														
10														
11														
12														

SHIPMENT METHOD

AIRBILL NO.

SHIPPING DATE

NO. OF COOLERS

ITEM NUMBER

RELINQUISHED BY / AFFILIATION

DATE

TIME

ACCEPTED BY / AFFILIATION

DATE

TIME

FED EX

804809336040 9-30-02

1

John Ross URS 9-30-02 1700

Fed. EX

SAMPLE CONDITION

SAMPLE NOTES

Temp in °C 60

Received on Ice Y/N

Sealed Cooler Y/N

Samples Intact Y/N

Additional Comments: 8100

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

John Ross

SIGNATURE of SAMPLER:

John Ross

DATE Signed: (MM / DD / YY)

9-29-02